Conservation Practices Physical Effects (CPPE) - Nebraska

Worksheet: Physical Effects

By practice (rows), three interpretations are displayed for each resource concern (columns): 1) the *effect,* 2) the *rationale* for how the practice produces the effect, and 3) whether or not the resource concern is specifically addressed in the *purposes* section of the practice standard. In addition, lead disciplines for each practice, the practice code, and a *practice setting* is recorded to define the typical circumstances and settings of how the practice is used and rated. This setting is used as the basis or reference for establishing the *effect*.

Worksheet: Human Considerations

By practice (rows), human considerations are displayed in columns. This material should be considered draft and under development.

Worksheet: National QC

The 79 national quality criteria are relisted in this worksheet and linked to the *Practice Effects* worksheet. While viewing any resource concern *effect* column in the *Practice Effects* worksheet, the user can click on the column heading to view the applicable quality criterion in the *National QC* worksheet. The user can return to practice effects by clicking on the *Practice Effects* worksheet tab near the bottom of the screen.

Worksheet: Help

This worksheet is linked to the *Practice Effects* worksheet. While viewing the *Practices Effects* worksheet, the user can click on the *help* ballon at anytime to view explanations of the terms: *practice setting, effect, rationale,* and *purpose*. The user can return to *Practice Effects* by clicking on its worksheet TAB near the bottom of the screen.

Worksheet: Lookup

Only data managers are to modify this worksheet; they are cautioned that changes to ratings in "named" ranges will make newly rated items inconsistent with national values. Only named ranges highlighted in green are used at this time.

Disclaimer

CPPE effects and rationale statements have been developed in the context of field or conservation management unit application, i.e., the site level, and indicate the general resource effects and level of impact when a particular practice has reached a designed, functional state. Short-term effects shortly after construction, installation, planting, etc. are NOT rated unless the practice characteristically reaches a functional state quickly. Most plant-related practices take from months to a decade or more to become fully functional. Because of varying conditions within regions, states and local areas, many ratings in the National CPPE template are expressed as a range, e.g., 'slight to substantial improvement' in a particular resource concern. States and locales are encouraged to refine ratings to improve accuracy for CPPEs developed for an entire state or a particular Common Resource Area.

Other considerations in using the CPPE and refining ratings locally include:

1. Applying a practice on a planning unit may have a substantial effect at the site level that, when assessed at a landscape or watershed level, may be of a lesser degree. Beneficial watershed effects depend on the cumulative impacts of individual practices applied in many places and as part of the resource management systems.

2. The CPPE ratings are for individual practices and, in a few applicable cases, practices that are very closely associated and usually installed concurrently with the practice being rated. It is recognized that practices are seldom installed singly and, when a system of practices is installed, a considerable synergistic effect can occur. Because the effects ratings focus on single practices, system effects and their magnitudes are not part of the CPPE. However, the additive effects of a group of practices could be individually accumulated giving some indication of a general overall effect on pertinent resource concerns. In addition, the consequences of planned systems are determined during the planning/environmental evaluation process and will vary from site to site.

3. Even though not rated in the CPPE, short-term effects are an important aspect of conservation planning particularly when dealing with engineering or construction-type practices that require temporary ground disturbance. Short-term effects of preparing and installing a practice may cause undesired but temporary consequences. Such consequences are usually anticipated and mitigating measures are taken. For example, during site preparation and installation of Grade Stabilization Structure to treat a gully, soil disturbance can be substantial. When such disturbance is near or adjacent to a stream, a moderate to substantial amount of sediment can reach the stream unless mitigating actions are taken. Typically, the entire disturbed area is seeded and mulched shortly after construction to minimize sediment delivery to very low levels. Thus, the amount of sediment from the construction area in the short term is reduced to acceptable, low levels and represents an insignificant amount when compared to the sediment production and land wasting if the gully is left untreated.

4. Some practices are difficult to rate because of a counter-productive influence on another condition or offsetting worsening and improvement in a resource concern. For example, the application of Upland Wildlife Habitat Management may improve habitat for one group of organisms while adversely affecting habitat for another group. The fact that habitat for a favored species is improved does not make up for the adverse effect on the other species. Another example is demonstrated by the effect of Grazing Land Mechanical Treatment on salinity in groundwater. Even though the practice is designed to improve infiltration which could result in more salts being leached to groundwater, plant growth and vigor is improved resulting in increased water use and diminished leaching. Thus, application of the practice produces both worsening and improving effects that tend to offset each other. Situations as depicted above were rated 'neutral' with a rationale statement explaining the circumstances.

5. Many of the effects that, at first glance, would indicate an undesired worsening in a resource concern were rated as 'neutral' because agency policy requires an on-site environmental assessment evaluation before the practice is installed requiring mitigating measures to eliminate undesired effects. Typically, the rationale statement for the 'neutral' rating explains such circumstances.

6. A number of practices under the leadership of the grazing lands discipline are considered "facilitating" practices, i.e., Fence, 382, and Animal Trails and Walkways, 575. The effects of such practices can only be assessed when used in context with other practices. Thus, many resource concerns are rated as "neutral" with further explanation in the adjacent rationale column. Other disciplines do not currently classify practices as "facilitating

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Sheet and Rill (Effect)	Soil Erosion - Sheet and Rill (Rationale)	Soil Erosion - Sheet and Rill (Purpose)	Soil Erosion - Wind (Effect)	Soil Erosion - Wind (Rationale)	Soil Erosion - Wind (Purpose)	Soil Erosion - Ephemeral Gully (Effect)	Soil Erosion - Ephemeral Gully (Rationale)	Soil Erosion - Ephemeral Gully (Purpose)
Access Road	CED-AE	560	Not Applicable	Not applicable.	No	Neutral	Winds acting on the road edges that are routinely graded may	No	Slight Improvement	Road will intercept runoff and break up gullies. A slight	No
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Slight to Moderate Improvement	Application aggregates soil particles making	Yes	Slight to Moderate Improvement	Application aggregates soil particles making	Yes	Slight to Moderate Improvement	Application aggregates soil particles making	Yes
Brush Management	ESD-Graz Land Sp	314	Slight to Substantial Improvement	Reduction of brush canopy will increase herbaceous ground	Yes	Slight to Substantial Improvement	Reduction of brush canopy will increase herbaceous ground	Yes	Slight to Substantial Improvement	Reduction of brush canopy will increase herbaceous ground	Yes
Channel Bank Vegetation	ESD-Agron	322	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Stabilization	CED-EG	584	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Clearing & Snagging	CED-DE	326	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Slight to Substantial Improvement	Increased vegetation and cover will improve	Yes	Slight to Substantial Improvement	An increase in vegetation and cover will protect the soil	Yes	Slight to Moderate Improvement	An increase in vegetation and cover will improve	Yes
Conservation Crop Rotation	ESD-Agron	328	Moderate to Substantial Improvement	Maintaining sufficient canopy and residue cover	Yes	Moderate to Substantial Improvement	Maintaining sufficient canopy and residue cover	Yes	Slight to Moderate Improvement	Grass and legumes, and high residue crops will reduce soil	No
Contour Buffer Strips	ESD-Agron	332	Moderate to Substantial Improvement	Maintaining vegetation on the contour reduces	Yes	Neutral	If the practice layout is coincidentally oriented across the	No	Slight to Moderate Improvement	Vegetation across the slope reduces runoff velocity and	No

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Classic Gully (Effect)	Soil Erosion - Classic Gully (Rationale)	Soil Erosion - Classic Gully (Purpose)	Soil Erosion - Streambank (Effect)	Soil Erosion - Streambank (Rationale)	Soil Erosion - Streambank (Purpose)	Soil Erosion - Shoreline (Effect)	Soil Erosion - Shoreline (Rationale)
Access Road	CED-AE	560	Slight Worsening	Water control structures will concentrate flows in	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Slight to Substantial Improvement	Reduction of brush canopy will increase herbaceous ground	No	Slight Improvement	Removal of undesirable brush species improves	No	Slight Improvement	Removal of undesirable brush species improves
Channel Bank Vegetation	ESD-Agron	322	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Establishing adapted vegetation will protect channel	Yes	Not Applicable	Not applicable.
Channel Stabilization	CED-EG	584	Slight to Substantial Improvement	The action stabilizes channel to prevent further erosion.	Yes	Slight to Substantial Improvement	Stabilizes channel to prevent further degradation and	Yes	Not Applicable	Not applicable.
Clearing & Snagging	CED-DE	326	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Removal of undesirable obstructions will	Yes	Not Applicable	Not applicable.
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Conservation Cover	ESD-Agron	327	Slight Improvement	Increased cover will reduce runoff.	Yes	Slight Improvement	Better vegetation and cover can reduce overland flow.	No	Not Applicable	Not applicable.
Conservation Crop Rotation	ESD-Agron	328	Slight Improvement	Rotations with grass and legumes and high residue crops	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Contour Buffer Strips	ESD-Agron	332	Slight Improvement	Reduces runoff causing erosion in the gully.	No	Slight Improvement	Reduces runoff causing erosion.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Shoreline (Purpose)*	*Soil Erosion – Irrigation-induced (Effect)*	*Soil Erosion – Irrigation-induced (Rationale)*	*Soil Erosion – Irrigation-induced (Purpose)*	*Soil Erosion - Mass Movement (Effect)*	*Soil Erosion - Mass Movement (Rationale)*	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*
Access Road	CED-AE	560	No	Not Applicable	Not applicable.	No	Slight Worsening	Embankment grading steepens slopes.	No	Slight Worsening
Amendments for Treatment of Agricultural Waste	CED-EE	591	No	Neutral	Some chemicals such as PAM used as amendments could	No	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Ambient Temperature	CED-EE	365	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable..	No	Not Applicable
Anaerobic Digester, Controlled Temperature	CED-EE	366	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable..	No	Not Applicable
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	No	Slight to Substantial Improvement	Pam reduces sediment transport.	Yes	Not Applicable	Not applicable..	No	Slight to Substantial Improvement
Brush Management	ESD-Graz Land Sp	314	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	The worsening is due to increased soil moisture and	No	Not Applicable
Channel Bank Vegetation	ESD-Agron	322	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable..	No	Not Applicable
Channel Stabilization	CED-EG	584	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable..	No	Not Applicable
Clearing & Snagging	CED-DE	326	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable..	No	Not Applicable
Closure of Waste Impoundments	CED-EE & ESD-NM	360	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable..	No	Not Applicable
Conservation Cover	ESD-Agron	327	No	Not Applicable	Not applicable.	No	Slight Improvement	Water use by roots will reduce potential of mass movement;	No	Not Applicable
Conservation Crop Rotation	ESD-Agron	328	No	Slight to Substantial Improvement	Depends on crop rotation, water requirements, cover,	No	Not Applicable	Not applicable..	No	Not Applicable
Contour Buffer Strips	ESD-Agron	332	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*	*Soil Condition - Organic Matter Depletion (Effect)*	*Soil Condition - Organic Matter Depletion (Rationale)*	*Soil Condition - Organic Matter Depletion (Purpose)*	*Soil Condition - Rangeland Site Stability (Effect)*	*Soil Condition - Rangeland Site Stability (Rationale)*	*Soil Condition - Rangeland Site Stability (Purpose)*
Access Road	CED-AE	560	Road built according to standards will have slopes	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not applicable.	No	Slight Improvement	Using amendments could create high organic residues that	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Pam reduces sediment transport.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Brush Management	ESD-Graz Land Sp	314	Not applicable.	No	Slight to Substantial Improvement	Removing competition promotes a more	No	Slight to Substantial Improvement	Reduction of brush canopy will increase herbaceous ground	Yes
Channel Bank Vegetation	ESD-Agron	322	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Stabilization	CED-EG	584	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Clearing & Snagging	CED-DE	326	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Not applicable.	No	Slight to Substantial Improvement	Establishing permanent vegetation will	No	Not Applicable	Not applicable.	No
Conservation Crop Rotation	ESD-Agron	328	Not applicable.	No	Moderate to Substantial Improvement	High residue crops can lead to increased root development	Yes	Not Applicable	Not applicable.	No
Contour Buffer Strips	ESD-Agron	332	Not applicable.	No	Slight to Moderate Improvement	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition - Compaction (Effect)	Soil Condition - Compaction (Rationale)	Soil Condition - Compaction (Purpose)	Soil Condition - Subsidence (Effect)	Soil Condition - Subsidence (Rationale)	Soil Condition - Subsidence (Purpose)	Soil Condition - Contaminants - Salts and Other Chemicals (Effect)	Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)
Access Road	CED-AE	560	Slight to Moderate Improvement	Traffic is confined to road areas.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Could be slight worsening to slight improvement
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Slight Worsening	Use of heavy equipment to control vegetation may	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Selected species released from competition may take
Channel Bank Vegetation	ESD-Agron	322	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Channel Stabilization	CED-EG	584	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Clearing & Snagging	CED-DE	326	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Neutral	The criteria for this practice requires the finished grade match	No	Not Applicable	Not applicable.
Conservation Cover	ESD-Agron	327	Slight to Substantial Improvement	Permanent vegetation will increase organic	No	Neutral	If it affects drainage the practice can have an impact on	No	Slight to Moderate Improvement	Permanent cover may increase salt uptake.
Conservation Crop Rotation	ESD-Agron	328	Slight to Moderate Improvement	High residue crops and increased rooting depth and	No	Neutral	If it affects drainage the practice can have an impact on	No	Slight to Moderate Improvement	Salt tolerant crops with high transpiration rates
Contour Buffer Strips	ESD-Agron	332	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Vegetation will increase opportunity for infiltration and

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*
Access Road	CED-AE	560	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Amendments for Treatment of Agricultural Waste	CED-EE	591	No	Slight to Moderate Improvement	Using amendments allows the manipulation of the	No	Slight to Moderate Improvement	Using amendments allows the manipulation of the	No	Slight to Moderate Improvement
Anaerobic Digester, Ambient Temperature	CED-EE	365	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Controlled Temperature	CED-EE	366	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Brush Management	ESD-Graz Land Sp	314	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Channel Bank Vegetation	ESD-Agron	322	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Channel Stabilization	CED-EG	584	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Clearing & Snagging	CED-DE	326	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Closure of Waste Impoundments	CED-EE & ESD-NM	360	No	Neutral	Organic materials removed from the impoundment will be	No	Neutral	Organic materials removed from the impoundment will be	No	Neutral
Conservation Cover	ESD-Agron	327	No	Slight to Moderate Improvement	Permanent cover increases N uptake.	No	Slight to Moderate Improvement	Permanent cover increases P uptake.	No	Slight to Moderate Improvement
Conservation Crop Rotation	ESD-Agron	328	Yes	Moderate to Substantial Improvement	Rotation of crops improves N utilization. Effect is	Yes	Moderate to Substantial Improvement	Rotation of crops improves P utilization. Effect is	Yes	Moderate to Substantial Improvement
Contour Buffer Strips	ESD-Agron	332	No	Neutral	Vegetation will increase opportunity for infiltration and	No	Neutral	Vegetation will increase opportunity for infiltration and	No	Neutral

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Access Road	CED-AE	560	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Amendments for Treatment of Agricultural Waste	CED-EE	591	Using amendments allows the manipulation of the	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Brush Management	ESD-Graz Land Sp	314	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Bank Vegetation	ESD-Agron	322	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Stabilization	CED-EG	584	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Clearing & Snagging	CED-DE	326	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Organic materials removed from the impoundment will be	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Permanent cover increases K uptake.	No	Slight to Moderate Improvement	Permanent cover increases N uptake.	No	Slight to Moderate Improvement	Permanent cover increases P uptake.	No
Conservation Crop Rotation	ESD-Agron	328	Rotation of crops improves K utilization. Effect is	Yes	Moderate to Substantial Improvement	Rotation of crops improves N utilization. Effect is	Yes	Moderate to Substantial Improvement	Rotation of crops improves P utilization. Effect is	Yes
Contour Buffer Strips	ESD-Agron	332	Vegetation will increase opportunity for infiltration and	No	Neutral	Vegetation will increase opportunity for infiltration and	No	Neutral	Vegetation will increase opportunity for infiltration and	No

Practice	Lead Discipline(s)	Practice Code	*Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)*	*Soil Condition - Contaminants - Residual Pesticides (Effect)*	*Soil Condition - Contaminants - Residual Pesticides (Rationale)*	*Soil Condition - Contaminants - Residual Pesticides (Purpose)*	*Soil Condition - Damage from Sediment Deposition (Effect)*	*Soil Condition - Damage from Sediment Deposition (Rationale)*
Access Road	CED-AE	560	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Travel ways are designed to minimize sedimentation.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Not Applicable	Not applicable.	No	Slight Worsening	Residues of some pesticides may remain in the soil	No	Slight to Moderate Improvement	Improved vegetative cover will reduce runoff and increase
Channel Bank Vegetation	ESD-Agron	322	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Stable stream banks result in reduced sediment loading
Channel Stabilization	CED-EG	584	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Stabilizing the channel may increase its transport
Clearing & Snagging	CED-DE	326	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Conservation Cover	ESD-Agron	327	Slight to Moderate Improvement	Permanent cover increases K uptake.	No	Slight to Substantial Improvement	Land cover change can lead to less pesticide use and	No	Slight to Substantial Improvement	Permanent cover reduces erosion.
Conservation Crop Rotation	ESD-Agron	328	Moderate to Substantial Improvement	Rotation of crops improves K utilization. Effect is	Yes	Slight to Substantial Improvement	Pesticide use may be reduced due to crop sequence grown.	Yes	Slight to Substantial Improvement	crops that provide more canopy and residue cover will
Contour Buffer Strips	ESD-Agron	332	Neutral	Vegetation will increase opportunity for infiltration and	No	Slight Worsening	Vegetation will increase opportunity for infiltration.	No	Moderate to Substantial Improvement	Vegetation reduces soil erosion and subsequent

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*	*Water Quantity - Rangeland Hydrologic Cycle (Rationale)*	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)*
Access Road	CED-AE	560	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening
Amendments for Treatment of Agricultural Waste	CED-EE	591	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Ambient Temperature	CED-EE	365	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Controlled Temperature	CED-EE	366	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Brush Management	ESD-Graz Land Sp	314	No	Slight to Substantial Improvement	Improved vegetative cover will reduce runoff and increase	Yes	Slight to Moderate Worsening	There will be increased infiltration and decreased	No	Slight to Moderate Improvement
Channel Bank Vegetation	ESD-Agron	322	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Channel Stabilization	CED-EG	584	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Reduced channel degradation improves ground	Yes	Not Applicable
Clearing & Snagging	CED-DE	326	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Closure of Waste Impoundments	CED-EE & ESD-NM	360	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Conservation Cover	ESD-Agron	327	No	Not Applicable	Not Applicable	No	Slight to Moderate Improvement	Increased water use by permanent vegetation. However,	No	Slight to Moderate Improvement
Conservation Crop Rotation	ESD-Agron	328	No	Not Applicable	Not applicable.	No	Slight Improvement	Improved plant uptake reduces excessive seepage.	Yes	Slight to Moderate Improvement
Contour Buffer Strips	ESD-Agron	332	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Reduces runoff and traps drifting snow resulting in	No	Slight Improvement

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)*	*Water Quantity - Excessive Subsurface Water (Effect)*	*Water Quantity - Excessive Subsurface Water (Rationale)*	*Water Quantity - Excessive Subsurface Water (Purpose)*	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*
Access Road	CED-AE	560	Road will create ponding opportunities.	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Roads create landscape breaks increasing snow	No
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not applicable.	No	Neutral	Some amendments such as PAM could alter the intake rates	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not applicable.	No	Neutral	Seepage is minimal.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not applicable.	No	Neutral	Seepage is minimal.	No	Not Applicable	Not applicable.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Brush Management	ESD-Graz Land Sp	314	Runoff is reduced by increased ground cover.	No	Slight to Moderate Worsening	There will be increased infiltration and decreased	No	Not Applicable	Not applicable.	No
Channel Bank Vegetation	ESD-Agron	322	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Stabilization	CED-EG	584	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Clearing & Snagging	CED-DE	326	Removal of obstructions will reduce flooding.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not applicable.	No	Neutral	Could be neutral to slight improvement where excess water	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Increased water use and infiltration will reduce runoff and	No	Slight to Moderate Improvement	Increased water use by permanent vegetation. However,	No	Not Applicable	Not applicable.	No
Conservation Crop Rotation	ESD-Agron	328	Rotations with grass and legumes and high residue crops	No	Slight Improvement	Rotations with grass and legumes and high residue crops	No	Not Applicable	Not applicable.	No
Contour Buffer Strips	ESD-Agron	332	Reduces runoff resulting in increased water	No	Slight Worsening	Reduces runoff resulting in increased water	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quantity - Inadequate Outlets (Effect)	Water Quantity - Inadequate Outlets (Rationale)	Water Quantity - Inadequate Outlets (Purpose)	Water Quantity - Inefficient Water Use on Irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)	Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)
Access Road	CED-AE	560	Slight to Moderate Improvement	Drainage control structures will improve outlet	No	Slight to Moderate Improvement	Road will provide better farm and irrigation equipment	Yes	Not Applicable	Not applicable.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not Applicable	Not applicable.	No	Slight Improvement	Altered waste stream with minumum solids will be compatible	No	Not Applicable	Not applicable.
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Slight Improvement	There will be improved health and vigor of plant	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	There will be increased moisture availability and plant
Channel Bank Vegetation	ESD-Agron	322	Slight to Moderate Improvement	Stable stream banks reduce the sediment load in stream flows	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Channel Stabilization	CED-EG	584	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Clearing & Snagging	CED-DE	326	Slight to Moderate Improvement	Clearing of obstructions will help restore flow	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Conservation Cover	ESD-Agron	327	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Permanent cover increases infiltration and water use.
Conservation Crop Rotation	ESD-Agron	328	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Crop rotation balances available water with crop	Yes	Slight to Moderate Improvement	Crop rotation balances available water with crop
Contour Buffer Strips	ESD-Agron	332	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Reduces runoff resulting in increased water

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
Access Road	CED-AE	560	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Amendments for Treatment of Agricultural Waste	CED-EE	591	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral
Anaerobic Digester, Ambient Temperature	CED-EE	365	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Controlled Temperature	CED-EE	366	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	No	Slight to Substantial Improvement	Pam reduces sediment transport off of the field that	Yes	Slight to Substantial Improvement	Pam reduces sediment transport off of the field that	Yes	Not Applicable
Brush Management	ESD-Graz Land Sp	314	No	Slight to Substantial Improvement	There will be decreased sediment loads due to	Yes	Slight to Substantial Improvement	There will be decreased sediment loads due to	Yes	Slight Improvement
Channel Bank Vegetation	ESD-Agron	322	No	Moderate to Substantial Improvement	Stable stream banks reduce the sediment load in stream flows.	Yes	Slight to Substantial Improvement	Stable stream banks reduce the sediment load in stream flows	Yes	Not Applicable
Channel Stabilization	CED-EG	584	No	Slight Improvement	Stabilizing the channel can help improve sediment	Yes	Slight Improvement	Stabilizing the channel reduces channel erosion.	Yes	Not Applicable
Clearing & Snagging	CED-DE	326	No	Slight to Moderate Improvement	Removal of obstructions can help reduce the	Yes	Slight to Moderate Improvement	Removal of obstructions can help reduce the	Yes	Not Applicable
Closure of Waste Impoundments	CED-EE & ESD-NM	360	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Conservation Cover	ESD-Agron	327	No	Slight to Substantial Improvement	Permanent vegetation reduces sediment yield.	Yes	Slight to Substantial Improvement	Permanent vegetation reduces sediment yield.	Yes	Slight Improvement
Conservation Crop Rotation	ESD-Agron	328	Yes	Slight to Substantial Improvement	Rotations with grass and legumes and high residue crops	No	Slight to Substantial Improvement	Rotations with grass and legumes and high residue crops	Yes	Slight Improvement
Contour Buffer Strips	ESD-Agron	332	No	Moderate to Substantial Improvement	Reduces soil erosion and resulting off-site sediment deposition.	Yes	Slight to Moderate Improvement	Reduces soil erosion and resulting off-site sediment deposition.	Yes	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Aquifer Overdraft (Rationale)*	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)*
Access Road	CED-AE	560	Not applicable.	No	Slight Worsening	Road intercepts runoff and has no outlet or water could	No	Not Applicable	Not applicable.	No
Amendments for Treatment of Agricultural Waste	CED-EE	591	Altered waste stream with minumum solids will be compatible	No	Neutral	Altered waste stream with minumum solids will be compatible	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening	The action increases infiltration.	No
Brush Management	ESD-Graz Land Sp	314	The decrease is due to increased infiltration.	No	Slight to Substantial Improvement	There will be greater infiltration rates and reduced uptake by	Yes	Slight Worsening	Pesticides may be used to control brush.	No
Channel Bank Vegetation	ESD-Agron	322	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Stabilization	CED-EG	584	Not applicable.	No	Slight to Moderate Improvement	The action can be used to manage surface water levels	No	Not Applicable	Not applicable.	No
Clearing & Snagging	CED-DE	326	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not applicable.	No	Slight Improvement	Conversion of waste storage pond to fresh water pond will	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Increased infiltration may improve aquifer recharge.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	The action reduces the need for pesticide use and	Yes
Conservation Crop Rotation	ESD-Agron	328	Increased infiltration may improve aquifer recharge depending	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action reduces the need for pesticide use by	Yes
Contour Buffer Strips	ESD-Agron	332	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	The action increases infiltration which is offset by increased	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)	Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)	Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)	Water Quality - Excessive Salinity in Groundwater (Effect)	Water Quality - Excessive Salinity in Groundwater (Rationale)	Water Quality - Excessive Salinity in Groundwater (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)
Access Road	CED-AE	560	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Slight to Substantial Improvement	Amendments are often used to remove nutrients and	Yes	Slight to Moderate Improvement	Amendmentscan be used to alter the waste stream to	Yes	Slight to Moderate Improvement	Amendmentscan be used to alter the waste stream to
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Neutral	Earthen waste storage ponds do have limited	No	Neutral	Heavy metals are rarely associated with manure.
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Not Applicable	Not applicable.	No	Slight Worsening	The action may promote infiltration of surface water and	No	Neutral	The action promotes infiltration of surface water but increases
Channel Bank Vegetation	ESD-Agron	322	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Channel Stabilization	CED-EG	584	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Clearing & Snagging	CED-DE	326	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Slight to Moderate Improvement	The action eliminates potential waste leakage from	Yes	Slight Improvement	The action eliminates a potential source of salinity to the	Yes	Neutral	Heavy metals are rarely associated with manure, but this
Conservation Cover	ESD-Agron	327	Slight to Moderate Improvement	Permanent vegetation will uptake excess	Yes	Slight Improvement	Permanent vegetation can take up salts and water	No	Slight Improvement	Higher organic matter levels increase the
Conservation Crop Rotation	ESD-Agron	328	Slight to Moderate Improvement	Nitrogen demanding or deep rooted crops can remove excess	Yes	Slight to Moderate Improvement	Suitable crops can take up salts, the amount depending	No	Slight Improvement	Suitable crops can take up metals.
Contour Buffer Strips	ESD-Agron	332	Slight Worsening	The action reduces the velocity of runoff and traps drifting	No	Slight Worsening	The action reduces the velocity of runoff and traps drifting	No	Neutral	The action may result in increased water infiltration, but this

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)*
Access Road	CED-AE	560	No	Not Applicable	Not applicable.	No	Slight Worsening	Concentration of traffic increases the likelihood of	No	Not Applicable
Amendments for Treatment of Agricultural Waste	CED-EE	591	Yes	Slight to Moderate Improvement	Amendmentscan be used to alter the waste stream to	Yes	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Ambient Temperature	CED-EE	365	No	Neutral	Unlined earthen waste storage ponds do leak and may	no	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Controlled Temperature	CED-EE	366	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Brush Management	ESD-Graz Land Sp	314	No	Neutral	The action promotes infiltration of surface water but increases	No	Neutral	Some herbicides require a petroleum-based carrier. Use of	No	Slight Worsening
Channel Bank Vegetation	ESD-Agron	322	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Channel Stabilization	CED-EG	584	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Clearing & Snagging	CED-DE	326	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Closure of Waste Impoundments	CED-EE & ESD-NM	360	No	Slight to Moderate Improvement	The action eliminates a potential source of pathogens to the	Yes	Not Applicable	Not applicable.	No	Not Applicable
Conservation Cover	ESD-Agron	327	No	Slight to Moderate Improvement	Permanent vegetation increases organic matter	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Conservation Crop Rotation	ESD-Agron	328	No	Slight to Moderate Improvement	Selected crops increase organic matter, promoting	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Contour Buffer Strips	ESD-Agron	332	No	Slight Worsening	Increased water infiltration could move pathogens into	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*
Access Road	CED-AE	560	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Interception of runoff.	No
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not applicable.	No	Slight to Substantial Improvement	Amendments are often used to remove nutrients and	Yes	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not applicable.	No	Slight to Substantial Improvement	Digesters reduce the nutrient content and volume of manure	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not applicable.	No	Slight to Substantial Improvement	Digesters reduce the nutrient content and volume of manure	No	Not Applicable	Not applicable.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	The action decreases runoff and erosion.	No	Slight to Moderate Improvement	Because irrigation-induced erosion is reduced, there is less	No	Moderate to Substantial Improvement	The action reduces erosion and sediment load	Yes
Brush Management	ESD-Graz Land Sp	314	Pesticides may be used to control brush.	No	Neutral	There may be no effect or a slight improvement due to	No	Slight to Substantial Improvement	The decrease is due to improved plant cover and increased	Yes
Channel Bank Vegetation	ESD-Agron	322	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Stable stream banks reduce channel bank erosion, thus	Yes
Channel Stabilization	CED-EG	584	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Maintaining stable channels usually results in decreased	Yes
Clearing & Snagging	CED-DE	326	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Removal of snags or large wood reduces deposition of	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not applicable.	No	Slight to Moderate Improvement	Emptying and closing unused waste storage	Yes	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	The action reduces the need for pesticide use,	Yes	Slight to Moderate Improvement	Less erosion and runoff reduces transport of	Yes	Slight to Substantial Improvement	Less erosion and runoff reduces sediment.	Yes
Conservation Crop Rotation	ESD-Agron	328	The action reduces the need for pesticide use by	No	Slight to Moderate Improvement	Nitrogen demanding or deep rooted crops can remove excess	Yes	Slight to Moderate Improvement	Depending on crop rotation and biomass produced, crop	No
Contour Buffer Strips	ESD-Agron	332	The action reduces runoff and erosion and the amount of	Yes	Slight to Substantial Improvement	The action decreases soil erosion by water and may increase	Yes	Slight to Substantial Improvement	Contour Buffer Strips reduce sheet and rill erosion and slow the	Yes

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Salinity in Surface Water (Effect)	Water Quality - Excessive Salinity in Surface Water (Rationale)	Water Quality - Excessive Salinity in Surface Water (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)	Water Quality - Harmful Temperatures of Surface Water (Effect)	Water Quality - Harmful Temperatures of Surface Water (Rationale)
Access Road	CED-AE	560	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Slight to Moderate Improvement	Amendments can be used to alter the waste stream to	Yes	Slight to Moderate Improvement	Amendments can be used to alter the waste stream to	Yes	Not Applicable	Not applicable.
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Neutral	Harmful levels of heavy metals are rarely associated	No	Not Applicable	Not applicable.
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Neutral	Harmful levels of heavy metals are rarely associated	No	Not Applicable	Not applicable.
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Slight Improvement	PAM will reduce transport of heavy metals attached to	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Slight Improvement	Improved plant cover will increase infiltration, reducing	No	Slight Improvement	Improved plant community and increased infiltration	No	Neutral	Increased plant cover and infiltration reduces surface
Channel Bank Vegetation	ESD-Agron	322	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Herbaceous plants provide some shade and protect banks,
Channel Stabilization	CED-EG	584	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	The action design addresses stream water quality and fish
Clearing & Snagging	CED-DE	326	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening	Removal of shade-producing canopy will lead to an
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Conservation Cover	ESD-Agron	327	Slight Improvement	Less runoff reduces transport of soluble salts. Permanent	No	Slight to Moderate Improvement	Decreased erosion and runoff reduces heavy metal delivery	Yes	Not Applicable	Not applicable.
Conservation Crop Rotation	ESD-Agron	328	Slight Improvement	The action can reduce erosion and runoff which reduces	No	Slight Improvement	Crop rotation reduces erosion and runoff which reduces	No	Not Applicable	Not applicable.
Contour Buffer Strips	ESD-Agron	332	Slight Improvement	The action slows runoff, which may increase water	No	Slight to Substantial Improvement	Strips of vegetation decrease sheet and rill erosion and slow	Yes	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Temperatures of Surface Water (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*
Access Road	CED-AE	560	No	Neutral	Potential for slight increase in surface runoff where access	No	Slight Worsening	Concentration of traffic increases the likelihood of	No	Slight to Moderate Worsening
Amendments for Treatment of Agricultural Waste	CED-EE	591	No	Slight to Moderate Improvement	Amendments can be used to alter the waste stream to	Yes	Not Applicable	Not applicable.	No	Slight Improvement
Anaerobic Digester, Ambient Temperature	CED-EE	365	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Controlled Temperature	CED-EE	366	No	Slight to Substantial Improvement	Digester provides storage and treatment of manure	Yes	Not Applicable	Not applicable.	No	Not Applicable
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Brush Management	ESD-Graz Land Sp	314	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Channel Bank Vegetation	ESD-Agron	322	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Channel Stabilization	CED-EG	584	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Clearing & Snagging	CED-DE	326	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Closure of Waste Impoundments	CED-EE & ESD-NM	360	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Conservation Cover	ESD-Agron	327	No	Slight Improvement	Less erosion and runoff reduces delivery of	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Conservation Crop Rotation	ESD-Agron	328	No	Slight Improvement	Depending on crop rotation, less erosion and runoff reduces	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Contour Buffer Strips	ESD-Agron	332	No	Slight Improvement	Contour Buffer Strips decrease sheet and rill erosion and slow	Yes	Not Applicable	Not applicable.	No	Slight Improvement

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)*	*Air Quality - Excessive Ozone (Effect)*	*Air Quality - Excessive Ozone (Rationale)*	*Air Quality - Excessive Ozone (Purpose)*
Access Road	CED-AE	560	Vehicular traffic on farm roads can contribute to fugitive	No	Slight to Moderate Worsening	Vehicular traffic on farm roads can contribute to fugitive	No	Not Applicable	Not applicable.	No
Amendments for Treatment of Agricultural Waste	CED-EE	591	Some amendments may result in less dust and other	Yes	Moderate to Substantial Improvement	Amendments can be very effective in reducing emissions	Yes	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not applicable.	No	Slight to Substantial Improvement	Facilities with a cover will reduce ammonia	Yes	Neutral	There is a decrease in potential ozone precursor emissions.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not applicable.	No	Slight to Substantial Improvement	Facilities with a cover will reduce ammonia	Yes	Neutral	There is a decrease in potential ozone precursor emissions.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	The action reduces the susceptibility of soil to wind erosion.	Yes	Slight to Substantial Improvement	The action reduces the susceptibility of soil to wind erosion.	Yes	Not Applicable	Not applicable.	No
Brush Management	ESD-Graz Land Sp	314	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	There is a minimal reduction of ozone precursors through	No
Channel Bank Vegetation	ESD-Agron	322	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	There is a minimal reduction of ozone precursors through	No
Channel Stabilization	CED-EG	584	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Clearing & Snagging	CED-DE	326	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Permanent vegetation reduces wind erosion and	No	Slight to Moderate Improvement	Permanent vegetation reduces wind erosion and	No	Neutral	There is a minimal reduction of ozone precursors through	No
Conservation Crop Rotation	ESD-Agron	328	The proper selection of crops in the rotation can reduce	Yes	Slight to Moderate Improvement	The proper selection of crops in the rotation can reduce	Yes	Neutral	There is a minimal reduction of ozone precursors through	No
Contour Buffer Strips	ESD-Agron	332	The areas of permanent vegetation reduce	No	Slight Improvement	The areas of permanent vegetation reduce	No	Neutral	There is a minimal reduction of ozone precursors through	No

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)*
Access Road	CED-AE	560	Not Applicable	Not applicable.	No	Not applicable	Not applicable.	No	Not Applicable	Not applicable.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Slight Improvement	Amendments may have an impact on the release of a	Yes	Slight Improvement	Amendments may have an impact on the release of a	Yes	Slight Improvement	Amendments may have an impact on the release of a
Anaerobic Digester, Ambient Temperature	CED-EE	365	Slight to Substantial Improvement	Anaerobic conditions reduce carbon dioxide emissions.	Yes	Slight to Substantial Improvement	N2O releases are contained with cover	Yes	Slight to Substantial Improvement	Methane releases are contained with cover and converted to
Anaerobic Digester, Controlled Temperature	CED-EE	366	Slight to Substantial Improvement	Anaerobic conditions reduce carbon dioxide emissions.	Yes	Slight to Substantial Improvement	N2O releases are contained with cover	Yes	Slight to Substantial Improvement	Methane releases are contained with cover and converted to
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Channel Bank Vegetation	ESD-Agron	322	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Channel Stabilization	CED-EG	584	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Clearing & Snagging	CED-DE	326	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Reduces emissions from aged waste impoundments
Conservation Cover	ESD-Agron	327	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Conservation Crop Rotation	ESD-Agron	328	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Contour Buffer Strips	ESD-Agron	332	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*	*Air Quality - NH3 - Ammonia (Effect)*	*Air Quality - NH3 - Ammonia (Rationale)*	*Air Quality - NH3 - Ammonia (Purpose)*	*Air Quality - Chemical Drift (Effect)*	*Air Quality - Chemical Drift (Rationale)*	*Air Quality - Chemical Drift (Purpose)*	*Air Quality - Objectionable Odors (Effect)*
Access Road	CED-AE	560	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Amendments for Treatment of Agricultural Waste	CED-EE	591	Yes	Moderate to Substantial Improvement	A number of amendments are very successful in	Yes	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement
Anaerobic Digester, Ambient Temperature	CED-EE	365	Yes	Slight to Substantial Improvement	Ammonia volatilization is contained with cover	Yes	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Anaerobic Digester, Controlled Temperature	CED-EE	366	Yes	Slight to Substantial Improvement	Ammonia volatilization is contained with cover	Yes	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Brush Management	ESD-Graz Land Sp	314	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Herbicides used to control brush may drift from the site.	No	Not Applicable
Channel Bank Vegetation	ESD-Agron	322	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Channel Stabilization	CED-EG	584	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Clearing & Snagging	CED-DE	326	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Closure of Waste Impoundments	CED-EE & ESD-NM	360	No	Slight Improvement	Reduces emissions from aged waste impoundments	No	Not Applicable	Not applicable.	No	Slight Improvement
Conservation Cover	ESD-Agron	327	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Conservation Crop Rotation	ESD-Agron	328	No	Slight Improvement	Improves nutrient balance in soils	Yes	Slight to Moderate Improvement	Crop selection may reduce the need for pesticide	Yes	Not Applicable
Contour Buffer Strips	ESD-Agron	332	No	Not Applicable	Not applicable.	No	Not Applicable	Provides wind break to reduce chemical drift	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*	*Air Quality - Reduced Visibility (Rationale)*	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Access Road	CED-AE	560	Not applicable.	No	Moderate to Substantial Improvement	Reduce fugitive dust emissions	Yes	Neutral	Roads are designed to minimize funneling and	No
Amendments for Treatment of Agricultural Waste	CED-EE	591	A number of amendments are very successful in	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Cover will retain gas emissions and eliminate contact	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Cover will retain gas emissions and eliminate contact	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not applicable.	No	Slight to Moderate Improvement	Reduce fugitive dust emissions	Yes	Not Applicable	Not applicable.	No
Brush Management	ESD-Graz Land Sp	314	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Bank Vegetation	ESD-Agron	322	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Stabilization	CED-EG	584	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Clearing & Snagging	CED-DE	326	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Reduces VOC and particulate emissions from aged waste	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Not applicable.	No	Slight Improvement	Reduce fugitive dust emissions	No	Not Applicable	Not applicable.	No
Conservation Crop Rotation	ESD-Agron	328	Not applicable.	No	Slight Improvement	Reduce fugitive dust emissions	No	Not Applicable	Not applicable.	No
Contour Buffer Strips	ESD-Agron	332	Not applicable.	No	Slight Improvement	Provides for biofiltering of windblown dust	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Adverse Air Temperature (Effect)	Air Quality - Adverse Air Temperature (Rationale)	Air Quality - Adverse Air Temperature (Purpose)	Plants not adapted or suited (Effect)	Plants not adapted or suited (Rationale)	Plants not adapted or suited (Purpose)	Plant Condition - Productivity, Health and Vigor (Effect)	Plant Condition - Productivity, Health and Vigor (Rationale)
Access Road	CED-AE	560	Not Applicable	Not applicable.	No	Substantial Improvement	Adapted and suited species are selected for this practice by	Yes	Slight to Moderate Improvement	Improved access increases ability to manage stands.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Amendments can alter the waste stream to better meet
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Slight to Moderate Worsening	Removal of tall vegetation eliminates shade and increases	No	Moderate to Substantial Improvement	Undesirable brush species will be removed by physical,	Yes	Slight to Substantial Improvement	The removal of competition increases desirable
Channel Bank Vegetation	ESD-Agron	322	Slight to Moderate Improvement	Tall vegetation provides shade and moderates	No	Moderate to Substantial Improvement	Plants selected are adapted and suited.	Yes	Substantial Improvement	Plants are selected and managed to maintain optimal
Channel Stabilization	CED-EG	584	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	When species are selected, they are adapted and suited.	No	Slight to Substantial Improvement	Plants are selected and managed to maintain optimal
Clearing & Snagging	CED-DE	326	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Conservation Cover	ESD-Agron	327	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Plants selected are adapted and suited.	Yes	Moderate to Substantial Improvement	Plants are selected and managed to maintain optimal
Conservation Crop Rotation	ESD-Agron	328	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Crop selection will be modified to include species	Yes	Moderate to Substantial Improvement	Plants are selected and managed to maintain optimal
Contour Buffer Strips	ESD-Agron	332	Not Applicable	Not applicable.	No	Substantial Improvement	Plants selected are adapted and suited.	Yes	Slight to Substantial Improvement	Plants are selected and managed to maintain optimal

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*	*Plant Condition - Noxious and Invasive Plants (Effect)*
Access Road	**CED-AE**	**560**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**
Amendments for Treatment of Agricultural Waste	**CED-EE**	**591**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Anaerobic Digester, Ambient Temperature	**CED-EE**	**365**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Anaerobic Digester, Controlled Temperature	**CED-EE**	**366**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Anionic Polyacrylamide (PAM) Erosion Control	**CED-WME**	**450**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Brush Management	**ESD-Graz Land Sp**	**314**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**Yes**	**Moderate to Substantial Improvement**
Channel Bank Vegetation	**ESD-Agron**	**322**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Moderate to Substantial Improvement**
Channel Stabilization	**CED-EG**	**584**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Moderate to Substantial Improvement**
Clearing & Snagging	**CED-DE**	**326**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Closure of Waste Impoundments	**CED-EE & ESD-NM**	**360**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**
Conservation Cover	**ESD-Agron**	**327**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Conservation Crop Rotation	**ESD-Agron**	**328**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Substantial Improvement**
Contour Buffer Strips	**ESD-Agron**	**332**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Noxious and Invasive Plants (Rationale)*	*Plant Condition - Noxious and Invasive Plants (Purpose)*	*Plant Condition - Forage Quality and Palatability (Effect)*	*Plant Condition - Forage Quality and Palatability (Rationale)*	*Plant Condition - Forage Quality and Palatability (Purpose)*	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*
Access Road	CED-AE	560	Roads may provide an environment for weeds.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Roads provide firebreaks and access to sites for	Yes
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not applicable.	No	Slight Improvement	Amendments can alter the waste stream to better meet	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Brush Management	ESD-Graz Land Sp	314	There will be a removal of competition to	Yes	Moderate to Substantial Improvement	The removal of competition increases desirable	Yes	Moderate to Substantial Improvement	Management reduces fuel loadings.	Yes
Channel Bank Vegetation	ESD-Agron	322	Noxious and invasive plants are removed from channel banks	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Stabilization	CED-EG	584	Noxious and invasive plants are removed from streambank and	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Clearing & Snagging	CED-DE	326	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Filling in the pond will make maintenance	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Establishment of permanent vegetation may	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Conservation Crop Rotation	ESD-Agron	328	Depending on crop rotation, crop rotation creates	Yes	Not Applicable	Not applicable.	Yes	Not Applicable	Not applicable.	No
Contour Buffer Strips	ESD-Agron	332	Vegetation is installed and managed to control	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Fish and Wildlife - Inadequate Food (Effect)	Fish and Wildlife - Inadequate Food (Rationale)	Fish and Wildlife - Inadequate Food (Purpose)	Fish and Wildlife - Inadequate Cover/Shelter (Effect)	Fish and Wildlife - Inadequate Cover/Shelter (Rationale)	Fish and Wildlife - Inadequate Cover/Shelter (Purpose)	Fish and Wildlife - Inadequate Water (Effect)	Fish and Wildlife - Inadequate Water (Rationale)
Access Road	CED-AE	560	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Slight to Substantial Improvement	There will be an improvement in composition,	Yes	Slight to Substantial Improvement	The degree will depend on the amount of brush	Yes	Not Applicable	Not applicable.
Channel Bank Vegetation	ESD-Agron	322	Slight to Moderate Improvement	Revegetated areas can be planted to species that provide	Yes	Slight to Moderate Improvement	Revegetated areas can be planted to species that provide	Yes	Not Applicable	Not applicable.
Channel Stabilization	CED-EG	584	Slight Improvement	The stabilized channel traps and provides more food	No	Slight Improvement	The stabilized channel provides more cover/shelter	No	Slight Improvement	The stabilized channel provides more and deeper
Clearing & Snagging	CED-DE	326	Slight to Moderate Worsening	Depending on species, availability of food sources may	No	Slight to Moderate Worsening	Depending on species, availability of cover will be lost	No	Slight Worsening	Clearing of bank vegetation and instream wood
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Conservation Cover	ESD-Agron	327	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Not Applicable	Not applicable.
Conservation Crop Rotation	ESD-Agron	328	Slight to Moderate Improvement	Selected crops and suitable rotations may provide more	Yes	Slight to Moderate Improvement	Selected crops and suitable rotations may provide more	Yes	Not Applicable	Not applicable.
Contour Buffer Strips	ESD-Agron	332	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*	*Fish and Wildlife - Inadequate Space (Purpose)*	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
Access Road	CED-AE	560	No	Slight to Moderate Worsening	Roads reduce and fragment space.	No	Slight Worsening	Roads fragment plant communities to some degree.	No	Not Applicable
Amendments for Treatment of Agricultural Waste	CED-EE	591	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Ambient Temperature	CED-EE	365	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anaerobic Digester, Controlled Temperature	CED-EE	366	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Brush Management	ESD-Graz Land Sp	314	No	Slight to Substantial Improvement	Removal or control of brush increases usable space.	Yes	Slight to Substantial Improvement	Removal or control of brush increases connectivity to and	Yes	Slight to Substantial Improvement
Channel Bank Vegetation	ESD-Agron	322	No	Moderate to Substantial Improvement	Revegetated channel banks can provide space and restore	Yes	Moderate to Substantial Improvement	Revegetated channel banks can provide space and restore	Yes	Slight to Moderate Improvement
Channel Stabilization	CED-EG	584	No	Slight to Moderate Improvement	Stabilized channels increase suitable space for fish.	No	Slight to Moderate Improvement	Stabilized channels that previously fragmented the	No	Not Applicable
Clearing & Snagging	CED-DE	326	No	Slight to Moderate Worsening	Removing woody debris from stream reduces aquatic	No	Slight to Moderate Worsening	Removal of wood fragments aquatic habitats.	No	Not Applicable
Closure of Waste Impoundments	CED-EE & ESD-NM	360	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Conservation Cover	ESD-Agron	327	No	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	Yes	Slight to Moderate Improvement	Increased cover can connect to other cover areas.	Yes	Slight to Substantial Improvement
Conservation Crop Rotation	ESD-Agron	328	No	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	Yes	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	Yes	Slight to Moderate Improvement
Contour Buffer Strips	ESD-Agron	332	No	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	Yes	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	Yes	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Imbalance Among and Within Populations (Rationale)*	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)*
Access Road	CED-AE	560	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Amendments for Treatment of Agricultural Waste	CED-EE	591	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Brush Management	ESD-Graz Land Sp	314	Habitat management is implemented to remove limiting	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Channel Bank Vegetation	ESD-Agron	322	Habitat management is implemented to remove limiting	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Channel Stabilization	CED-EG	584	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Clearing & Snagging	CED-DE	326	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Habitat management is implemented to remove limiting	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Conservation Crop Rotation	ESD-Agron	328	Diversifying crops throughout the rotation will diversify	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Contour Buffer Strips	ESD-Agron	332	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No

Practice	Lead Discipline(s)	Practice Code	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)	Domestic Animals - Inadequate Shelter (Effect)	Domestic Animals - Inadequate Shelter (Rationale)	Domestic Animals - Inadequate Shelter (Purpose)	Domestic Animals - Inadequate Stock Water (Effect)	Domestic Animals - Inadequate Stock Water (Rationale)
Access Road	CED-AE	560	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Amendments for Treatment of Agricultural Waste	CED-EE	591	Neutral	Amendments could favorably alter the waste stream to	No	Not Applicable	Not applicable.	No	Slight Improvement	Some amendments are used to treat the waste stream to the
Anaerobic Digester, Ambient Temperature	CED-EE	365	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anaerobic Digester, Controlled Temperature	CED-EE	366	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Brush Management	ESD-Graz Land Sp	314	Moderate to Substantial Improvement	The reduction of undesirable brush species increases	Yes	Slight to Moderate Worsening	Shelter from brush is diminished.	No	Not Applicable	Not applicable.
Channel Bank Vegetation	ESD-Agron	322	Slight Improvement	Re-establishment of channel bank vegetation can	No	Slight Improvement	Vegetation can provide shade.	No	Not Applicable	Not applicable.
Channel Stabilization	CED-EG	584	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Clearing & Snagging	CED-DE	326	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Conservation Cover	ESD-Agron	327	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Conservation Crop Rotation	ESD-Agron	328	Slight to Substantial Improvement	Crop rotation may be designed to add forage crops.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Contour Buffer Strips	ESD-Agron	332	Slight Improvement	There may be some use of the planting for feed and forage	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*	*Appropriate Land Use(s)*	*Baseline Setting*	
Access Road	**CED-AE**	**560**	**No**	**Not Applicable**	**Not applicable.**	**No**	**All Land Uses**		Access road does not exist on
Amendments for Treatment of Agricultural Waste	**CED-EE**	**591**	**No**	**Slight to Substantial Improvement**	**Suppressing emissions of ammonia and other**	**Yes**	**Headquarters**		Untreated manure and/or
Anaerobic Digester, Ambient Temperature	**CED-EE**	**365**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Headquarters**		Animal wastes are produced
Anaerobic Digester, Controlled Temperature	**CED-EE**	**366**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Headquarters**		Animal wastes are produced
Anionic Polyacrylamide (PAM) Erosion Control	**CED-WME**	**450**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop, Forest, Grazed Forest, Grazed Range, Hay,**		Irrigated cropland.
Brush Management	**ESD-Graz Land Sp**	**314**	**No**	**Slight to Substantial Improvement**	**There will be a reduction of harmful plant and animal pest**	**No**	**Grazed Range, Hay, Native or Naturalized Pasture, Pasture**		Planning area has brush
Channel Bank Vegetation	**ESD-Agron**	**322**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop, Forest, Grazed Forest, Grazed Range, Hay,**		Planning unit includes
Channel Stabilization	**CED-EG**	**584**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop, Forest, Grazed Forest, Grazed Range, Hay,**		Planning unit includes a
Clearing & Snagging	**CED-DE**	**326**	**No**	**Not Applicable**	**Not applicable.**	**No**	**All Land Uses**		Planning unit includes
Closure of Waste Impoundments	**CED-EE & ESD-NM**	**360**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Headquarters**		Headquarters area includes a
Conservation Cover	**ESD-Agron**	**327**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop, Hay, Natural Area, Recreation, Watershed**		Conservation cover does not
Conservation Crop Rotation	**ESD-Agron**	**328**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop, Hay**		Conservation Crop Rotation is
Contour Buffer Strips	**ESD-Agron**	**332**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop**		Planning area has uniform

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Sheet and Rill (Effect)	Soil Erosion - Sheet and Rill (Rationale)	Soil Erosion - Sheet and Rill (Purpose)	Soil Erosion - Wind (Effect)	Soil Erosion - Wind (Rationale)	Soil Erosion - Wind (Purpose)	Soil Erosion - Ephemeral Gully (Effect)	Soil Erosion - Ephemeral Gully (Rationale)	Soil Erosion - Ephemeral Gully (Purpose)
Contour Farming	ESD-Agron	330	Slight to Substantial Improvement	Contouring reduces runoff velocities and changes overland	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Contouring reduces runoff velocities and changes overland	No
Cover Crop	ESD-Agron	340	Moderate to Substantial Improvement	Increased cover during erosive periods will reduce	Yes	Moderate to Substantial Improvement	Increased cover during erosive periods will reduce	Yes	Moderate to Substantial Improvement	Increased cover during erosive periods will reduce	Yes
Critical Area Planting	ESD-Agron & CED-LA	342	Substantial Improvement	Increased vegetation and cover, and	Yes	Substantial Improvement	An increase in vegetation and cover will protect the soil	Yes	Substantial Improvement	An increase in vegetation and cover will improve	Yes
Cross Wind Ridges	ESD-Agron	589A	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Adding roughness to the soil across the prevailing wind	Yes	Not Applicable	Not applicable.	No
Cross Wind Trap Strips	ESD-Agron	589C	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Vegetative strips oriented across the prevailing wind	Yes	Not Applicable	Not applicable.	No
Dam	CED-DE	402	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam, Diversion	CED-AE	348	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	Slight to Moderate Improvement	Removing restrictive layers improves infiltration and	No	Neutral	If done at critical wind periods, this practice may	No	Slight Improvement	Removing restrictive layers improves infiltration and	No
Dike	CED-HE	356	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Diversion	CED-DE	362	Slight Improvement	A channel across the slope reduces the slope length and	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	A channel constructed across the slope intercepts	Yes
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Neutral	Disturbance of the site has short term but negligible effect	No	Neutral	Disturbance of the site has short term but negligible effect	No	Neutral	Disturbance of the site has short term but negligible effect	No
Fence	ESD-Graz Land Sp	382	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil	No

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Classic Gully (Effect)	Soil Erosion - Classic Gully (Rationale)	Soil Erosion - Classic Gully (Purpose)	Soil Erosion - Streambank (Effect)	Soil Erosion - Streambank (Rationale)	Soil Erosion - Streambank (Purpose)	Soil Erosion - Shoreline (Effect)	Soil Erosion - Shoreline (Rationale)
Contour Farming	ESD-Agron	330	Slight Improvement	Reduces runoff causing erosion in the gully.	No	Slight Improvement	Reduces runoff causing erosion.	No	Not Applicable	Not applicable.
Cover Crop	ESD-Agron	340	Slight Improvement	Less runoff reduces potential gully erosion.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Critical Area Planting	ESD-Agron & CED-LA	342	Moderate to Substantial Improvement	Increased vegetation and cover will decrease erosion	Yes	Moderate to Substantial Improvement	Increased vegetation and cover will decrease erosion	Yes	Moderate to Substantial Improvement	Increased vegetation and cover will decrease erosion.
Cross Wind Ridges	ESD-Agron	589A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Trap Strips	ESD-Agron	589C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam	CED-DE	402	Slight to Substantial Improvement	Stabilization of the gully due to the embankment.	No	Slight Improvement	Reduced peak flows downstream from embankment.	No	Slight to Moderate Worsening	Increase in shoreline.
Dam, Diversion	CED-AE	348	Not Applicable	Not applicable.	No	Slight Worsening	If protection isn't provided the diverted flows may cause	No	Not Applicable	Not applicable.
Deep Tillage	ESD-Agron	324	Slight Improvement	Increase infiltration reduces runoff.	No	Slight Improvement	Improves infiltration and reduces runoff.	No	Not Applicable	Not applicable.
Dike	CED-HE	356	Slight Improvement	Reduces overland flow	No	Slight to Moderate Worsening	Causes higher water depths and velocities.	No	Not Applicable	Not applicable.
Diversion	CED-DE	362	Slight to Substantial Improvement	Overland flow is diverted from gully.	Yes	Slight Improvement	Reduces overland flow to stream.	No	Not Applicable	Not applicable.
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fence	ESD-Graz Land Sp	382	Neutral	Barriers reduce the excessive disturbance of soil	Yes	Neutral	Barriers reduce the excessive disturbance of soil	Yes	Neutral	Barriers reduce the excessive disturbance of soil

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Shoreline (Purpose)*	*Soil Erosion – Irrigation-induced (Effect)*	*Soil Erosion – Irrigation-induced (Rationale)*	*Soil Erosion – Irrigation-induced (Purpose)*	*Soil Erosion - Mass Movement (Effect)*	*Soil Erosion - Mass Movement (Rationale)*	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*
Contour Farming	ESD-Agron	330	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cover Crop	ESD-Agron	340	No	Not Applicable	Not applicable.	No	Slight Worsening	Increased infiltration and water retention increases the	No	Not Applicable
Critical Area Planting	ESD-Agron & CED-LA	342	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Substantial Improvement
Cross Wind Ridges	ESD-Agron	589A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cross Wind Trap Strips	ESD-Agron	589C	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dam	CED-DE	402	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dam, Diversion	CED-AE	348	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Deep Tillage	ESD-Agron	324	No	Slight Improvement	Improves infiltration and reduces runoff.	No	Slight Worsening	Increased infiltration could exacerbate mass movement	No	Not Applicable
Dike	CED-HE	356	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Diversion	CED-DE	362	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Water is diverted from the top of the slope.	No	Slight to Moderate Improvement
Dry Hydrant	CED-HE	432	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Early Successional Habitat Development/Mgt.	ESD-WBio	647	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fence	ESD-Graz Land Sp	382	Yes	Not Applicable	Not applicable.	No	Neutral	Barriers reduce the excessive disturbance of soil	Yes	Neutral

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*	*Soil Condition - Organic Matter Depletion (Effect)*	*Soil Condition - Organic Matter Depletion (Rationale)*	*Soil Condition - Organic Matter Depletion (Purpose)*	*Soil Condition - Rangeland Site Stability (Effect)*	*Soil Condition - Rangeland Site Stability (Rationale)*	*Soil Condition - Rangeland Site Stability (Purpose)*
Contour Farming	ESD-Agron	330	Not applicable.	No	Slight to Moderate Improvement	Reduced soil erosion decreases organic matter loss.	No	Not Applicable	Not applicable.	No
Cover Crop	ESD-Agron	340	Not applicable.	No	Slight to Moderate Improvement	More biomass produced will increase organic	Yes	Not Applicable	Not applicable.	No
Critical Area Planting	ESD-Agron & CED-LA	342	Increased vegetation and cover will decrease erosion	Yes	Substantial Improvement	Increased cover and growing vegetation will increase soil	No	Substantial Improvement	Increase in soil cover by vegetation will improve soil surface	Yes
Cross Wind Ridges	ESD-Agron	589A	Not applicable.	No	Slight Improvement	Reduced wind erosion decreases organic matter loss.	No	Not Applicable	Not applicable.	No
Cross Wind Trap Strips	ESD-Agron	589C	Not applicable.	No	Slight to Moderate Improvement	Vegetative strips decrease organic matter loss by	No	Not Applicable	Not applicable.	No
Dam	CED-DE	402	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam, Diversion	CED-AE	348	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	Not applicable.	No	Neutral	Better infiltration and available water increases crop	No	Not Applicable	Not applicable.	No
Dike	CED-HE	356	Prevents overland flow from entering construction sites.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Diversion	CED-DE	362	Overland flows are intercepted.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dry Hydrant	CED-HE	432	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not applicable.	No	Neutral	Not applicable.	No	Not Applicable	Not applicable.	No
Fence	ESD-Graz Land Sp	382	Barriers reduce the excessive disturbance of soil	Yes	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	This practice is applied to facilitate the application of	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition - Compaction (Effect)	Soil Condition - Compaction (Rationale)	Soil Condition - Compaction (Purpose)	Soil Condition - Subsidence (Effect)	Soil Condition - Subsidence (Rationale)	Soil Condition - Subsidence (Purpose)	Soil Condition - Contaminants - Salts and Other Chemicals (Effect)	Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)
Contour Farming	ESD-Agron	330	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cover Crop	ESD-Agron	340	Slight to Moderate Improvement	Increased biomass and roots improve aggregation, which	No	Neutral	If it affects drainage the practice can have an impact on	No	Slight Improvement	Increased organic matter will buffer salts.
Critical Area Planting	ESD-Agron & CED-LA	342	Slight to Substantial Improvement	Increased root growth will decrease compaction.	No	Neutral	If it affects drainage the practice can have an impact on	No	Slight Improvement	Increased vegetation will increase salt uptake and increased
Cross Wind Ridges	ESD-Agron	589A	Neutral	Equipment weight during ridge establishment may	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Trap Strips	ESD-Agron	589C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam	CED-DE	402	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam, Diversion	CED-AE	348	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Deep Tillage	ESD-Agron	324	Substantial Improvement	Ripping breaks up compaction, improves plant soil	Yes	Neutral	Ripping will break potential hardpan, but drainage has the	No	Slight to Moderate Improvement	Improved infiltration and porosity leaches salts.
Dike	CED-HE	356	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Diversion	CED-DE	362	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dry Hydrant	CED-HE	432	Neutral	Accessing the dry hydrant may result in limited compaction	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Neutral	Heavy equipment used to apply the practice may result in	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fence	ESD-Graz Land Sp	382	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*
Contour Farming	ESD-Agron	330	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cover Crop	ESD-Agron	340	No	Slight to Moderate Improvement	Vegetation will utilize excessive N, increasing N	No	Slight to Moderate Improvement	Vegetation will utilize excessive P, increasing P	No	Slight to Moderate Improvement
Critical Area Planting	ESD-Agron & CED-LA	342	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cross Wind Ridges	ESD-Agron	589A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cross Wind Trap Strips	ESD-Agron	589C	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dam	CED-DE	402	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dam, Diversion	CED-AE	348	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Deep Tillage	ESD-Agron	324	Yes	Slight to Moderate Improvement	Ripping improves infiltration which increases leaching of	Yes	Slight to Moderate Improvement	Ripping improves infiltration which increases leaching of	Yes	Slight to Moderate Improvement
Dike	CED-HE	356	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Diversion	CED-DE	362	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dry Hydrant	CED-HE	432	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Early Successional Habitat Development/Mgt.	ESD-WBio	647	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fence	ESD-Graz Land Sp	382	No	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Contour Farming	ESD-Agron	330	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cover Crop	ESD-Agron	340	Vegetation will utilize excessive K, increasing K	No	Slight to Moderate Improvement	Vegetation will utilize excessive N, increasing N	Yes	Slight to Moderate Improvement	Vegetation will utilize excessive P, increasing P	No
Critical Area Planting	ESD-Agron & CED-LA	342	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cross Wind Ridges	ESD-Agron	589A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cross Wind Trap Strips	ESD-Agron	589C	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam	CED-DE	402	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam, Diversion	CED-AE	348	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	Ripping improves infiltration which increases leaching of	Yes	Slight to Moderate Improvement	Ripping improves infiltration which increases leaching of	Yes	Slight to Moderate Improvement	Ripping improves infiltration which increases leaching of	Yes
Dike	CED-HE	356	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Diversion	CED-DE	362	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dry Hydrant	CED-HE	432	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fence	ESD-Graz Land Sp	382	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)	Soil Condition - Contaminants - Residual Pesticides (Effect)	Soil Condition - Contaminants - Residual Pesticides (Rationale)	Soil Condition - Contaminants - Residual Pesticides (Purpose)	Soil Condition - Damage from Sediment Deposition (Effect)	Soil Condition - Damage from Sediment Deposition (Rationale)
Contour Farming	ESD-Agron	330	Not Applicable	Not applicable.	No	Slight Worsening	Farming on the contour can increase infiltration which may	No	Moderate to Substantial Improvement	Farming on the contour reduces sheet and rill erosion
Cover Crop	ESD-Agron	340	Slight to Moderate Improvement	Vegetation will utilize excessive K, increasing K	No	Slight to Moderate Improvement	Increased organic matter adsorbs pesticides and	Yes	Slight to Moderate Improvement	Less erosion results in less sediment.
Critical Area Planting	ESD-Agron & CED-LA	342	Not Applicable	Not applicable.	No	Slight Improvement	Increased organic matter adsorbs pesticides and	No	Slight to Substantial Improvement	Growing vegetation and cover result in less erosion and
Cross Wind Ridges	ESD-Agron	589A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Cross wind ridges reduce soil erosion from wind and the
Cross Wind Trap Strips	ESD-Agron	589C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Vegetative strips reduce soil erosion from wind and the
Dam	CED-DE	402	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Sediment trapped in pond area behind dam.
Dam, Diversion	CED-AE	348	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Deep Tillage	ESD-Agron	324	Slight to Moderate Improvement	Ripping improves infiltration which increases leaching of	Yes	Slight to Moderate Improvement	Ripping mixes the soil and can result in adsorption and	Yes	Slight to Moderate Improvement	Ripping buries or mixes soil deposits from wind or water
Dike	CED-HE	356	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Diversion	CED-DE	362	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Runoff and sedimentation from sensitive areas are
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fence	ESD-Graz Land Sp	382	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*	*Water Quantity - Rangeland Hydrologic Cycle (Rationale)*	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)*
Contour Farming	ESD-Agron	330	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Increases water infiltration that may move laterally to a	No	Slight Improvement
Cover Crop	ESD-Agron	340	Yes	Not Applicable	Not applicable.	No	Slight Improvement	Growing plants will take up excess water. However,	No	Slight to Moderate Improvement
Critical Area Planting	ESD-Agron & CED-LA	342	Yes	Slight to Substantial Improvement	Growing vegetation and cover result in higher infiltration	No	Neutral	Growing plants will take up excess water but planting area is	No	Neutral
Cross Wind Ridges	ESD-Agron	589A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cross Wind Trap Strips	ESD-Agron	589C	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dam	CED-DE	402	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Possible seepage from ponding of water.	No	Slight to Moderate Improvement
Dam, Diversion	CED-AE	348	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Deep Tillage	ESD-Agron	324	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Increased infiltration from tillage increases seepage.	No	Slight to Moderate Improvement
Dike	CED-HE	356	No	Not Applicable	Not applicable.	No	Slight Worsening	Seepage may increase due to temporary storage	No	Slight to Substantial Improvement
Diversion	CED-DE	362	Yes	Not Applicable	Not applicable.	No	Slight Worsening	Seepage may increase due to temporary storage	No	Slight to Substantial Improvement
Dry Hydrant	CED-HE	432	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Early Successional Habitat Development/Mgt.	ESD-WBio	647	No	Not Applicable	Not Applicable	No	Not Applicable	Not applicable.	No	Not Applicable
Fence	ESD-Graz Land Sp	382	No	Neutral	Barriers reduce the excessive disturbance of soil	No	Not Applicable	Not applicable.	No	Neutral

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)*	*Water Quantity - Excessive Subsurface Water (Effect)*	*Water Quantity - Excessive Subsurface Water (Rationale)*	*Water Quantity - Excessive Subsurface Water (Purpose)*	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*
Contour Farming	ESD-Agron	330	Increases water infiltration which will slightly reduce the	No	Slight Worsening	Increases infiltration which could contribute to excess	No	Not Applicable	Not applicable.	No
Cover Crop	ESD-Agron	340	Growing plants will reduce runoff and increase infiltration.	No	Slight Improvement	Growing plants will take up excess water. However,	No	Not Applicable	Not applicable.	No
Critical Area Planting	ESD-Agron & CED-LA	342	Growing plants will take up excess water but planting area is	No	Neutral	Growing plants will take up excess water but planting area is	No	Not Applicable	Not applicable.	No
Cross Wind Ridges	ESD-Agron	589A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cross Wind Trap Strips	ESD-Agron	589C	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam	CED-DE	402	Runoff and peak flows reduced.	Yes	Slight Worsening	Seepage from ponded water.	No	Not Applicable	Not applicable.	No
Dam, Diversion	CED-AE	348	Flows are diverted into other channels to provide relief	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	Runoff is reduced because of better infiltration.	No	Slight to Moderate Worsening	Increased infiltration results in more subsurface water.	No	Not Applicable	Not applicable.	No
Dike	CED-HE	356	Water is kept within the channel and prevents flooding.	Yes	Slight Worsening	Seepage may increase due to temporary storage	No	Not Applicable	Not applicable.	No
Diversion	CED-DE	362	Water is diverted and prevented from ponding or flooding.	Yes	Slight to Moderate Improvement	Intercepts shallow subsurface flows.	Yes	Not Applicable	Not applicable.	No
Dry Hydrant	CED-HE	432	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fence	ESD-Graz Land Sp	382	Barriers reduce the excessive disturbance of soil	No	Not Applicable	Not applicable.	No	Neutral	Fences may act as a physical barrier and can increase drifting	No

Practice	Lead Discipline(s)	Practice Code	Water Quantity - Inadequate Outlets (Effect)	Water Quantity - Inadequate Outlets (Rationale)	Water Quantity - Inadequate Outlets (Purpose)	Water Quantity - Inefficient Water Use on Irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)	Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)
Contour Farming	ESD-Agron	330	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Increases water infiltration resulting in improved water
Cover Crop	ESD-Agron	340	Slight Improvement	Improved vegetative cover conditions reduces runoff and	No	Neutral	Cover crop may deplete soil moisture prior to planting	No	Slight to Substantial Improvement	Improves infiltration, soil structure, and winter water use that
Critical Area Planting	ESD-Agron & CED-LA	342	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Ridges	ESD-Agron	589A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Trap Strips	ESD-Agron	589C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam	CED-DE	402	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Provides permanent water storage for irrigation.	Yes	Not Applicable	Not applicable.
Dam, Diversion	CED-AE	348	Slight to Substantial Improvement	Diversion of some of the flow into additional outlets	Yes	Slight to Substantial Improvement	Diverted water maybe be used for irrigation	Yes	Slight to Substantial Improvement	Water can be diverted for beneficial use
Deep Tillage	ESD-Agron	324	Slight Improvement	Increases infiltration and reduces runoff.	No	Slight to Moderate Improvement	Increases infiltration and reduces runoff.	No	Slight to Moderate Improvement	Deep tillage increases infiltration and reduces runoff.
Dike	CED-HE	356	Slight to Moderate Worsening	Prevents water from leaving or entering the channel.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Diversion	CED-DE	362	Slight to Moderate Worsening	Increases the need for larger outlet capacity.	No	Slight to Moderate Improvement	May help capture and reuse runoff.	Yes	Slight to Moderate Improvement	May collect or direct water for water-spreading or water-
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Slight Worsening	Water used from storage for fire suppression will not	No	Slight Worsening	Water used from storage for fire suppression will not
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fence	ESD-Graz Land Sp	382	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Barriers reduce the excessive disturbance of soil

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
Contour Farming	ESD-Agron	330	No	Moderate to Substantial Improvement	Reduces soil erosion and resulting sediment deposition	Yes	Slight to Moderate Improvement	Reduces soil erosion and the resulting offsite sediment	Yes	Not Applicable
Cover Crop	ESD-Agron	340	No	Slight to Substantial Improvement	Reduces erosion which results in less sediment transport.	Yes	Slight to Substantial Improvement	Reduces erosion which results in less sediment	Yes	Slight Improvement
Critical Area Planting	ESD-Agron & CED-LA	342	No	Substantial Improvement	Permanent vegetation reduces runoff and sediment	Yes	Moderate to Substantial Improvement	Permanent vegetation reduces sediment yield.	Yes	Not Applicable
Cross Wind Ridges	ESD-Agron	589A	No	Moderate to Substantial Improvement	Reduces soil erosion from wind and the resulting soil	Yes	Moderate to Substantial Improvement	Reduces soil erosion from wind and the resulting soil	No	Not Applicable
Cross Wind Trap Strips	ESD-Agron	589C	No	Moderate to Substantial Improvement	Reduces soil erosion from wind and the resulting soil	Yes	Moderate to Substantial Improvement	Reduces soil erosion from wind and the resulting soil	Yes	Not Applicable
Dam	CED-DE	402	No	Moderate Improvement	Sediment is trapped behind embankment.	No	Neutral	Limited sediment deposition.	No	Slight Improvement
Dam, Diversion	CED-AE	348	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Deep Tillage	ESD-Agron	324	No	Slight to Moderate Improvement	Increases infiltration and reduces erosion and runoff.	No	Slight to Moderate Improvement	Increases infiltration and reduces erosion and runoff.	No	Slight Improvement
Dike	CED-HE	356	No	Slight Improvement	Helps keep velocities up and improve sediment transport.	No	Slight Worsening	Improve sediment transport to downstream water	No	Not Applicable
Diversion	CED-DE	362	Yes	Slight to Moderate Improvement	May decrease sediment load by trapping.	Yes	Slight to Moderate Improvement	May decrease sediment load by trapping.	Yes	Not Applicable
Dry Hydrant	CED-HE	432	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Early Successional Habitat Development/Mgt.	ESD-WBio	647	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fence	ESD-Graz Land Sp	382	Yes	Neutral	Barriers reduce the excessive disturbance of soil	No	Neutral	Barriers reduce the excessive disturbance of soil	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Aquifer Overdraft (Rationale)*	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)*
Contour Farming	ESD-Agron	330	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening	The action increases infiltration.	No
Cover Crop	ESD-Agron	340	Increased infiltration may improve aquifer recharge.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action increases soil organic matter, biological activity,	No
Critical Area Planting	ESD-Agron & CED-LA	342	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cross Wind Ridges	ESD-Agron	589A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cross Wind Trap Strips	ESD-Agron	589C	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam	CED-DE	402	Seepage from the impoundment impacts recharge	No	Slight Worsening	Controlled release of stored water provides flow	No	Not Applicable	Not applicable.	No
Dam, Diversion	CED-AE	348	Not applicable.	No	Slight to Moderate Worsening	Diverted water reduces flows in downstream channel	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	Increases infiltration and recharge.	No	Slight Worsening	Increases infiltration and reduces runoff.	No	Slight to Moderate Worsening	The action increases infiltration and deep percolation.	No
Dike	CED-HE	356	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action excludes surface water from the pesticide	No
Diversion	CED-DE	362	Not applicable.	No	Slight Improvement	Runoff can be directed to another water course.	No	Slight Improvement	The action diverts water from the pesticide application	No
Dry Hydrant	CED-HE	432	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fence	ESD-Graz Land Sp	382	Not applicable.	No	Neutral	Control of animals and people influences vigor and	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)	Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)	Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)	Water Quality - Excessive Salinity in Groundwater (Effect)	Water Quality - Excessive Salinity in Groundwater (Rationale)	Water Quality - Excessive Salinity in Groundwater (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)
Contour Farming	ESD-Agron	330	Slight Worsening	The action reduces the velocity of runoff, resulting in	No	Slight Worsening	The action reduces the velocity of runoff, resulting in	No	Neutral	The action may result in increased water infiltration, but this
Cover Crop	ESD-Agron	340	Slight to Moderate Improvement	The action utilizes excess nutrients and increases organic	Yes	Slight Improvement	Cover crops can take up salts and water reducing the	No	Slight Improvement	Higher organic matter levels increases buffering
Critical Area Planting	ESD-Agron & CED-LA	342	Slight Improvement	Permanent vegetation will uptake excess	No	Neutral	Vegetation takes up moisture and salts.	No	Slight Improvement	Higher organic matter levels increases buffering
Cross Wind Ridges	ESD-Agron	589A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Trap Strips	ESD-Agron	589C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam	CED-DE	402	Slight Worsening	Nutrients impounded could contaminate groundwater.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam, Diversion	CED-AE	348	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Deep Tillage	ESD-Agron	324	Slight to Moderate Worsening	The action increases infiltration resulting in greater leaching	No	Slight to Moderate Worsening	Deep tillage increases infiltration resulting in greater	No	Slight Worsening	Deep tillage increases infiltration resulting in greater
Dike	CED-HE	356	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Diversion	CED-DE	362	Slight Worsening	The action increases infiltration which may provide transport for	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fence	ESD-Graz Land Sp	382	Neutral	The action improves plant vigor which increases nutrient	No	Neutral	Control of animals and people influences vigor and	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)*
Contour Farming	ESD-Agron	330	No	Neutral	Increased water infiltration could move pathogens into	No	Not Applicable	Not applicable.	No	Slight Improvement
Cover Crop	ESD-Agron	340	No	Slight to Moderate Improvement	The action increases organic matter promoting microbial	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Critical Area Planting	ESD-Agron & CED-LA	342	No	Slight Improvement	The action increases organic matter promoting microbial	No	Not Applicable	Not applicable.	No	Not Applicable
Cross Wind Ridges	ESD-Agron	589A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Cross Wind Trap Strips	ESD-Agron	589C	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Dam	CED-DE	402	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dam, Diversion	CED-AE	348	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Deep Tillage	ESD-Agron	324	No	Slight Worsening	Deep tillage increases infiltration resulting in greater	No	Neutral	Deep tillage increases infiltration, which may result in	No	Slight to Substantial Improvement
Dike	CED-HE	356	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Diversion	CED-DE	362	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Dry Hydrant	CED-HE	432	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Early Successional Habitat Development/Mgt.	ESD-WBio	647	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fence	ESD-Graz Land Sp	382	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*
Contour Farming	ESD-Agron	330	The action reduces runoff and erosion.	Yes	Slight to Substantial Improvement	The action reduces sheet and rill erosion and can increase	Yes	Slight to Substantial Improvement	Contour Farming reduces sheet and rill erosion and slows	Yes
Cover Crop	ESD-Agron	340	The action reduces runoff and erosion.	No	Slight to Moderate Improvement	The action reduces erosion and runoff and transport of	Yes	Slight to Moderate Improvement	Vegetation will reduce erosion and transport of	Yes
Critical Area Planting	ESD-Agron & CED-LA	342	Not applicable.	No	Slight to Moderate Improvement	The action reduces erosion and sediment-attached	No	Moderate to Substantial Improvement	Vegetation reduces erosion and sediment delivery.	Yes
Cross Wind Ridges	ESD-Agron	589A	The action reduces soil erosion from wind.	No	Slight Improvement	The action reduces soil erosion from wind which	No	Slight Improvement	Ridges reduce soil erosion from wind and the resulting	Yes
Cross Wind Trap Strips	ESD-Agron	589C	The action reduces soil erosion from wind.	Yes	Slight to Moderate Improvement	The action reduces soil erosion from wind which	Yes	Slight Improvement	Vegetative strips reduce soil erosion from wind and the	Yes
Dam	CED-DE	402	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Suspended sediments are trapped.	No
Dam, Diversion	CED-AE	348	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	The action reduces runoff and erosion.	No	Slight to Substantial Improvement	Removing restrictive layers increases infiltration and	No	Slight to Moderate Improvement	Deep tillage increases infiltration reducing runoff and	No
Dike	CED-HE	356	The action excludes surface water from the pesticide	No	Not Applicable	Not applicable.	No	Neutral	If a dike is constructed to hold water, suspended	No
Diversion	CED-DE	362	The action diverts water from the pesticide application	No	Neutral	Diversions will trap some sediment, reducing the amount	No	Slight to Moderate Improvement	Diversions collect and slow run-off to a non-erosive velocity.	No
Dry Hydrant	CED-HE	432	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Although vegetation is manipulated, soil disturbance is	No
Fence	ESD-Graz Land Sp	382	Not applicable.	No	Neutral	The action improves plant vigor which increases nutrient	No	Neutral	A fence is a facilitating practice for management.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Salinity in Surface Water (Effect)	Water Quality - Excessive Salinity in Surface Water (Rationale)	Water Quality - Excessive Salinity in Surface Water (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)	Water Quality - Harmful Temperatures of Surface Water (Effect)	Water Quality - Harmful Temperatures of Surface Water (Rationale)
Contour Farming	ESD-Agron	330	Slight Improvement	The action slows runoff, which may increase water	No	Slight to Moderate Improvement	Contour Farming decreases sheet and rill erosion and slows	No	Not Applicable	Not applicable.
Cover Crop	ESD-Agron	340	Neutral	Less runoff reduces transport of soluble salts. Growing	No	Slight to Moderate Improvement	Decreased erosion and runoff reduces heavy metal delivery	No	Not Applicable	Not applicable.
Critical Area Planting	ESD-Agron & CED-LA	342	Neutral	Less runoff reduces transport of soluble salts. Growing	No	Slight to Moderate Improvement	Decreased erosion and runoff reduces heavy metal delivery	No	Not Applicable	Not applicable.
Cross Wind Ridges	ESD-Agron	589A	Slight Improvement	The action can reduce the transport of wind-borne saline	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Trap Strips	ESD-Agron	589C	Slight Improvement	The action can reduce the transport of wind-borne saline	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam	CED-DE	402	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Water released from impoundments may be warmer or cooler
Dam, Diversion	CED-AE	348	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Diversion of stream flow during warm periods when
Deep Tillage	ESD-Agron	324	Slight to Moderate Improvement	The action increases infiltration, reducing runoff and erosion.	No	Slight to Substantial Improvement	Deep tillage increases infiltration reducing runoff and	No	Not Applicable	Not applicable.
Dike	CED-HE	356	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Surface water temperature is dependent on site
Diversion	CED-DE	362	Not Applicable	Not applicable.	No	Slight Improvement	Controlled runoff reduces erosion and heavy metals	No	Neutral	The action controls surface erosion and surface water
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Removal of shade-producing canopy along streams will
Fence	ESD-Graz Land Sp	382	Not Applicable	Not applicable.	No	Neutral	Control of animals and people influences vigor and	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Temperatures of Surface Water (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*
Contour Farming	**ESD-Agron**	**330**	**No**	**Slight Improvement**	**Contour Farming decreases sheet and rill erosion and slows**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Cover Crop	**ESD-Agron**	**340**	**No**	**Slight Improvement**	**Less erosion and runoff reduces delivery of**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Substantial Improvement**
Critical Area Planting	**ESD-Agron & CED-LA**	**342**	**No**	**Slight Improvement**	**Less erosion and runoff reduces delivery of**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Cross Wind Ridges	**ESD-Agron**	**589A**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Cross Wind Trap Strips	**ESD-Agron**	**589C**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Dam	**CED-DE**	**402**	**No**	**Slight to Moderate Worsening**	**Because of aquatic animal feed or decaying vegetation,**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Dam, Diversion	**CED-AE**	**348**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Deep Tillage	**ESD-Agron**	**324**	**No**	**Slight to Substantial Improvement**	**Deep tillage increases infiltration reducing runoff and**	**No**	**Slight to Substantial Improvement**	**Deep tillage increases infiltration reducing runoff and**	**No**	**Slight to Moderate Improvement**
Dike	**CED-HE**	**356**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Diversion	**CED-DE**	**362**	**No**	**Slight Improvement**	**Enables better runoff management**	**No**	**Slight Worsening**	**Runoff is more efficiently transported to**	**No**	**Not Applicable**
Dry Hydrant	**CED-HE**	**432**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Early Successional Habitat Development/Mgt.	**ESD-WBio**	**647**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Fence	**ESD-Graz Land Sp**	**382**	**No**	**Neutral**	**Control access of animals and/or people to stream**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)*	*Air Quality - Excessive Ozone (Effect)*	*Air Quality - Excessive Ozone (Rationale)*	*Air Quality - Excessive Ozone (Purpose)*
Contour Farming	ESD-Agron	330	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cover Crop	ESD-Agron	340	Ground cover helps reduce wind erosion and generation of	Yes	Slight to Moderate Improvement	Ground cover helps reduce wind erosion and generation of	Yes	Slight Improvement	Motor vehicle emissions are reduced through	No
Critical Area Planting	ESD-Agron & CED-LA	342	Permanent cover helps reduce wind erosion and	Yes	Slight to Moderate Improvement	Permanent cover helps reduce wind erosion and	Yes	Neutral	There is a minimal reduction of ozone precursors through	No
Cross Wind Ridges	ESD-Agron	589A	Surface roughness oriented perpendicular to the	Yes	Slight to Moderate Improvement	Surface roughness oriented perpendicular to the	Yes	Not Applicable	Not applicable.	No
Cross Wind Trap Strips	ESD-Agron	589C	Strips of vegetation that trap saltating soil particles stop	Yes	Slight to Moderate Improvement	Strips of vegetation that trap saltating soil particles stop	Yes	Neutral	There is a minimal reduction of ozone precursors through	No
Dam	CED-DE	402	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam, Diversion	CED-AE	348	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	The action buries erodible soils into subsoil layers.	Yes	Slight to Moderate Improvement	The action buries erodible soils into subsoil layers.	Yes	Not Applicable	Not applicable.	No
Dike	CED-HE	356	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Diversion	CED-DE	362	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dry Hydrant	CED-HE	432	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fence	ESD-Graz Land Sp	382	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)	Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)	Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)	Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)	Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)	Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)	Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)	Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)
Contour Farming	ESD-Agron	330	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cover Crop	ESD-Agron	340	Slight to Moderate Improvement	Vegetation removes CO2 from the air and stores it in the form	Yes	Slight Improvement	Nitrogen fixing by selected cover crops	Yes	Not Applicable	Not applicable.
Critical Area Planting	ESD-Agron & CED-LA	342	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Ridges	ESD-Agron	589A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Trap Strips	ESD-Agron	589C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam	CED-DE	402	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam, Diversion	CED-AE	348	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Deep Tillage	ESD-Agron	324	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dike	CED-HE	356	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Diversion	CED-DE	362	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Neutral	Total carbon content is maintained.	No	Neutral	Not applicable.	No	Neutral	Not applicable.
Fence	ESD-Graz Land Sp	382	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*	*Air Quality - NH3 - Ammonia (Effect)*	*Air Quality - NH3 - Ammonia (Rationale)*	*Air Quality - NH3 - Ammonia (Purpose)*	*Air Quality - Chemical Drift (Effect)*	*Air Quality - Chemical Drift (Rationale)*	*Air Quality - Chemical Drift (Purpose)*	*Air Quality - Objectionable Odors (Effect)*
Contour Farming	ESD-Agron	330	No	Slight Improvement	Proper Carbon/Nitrogen ratios must be	No	Not Applicable	Not applicable.	No	Not Applicable
Cover Crop	ESD-Agron	340	No	Slight to Moderate Improvement	Nitrogen is fixed in soils with proper cover crops	Yes	Not Applicable	Not applicable.	No	Not Applicable
Critical Area Planting	ESD-Agron & CED-LA	342	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cross Wind Ridges	ESD-Agron	589A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cross Wind Trap Strips	ESD-Agron	589C	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dam	CED-DE	402	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dam, Diversion	CED-AE	348	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Deep Tillage	ESD-Agron	324	No	Slight Improvement	Buries fertilizers in subsoil layers	No	Slight Improvement	The action can incorporate pesticides and	No	Not Applicable
Dike	CED-HE	356	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Diversion	CED-DE	362	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dry Hydrant	CED-HE	432	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Early Successional Habitat Development/Mgt.	ESD-WBio	647	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fence	ESD-Graz Land Sp	382	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*	*Air Quality - Reduced Visibility (Rationale)*	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Contour Farming	ESD-Agron	330	Not applicable.	No	Slight Improvement	Reduce fugitive dust emissions	No	Not Applicable	Not applicable.	No
Cover Crop	ESD-Agron	340	Not applicable.	No	Slight to Substantial Improvement	Residues and cover crops reduce wind erosion and fugitive	Yes	Not Applicable	Not applicable.	No
Critical Area Planting	ESD-Agron & CED-LA	342	Not applicable.	No	Slight to Moderate Improvement	Reduce fugitive dust emissions	Yes	Not Applicable	Not applicable.	No
Cross Wind Ridges	ESD-Agron	589A	Not applicable.	No	Slight to Moderate Improvement	Reduces fugitive dust emissions	Yes	Neutral	Ridges disrupt the saltation process but do not slow winds.	No
Cross Wind Trap Strips	ESD-Agron	589C	Not applicable.	No	Slight to Moderate Improvement	Reduces fugitive dust emissions	Yes	Neutral	Strips disrupt the saltation process but do not slow winds.	No
Dam	CED-DE	402	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam, Diversion	CED-AE	348	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	Not applicable.	No	Slight to Moderate Improvement	Buries erodible materials into subsoil layers	Yes	Not Applicable	Not applicable.	No
Dike	CED-HE	356	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Diversion	CED-DE	362	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dry Hydrant	CED-HE	432	Not applicable.	No	Slight Improvement	Reduces fire duration through fire suppression	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fence	ESD-Graz Land Sp	382	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Adverse Air Temperature (Effect)	Air Quality - Adverse Air Temperature (Rationale)	Air Quality - Adverse Air Temperature (Purpose)	Plants not adapted or suited (Effect)	Plants not adapted or suited (Rationale)	Plants not adapted or suited (Purpose)	Plant Condition - Productivity, Health and Vigor (Effect)	Plant Condition - Productivity, Health and Vigor (Rationale)
Contour Farming	ESD-Agron	330	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Increased infiltration increases the amount of available
Cover Crop	ESD-Agron	340	Not Applicable	Not applicable.	No	Substantial Improvement	Plants selected are adapted and suited.	Yes	Slight to Moderate Improvement	Plants are selected and managed to maintain optimal
Critical Area Planting	ESD-Agron & CED-LA	342	Not Applicable	Not applicable.	No	Substantial Improvement	Plants selected are adapted and suited.	Yes	Substantial Improvement	Proper plant selection, nutrient modification, and
Cross Wind Ridges	ESD-Agron	589A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	The reduction of wind erosion decreases physical
Cross Wind Trap Strips	ESD-Agron	589C	Not Applicable	Not applicable.	No	Substantial Improvement	Plants selected are adapted and suited.	Yes	Slight to Substantial Improvement	The reduction of wind erosion decreases physical
Dam	CED-DE	402	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam, Diversion	CED-AE	348	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Deep Tillage	ESD-Agron	324	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Enhanced root growth and the reduction of
Dike	CED-HE	356	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Diversion	CED-DE	362	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Water is managed to optimize moisture requirements for
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Plants selected are adapted and suited.	Yes	Moderate to Substantial Improvement	Plants are selected and managed to maintain optimal
Fence	ESD-Graz Land Sp	382	Not Applicable	Not applicable.	No	Neutral	Control of animals facilitates grazing management which	No	Neutral	Control of animals facilitates grazing management

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*	*Plant Condition - Noxious and Invasive Plants (Effect)*
Contour Farming	**ESD-Agron**	**330**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Cover Crop	**ESD-Agron**	**340**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Critical Area Planting	**ESD-Agron & CED-LA**	**342**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Cross Wind Ridges	**ESD-Agron**	**589A**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Cross Wind Trap Strips	**ESD-Agron**	**589C**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Dam	**CED-DE**	**402**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Dam, Diversion	**CED-AE**	**348**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Deep Tillage	**ESD-Agron**	**324**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**
Dike	**CED-HE**	**356**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Diversion	**CED-DE**	**362**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Dry Hydrant	**CED-HE**	**432**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Early Successional Habitat Development/Mgt.	**ESD-WBio**	**647**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**Yes**	**Moderate to Substantial Improvement**
Fence	**ESD-Graz Land Sp**	**382**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Noxious and Invasive Plants (Rationale)*	*Plant Condition - Noxious and Invasive Plants (Purpose)*	*Plant Condition - Forage Quality and Palatability (Effect)*	*Plant Condition - Forage Quality and Palatability (Rationale)*	*Plant Condition - Forage Quality and Palatability (Purpose)*	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*
Contour Farming	ESD-Agron	330	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cover Crop	ESD-Agron	340	Vegetation is installed and managed to control	No	Slight to Moderate Improvement	Adding a cover crop provides a higher quality forage.	No	Not Applicable	Not applicable.	No
Critical Area Planting	ESD-Agron & CED-LA	342	Establishment of permanent vegetation may	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cross Wind Ridges	ESD-Agron	589A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cross Wind Trap Strips	ESD-Agron	589C	Vegetation is installed and managed to control	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam	CED-DE	402	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam, Diversion	CED-AE	348	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	Deep tillage may enhance the growth of noxious and	No	Slight Improvement	Deep tillage increases rooting depth and vigor.	No	Not Applicable	Not applicable.	No
Dike	CED-HE	356	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Diversion	CED-DE	362	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dry Hydrant	CED-HE	432	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Vegetation is installed and managed to control	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fence	ESD-Graz Land Sp	382	Control of animals and people influences vigor and	No	Neutral	Control of animals improves vigor and health of vegetation.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Fish and Wildlife - Inadequate Food (Effect)	Fish and Wildlife - Inadequate Food (Rationale)	Fish and Wildlife - Inadequate Food (Purpose)	Fish and Wildlife - Inadequate Cover/Shelter (Effect)	Fish and Wildlife - Inadequate Cover/Shelter (Rationale)	Fish and Wildlife - Inadequate Cover/Shelter (Purpose)	Fish and Wildlife - Inadequate Water (Effect)	Fish and Wildlife - Inadequate Water (Rationale)
Contour Farming	ESD-Agron	330	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cover Crop	ESD-Agron	340	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Not Applicable	Not applicable.
Critical Area Planting	ESD-Agron & CED-LA	342	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	No	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	No	Not Applicable	Not applicable.
Cross Wind Ridges	ESD-Agron	589A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Trap Strips	ESD-Agron	589C	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Not Applicable	Not applicable.
Dam	CED-DE	402	Slight to Moderate Improvement	Impounded water improves food availability for some	Yes	Slight to Substantial Improvement	Impounded water improves cover and shelter for some fish	Yes	Slight Improvement	Although water is impounded for lotic species, passage to
Dam, Diversion	CED-AE	348	Slight to Moderate Worsening	Reducing stream flows will decrease food supplies for	No	Slight to Substantial Worsening	Reducing stream flows will reduce habitat for aquatic	No	Slight to Moderate Worsening	Reducing stream flows will reduce habitat for aquatic
Deep Tillage	ESD-Agron	324	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dike	CED-HE	356	Slight to Substantial Worsening	Restricting floodplains eliminates refuge	Yes	Slight to Substantial Worsening	Restricting floodplains eliminates refuge	Yes	Slight Improvement	Dikes will retain water benefiting some species,
Diversion	CED-DE	362	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Moderate to Substantial Improvement	Improved plant diversity and quality and quantity of	Yes	Moderate to Substantial Improvement	Improved plant diversity and quality and quantity of	Yes	Not Applicable	Not applicable.
Fence	ESD-Graz Land Sp	382	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*	*Fish and Wildlife - Inadequate Space (Purpose)*	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
Contour Farming	ESD-Agron	330	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cover Crop	ESD-Agron	340	No	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	Yes	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	Yes	Slight to Moderate Improvement
Critical Area Planting	ESD-Agron & CED-LA	342	No	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	No	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	No	Slight Improvement
Cross Wind Ridges	ESD-Agron	589A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Cross Wind Trap Strips	ESD-Agron	589C	No	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	Yes	Slight to Moderate Improvement	Increased cover will increase space for wildlife. May be used	Yes	Not Applicable
Dam	CED-DE	402	Yes	Slight to Moderate Improvement	Ponds and adjacent areas provide additional space for	Yes	Moderate to Substantial Worsening	Aquatic and riparian habitats are fragmented.	No	Slight to Moderate Improvement
Dam, Diversion	CED-AE	348	No	Slight to Moderate Worsening	Reducing stream flows will reduce available habitat for	No	Slight to Moderate Worsening	Aquatic and riparian habitats are fragmented.	No	Slight to Moderate Worsening
Deep Tillage	ESD-Agron	324	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Dike	CED-HE	356	Yes	Slight Improvement	Dikes will retain water benefiting some species,	Yes	Slight Worsening	Aquatic habitats are fragmented.	No	Neutral
Diversion	CED-DE	362	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral
Dry Hydrant	CED-HE	432	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Early Successional Habitat Development/Mgt.	ESD-WBio	647	No	Moderate to Substantial Improvement	Additional early habitat/space is created.	Yes	Moderate to Substantial Improvement	Early habitat is designed to connect other habitats.	Yes	Moderate to Substantial Improvement
Fence	ESD-Graz Land Sp	382	No	Slight to Moderate Worsening	Fencing can decrease access to space needed by	No	Slight to Moderate Worsening	Fencing can decrease access to space and fragment	No	Neutral

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Imbalance Among and Within Populations (Rationale)*	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)*
Contour Farming	ESD-Agron	330	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Cover Crop	ESD-Agron	340	Habitat management is implemented to remove limiting	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Critical Area Planting	ESD-Agron & CED-LA	342	Habitat management is implemented to remove limiting	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Cross Wind Ridges	ESD-Agron	589A	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Cross Wind Trap Strips	ESD-Agron	589C	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Dam	CED-DE	402	Structures may fragment habitats and isolate	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Dam, Diversion	CED-AE	348	Aquatic and riparian habitats are fragmented or	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Deep Tillage	ESD-Agron	324	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Dike	CED-HE	356	Dikes will retain water benefiting some species,	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Diversion	CED-DE	362	Fish and wildlife habitat considerations are	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Dry Hydrant	CED-HE	432	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Habitat management is implemented to remove limiting	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes
Fence	ESD-Graz Land Sp	382	Fences built to specifications allow wildlife unrestricted	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No

Practice	Lead Discipline(s)	Practice Code	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)	Domestic Animals - Inadequate Shelter (Effect)	Domestic Animals - Inadequate Shelter (Rationale)	Domestic Animals - Inadequate Shelter (Purpose)	Domestic Animals - Inadequate Stock Water (Effect)	Domestic Animals - Inadequate Stock Water (Rationale)
Contour Farming	ESD-Agron	330	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cover Crop	ESD-Agron	340	Slight to Substantial Improvement	Cover crops will add supplemental forage.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Critical Area Planting	ESD-Agron & CED-LA	342	Slight Improvement	Established vegetation may add forage for domestic	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Ridges	ESD-Agron	589A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Cross Wind Trap Strips	ESD-Agron	589C	Slight Improvement	There may be some use of the planting for feed and forage	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dam	CED-DE	402	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Dams can also provide stock water.
Dam, Diversion	CED-AE	348	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Dams can also provide stock water.
Deep Tillage	ESD-Agron	324	Slight to Moderate Improvement	Forage production may be enhanced by increasing rooting	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dike	CED-HE	356	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Diversion	CED-DE	362	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Dry Hydrant	CED-HE	432	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Slight Improvement	Established vegetation may add forage for domestic	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fence	ESD-Graz Land Sp	382	Neutral	Control of animals influences vigor and health of vegetation.	No	Moderate to Substantial Improvement	Solid fences can provide protection from winds.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*	*Appropriate Land Use(s)*	*Baseline Setting*	
Contour Farming	**ESD-Agron**	**330**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop, Hay**		Farming operations are not on
Cover Crop	**ESD-Agron**	**340**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop, Forest, Grazed Forest, Grazed Range, Hay,**		Planning area requires
Critical Area Planting	**ESD-Agron & CED-LA**	**342**	**No**	**Not Applicable**	**Not applicable.**	**No**	**All Land Uses**		Planning area has a need for
Cross Wind Ridges	**ESD-Agron**	**589A**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop**		Cropland field is subject to
Cross Wind Trap Strips	**ESD-Agron**	**589C**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop**		Crop field is subject to wind
Dam	**CED-DE**	**402**	**No**	**Moderate to Substantial Improvement**	**Available water reduces stress and mortality.**	**No**	**All Land Uses**		
Dam, Diversion	**CED-AE**	**348**	**No**	**Not Applicable**	**Not applicable.**	**No**	**All Land Uses**		
Deep Tillage	**ESD-Agron**	**324**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Crop, Hay, Pasture**		
Dike	**CED-HE**	**356**	**No**	**Not Applicable**	**Not applicable.**	**No**	**All Land Uses**		
Diversion	**CED-DE**	**362**	**No**	**Not Applicable**	**Not applicable.**	**No**	**All Land Uses**		
Dry Hydrant	**CED-HE**	**432**	**No**	**Not Applicable**	**Not applicable.**	**No**	**All Land Uses**		
Early Successional Habitat Development/Mgt.	**ESD-WBio**	**647**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Forest, Grazed Forest, Grazed Range,**		
Fence	**ESD-Graz Land Sp**	**382**	**No**	**Moderate to Substantial Improvement**	**Control of animals promotes improved forage and reduces**	**No**	**All Land Uses**		

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Sheet and Rill (Effect)	Soil Erosion - Sheet and Rill (Rationale)	Soil Erosion - Sheet and Rill (Purpose)	Soil Erosion - Wind (Effect)	Soil Erosion - Wind (Rationale)	Soil Erosion - Wind (Purpose)	Soil Erosion - Ephemeral Gully (Effect)	Soil Erosion - Ephemeral Gully (Rationale)	Soil Erosion - Ephemeral Gully (Purpose)
Field Border	ESD-Agron	386	Moderate to Substantial Improvement	Permanent vegetation planted across the slope	Yes	Moderate to Substantial Improvement	Stiff-stemmed, permanent vegetation traps	Yes	Slight to Substantial Improvement	Vegetation across the slope reduces erosive energy of	Yes
Filter Strip	ESD-Agron & CED-EE	393	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Firebreak	ESD-For	394	Slight Worsening	A strip with bare soil or reduction in vegetative cover and	No	Slight Worsening	A strip with bare soil or reduction in vegetative cover and	No	Slight Worsening	A strip with bare soil or reduction in vegetative cover and	No
Fish Passage	ESD-AqEco	396	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	Slight to Substantial Improvement	Maintaining a vigorous vegetative cover will reduce	No	Slight to Substantial Improvement	Maintaining a vigorous vegetative cover will reduce soil	No	Slight to Moderate Improvement	Maintaining a vigorous vegetative cover will reduce soil	No
Forest Stand Improvement	ESD-For	666	Slight to Moderate Worsening	Removal of vegetation and ground disturbance	No	Neutral	Residual vegetation and debris maintain non-erosive	No	Slight to Moderate Worsening	Removal of vegetation and ground disturbance	No
Grade Stabilization Structure	CED-DE	410	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Grassed Waterway	ESD-Agron & CED-AE	412	Not Applicable	Not applicable.	No	Neutral	The unsheltered distance may be reduced by trapping	No	Substantial Improvement	Shaping or grading of the channel conveys runoff water	Yes
Herbaceous Wind Barriers	ESD-Agron	603	Slight Worsening	Runoff from snowmelt may increase the	No	Moderate to Substantial Improvement	Stiff stemmed herbaceous vegetation	Yes	Slight Worsening	Runoff from snowmelt may increase the	No
Irrigation Canal or Lateral	CED-DE	320	Neutral	A channel constructed across the slope may	No	Not Applicable	Not applicable.	No	Neutral	A channel constructed across the slope may	No
Irrigation Field Ditch	CED-WME	388	Neutral	A ditch constructed across the slope may intercept runoff	No	Not Applicable	Not applicable.	No	Neutral	A ditch constructed across the slope may intercept runoff	No
Irrigation Land Leveling	CED-WME	464	Slight Improvement	Reshaping the surface of the land provides the	No	Not Applicable	Not applicable.	No	Slight Improvement	Reshaping the surface of the land provides the	No

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Classic Gully (Effect)	Soil Erosion - Classic Gully (Rationale)	Soil Erosion - Classic Gully (Purpose)	Soil Erosion - Streambank (Effect)	Soil Erosion - Streambank (Rationale)	Soil Erosion - Streambank (Purpose)	Soil Erosion - Shoreline (Effect)	Soil Erosion - Shoreline (Rationale)
Field Border	ESD-Agron	386	Slight to Moderate Improvement	Permanent vegetation reduces runoff and erosive	Yes	Slight Improvement	Increased vegetation can reduce concentrated runoff	No	Slight Improvement	Increased vegetation can reduce concentrated runoff
Filter Strip	ESD-Agron & CED-EE	393	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Firebreak	ESD-For	394	Slight Worsening	A strip with bare soil or reduction in vegetative cover and	No	Neutral	A streambank may be used as an anchor or end point for a fire	No	Neutral	A shoreline may be used as an anchor or end point for a fire
Fish Passage	ESD-AqEco	396	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Removing obstructions to natural flows will	No	Slight to Substantial Improvement	If a dam is removed, shoreline erosion upstream of dam
Fishpond Management	ESD-AqEco	399	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forage Harvest Management	ESD- Graz Land Sp	511	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forest Stand Improvement	ESD-For	666	Slight to Substantial Improvement	Removal of overstory canopy increases amounts and vigor of	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Grade Stabilization Structure	CED-DE	410	Slight to Substantial Improvement	The action stabilizes channel to prevent further erosion.	Yes	Slight to Substantial Improvement	The action stabilizes channel to prevent further erosion	Yes	Not Applicable	Not applicable.
Grassed Waterway	ESD-Agron & CED-AE	412	Moderate to Substantial Improvement	Runoff is controlled and managed to prevent erosion.	Yes	Slight Improvement	Inflows into the stream are controlled to prevent erosion.	No	Slight Improvement	Inflows into the stream are controlled to prevent erosion.
Herbaceous Wind Barriers	ESD-Agron	603	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Canal or Lateral	CED-DE	320	Neutral	May prevent small amounts of erosion	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Field Ditch	CED-WME	388	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Land Leveling	CED-WME	464	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Shoreline (Purpose)*	*Soil Erosion – Irrigation-induced (Effect)*	*Soil Erosion – Irrigation-induced (Rationale)*	*Soil Erosion – Irrigation-induced (Purpose)*	*Soil Erosion - Mass Movement (Effect)*	*Soil Erosion - Mass Movement (Rationale)*	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*
Field Border	ESD-Agron	386	No	Neutral	Captures sediment in tailwater runoff but does not reduce	No	Slight Worsening	Increased infiltration and water retention increases the	No	Neutral
Filter Strip	ESD-Agron & CED-EE	393	No	Neutral	Captures sediment in tailwater runoff but does not reduce	No	Not Applicable	Not applicable.	No	Not Applicable
Firebreak	ESD-For	394	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral
Fish Passage	ESD-AqEco	396	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fishpond Management	ESD-AqEco	399	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Forage Harvest Management	ESD- Graz Land Sp	511	No	Slight Improvement	Improved protective vegetative cover	No	Not Applicable	Not applicable.	No	Not Applicable
Forest Stand Improvement	ESD-For	666	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Removal of some or all woody vegetation diminishes root	No	Not Applicable
Grade Stabilization Structure	CED-DE	410	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Grassed Waterway	ESD-Agron & CED-AE	412	No	Neutral	Captures sediment in tailwater runoff but does not reduce	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Herbaceous Wind Barriers	ESD-Agron	603	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Canal or Lateral	CED-DE	320	No	Not Applicable	Not applicable.	No	Slight Worsening	May provide a water source for infiltration that will create	No	Not Applicable
Irrigation Field Ditch	CED-WME	388	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Land Leveling	CED-WME	464	No	Slight to Substantial Improvement	Creates non-erosive field slopes.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*	*Soil Condition - Organic Matter Depletion (Effect)*	*Soil Condition - Organic Matter Depletion (Rationale)*	*Soil Condition - Organic Matter Depletion (Purpose)*	*Soil Condition - Rangeland Site Stability (Effect)*	*Soil Condition - Rangeland Site Stability (Rationale)*	*Soil Condition - Rangeland Site Stability (Purpose)*
Field Border	ESD-Agron	386	If field border also borders a road, permanent	No	Moderate to Substantial Improvement	Permanent cover and lack of soil disturbance reduces	No	Not Applicable	Not applicable.	No
Filter Strip	ESD-Agron & CED-EE	393	Not applicable.	No	Substantial Improvement	Decreased erosion, increased root mass and less oxidation	No	Not Applicable	Not applicable.	No
Firebreak	ESD-For	394	Roads and road sides maintained as fire breaks have	No	Moderate to Substantial Worsening	Nutrient cycling is halted on strips left unvegetated.	No	Neutral	To prevent the spread of wildfire and to control	No
Fish Passage	ESD-AqEco	396	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	Not applicable.	No	Slight Improvement	There will be an increase in vegetative cover and	Yes	Not Applicable	Not applicable.	No
Forest Stand Improvement	ESD-For	666	Not applicable.	No	Slight to Moderate Worsening	Removal of woody vegetation from a site removes organic	No	Not Applicable	Not applicable.	No
Grade Stabilization Structure	CED-DE	410	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Grassed Waterway	ESD-Agron & CED-AE	412	Erosion on construction sites and road side	Yes	Moderate Improvement	Permanent vegetation in the area of the waterway	No	Not Applicable	Not applicable.	No
Herbaceous Wind Barriers	ESD-Agron	603	Not applicable.	No	Slight to Moderate Improvement	Organic matter loss by wind erosion is reduced.	No	Not Applicable	Not applicable.	No
Irrigation Canal or Lateral	CED-DE	320	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Field Ditch	CED-WME	388	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Land Leveling	CED-WME	464	Not applicable.	No	Slight to Moderate Worsening	The process of cuts and fills alters the soil profile.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition - Compaction (Effect)	Soil Condition - Compaction (Rationale)	Soil Condition - Compaction (Purpose)	Soil Condition - Subsidence (Effect)	Soil Condition - Subsidence (Rationale)	Soil Condition - Subsidence (Purpose)	Soil Condition - Contaminants - Salts and Other Chemicals (Effect)	Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)
Field Border	ESD-Agron	386	Slight to Substantial Improvement	Root penetration and organic matter helps restore soil	No	Neutral	Drainage has the predominant impact on subsidence.	No	Slight Improvement	Selected plants can take up excess salts.
Filter Strip	ESD-Agron & CED-EE	393	Substantial Improvement	Root penetration and organic matter helps restore soil	No	Neutral	Drainage has the predominant impact on subsidence.	No	Slight Improvement	Selected plants can take up excess salts.
Firebreak	ESD-For	394	Slight to Moderate Worsening	Equipment used to maintain minimum vegetation can	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fish Passage	ESD-AqEco	396	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fishpond Management	ESD-AqEco	399	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forage Harvest Management	ESD- Graz Land Sp	511	Moderate to Substantial Improvement	There will be improved root development, litter	No	Not Applicable	Not applicable.	No	Slight Improvement	Infiltration and plant uptake will increase due to improved
Forest Stand Improvement	ESD-For	666	Slight to Moderate Worsening	Equipment used to harvest or remove forest products can	No	Not Applicable	Not applicable.	No	Neutral	Forest products that have assimilated salts/chemicals are
Grade Stabilization Structure	CED-DE	410	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Grassed Waterway	ESD-Agron & CED-AE	412	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening	Vegetation traps contaminated sediment.
Herbaceous Wind Barriers	ESD-Agron	603	Neutral	Establishment of barriers has no more effect on compaction	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Canal or Lateral	CED-DE	320	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Field Ditch	CED-WME	388	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Land Leveling	CED-WME	464	Slight to Moderate Worsening	Equipment used for cuts and fills will cause compaction,	No	Not Applicable	Not applicable.	No	Slight Worsening	Cuts may alter the soil profile moving salts into the root

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*
Field Border	ESD-Agron	386	No	Slight to Moderate Improvement	Growing vegetation will take up N from organics, especially	No	Slight to Moderate Improvement	Growing vegetation will take up P from organics, especially	No	Slight to Moderate Improvement
Filter Strip	ESD-Agron & CED-EE	393	No	Slight to Moderate Improvement	Growing vegetation will take up N from organics, especially	No	Slight to Moderate Improvement	Growing vegetation will take up P from organics, especially	No	Slight to Moderate Improvement
Firebreak	ESD-For	394	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fish Passage	ESD-AqEco	396	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fishpond Management	ESD-AqEco	399	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Forage Harvest Management	ESD- Graz Land Sp	511	No	Slight to Moderate Improvement	There will be a greater use of N by more vigorous	Yes	Slight to Moderate Improvement	There will be a greater use of P by more vigorous	Yes	Slight to Moderate Improvement
Forest Stand Improvement	ESD-For	666	No	Slight to Moderate Improvement	Forest products that have assimilated N from waste/organic	No	Slight to Moderate Improvement	Forest products that have assimilated P from waste/organic	No	Slight to Moderate Improvement
Grade Stabilization Structure	CED-DE	410	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Grassed Waterway	ESD-Agron & CED-AE	412	No	Slight Worsening	Vegetation traps N and N-contaminated sediment, vegetation	No	Slight Worsening	Vegetation traps P and P-contaminated sediment, vegetation	No	Slight Worsening
Herbaceous Wind Barriers	ESD-Agron	603	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Canal or Lateral	CED-DE	320	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Field Ditch	CED-WME	388	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Land Leveling	CED-WME	464	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Field Border	ESD-Agron	386	Growing vegetation will take up K from organics, especially	No	Slight to Moderate Improvement	Growing vegetation will take up N from organics, especially	No	Slight to Moderate Improvement	Growing vegetation will take up P from organics, especially	No
Filter Strip	ESD-Agron & CED-EE	393	Growing vegetation will take up K from organics, especially	No	Slight to Moderate Improvement	Growing vegetation will take up N from organics, especially	Yes	Slight to Moderate Improvement	Growing vegetation will take up P from organics, especially	No
Firebreak	ESD-For	394	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fish Passage	ESD-AqEco	396	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	There will be a greater use of K by more vigorous	Yes	Slight to Moderate Improvement	There will be a greater use of N by more vigorous	Yes	Slight to Moderate Improvement	There will be a greater use of P by more vigorous	Yes
Forest Stand Improvement	ESD-For	666	Forest products that have assimilated K from waste/organic	No	Slight to Moderate Improvement	Forest products that have assimilated N from waste/organic	No	Slight to Moderate Improvement	Forest products that have assimilated P from waste/organic	No
Grade Stabilization Structure	CED-DE	410	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Grassed Waterway	ESD-Agron & CED-AE	412	Vegetation traps K and K-contaminated sediment, vegetation	No	Slight Worsening	Vegetation traps N and N-contaminated sediment, vegetation	No	Slight Worsening	Vegetation traps P and P-contaminated sediment, vegetation	No
Herbaceous Wind Barriers	ESD-Agron	603	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Canal or Lateral	CED-DE	320	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Field Ditch	CED-WME	388	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Land Leveling	CED-WME	464	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)	Soil Condition - Contaminants - Residual Pesticides (Effect)	Soil Condition - Contaminants - Residual Pesticides (Rationale)	Soil Condition - Contaminants - Residual Pesticides (Purpose)	Soil Condition - Damage from Sediment Deposition (Effect)	Soil Condition - Damage from Sediment Deposition (Rationale)
Field Border	ESD-Agron	386	Slight to Moderate Improvement	Growing vegetation will take up K from organics, especially	No	Slight to Moderate Improvement	Increased organic matter adsorbs pesticides and	No	Slight to Moderate Improvement	Permanent cover decreases erosion, but vegetation and
Filter Strip	ESD-Agron & CED-EE	393	Slight to Moderate Improvement	Growing vegetation will take up K from organics, especially	No	Slight to Moderate Improvement	Increased organic matter adsorbs pesticides and	Yes	Slight to Moderate Worsening	Vegetation and surface litter traps sediment.
Firebreak	ESD-For	394	Not Applicable	Not applicable.	No	Slight Worsening	If chemical methods are used to apply the practice, pesticide	No	Neutral	Bare soil needs to be protected from erosion.
Fish Passage	ESD-AqEco	396	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fishpond Management	ESD-AqEco	399	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forage Harvest Management	ESD- Graz Land Sp	511	Slight to Moderate Improvement	There will be a greater use of K by more vigorous	Yes	Slight to Substantial Improvement	Improved vegetative cover and vigor of desired plants that	Yes	Slight Improvement	Increased vegetative cover will reduce runoff and sediment
Forest Stand Improvement	ESD-For	666	Slight to Moderate Improvement	Forest products that have assimilated K from waste/organic	No	Not Applicable	Not applicable.	No	Neutral	Removal of woody material in flood plains could increase
Grade Stabilization Structure	CED-DE	410	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Stabilizing the channel can help sediment transport
Grassed Waterway	ESD-Agron & CED-AE	412	Slight Worsening	Vegetation traps K and K-contaminated sediment, vegetation	No	Slight Worsening	Vegetation traps contaminated sediment.	No	Moderate Worsening	Vegetation traps soil particles.
Herbaceous Wind Barriers	ESD-Agron	603	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action reduces soil erosion from wind and the
Irrigation Canal or Lateral	CED-DE	320	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Canals intercept runoff that might otherwise cause
Irrigation Field Ditch	CED-WME	388	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Ditch intercepts runoff that might otherwise cause
Irrigation Land Leveling	CED-WME	464	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	The action redistributes sediment on the

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*	*Water Quantity - Rangeland Hydrologic Cycle (Rationale)*	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)*
Field Border	ESD-Agron	386	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Reduces runoff and traps drifting snow resulting in	No	Slight to Moderate Improvement
Filter Strip	ESD-Agron & CED-EE	393	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral
Firebreak	ESD-For	394	No	Neutral	Bare soil needs to be protected from erosion.	No	Not Applicable	Not applicable.	No	Not Applicable
Fish Passage	ESD-AqEco	396	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Worsening
Fishpond Management	ESD-AqEco	399	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Forage Harvest Management	ESD- Graz Land Sp	511	No	Not Applicable	Not Applicable	No	Slight to Moderate Improvement	There is potential for a decrease in seep flow because of	No	Slight to Moderate Improvement
Forest Stand Improvement	ESD-For	666	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Fewer tall trees results in less water consumed.	No	Slight to Substantial Improvement
Grade Stabilization Structure	CED-DE	410	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Grassed Waterway	ESD-Agron & CED-AE	412	No	Not Applicable	Not applicable.	No	Neutral	Provide outlet for seeps.	No	Moderate Improvement
Herbaceous Wind Barriers	ESD-Agron	603	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Canal or Lateral	CED-DE	320	No	Not Applicable	Not applicable.	No	Neutral	Canal may provide outlet for seepage, however canals may	No	Slight to Substantial Improvement
Irrigation Field Ditch	CED-WME	388	No	Not Applicable	Not applicable.	No	Neutral	May provide outlet for seepage, however canals may provide a	No	Slight Improvement
Irrigation Land Leveling	CED-WME	464	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)*	*Water Quantity - Excessive Subsurface Water (Effect)*	*Water Quantity - Excessive Subsurface Water (Rationale)*	*Water Quantity - Excessive Subsurface Water (Purpose)*	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*
Field Border	ESD-Agron	386	Permanent vegetation will reduce runoff and	No	Slight Worsening	Reduces runoff resulting in increased water	No	Not Applicable	Not applicable.	No
Filter Strip	ESD-Agron & CED-EE	393	Buffers slow runoff, potentially increasing ponding..	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Firebreak	ESD-For	394	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fish Passage	ESD-AqEco	396	If action to provide fish passage is removal of a dike or	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	Runoff will be reduced and infiltration increased.	No	Slight Improvement	There will be an increase in plant uptake.	No	Not Applicable	Not applicable.	No
Forest Stand Improvement	ESD-For	666	Removal of woody materials from flood or ponding-prone	No	Slight to Moderate Worsening	Removal of deep rooted vegetation can raise the water	No	Not Applicable	Not applicable.	No
Grade Stabilization Structure	CED-DE	410	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Grassed Waterway	ESD-Agron & CED-AE	412	Waterways provide outlets for diversions and other water	Yes	Slight to Moderate Improvement	Subsurface drainage installed as part of this practice	No	Not Applicable	Not applicable.	No
Herbaceous Wind Barriers	ESD-Agron	603	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Tall herbaceous vegetation will trap snow upwind of	No
Irrigation Canal or Lateral	CED-DE	320	The canal may intercept runoff and act as floodways.	No	Slight to Moderate Worsening	May provide a water source for infiltration that will add to	No	Not Applicable	Not applicable.	No
Irrigation Field Ditch	CED-WME	388	May collect and conveys runoff to safe outlet.	No	Slight Worsening	May provide a water source for infiltration that will add to	No	Not Applicable	Not applicable.	No
Irrigation Land Leveling	CED-WME	464	Uniform slopes reduce ponding. May increase runoff.	No	Slight to Moderate Improvement	Because of more uniform infiltration and less ponding	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quantity - Inadequate Outlets (Effect)	Water Quantity - Inadequate Outlets (Rationale)	Water Quantity - Inadequate Outlets (Purpose)	Water Quantity - Inefficient Water Use on Irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)	Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)
Field Border	ESD-Agron	386	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Filter Strip	ESD-Agron & CED-EE	393	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Firebreak	ESD-For	394	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fish Passage	ESD-AqEco	396	Slight Improvement	Installing larger outlets for fish passage will also	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fishpond Management	ESD-AqEco	399	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forage Harvest Management	ESD- Graz Land Sp	511	Slight Improvement	Improved plant cover decreasing runoff.	No	Slight Improvement	Improved forage management improves water use	No	Slight Improvement	Improved forage management improves water use
Forest Stand Improvement	ESD-For	666	Slight Worsening	Fewer trees results in less water consumed therefore	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Undesired vegetation is removed which reallocates water to
Grade Stabilization Structure	CED-DE	410	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Grassed Waterway	ESD-Agron & CED-AE	412	Moderate to Substantial Improvement	Waterways provide adequate outlets.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Herbaceous Wind Barriers	ESD-Agron	603	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate Improvement	Trapped snow can provide additional plant available
Irrigation Canal or Lateral	CED-DE	320	Slight Improvement	Canals provide outlets for runoff, however canals can	No	Substantial Improvement	Canals transport water to areas of irrigation use.	Yes	Not Applicable	Not applicable.
Irrigation Field Ditch	CED-WME	388	Slight Worsening	Return flows and spillage may add runoff to already	No	Substantial Improvement	Ditches facilitate proper use of irrigation water.	Yes	Not Applicable	Not applicable.
Irrigation Land Leveling	CED-WME	464	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Leveling facilitates more uniform application of	Yes	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
Field Border	**ESD-Agron**	**386**	**No**	**Slight to Moderate Improvement**	**Traps sediment at edge of the field.**	**Yes**	**Slight to Moderate Improvement**	**Traps sediment at edge of the field.**	**Yes**	**Not Applicable**
Filter Strip	**ESD-Agron & CED-EE**	**393**	**No**	**Substantial Improvement**	**Collects sediment preventing it from being deposited**	**Yes**	**Substantial Improvement**	**Collects sediment preventing it from being deposited**	**Yes**	**Not Applicable**
Firebreak	**ESD-For**	**394**	**No**	**Slight Worsening**	**Bare soil in firebreak is subject to erosion.**	**No**	**Slight Worsening**	**Bare soil in firebreak is subject to erosion.**	**No**	**Not Applicable**
Fish Passage	**ESD-AqEco**	**396**	**No**	**Slight to Moderate Improvement**	**Removing barriers will increase sediment transport**	**No**	**Moderate to Substantial Worsening**	**If a dam is removed for fish passage, water storage will be**	**No**	**Not Applicable**
Fishpond Management	**ESD-AqEco**	**399**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Forage Harvest Management	**ESD- Graz Land Sp**	**511**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**Slight improvement because of decreased sediment**	**No**	**Slight Improvement**
Forest Stand Improvement	**ESD-For**	**666**	**Yes**	**Slight Improvement**	**Removal of overstory canopy increases amounts and vigor of**	**No**	**Slight Improvement**	**Removal of overstory canopy increases amounts and vigor of**	**No**	**Slight Improvement**
Grade Stabilization Structure	**CED-DE**	**410**	**No**	**Slight Improvement**	**Stabilizing the channel can help reduce sediment**	**No**	**Slight Improvement**	**Stabilizing the channel can help reduce sediment**	**No**	**Not Applicable**
Grassed Waterway	**ESD-Agron & CED-AE**	**412**	**No**	**Slight to Moderate Improvement**	**Reduces erosion that results in sediment deposition in**	**Yes**	**Slight to Moderate Improvement**	**Reduces erosion that results in sediment deposition in**	**Yes**	**Not Applicable**
Herbaceous Wind Barriers	**ESD-Agron**	**603**	**Yes**	**Slight to Moderate Improvement**	**Reduced wind blown sediment.**	**No**	**Slight Improvement**	**Reduced wind blown sediment.**	**No**	**Not Applicable**
Irrigation Canal or Lateral	**CED-DE**	**320**	**No**	**Slight Worsening**	**May convey additional sediment laden water to**	**No**	**Slight Worsening**	**May convey additional sediment laden water to**	**No**	**Slight to Moderate Improvement**
Irrigation Field Ditch	**CED-WME**	**388**	**No**	**Slight Worsening**	**Return flows may convey sediment causing additional**	**No**	**Slight Worsening**	**Return flows may convey sediment causing additional**	**No**	**Not Applicable**
Irrigation Land Leveling	**CED-WME**	**464**	**No**	**Slight Improvement**	**Decrease in runoff because of slope change and uniform**	**No**	**Slight Improvement**	**Decrease in runoff because of slope change and uniform**	**No**	**Slight Improvement**

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Aquifer Overdraft (Rationale)*	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)*
Field Border	ESD-Agron	386	Not applicable.	No	Slight Worsening	Permanent vegetation uses available water and	No	Slight to Moderate Improvement	The action may attract beneficial insects or trap insect	Yes
Filter Strip	ESD-Agron & CED-EE	393	Not applicable.	No	Slight Worsening	Permanent vegetation uses available water and	No	Slight Improvement	The action may attract beneficial insects or trap insect	No
Firebreak	ESD-For	394	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fish Passage	ESD-AqEco	396	Not applicable.	No	Slight to Substantial Improvement	Assuring sufficient instream flows for fish passage will	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Not applicable.	No	Slight to Moderate Improvement	Generally ponds improve hydrology and water retention	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	Improved vigor of plant community increases infiltration	No	Slight Improvement	Forage Management will increase cover and improve	No	Slight to Moderate Improvement	Managing for desirable plant health and vigor	No
Forest Stand Improvement	ESD-For	666	Removal of some or all deep-rooted vegetation consumes	No	Slight to Substantial Improvement	Undesired vegetation is removed which provides additional	Yes	Slight to Moderate Improvement	Managing for desirable plant health and vigor	No
Grade Stabilization Structure	CED-DE	410	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Grassed Waterway	ESD-Agron & CED-AE	412	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	The action increases infiltration which is offset by increased	No
Herbaceous Wind Barriers	ESD-Agron	603	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Canal or Lateral	CED-DE	320	May provide a water source for aquifer recharge.	No	Slight to Substantial Worsening	Canals transport water diverted from water courses.	No	Not Applicable	Not applicable.	No
Irrigation Field Ditch	CED-WME	388	Not applicable.	No	Slight Improvement	Return flows can add additional flow to water courses.	No	Not Applicable	Not applicable.	No
Irrigation Land Leveling	CED-WME	464	More efficient application require less aquifer	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	A uniform surface reduces deep percolation.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)	Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)	Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)	Water Quality - Excessive Salinity in Groundwater (Effect)	Water Quality - Excessive Salinity in Groundwater (Rationale)	Water Quality - Excessive Salinity in Groundwater (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)
Field Border	ESD-Agron	386	Slight to Moderate Improvement	Permanent vegetation will take up available	Yes	Slight Improvement	The action will result in increased uptake by plants.	No	Slight Improvement	Higher organic matter levels increases buffering
Filter Strip	ESD-Agron & CED-EE	393	Slight to Substantial Improvement	Permanent vegetation will take up available	Yes	Slight Improvement	The action will result in increased uptake by plants.	No	Slight Improvement	Higher organic matter levels increases buffering
Firebreak	ESD-For	394	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fish Passage	ESD-AqEco	396	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fishpond Management	ESD-AqEco	399	Slight to Moderate Worsening	The action discharges wastewater which	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forage Harvest Management	ESD- Graz Land Sp	511	Slight to Moderate Improvement	The action improves plant vigor and increases nutrient	Yes	Slight Improvement	Improved management and plant health and	No	Slight Improvement	Improved management and plant health and
Forest Stand Improvement	ESD-For	666	Slight to Substantial Improvement	Forest products that have assimilated nutrients/organics	No	Neutral	Forest products that are storing salts in their biomass may be	No	Slight Improvement	Removal of overstory canopy increases vigor of ground
Grade Stabilization Structure	CED-DE	410	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Grassed Waterway	ESD-Agron & CED-AE	412	Neutral	The action may slightly increases infiltration within the	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Herbaceous Wind Barriers	ESD-Agron	603	Neutral	The action, when designed to manage snow, could increase	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Canal or Lateral	CED-DE	320	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Field Ditch	CED-WME	388	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Land Leveling	CED-WME	464	Slight to Moderate Improvement	The action smoothes the surface which reduces ponding and	No	Slight to Moderate Improvement	Uniform surface eliminates ponding and associated	No	Slight Improvement	The uniform surface grade reduces ponding and

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)*
Field Border	ESD-Agron	386	No	Neutral	Permanent vegetation increases soil organic matter	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Filter Strip	ESD-Agron & CED-EE	393	Yes	Slight Improvement	The action captures and delays pathogen movement, but	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Firebreak	ESD-For	394	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fish Passage	ESD-AqEco	396	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fishpond Management	ESD-AqEco	399	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Forage Harvest Management	ESD- Graz Land Sp	511	No	Slight Improvement	Improved management, plant health and vigor	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Forest Stand Improvement	ESD-For	666	No	Slight Improvement	Removal of canopy/woody vegetation exposes	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Grade Stabilization Structure	CED-DE	410	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Grassed Waterway	ESD-Agron & CED-AE	412	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Herbaceous Wind Barriers	ESD-Agron	603	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Irrigation Canal or Lateral	CED-DE	320	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Field Ditch	CED-WME	388	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Land Leveling	CED-WME	464	No	Slight to Moderate Improvement	The uniform surface grade reduces ponding and	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*
Field Border	ESD-Agron	386	The action reduces runoff and erosion. Also, the borders	Yes	Slight to Moderate Improvement	Permanent vegetation will take up available	Yes	Slight to Moderate Improvement	Vegetation protects soil surface and traps sediment.	Yes
Filter Strip	ESD-Agron & CED-EE	393	The action reduces runoff and traps adsorbed pesticides.	Yes	Substantial Improvement	Solid organics and sediment-attached nutrients are filtered	Yes	Substantial Improvement	Vegetation protects soil surface and traps sediment,	Yes
Firebreak	ESD-For	394	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening	Bare soil firebreaks are subject to erosion.	No
Fish Passage	ESD-AqEco	396	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	Managing for desirable plant health and vigor	No	Slight to Moderate Improvement	Improved management and plant health and	Yes	Slight to Moderate Improvement	Vegetation is managed to maintain health and vigor of	No
Forest Stand Improvement	ESD-For	666	Managing for desirable plant health and vigor	No	Slight to Substantial Improvement	Removal of overstory canopy increases amounts and vigor of	No	Neutral	Proper stocking rates of desired vegetation will	No
Grade Stabilization Structure	CED-DE	410	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Channel is stabilized and protected from excessive erosion.	No
Grassed Waterway	ESD-Agron & CED-AE	412	The action increases infiltration and traps adsorbed pesticides.	Yes	Slight to Moderate Improvement	The vegetation in the channel will filter out some sediments, and	Yes	Slight to Moderate Improvement	Erosion is controlled, vegetation traps sediment, and runoff	Yes
Herbaceous Wind Barriers	ESD-Agron	603	The action reduces soil erosion from wind. Also, the	No	Slight Improvement	The action reduces soil erosion from wind and the	No	Slight Improvement	Vegetation reduces soil erosion from wind and the	No
Irrigation Canal or Lateral	CED-DE	320	Not applicable.	No	Slight to Moderate Worsening	Return flows from canals may deliver dissolved and	No	Not Applicable	Not applicable.	No
Irrigation Field Ditch	CED-WME	388	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Land Leveling	CED-WME	464	A uniform surface reduces the amount of runoff.	No	Slight to Moderate Improvement	The uniform surface that results from this practice increases	No	Slight Improvement	Land surface is formed to a non-erosive grade.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Salinity in Surface Water (Effect)	Water Quality - Excessive Salinity in Surface Water (Rationale)	Water Quality - Excessive Salinity in Surface Water (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)	Water Quality - Harmful Temperatures of Surface Water (Effect)	Water Quality - Harmful Temperatures of Surface Water (Rationale)
Field Border	ESD-Agron	386	Not Applicable	Not applicable.	No	Slight Improvement	Decreased erosion and runoff reduces heavy metal delivery	No	Not Applicable	Not applicable.
Filter Strip	ESD-Agron & CED-EE	393	Slight Improvement	The action slows runoff, which may increase water	No	Moderate to Substantial Improvement	Runoff containing heavy metals is slowed, trapping	Yes	Neutral	Filter strips used in conjunction with riparian forest
Firebreak	ESD-For	394	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fish Passage	ESD-AqEco	396	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Excessive water temperatures are an ecological barrier to
Fishpond Management	ESD-AqEco	399	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Water released from impoundments may be warmer or cooler
Forage Harvest Management	ESD- Graz Land Sp	511	Slight Improvement	Dense plant cover will improve infiltration and	No	Slight Improvement	Improved plant density, health and vigor will marginally	No	Not Applicable	Not applicable.
Forest Stand Improvement	ESD-For	666	Slight Improvement	Removal of overstory canopy can increase the amount and vigor	No	Slight Improvement	Removal of overstory canopy increases vigor of ground	No	Slight Worsening	Removal of overstory canopy removes shade that
Grade Stabilization Structure	CED-DE	410	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Stabilizing grade diminishes hyporheic (subsurface) flow.
Grassed Waterway	ESD-Agron & CED-AE	412	Neutral	The action results in slight increase of infiltration that could	No	Slight Improvement	Waterway acts as filter and reduces heavy metals in the	No	Neutral	Water is not retained in the waterway
Herbaceous Wind Barriers	ESD-Agron	603	Slight Improvement	The action can reduce the transport of wind-borne saline	No	Slight Improvement	Reduced wind erosion reduces transport of metals	No	Not Applicable	Not applicable.
Irrigation Canal or Lateral	CED-DE	320	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Return flows from canals may deliver contaminates to	No	Slight Worsening	Return flows to canals may be warmer than
Irrigation Field Ditch	CED-WME	388	Not Applicable	Not applicable.	No	Slight Worsening	Return flows from canals may deliver contaminates to	No	Slight Worsening	Return flows to ditches may be warmer than
Irrigation Land Leveling	CED-WME	464	Neutral	The action allows more efficient use of irrigation water, but	No	Slight Improvement	Uniform surface reduces transport to surface water.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Temperatures of Surface Water (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*
Field Border	ESD-Agron	386	No	Slight Improvement	Less erosion and runoff reduces delivery of	No	Slight Improvement	Increased microbial activity in the planted area breaks down	No	Slight Improvement
Filter Strip	ESD-Agron & CED-EE	393	No	Slight Improvement	Filter strips capture and delay pathogen movement, but	Yes	Slight Improvement	Filter strip slows runoff and increases infiltration of	Yes	Slight Improvement
Firebreak	ESD-For	394	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fish Passage	ESD-AqEco	396	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fishpond Management	ESD-AqEco	399	No	Neutral	Non-commercial fishpond should not likely harbor	No	Not Applicable	Not applicable.	No	Not Applicable
Forage Harvest Management	ESD- Graz Land Sp	511	No	Slight Improvement	Management improves vegetative cover, decrease	Yes	Neutral	Negligible amounts of petroleum products may be	No	Not Applicable
Forest Stand Improvement	ESD-For	666	No	Slight to Substantial Improvement	Removal of canopy/woody vegetation exposes	No	Slight Improvement	Removal of canopy/woody vegetation exposes	No	Not Applicable
Grade Stabilization Structure	CED-DE	410	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Grassed Waterway	ESD-Agron & CED-AE	412	No	Slight Improvement	Waterway acts as filter and reduces pathogens in the	Yes	Slight Improvement	Waterway acts as filter and reduces petroleum in the	Yes	Not Applicable
Herbaceous Wind Barriers	ESD-Agron	603	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Irrigation Canal or Lateral	CED-DE	320	No	Slight to Moderate Worsening	Return flows from canals may deliver possible	No	Slight to Moderate Worsening	Return flows from canals may deliver possible	No	Not Applicable
Irrigation Field Ditch	CED-WME	388	No	Slight Worsening	May collect runoff and return flows may deliver possible	No	Slight Worsening	May collect runoff and return flows may deliver possible	No	Not Applicable
Irrigation Land Leveling	CED-WME	464	No	Slight to Moderate Improvement	Uniform surface reduces tranport to surface water	No	Slight Improvement	Uniform surface reduces tranport to surface water	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)*	*Air Quality - Excessive Ozone (Effect)*	*Air Quality - Excessive Ozone (Rationale)*	*Air Quality - Excessive Ozone (Purpose)*
Field Border	ESD-Agron	386	Permanent vegetation around the field edge	No	Slight Improvement	Permanent vegetation around the field edge	No	Neutral	There is a minimal reduction of ozone precursors through	No
Filter Strip	ESD-Agron & CED-EE	393	Areas converted to permanent vegetation reduce	No	Slight Improvement	Areas converted to permanent vegetation reduce	No	Neutral	There is a minimal reduction of ozone precursors through	No
Firebreak	ESD-For	394	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	There is a minimal reduction of ozone precursors through	No
Fish Passage	ESD-AqEco	396	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forest Stand Improvement	ESD-For	666	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	There is a short-term increase in vehicle emissions and ozone	No
Grade Stabilization Structure	CED-DE	410	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Grassed Waterway	ESD-Agron & CED-AE	412	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	There is a minimal reduction of ozone precursors through	No
Herbaceous Wind Barriers	ESD-Agron	603	Properly spaced barriers can effectively reduce	Yes	Slight to Moderate Improvement	Properly spaced barriers can effectively reduce	Yes	Neutral	There is a minimal reduction of ozone precursors through	No
Irrigation Canal or Lateral	CED-DE	320	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Field Ditch	CED-WME	388	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Land Leveling	CED-WME	464	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)	Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)	Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)	Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)	Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)	Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)	Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)	Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)
Field Border	ESD-Agron	386	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Filter Strip	ESD-Agron & CED-EE	393	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Firebreak	ESD-For	394	Moderate to Substantial Improvement	There is a decrease in CO2 emissions from reduced	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fish Passage	ESD-AqEco	396	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fishpond Management	ESD-AqEco	399	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forage Harvest Management	ESD- Graz Land Sp	511	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forest Stand Improvement	ESD-For	666	Moderate to Substantial Improvement	Health and vigor of remaining plants have increased	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Grade Stabilization Structure	CED-DE	410	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Grassed Waterway	ESD-Agron & CED-AE	412	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Herbaceous Wind Barriers	ESD-Agron	603	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Canal or Lateral	CED-DE	320	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Field Ditch	CED-WME	388	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Land Leveling	CED-WME	464	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*	*Air Quality - NH3 - Ammonia (Effect)*	*Air Quality - NH3 - Ammonia (Rationale)*	*Air Quality - NH3 - Ammonia (Purpose)*	*Air Quality - Chemical Drift (Effect)*	*Air Quality - Chemical Drift (Rationale)*	*Air Quality - Chemical Drift (Purpose)*	*Air Quality - Objectionable Odors (Effect)*
Field Border	ESD-Agron	386	No	Slight to Moderate Improvement	Interception of NH3 by plants	Yes	Not Applicable	Not applicable.	No	Not Applicable
Filter Strip	ESD-Agron & CED-EE	393	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Firebreak	ESD-For	394	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fish Passage	ESD-AqEco	396	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Fishpond Management	ESD-AqEco	399	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral
Forage Harvest Management	ESD- Graz Land Sp	511	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Forest Stand Improvement	ESD-For	666	No	Not Applicable	Not applicable.	No	Slight Worsening	Reduction in canopy allows less opportunity for drift	No	Not Applicable
Grade Stabilization Structure	CED-DE	410	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Grassed Waterway	ESD-Agron & CED-AE	412	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Herbaceous Wind Barriers	ESD-Agron	603	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Tall vegetation will intercept chemical drift	Yes	Not Applicable
Irrigation Canal or Lateral	CED-DE	320	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Field Ditch	CED-WME	388	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Land Leveling	CED-WME	464	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*	*Air Quality - Reduced Visibility (Rationale)*	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Field Border	ESD-Agron	386	Not applicable.	No	Slight to Moderate Improvement	Tall vegetation slows surface air movement and	Yes	Slight Improvement	Tall shrubs create turbulence and slows undesired, leeward	No
Filter Strip	ESD-Agron & CED-EE	393	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Firebreak	ESD-For	394	Not applicable.	No	Slight to Moderate Improvement	Reduces smoke emissions from reducing fire activity.	No	Not Applicable	Not applicable.	No
Fish Passage	ESD-AqEco	396	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Proper management and attention to water quality will	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forest Stand Improvement	ESD-For	666	Not applicable.	No	Slight Worsening	Reduction in canopy allows less opportunity for	No	Slight Worsening	Reduction in canopy increases wind speeds.	No
Grade Stabilization Structure	CED-DE	410	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Grassed Waterway	ESD-Agron & CED-AE	412	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Herbaceous Wind Barriers	ESD-Agron	603	Not applicable.	No	Slight to Moderate Improvement	May remove dust or airborne particles	Yes	Substantial Improvement	Tall vegetation creates turbulence and slows undesired,	Yes
Irrigation Canal or Lateral	CED-DE	320	Not applicable.	No	Slight Improvement	Increased soil moisture will decrease fugitive	No	Not Applicable	Not applicable.	No
Irrigation Field Ditch	CED-WME	388	Not applicable.	No	Slight Improvement	Increased soil moisture will decrease fugitive	No	Not Applicable	Not applicable.	No
Irrigation Land Leveling	CED-WME	464	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Adverse Air Temperature (Effect)	Air Quality - Adverse Air Temperature (Rationale)	Air Quality - Adverse Air Temperature (Purpose)	Plants not adapted or suited (Effect)	Plants not adapted or suited (Rationale)	Plants not adapted or suited (Purpose)	Plant Condition - Productivity, Health and Vigor (Effect)	Plant Condition - Productivity, Health and Vigor (Rationale)
Field Border	ESD-Agron	386	Slight to Moderate Improvement	Tall vegetation provides shade and moderates	Yes	Substantial Improvement	Plants selected are adapted and suited.	Yes	Substantial Improvement	Plants are selected and managed to maintain optimal
Filter Strip	ESD-Agron & CED-EE	393	Not Applicable	Not applicable.	No	Substantial Improvement	Plants selected are adapted and suited.	Yes	Substantial Improvement	Plants are selected and managed to maintain optimal
Firebreak	ESD-For	394	Not Applicable	Not applicable.	No	Substantial Improvement	Plants selected are adapted and suited.	Yes	Slight to Substantial Improvement	Plants are selected and managed to maintain health and
Fish Passage	ESD-AqEco	396	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fishpond Management	ESD-AqEco	399	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Unsuitable aquatic plants are controlled.	Yes	Moderate to Substantial Improvement	Unsuitable aquatic plants are managed to maintain habitat
Forage Harvest Management	ESD- Graz Land Sp	511	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Plants are managed to optimize the composition of	Yes	Moderate to Substantial Improvement	Plants are managed to maintain optimal productivity and
Forest Stand Improvement	ESD-For	666	Slight to Moderate Worsening	Removal of tall vegetation eliminates shade and increases	No	Moderate to Substantial Improvement	Plants selected for retention are more adapted and suited.	Yes	Substantial Improvement	Most productive, healthy and vigorous plants are retained.
Grade Stabilization Structure	CED-DE	410	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Grassed Waterway	ESD-Agron & CED-AE	412	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Plants selected for retention are more adapted and suited.	Yes	Substantial Improvement	Vegetation is maintained at optimal conditions
Herbaceous Wind Barriers	ESD-Agron	603	Not Applicable	Not applicable.	No	Substantial Improvement	Plants selected are adapted and suited.	Yes	Slight to Substantial Improvement	Plants selected will be maintained at optimal growing
Irrigation Canal or Lateral	CED-DE	320	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability enhances plant growth, health
Irrigation Field Ditch	CED-WME	388	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability enhances plant growth, health
Irrigation Land Leveling	CED-WME	464	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Site modification to improve irrigation application enhances

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*	*Plant Condition - Noxious and Invasive Plants (Effect)*
Field Border	**ESD-Agron**	**386**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Filter Strip	**ESD-Agron & CED-EE**	**393**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Firebreak	**ESD-For**	**394**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Worsening**
Fish Passage	**ESD-AqEco**	**396**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Fishpond Management	**ESD-AqEco**	**399**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Forage Harvest Management	**ESD- Graz Land Sp**	**511**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Forest Stand Improvement	**ESD-For**	**666**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Moderate to Substantial Improvement**
Grade Stabilization Structure	**CED-DE**	**410**	**No**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Not Applicable**
Grassed Waterway	**ESD-Agron & CED-AE**	**412**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Herbaceous Wind Barriers	**ESD-Agron**	**603**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Irrigation Canal or Lateral	**CED-DE**	**320**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Irrigation Field Ditch	**CED-WME**	**388**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Irrigation Land Leveling	**CED-WME**	**464**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Noxious and Invasive Plants (Rationale)*	*Plant Condition - Noxious and Invasive Plants (Purpose)*	*Plant Condition - Forage Quality and Palatability (Effect)*	*Plant Condition - Forage Quality and Palatability (Rationale)*	*Plant Condition - Forage Quality and Palatability (Purpose)*	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*
Field Border	ESD-Agron	386	Vegetation is installed and managed to control	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Filter Strip	ESD-Agron & CED-EE	393	Filter strips are installed and managed to control	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Firebreak	ESD-For	394	Undesired species can colonize areas left bare.	No	Not Applicable	Not applicable.	No	Substantial Improvement	Fuel loadings are isolated.	Yes
Fish Passage	ESD-AqEco	396	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Undesired aquatic vegetation is controlled by	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	Improved cover, health and vigor of plant community	Yes	Moderate to Substantial Improvement	Management of plant community will increase quality and	Yes	Moderate to Substantial Improvement	Harvesting reduces fuel load buildup.	No
Forest Stand Improvement	ESD-For	666	Noxious and invasive plants are removed.	Yes	Moderate to Substantial Improvement	Canopy is modified to favor forage quality and	Yes	Substantial Improvement	Canopy and understory removal reduces fuel	Yes
Grade Stabilization Structure	CED-DE	410	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Grassed Waterway	ESD-Agron & CED-AE	412	Vegetation is installed and managed to control	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Herbaceous Wind Barriers	ESD-Agron	603	Vegetation is installed and managed to control	No	Slight to Moderate Improvement	Forage quality and palatability is improved in the	No	Not Applicable	Not applicable.	No
Irrigation Canal or Lateral	CED-DE	320	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Field Ditch	CED-WME	388	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Land Leveling	CED-WME	464	Improved irrigation efficiency improves crop health and vigor	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Fish and Wildlife - Inadequate Food (Effect)	Fish and Wildlife - Inadequate Food (Rationale)	Fish and Wildlife - Inadequate Food (Purpose)	Fish and Wildlife - Inadequate Cover/Shelter (Effect)	Fish and Wildlife - Inadequate Cover/Shelter (Rationale)	Fish and Wildlife - Inadequate Cover/Shelter (Purpose)	Fish and Wildlife - Inadequate Water (Effect)	Fish and Wildlife - Inadequate Water (Rationale)
Field Border	ESD-Agron	386	Slight to Substantial Improvement	Increased quality and quantity of vegetation provides	Yes	Slight to Moderate Improvement	Plants may be chosen and managed to enhance value as	Yes	Not Applicable	Not applicable.
Filter Strip	ESD-Agron & CED-EE	393	Slight to Substantial Improvement	Increased quality and quantity of vegetation provides	Yes	Slight to Substantial Improvement	Increased quality and quantity of vegetation provides	Yes	Not Applicable	Not applicable.
Firebreak	ESD-For	394	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fish Passage	ESD-AqEco	396	Moderate to Substantial Improvement	Barrier removal improves passage for fish to access	Yes	Moderate to Substantial Improvement	Improving fish passage opens up additional habitat for	Yes	Moderate to Substantial Improvement	Restoring fish passage to critical aquatic habitats in a
Fishpond Management	ESD-AqEco	399	Moderate to Substantial Improvement	Impounded water is managed for aquatic species.	Yes	Moderate to Substantial Improvement	Aquatic plants in impounded water provides	Yes	Slight to Moderate Improvement	Pond is to be managed for aquatic species
Forage Harvest Management	ESD- Graz Land Sp	511	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Not Applicable	Not applicable.
Forest Stand Improvement	ESD-For	666	Slight to Substantial Improvement	Canopies and understories are managed to enhance	Yes	Slight to Substantial Improvement	Trees are managed to enhance wood production and value	Yes	Not Applicable	Not applicable.
Grade Stabilization Structure	CED-DE	410	Slight to Moderate Improvement	Soil/plant moisture relationships are improved near and	No	Slight to Moderate Improvement	Soil/plant moisture relationships are improved for species	No	Slight Improvement	Gullies are stabilized with retention of some water in or
Grassed Waterway	ESD-Agron & CED-AE	412	Slight Improvement	Planting of wildlife adapted plants outside the hydraulic	No	Slight Improvement	Planting of wildlife adapted plants outside the hydraulic	No	Slight Improvement	The action improves surface water quality and provides
Herbaceous Wind Barriers	ESD-Agron	603	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Slight to Moderate Improvement	Increased quality and quantity of vegetation provides	Yes	Not Applicable	Not applicable.
Irrigation Canal or Lateral	CED-DE	320	Neutral	Vegetated canals may provide food for fish.	No	Neutral	Vegetated canals may provide cover for fish.	No	Slight Improvement	Water will be temporarily available in the canal.
Irrigation Field Ditch	CED-WME	388	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Water will be temporarily available in the ditch.
Irrigation Land Leveling	CED-WME	464	Not Applicable	Not applicable.	No	Neutral	Hydrologic regime and micro-topography are	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*	*Fish and Wildlife - Inadequate Space (Purpose)*	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
Field Border	ESD-Agron	386	No	Slight to Substantial Improvement	Permanent vegetation may provide added	Yes	Slight to Moderate Improvement	Vegetation will help support wildlife habitat structure,	Yes	Slight to Moderate Improvement
Filter Strip	ESD-Agron & CED-EE	393	No	Slight to Substantial Improvement	Filter strips may be installed and managed to enhance	Yes	Slight Improvement	Vegetation will help support wildlife habitat connectivity.	Yes	Slight Improvement
Firebreak	ESD-For	394	No	Slight Worsening	Breaks in vegetative cover may interrupt continuity of habitat	No	Neutral	Breaks in vegetative cover may interrupt habitat connectivity.	No	Not Applicable
Fish Passage	ESD-AqEco	396	Yes	Moderate to Substantial Improvement	Providing fish passage increases the amount of space	Yes	Moderate to Substantial Improvement	Fish habitat is reconnected.	Yes	Moderate to Substantial Improvement
Fishpond Management	ESD-AqEco	399	Yes	Moderate to Substantial Improvement	Additional pond habitat/space is created.	Yes	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Forage Harvest Management	ESD- Graz Land Sp	511	No	Slight to Moderate Improvement	Improved plant cover, health and vigor decrease	Yes	Slight to Substantial Improvement	Improved plant cover, health and vigor decrease	Yes	Slight Improvement
Forest Stand Improvement	ESD-For	666	No	Slight to Moderate Improvement	Canopies and understories are managed to enhance	Yes	Slight to Moderate Improvement	Canopies and understories are managed to retain	Yes	Slight to Substantial Improvement
Grade Stabilization Structure	CED-DE	410	No	Not Applicable	Not applicable.	No	Neutral	Structure should be designed to allow fish passage.	No	Not Applicable
Grassed Waterway	ESD-Agron & CED-AE	412	Yes	Slight Improvement	Waterways constructed in cropland will	No	Slight Improvement	Waterways increase connectivity.	No	Not Applicable
Herbaceous Wind Barriers	ESD-Agron	603	No	Slight to Moderate Improvement	Herbaceous wind barriers can provide additional	Yes	Slight to Moderate Improvement	Herbaceous wind barriers provide habitat connectivity.	Yes	Not Applicable
Irrigation Canal or Lateral	CED-DE	320	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening
Irrigation Field Ditch	CED-WME	388	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Land Leveling	CED-WME	464	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Imbalance Among and Within Populations (Rationale)*	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)*
Field Border	ESD-Agron	386	Habitat management is implemented to remove limiting	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Filter Strip	ESD-Agron & CED-EE	393	Vegetation can be installed and managed to favor	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Firebreak	ESD-For	394	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Fish Passage	ESD-AqEco	396	Providing fish passage throughout a watershed will	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Fishpond Management	ESD-AqEco	399	Management is designed to optimize fishery.	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Forage Harvest Management	ESD- Graz Land Sp	511	Timing of harvest and stubble height support optimum	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Forest Stand Improvement	ESD-For	666	Canopies and understories are managed to meet	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Grade Stabilization Structure	CED-DE	410	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Grassed Waterway	ESD-Agron & CED-AE	412	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Herbaceous Wind Barriers	ESD-Agron	603	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Canal or Lateral	CED-DE	320	May restrict animal movement.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Field Ditch	CED-WME	388	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Land Leveling	CED-WME	464	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)	Domestic Animals - Inadequate Shelter (Effect)	Domestic Animals - Inadequate Shelter (Rationale)	Domestic Animals - Inadequate Shelter (Purpose)	Domestic Animals - Inadequate Stock Water (Effect)	Domestic Animals - Inadequate Stock Water (Rationale)
Field Border	ESD-Agron	386	Neutral	There may be some use of the planting for feed and forage	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Filter Strip	ESD-Agron & CED-EE	393	Slight Improvement	There may be some use of the planting for feed and forage	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Firebreak	ESD-For	394	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fish Passage	ESD-AqEco	396	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Fishpond Management	ESD-AqEco	399	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forage Harvest Management	ESD- Graz Land Sp	511	Moderate to Substantial Improvement	Improved management will improve quantity and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Forest Stand Improvement	ESD-For	666	Moderate to Substantial Improvement	Canopy is modified to improve understory forage	Yes	Neutral	Remaining canopy and understory continue to provide	No	Not Applicable	Not applicable.
Grade Stabilization Structure	CED-DE	410	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Grassed Waterway	ESD-Agron & CED-AE	412	Slight Improvement	There may be some use of the planting for feed and forage	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Herbaceous Wind Barriers	ESD-Agron	603	Slight Improvement	There may be some use of the planting for feed and forage	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Canal or Lateral	CED-DE	320	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Field Ditch	CED-WME	388	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Land Leveling	CED-WME	464	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*	*Appropriate Land Use(s)*	*Baseline Setting*
Field Border	ESD-Agron	386	No	Not Applicable	Not applicable.	No	Crop, Recreation	
Filter Strip	ESD-Agron & CED-EE	393	No	Not Applicable	Not applicable.	No	All Land Uses	
Firebreak	ESD-For	394	No	Not Applicable	Not applicable.	No	All Land Uses	
Fish Passage	ESD-AqEco	396	No	Not Applicable	Not applicable.	No	All Land Uses	
Fishpond Management	ESD-AqEco	399	No	Not Applicable	Not applicable.	No	All Land Uses	
Forage Harvest Management	ESD- Graz Land Sp	511	No	Slight to Substantial Improvement	Improved forage quality and quantity reduces animals	Yes	Crop, Hay	
Forest Stand Improvement	ESD-For	666	Yes	Slight to Substantial Improvement	Improved forage quality and quantity reduces animals	No	Forest, Grazed Forest, Mined, Native or Naturalized	
Grade Stabilization Structure	CED-DE	410	No	Not Applicable	Not applicable.	No	All Land Uses	
Grassed Waterway	ESD-Agron & CED-AE	412	No	Not Applicable	Not applicable.	No	All Land Uses	
Herbaceous Wind Barriers	ESD-Agron	603	No	Not Applicable	Not applicable.	No	Crop, Headquarters, Urban, Wildlife	
Irrigation Canal or Lateral	CED-DE	320	No	Not Applicable	Not applicable.	No	All Land Uses	
Irrigation Field Ditch	CED-WME	388	No	Not Applicable	Not applicable.	No	Crop, Hay, Pasture	
Irrigation Land Leveling	CED-WME	464	No	Not Applicable	Not applicable.	No	Crop, Hay, Pasture	

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Sheet and Rill (Effect)	Soil Erosion - Sheet and Rill (Rationale)	Soil Erosion - Sheet and Rill (Purpose)	Soil Erosion - Wind (Effect)	Soil Erosion - Wind (Rationale)	Soil Erosion - Wind (Purpose)	Soil Erosion - Ephemeral Gully (Effect)	Soil Erosion - Ephemeral Gully (Rationale)	Soil Erosion - Ephemeral Gully (Purpose)
Irrigation Regulating Reservoir	CED-WME	552	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Storage Reservoir	CED-WME	436	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Microirrigation	CED-WME	441	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Sprinkler	CED-WME	442	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Wetting the surface reduces soil detachment by wind.	Yes	Not Applicable	Not applicable.	No
Irrigation System, Surface & Subsurface	CED-WME	443	Not Applicable	Not applicable.	No	Slight Improvement	Wetting the surface reduces soil detachment by wind.	No	Not Applicable	Not applicable.	No
Irrigation System, Tailwater Recovery	CED-WME	447	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Tailwater is safely conveyed to a recovery site,	No
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	Yes
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	Yes
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	Yes
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	Yes
Irrigation Water Management	CED-WME & ESD-Agron	449	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Managing water to maintain surface moisture reduces	No	Not Applicable	Not applicable.	No
Manure Transfer	CED-EE	634	Slight Worsening	The land application process may disturb the soil surface and	No	Slight Worsening	The land application process may disturb the soil surface and	No	Slight Worsening	The land application process may disturb the soil surface and	No

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Classic Gully (Effect)	Soil Erosion - Classic Gully (Rationale)	Soil Erosion - Classic Gully (Purpose)	Soil Erosion - Streambank (Effect)	Soil Erosion - Streambank (Rationale)	Soil Erosion - Streambank (Purpose)	Soil Erosion - Shoreline (Effect)	Soil Erosion - Shoreline (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Slight to Substantial Improvement	Due to stabilization gully from embankment	No	Slight Improvement	Reduced peak flows downstream from reservoir.	No	Slight to Moderate Worsening	Increase in shoreline.
Irrigation Storage Reservoir	CED-WME	436	Slight to Substantial Improvement	Due to stabilization gully from embankment	No	Slight Improvement	Reduced peak flows downstream from reservoir.	No	Slight to Moderate Worsening	Increase in shoreline.
Irrigation System, Microirrigation	CED-WME	441	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Sprinkler	CED-WME	442	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Surface & Subsurface	CED-WME	443	Slight Worsening	Tailwater runoff may cause gully erosion.	No	Slight Worsening	Over land return flows cause erosion on streambanks.	No	Slight Worsening	Over land return flows cause erosion on streambanks.
Irrigation System, Tailwater Recovery	CED-WME	447	Slight Improvement	Tailwater is eliminated from gully.	No	Slight Improvement	Tailwater is eliminated from over land flow.	No	Slight Improvement	Tailwater is eliminated from over land flow.
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Slight to Moderate Improvement	Pipe can act as a collection and transport for water to	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Slight to Moderate Improvement	Pipe can act as a collection and transport for water to	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Slight to Moderate Improvement	Pipe can act as a collection and transport for water to	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Slight to Moderate Improvement	Pipe can act as a collection and transport for water to	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Management	CED-WME & ESD-Agron	449	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Manure Transfer	CED-EE	634	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Shoreline (Purpose)*	*Soil Erosion – Irrigation-induced (Effect)*	*Soil Erosion – Irrigation-induced (Rationale)*	*Soil Erosion – Irrigation-induced (Purpose)*	*Soil Erosion - Mass Movement (Effect)*	*Soil Erosion - Mass Movement (Rationale)*	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*
Irrigation Regulating Reservoir	CED-WME	552	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Storage Reservoir	CED-WME	436	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Microirrigation	CED-WME	441	No	Slight to Substantial Improvement	No tailwater runoff.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Sprinkler	CED-WME	442	No	Slight to Substantial Improvement	Erosion reduced due to proper application of irrigation water.	Yes	Neutral	Over wetting of soil mass not practicable.	No	Neutral
Irrigation System, Surface & Subsurface	CED-WME	443	No	Slight Worsening	Corrugates and Furrow irrigation may cause erosion.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Tailwater Recovery	CED-WME	447	No	Neutral	Captures sediment in tailwater runoff but does not reduce	No	Not Applicable	Not applicable.	No	Slight Improvement
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Management	CED-WME & ESD-Agron	449	No	Slight to Substantial Improvement	Water can be managed in such a manner as to reduce	Yes	Not Applicable	Not applicable.	No	Not Applicable
Manure Transfer	CED-EE	634	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*	*Soil Condition - Organic Matter Depletion (Effect)*	*Soil Condition - Organic Matter Depletion (Rationale)*	*Soil Condition - Organic Matter Depletion (Purpose)*	*Soil Condition - Rangeland Site Stability (Effect)*	*Soil Condition - Rangeland Site Stability (Rationale)*	*Soil Condition - Rangeland Site Stability (Purpose)*
Irrigation Regulating Reservoir	CED-WME	552	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Storage Reservoir	CED-WME	436	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Microirrigation	CED-WME	441	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Sprinkler	CED-WME	442	Establishment of vegetation after construction may	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Surface & Subsurface	CED-WME	443	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Tailwater Recovery	CED-WME	447	Slight improvement where tailwater is eliminated from over	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Management	CED-WME & ESD-Agron	449	Not applicable.	No	Slight Improvement	The action promotes optimum biomass production.	No	Not Applicable	Not applicable.	No
Manure Transfer	CED-EE	634	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition - Compaction (Effect)	Soil Condition - Compaction (Rationale)	Soil Condition - Compaction (Purpose)	Soil Condition - Subsidence (Effect)	Soil Condition - Subsidence (Rationale)	Soil Condition - Subsidence (Purpose)	Soil Condition - Contaminants - Salts and Other Chemicals (Effect)	Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Storage Reservoir	CED-WME	436	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Microirrigation	CED-WME	441	Neutral	The action limits the wetted area in the soil profile as	No	Not Applicable	Not applicable.	No	Slight Improvement	Improved irrigation allows the limited leaching of salt
Irrigation System, Sprinkler	CED-WME	442	Slight Worsening	There will be crusting of soil surface during seed	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Improved irrigation allows the leaching of salt below the root
Irrigation System, Surface & Subsurface	CED-WME	443	Slight Worsening	Increased soil moisture in the profile may result in	No	Not Applicable	Not applicable.	No	Neutral	The action should allow better management of salts,
Irrigation System, Tailwater Recovery	CED-WME	447	Slight Worsening	Increased soil moisture in the profile may result in	No	Not Applicable	Not applicable.	No	Slight Worsening	Reuse of contaminated water increases salts in the
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Management	CED-WME & ESD-Agron	449	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Water can be managed to leach salts and chemicals
Manure Transfer	CED-EE	634	Slight Worsening	Manure application equipment will tend to compact the soil	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*
Irrigation Regulating Reservoir	CED-WME	552	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Storage Reservoir	CED-WME	436	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Microirrigation	CED-WME	441	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Sprinkler	CED-WME	442	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Surface & Subsurface	CED-WME	443	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Tailwater Recovery	CED-WME	447	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Management	CED-WME & ESD-Agron	449	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Manure Transfer	CED-EE	634	No	Neutral	The action moves manure around, but does not increase or	No	Neutral	The action moves manure around, but does not increase or	No	Neutral

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Irrigation Regulating Reservoir	CED-WME	552	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Storage Reservoir	CED-WME	436	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Microirrigation	CED-WME	441	Not applicable.	No	Not Applicable	Not applicable.	Yes	Not Applicable	Not applicable.	No
Irrigation System, Sprinkler	CED-WME	442	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Surface & Subsurface	CED-WME	443	Not applicable.	No	Not Applicable	Not applicable.	Yes	Not Applicable	Not applicable.	No
Irrigation System, Tailwater Recovery	CED-WME	447	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Management	CED-WME & ESD-Agron	449	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Manure Transfer	CED-EE	634	The action moves manure around, but does not increase or	No	Neutral	The action moves manure around, but does not increase or	No	Neutral	The action moves manure around, but does not increase or	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)	Soil Condition - Contaminants - Residual Pesticides (Effect)	Soil Condition - Contaminants - Residual Pesticides (Rationale)	Soil Condition - Contaminants - Residual Pesticides (Purpose)	Soil Condition - Damage from Sediment Deposition (Effect)	Soil Condition - Damage from Sediment Deposition (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Sediment contained in tailwater return flows is trapped in
Irrigation Storage Reservoir	CED-WME	436	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Microirrigation	CED-WME	441	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	System permits better management of pesticides in the	Yes	Neutral	Properly applied irrigation water will not cause deposition
Irrigation System, Sprinkler	CED-WME	442	Not Applicable	Not applicable.	No	Neutral	Application of sprinkler applied pesticides according	No	Neutral	Properly applied irrigation water will not cause deposition
Irrigation System, Surface & Subsurface	CED-WME	443	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	System permits better management of pesticides in the	Yes	Slight Worsening	Surface applied irrigation water may contain sediments.
Irrigation System, Tailwater Recovery	CED-WME	447	Not Applicable	Not applicable.	No	Slight Worsening	Reuse of contaminated water can increase	No	Slight Worsening	Sediment is trapped in tailwater recovery process.
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Ditch may intercept runoff that might otherwise cause
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Management	CED-WME & ESD-Agron	449	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Manure Transfer	CED-EE	634	Neutral	The action moves manure around, but does not increase or	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*	*Water Quantity - Rangeland Hydrologic Cycle (Rationale)*	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)*
Irrigation Regulating Reservoir	CED-WME	552	No	Not Applicable	Not applicable.	No	Slight Worsening	Possible seepage from Reservoir.	No	Slight to Moderate Improvement
Irrigation Storage Reservoir	CED-WME	436	No	Not Applicable	Not applicable.	No	Slight Worsening	Possible seepage from Reservoir.	No	Slight to Moderate Improvement
Irrigation System, Microirrigation	CED-WME	441	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Small irrigation applications and improved uniformity	No	Slight to Substantial Improvement
Irrigation System, Sprinkler	CED-WME	442	No	Not Applicable	Not applicable.	No	Neutral	Properly applied sprinkler irrigation will not increase	No	Slight to Moderate Improvement
Irrigation System, Surface & Subsurface	CED-WME	443	No	Not Applicable	Not applicable.	No	Slight Improvement	Because of more uniform infiltration.	No	Slight Improvement
Irrigation System, Tailwater Recovery	CED-WME	447	No	Not Applicable	Not applicable.	No	Slight Worsening	Possible seepage from pit.	No	Slight Improvement
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Not Applicable	Not applicable.	No	Slight Improvement	Seepage from ditch or canal will be eliminated.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Not Applicable	Not applicable.	No	Slight Improvement	Pipeline can collect and convey excessive seepage to	No	Neutral
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Not Applicable	Not applicable.	No	Slight Improvement	Pipeline can collect and convey excessive seepage to	No	Neutral
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Not Applicable	Not applicable.	No	Slight Improvement	Pipeline can collect and convey excessive seepage to	No	Neutral
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Not Applicable	Not applicable.	No	Slight Improvement	Pipeline can collect and convey excessive seepage to	No	Neutral
Irrigation Water Management	CED-WME & ESD-Agron	449	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Manure Transfer	CED-EE	634	No	Not Applicable	Not applicable.	No	Neutral	To the extent manure and wastewater application increase	No	Neutral

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)*	*Water Quantity - Excessive Subsurface Water (Effect)*	*Water Quantity - Excessive Subsurface Water (Rationale)*	*Water Quantity - Excessive Subsurface Water (Purpose)*	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*
Irrigation Regulating Reservoir	CED-WME	552	Peak flows are reduced.	No	Slight Worsening	Seepage from reservoir.	No	Not Applicable	Not applicable.	No
Irrigation Storage Reservoir	CED-WME	436	Peak flows are reduced.	No	Slight Worsening	Seepage from reservoir.	No	Not Applicable	Not applicable.	No
Irrigation System, Microirrigation	CED-WME	441	More uniform applications reduces ponding and	No	Slight to Substantial Improvement	A more uniform and efficient irrigation prevents losses to	No	Not Applicable	Not applicable.	No
Irrigation System, Sprinkler	CED-WME	442	Conversion from surface to sprinkler will reduce surface	No	Slight Improvement	More uniform applications reduces subsurface flows.	No	Not Applicable	Not applicable.	No
Irrigation System, Surface & Subsurface	CED-WME	443	More uniform applications reduces ponding and	No	Slight Improvement	A more uniform and efficient irrigation prevents losses to	Yes	Not Applicable	Not applicable.	No
Irrigation System, Tailwater Recovery	CED-WME	447	Recovery and storage of tailwater eliminates runoff and	No	Slight Worsening	Seepage from pit.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not applicable.	No	Slight Worsening	Seepage from ditch or canal will be eliminated.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Pipeline will be used in conjunction with other practice to	No	Slight Improvement	Pipeline can collect and convey excessive	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Pipeline will be used in conjunction with other practice to	No	Slight Improvement	Pipeline can collect and convey excessive	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Pipeline will be used in conjunction with other practice to	No	Slight Improvement	Pipeline can collect and convey excessive	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Pipeline will be used in conjunction with other practice to	No	Slight Improvement	Pipeline can collect and convey excessive	No	Not Applicable	Not applicable.	No
Irrigation Water Management	CED-WME & ESD-Agron	449	Not applicable.	No	Slight Improvement	Management of irrigation water will help reduce excess	No	Not Applicable	Not applicable.	No
Manure Transfer	CED-EE	634	To the extent manure and wastewater application increase	No	Neutral	To the extent manure and wastewater application increase	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quantity - Inadequate Outlets (Effect)	Water Quantity - Inadequate Outlets (Rationale)	Water Quantity - Inadequate Outlets (Purpose)	Water Quantity - Inefficient Water Use on Irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)	Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Slight Improvement	Regulated downstream flows.	No	Slight to Substantial Improvement	Reservoir allows better control and use of water.	Yes	Not Applicable	Not applicable.
Irrigation Storage Reservoir	CED-WME	436	Slight Improvement	Regulated downstream flows.	No	Slight to Substantial Improvement	Storage water for irrigation can be used in amore timely	Yes	Not Applicable	Not applicable.
Irrigation System, Microirrigation	CED-WME	441	Substantial Improvement	No tailwater runoff impacting outlets.	No	Slight to Substantial Improvement	Water is applied more efficiently and uniformly.	Yes	Not Applicable	Not applicable.
Irrigation System, Sprinkler	CED-WME	442	Slight to Substantial Improvement	Conversion from surface to sprinkler eliminates tailwater	No	Substantial Improvement	More uniform application of water.	Yes	Not Applicable	Not applicable.
Irrigation System, Surface & Subsurface	CED-WME	443	Slight Worsening	Tailwater runoff may adversely impact outlets.	No	Slight to Substantial Improvement	Water is applied more efficiently and uniformly.	Yes	Not Applicable	Not applicable.
Irrigation System, Tailwater Recovery	CED-WME	447	Slight to Substantial Improvement	Storage and reuse of tailwater reduces runoff affecting	No	Slight to Substantial Improvement	Storage and reuse can increases available water.	Yes	Not Applicable	Not applicable.
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Substantial Improvement	Lining eliminates water losses providing more water	Yes	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Slight to Moderate Improvement	Pipeline can collect and convey excessive water to	No	Slight to Substantial Improvement	Pipe will convey water and make it possible to use more	Yes	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Slight to Moderate Improvement	Pipeline can collect and convey excessive water to	No	Slight to Substantial Improvement	Pipe will convey water and make it possible to use more	Yes	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Slight to Moderate Improvement	Pipeline can collect and convey excessive water to	No	Slight to Substantial Improvement	Pipe will convey water and make it possible to use more	Yes	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Slight to Moderate Improvement	Pipeline can collect and convey excessive water to	No	Slight to Substantial Improvement	Pipe will convey water and make it possible to use more	Yes	Not Applicable	Not applicable.
Irrigation Water Management	CED-WME & ESD-Agron	449	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Managed application of water for irrigation will increase the	Yes	Not Applicable	Not applicable.
Manure Transfer	CED-EE	634	Not Applicable	Not applicable.	No	Neutral	Water content of manure applied from waste	No	Slight Improvement	Water content of manure from waste storage/treatment

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
Irrigation Regulating Reservoir	CED-WME	552	No	Moderate Improvement	Sediment is trapped in reservoir.	Yes	Neutral	Limited sediment deposited in reservoir.	No	Slight Improvement
Irrigation Storage Reservoir	CED-WME	436	No	Moderate Improvement	Sediment is trapped in reservoir.	No	Neutral	Limited sediment deposited in reservoir.	No	Slight Improvement
Irrigation System, Microirrigation	CED-WME	441	No	Slight to Substantial Improvement	Water is applied in such away as to eliminate erosion.	No	Slight to Substantial Improvement	Water is applied in such away as to eliminate erosion.	No	Slight to Substantial Improvement
Irrigation System, Sprinkler	CED-WME	442	No	Slight to Substantial Improvement	Reduction in tailwater runoff.	Yes	Slight to Substantial Improvement	Reduction in tailwater runoff.	Yes	Slight to Substantial Improvement
Irrigation System, Surface & Subsurface	CED-WME	443	No	Slight Improvement	Water is applied in such away as to reduce erosion.	Yes	Slight Improvement	Water is applied in such away as to reduce erosion.	Yes	Slight Improvement
Irrigation System, Tailwater Recovery	CED-WME	447	No	Slight to Substantial Improvement	Sediment is trapped in pit.	Yes	Slight to Substantial Improvement	Sediment is trapped in tailwater structures.	Yes	Slight to Moderate Improvement
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Management	CED-WME & ESD-Agron	449	No	Slight to Substantial Improvement	Managed irrigation water will reduce the amount of sediment	Yes	Slight to Substantial Improvement	Managed irrigation water will reduce the amount of sediment	Yes	Slight to Moderate Improvement
Manure Transfer	CED-EE	634	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Aquifer Overdraft (Rationale)*	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)*
Irrigation Regulating Reservoir	CED-WME	552	Seepage from the reservoir impacts recharge.	No	Slight Worsening	Water is used for irrigation reduces flows in water	No	Slight to Moderate Improvement	Seepage that may contain pesticide residues is	Yes
Irrigation Storage Reservoir	CED-WME	436	Seepage from the reservoir impacts recharge.	No	Slight Worsening	Water is used for irrigation reduces flows in water	No	Not Applicable	Not applicable.	No
Irrigation System, Microirrigation	CED-WME	441	More efficient application of irrigation water	No	Slight to Substantial Improvement	More efficient application of irrigation water	No	Slight to Substantial Improvement	Efficient and uniform irrigation reduces deep percolation.	No
Irrigation System, Sprinkler	CED-WME	442	More efficient application of irrigation water	No	Slight Improvement	More efficient application of irrigation water	No	Slight to Moderate Improvement	Efficient and uniform irrigation reduces deep percolation.	No
Irrigation System, Surface & Subsurface	CED-WME	443	More efficient application of irrigation water	No	Slight Improvement	More efficient application of irrigation water	No	Slight Improvement	Efficient and uniform irrigation reduces deep percolation.	No
Irrigation System, Tailwater Recovery	CED-WME	447	Reuse of water requires less water to be withdrawn.	Yes	Slight Improvement	Reuse of water requires less water to be withdrawn.	No	Slight to Moderate Improvement	Seepage that may contain pesticide residues is	Yes
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Seepage is eliminated that may provide water for	No	Slight to Moderate Improvement	Less water is diverted because of seepage losses in	Yes	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not applicable.	No	Slight Improvement	Less water is diverted because conveyance losses	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not applicable.	No	Slight Improvement	Less water is diverted because conveyance losses	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not applicable.	No	Slight Improvement	Less water is diverted because conveyance losses	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not applicable.	No	Slight Improvement	Less water is diverted because conveyance losses	No	Not Applicable	Not applicable.	No
Irrigation Water Management	CED-WME & ESD-Agron	449	More efficient application of irrigation water	Yes	Slight to Moderate Improvement	More efficient application of irrigation water	No	Slight to Substantial Improvement	Controlling the volume, frequency, and application rate	Yes
Manure Transfer	CED-EE	634	Water content of manure from waste storage/treatment	No	Neutral	Water content of manure from waste storage/treatment	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)	Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)	Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)	Water Quality - Excessive Salinity in Groundwater (Effect)	Water Quality - Excessive Salinity in Groundwater (Rationale)	Water Quality - Excessive Salinity in Groundwater (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Slight Worsening	Nutrients impounded could contaminate groundwater.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Storage Reservoir	CED-WME	436	Slight Worsening	Nutrients impounded could contaminate groundwater.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Microirrigation	CED-WME	441	Slight to Substantial Improvement	The action improves water use efficiency resulting in	No	Slight to Substantial Improvement	Efficient and uniform irrigation reduces soluble contaminant	No	Slight Improvement	Uniform water application reduces the potential for deep
Irrigation System, Sprinkler	CED-WME	442	Slight Improvement	The action improves water use efficiency resulting in	No	Slight to Moderate Improvement	Efficient and uniform irrigation reduces transport to ground	No	Slight Improvement	Uniform water application reduces the potential for deep
Irrigation System, Surface & Subsurface	CED-WME	443	Slight Improvement	The action improves water use efficiency resulting in	No	Slight Improvement	Efficient and uniform irrigation reduces transport to ground	No	Slight Improvement	Efficient and uniform irrigation reduces transport to ground
Irrigation System, Tailwater Recovery	CED-WME	447	Slight Worsening	Nutrients impounded could contaminate groundwater.	No	Slight Worsening	The action results in water reuse, which concentrates the	No	Slight Worsening	The action reuses irrigation water that may have higher
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action eliminates seepage from earth canals which can	Yes	Slight Improvement	The action eliminates seepage losses from canals, which
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action eliminates seepage from earth canals which can	Yes	Slight Improvement	The action eliminates seepage losses from canals, which
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action eliminates seepage from earth canals which can	Yes	Slight Improvement	The action eliminates seepage losses from canals, which
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action eliminates seepage from earth canals which can	Yes	Slight Improvement	The action eliminates seepage losses from canals, which
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action eliminates seepage from earth canals which can	Yes	Slight Improvement	The action eliminates seepage losses from canals, which
Irrigation Water Management	CED-WME & ESD-Agron	449	Slight to Substantial Improvement	Water is applied at rates and times that minimize nutrient	Yes	Slight to Substantial Improvement	Water is applied at rates that minimize salinity transport to	Yes	Slight to Moderate Improvement	Water is applied at rates that minimize heavy metal
Manure Transfer	CED-EE	634	Slight to Moderate Improvement	The action decreases the potential for ground water	No	Slight to Moderate Improvement	The action insures manure is properly handled and	No	Neutral	The action insures manure is properly handled and

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)*
Irrigation Regulating Reservoir	CED-WME	552	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Irrigation Storage Reservoir	CED-WME	436	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Microirrigation	CED-WME	441	No	Slight Improvement	Uniform water application reduces the potential for deep	No	Slight Improvement	Efficient and uniform irrigation reduces transport to ground	No	Slight to Substantial Improvement
Irrigation System, Sprinkler	CED-WME	442	No	Slight Improvement	Uniform water application reduces the potential for deep	No	Slight Improvement	More efficient irrigation system reduces leaching.	No	Slight to Moderate Improvement
Irrigation System, Surface & Subsurface	CED-WME	443	No	Slight Improvement	Efficient and uniform irrigation reduces transport to ground	No	Slight Improvement	Efficient and uniform irrigation reduces transport to ground	No	Slight Improvement
Irrigation System, Tailwater Recovery	CED-WME	447	No	Neutral	The action reuses irrigation water that may have higher	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Slight Improvement	The action eliminates seepage losses from canals, which	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Slight Improvement	The action eliminates seepage losses from canals, which	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Slight Improvement	The action eliminates seepage losses from canals, which	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Slight Improvement	The action eliminates seepage losses from canals, which	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Slight Improvement	The action eliminates seepage losses from canals, which	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Management	CED-WME & ESD-Agron	449	Yes	Slight to Moderate Improvement	Water is applied at rates that minimize pathogen transport	Yes	Slight Improvement	Water is applied at rates that minimize petroleum transport	No	Slight to Substantial Improvement
Manure Transfer	CED-EE	634	No	Slight to Moderate Improvement	The action insures manure is properly handled and	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*
Irrigation Regulating Reservoir	CED-WME	552	The action retains pesticide residues for degradation.	Yes	Slight to Moderate Improvement	When used to store irrigation tailwater, sediments and	Yes	Not Applicable	Not applicable.	No
Irrigation Storage Reservoir	CED-WME	436	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Sediment is trapped as water velocity is reduced.	Yes
Irrigation System, Microirrigation	CED-WME	441	Efficient and uniform irrigation reduces runoff and erosion.	No	Slight to Substantial Improvement	Efficient and uniform irrigation reduces the potential for	No	Not Applicable	Not applicable.	No
Irrigation System, Sprinkler	CED-WME	442	Efficient and uniform irrigation reduces runoff and erosion.	No	Slight to Moderate Improvement	Erosion and runoff are reduced by the efficient application	No	Not Applicable	Not applicable.	No
Irrigation System, Surface & Subsurface	CED-WME	443	Efficient and uniform irrigation reduces runoff and erosion.	No	Slight Improvement	Efficient and uniform irrigation reduces transport of nutrients	No	Not Applicable	Not applicable.	No
Irrigation System, Tailwater Recovery	CED-WME	447	The action retains pesticide residues for degradation.	Yes	Slight to Moderate Improvement	The action traps nutrients and organics.	Yes	Slight Improvement	Sediment is trapped as water velocity is reduced.	Yes
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not applicable.	No	Slight Improvement	Lined ditches reduce the delivery of sediment-attached	No	Slight Improvement	Impervious materials prevents erosion.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not applicable.	No	Slight Improvement	Utilizing pipelines for water delivery reduces the delivery	No	Slight Improvement	Impervious materials prevents erosion.	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not applicable.	No	Slight Improvement	Utilizing pipelines for water delivery reduces the delivery	No	Slight Improvement	Impervious materials prevents erosion.	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not applicable.	No	Slight Improvement	Utilizing pipelines for water delivery reduces the delivery	No	Slight Improvement	Impervious materials prevents erosion.	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not applicable.	No	Slight Improvement	Utilizing pipelines for water delivery reduces the delivery	No	Slight Improvement	Impervious materials prevents erosion.	No
Irrigation Water Management	CED-WME & ESD-Agron	449	Controlling the volume, frequency, and application rate	Yes	Slight to Substantial Improvement	Water is applied at rates that reduce the potential for erosion	Yes	Slight to Substantial Improvement	Water is applied at rates that minimize soil erosion.	Yes
Manure Transfer	CED-EE	634	Not applicable.	No	Slight to Substantial Improvement	Proper handling of manure will decrease the potential for	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Salinity in Surface Water (Effect)	Water Quality - Excessive Salinity in Surface Water (Rationale)	Water Quality - Excessive Salinity in Surface Water (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)	Water Quality - Harmful Temperatures of Surface Water (Effect)	Water Quality - Harmful Temperatures of Surface Water (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Storage Reservoir	CED-WME	436	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Microirrigation	CED-WME	441	Neutral	The action reduces the potential for runoff from the field	No	Slight Improvement	Efficient and uniform irrigation reduces transport to surface	No	Neutral	Conservation irrigation systems minimize affects to
Irrigation System, Sprinkler	CED-WME	442	Slight to Moderate Improvement	The action allows more efficient application of	No	Slight Improvement	More efficient application reduces potential runoff.	No	Neutral	Reduced runoff of higher temperature water is likely.
Irrigation System, Surface & Subsurface	CED-WME	443	Slight Improvement	The action allows more efficient application of	No	Slight Improvement	Efficient and uniform irrigation reduces transport to surface	No	Neutral	Conservation irrigation systems minimize affects to
Irrigation System, Tailwater Recovery	CED-WME	447	Slight Improvement	The infiltration that occurs in the tailwater pond will	No	Moderate to Substantial Improvement	The action captures irrigation runoff and associated metal-	Yes	Neutral	Warm surface irrigation water is re-used rather than
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Slight Improvement	The action eliminates the potential for irrigation water to	No	Slight Worsening	The action may collect runoff and return flows may	No	Neutral	Conservation irrigation systems minimize affects to
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Slight Improvement	The action eliminates the potential for irrigation water to	No	Slight Worsening	The action may transport water from heavy metal source	No	Neutral	Conservation irrigation systems minimize affects to
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Slight Improvement	The action eliminates the potential for irrigation water to	No	Slight Worsening	The action may transport water from heavy metal source	No	Neutral	Conservation irrigation systems minimize affects to
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Slight Improvement	The action eliminates the potential for irrigation water to	No	Slight Worsening	The action may transport water from heavy metal source	No	Neutral	Conservation irrigation systems minimize affects to
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Slight Improvement	The action eliminates the potential for irrigation water to	No	Slight Worsening	The action may transport water from heavy metal source	No	Neutral	Conservation irrigation systems minimize affects to
Irrigation Water Management	CED-WME & ESD-Agron	449	Slight to Moderate Improvement	Water is applied at rates that minimize salinity transport to	Yes	Slight to Substantial Improvement	Water is applied at rates that minimize heavy metals	Yes	Neutral	Conservation irrigation systems minimize affects to
Manure Transfer	CED-EE	634	Slight to Moderate Improvement	The action insures manure is properly handled and reduces	No	Neutral	Excess heavy metals are rarely associated with manure. There	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Temperatures of Surface Water (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*
Irrigation Regulating Reservoir	CED-WME	552	No	Neutral	May increase because of aquatic animal feed or	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Storage Reservoir	CED-WME	436	No	Neutral	May increase because of aquatic animal feed or	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Microirrigation	CED-WME	441	No	Slight to Substantial Improvement	Efficient and uniform irrigation reduces transport to surface	No	Slight to Substantial Improvement	Efficient and uniform irrigation reduces transport to surface	No	Slight to Moderate Improvement
Irrigation System, Sprinkler	CED-WME	442	No	Slight to Moderate Improvement	Reduced runoff because of more efficient application	No	Slight to Moderate Improvement	Reduced runoff because of more efficient application	No	Slight to Moderate Improvement
Irrigation System, Surface & Subsurface	CED-WME	443	No	Slight Improvement	Efficient and uniform irrigation reduces transport tosurface	No	Slight Improvement	Efficient and uniform irrigation reduces transport tosurface	No	Slight to Moderate Improvement
Irrigation System, Tailwater Recovery	CED-WME	447	No	Slight Improvement	Because of reduced sediment yields and runoff	Yes	Slight to Moderate Improvement	Because of reduced sediment yields and runoff	Yes	Not Applicable
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Slight Worsening	May collect runoff and return flows may deliver possible	No	Neutral	May collect runoff and return flows may deliver possible	No	Not Applicable
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Slight Worsening	May collect runoff and return flows may deliver possible	No	Neutral	May collect runoff and return flows may deliver possible	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Slight Worsening	May collect runoff and return flows may deliver possible	No	Neutral	May collect runoff and return flows may deliver possible	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Slight Worsening	May collect runoff and return flows may deliver possible	No	Neutral	May collect runoff and return flows may deliver possible	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Slight Worsening	May collect runoff and return flows may deliver possible	No	Neutral	May collect runoff and return flows may deliver possible	No	Not Applicable
Irrigation Water Management	CED-WME & ESD-Agron	449	No	Slight to Substantial Improvement	Water is applied at rates that minimize pathogens transport	Yes	Slight to Substantial Improvement	Water is applied at rates that minimize petroleum transport	Yes	Slight to Substantial Improvement
Manure Transfer	CED-EE	634	No	Slight to Substantial Improvement	Decrease in potential surface water contamination in the	No	Not Applicable	Not applicable.	No	Slight Worsening

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)*	*Air Quality - Excessive Ozone (Effect)*	*Air Quality - Excessive Ozone (Rationale)*	*Air Quality - Excessive Ozone (Purpose)*
Irrigation Regulating Reservoir	CED-WME	552	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Storage Reservoir	CED-WME	436	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Microirrigation	CED-WME	441	Increased production from irrigation lowers the soil wind	No	Slight to Moderate Improvement	Increased production from irrigation lowers the soil wind	No	Not Applicable	Not applicable.	No
Irrigation System, Sprinkler	CED-WME	442	An irrigation application moistens the soil surface and	Yes	Slight to Moderate Improvement	An irrigation application moistens the soil surface and	Yes	Not Applicable	Not applicable.	No
Irrigation System, Surface & Subsurface	CED-WME	443	An irrigation application moistens the soil surface and	No	Slight to Moderate Improvement	An irrigation application moistens the soil surface and	No	Not Applicable	Not applicable.	No
Irrigation System, Tailwater Recovery	CED-WME	447	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Management	CED-WME & ESD-Agron	449	Maintaining adequate soil moisture content reduces the potential	No	Slight to Substantial Improvement	Maintaining adequate soil moisture content reduces the potential	No	Not Applicable	Not applicable.	No
Manure Transfer	CED-EE	634	Loading and unloading dry manure can add	No	Slight Worsening	Loading and unloading dry manure can add	No	Neutral	There is an increase in potential ozone precursor emissions.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)	Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)	Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)	Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)	Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)	Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)	Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)	Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Storage Reservoir	CED-WME	436	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Microirrigation	CED-WME	441	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Sprinkler	CED-WME	442	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Surface & Subsurface	CED-WME	443	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Tailwater Recovery	CED-WME	447	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	Yes	Not Applicable	Not applicable.
Irrigation Water Management	CED-WME & ESD-Agron	449	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Manure Transfer	CED-EE	634	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Anaerobic conditions are conducive to the formation of CH4

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*	*Air Quality - NH3 - Ammonia (Effect)*	*Air Quality - NH3 - Ammonia (Rationale)*	*Air Quality - NH3 - Ammonia (Purpose)*	*Air Quality - Chemical Drift (Effect)*	*Air Quality - Chemical Drift (Rationale)*	*Air Quality - Chemical Drift (Purpose)*	*Air Quality - Objectionable Odors (Effect)*
Irrigation Regulating Reservoir	CED-WME	552	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Storage Reservoir	CED-WME	436	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Microirrigation	CED-WME	441	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Sprinkler	CED-WME	442	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral
Irrigation System, Surface & Subsurface	CED-WME	443	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening
Irrigation System, Tailwater Recovery	CED-WME	447	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Management	CED-WME & ESD-Agron	449	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Manure Transfer	CED-EE	634	No	Slight to Moderate Worsening	Emissions occur as manure is moved and land applied	No	Not Applicable	Not applicable.	No	Slight Worsening

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*	*Air Quality - Reduced Visibility (Rationale)*	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Irrigation Regulating Reservoir	CED-WME	552	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Storage Reservoir	CED-WME	436	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Microirrigation	CED-WME	441	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Sprinkler	CED-WME	442	Agricultural wastes and byproducts delivered through	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Surface & Subsurface	CED-WME	443	Agricultural wastes and byproducts in open systems can	No	Slight Worsening	fine particulates created	No	Not Applicable	Not applicable.	No
Irrigation System, Tailwater Recovery	CED-WME	447	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Management	CED-WME & ESD-Agron	449	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Manure Transfer	CED-EE	634	Movement and application of manure will increase	No	Slight Worsening	increased ammonia emissions can increase PM fines	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Adverse Air Temperature (Effect)	Air Quality - Adverse Air Temperature (Rationale)	Air Quality - Adverse Air Temperature (Purpose)	Plants not adapted or suited (Effect)	Plants not adapted or suited (Rationale)	Plants not adapted or suited (Purpose)	Plant Condition - Productivity, Health and Vigor (Effect)	Plant Condition - Productivity, Health and Vigor (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and access enhances
Irrigation Storage Reservoir	CED-WME	436	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and access enhances
Irrigation System, Microirrigation	CED-WME	441	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and managed application
Irrigation System, Sprinkler	CED-WME	442	Slight to Moderate Improvement	Sprinklers used for crop cooling and frost protection.	Yes	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and managed application
Irrigation System, Surface & Subsurface	CED-WME	443	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and managed application
Irrigation System, Tailwater Recovery	CED-WME	447	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and managed application
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and access enhances
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and access enhances
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and access enhances
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and access enhances
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability and access enhances
Irrigation Water Management	CED-WME & ESD-Agron	449	Slight to Moderate Improvement	Timing of water use can decrease temperatures and	Yes	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Managed application of water enhances plant growth, health
Manure Transfer	CED-EE	634	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*	*Plant Condition - Noxious and Invasive Plants (Effect)*
Irrigation Regulating Reservoir	CED-WME	552	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Storage Reservoir	CED-WME	436	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Microirrigation	CED-WME	441	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Irrigation System, Sprinkler	CED-WME	442	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Irrigation System, Surface & Subsurface	CED-WME	443	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Irrigation System, Tailwater Recovery	CED-WME	447	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Management	CED-WME & ESD-Agron	449	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Manure Transfer	CED-EE	634	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Noxious and Invasive Plants (Rationale)*	*Plant Condition - Noxious and Invasive Plants (Purpose)*	*Plant Condition - Forage Quality and Palatability (Effect)*	*Plant Condition - Forage Quality and Palatability (Rationale)*	*Plant Condition - Forage Quality and Palatability (Purpose)*	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*
Irrigation Regulating Reservoir	CED-WME	552	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Storage Reservoir	CED-WME	436	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Microirrigation	CED-WME	441	Improved irrigation efficiency improves crop health and vigor	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Sprinkler	CED-WME	442	Improved irrigation efficiency improves crop health and vigor	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Surface & Subsurface	CED-WME	443	Improved irrigation efficiency improves crop health and vigor	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation System, Tailwater Recovery	CED-WME	447	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Irrigation Water Management	CED-WME & ESD-Agron	449	Improved irrigation efficiency improves crop health and vigor	No	Slight to Substantial Improvement	Water is managed to optimize forage quality and	Yes	Not Applicable	Not applicable.	No
Manure Transfer	CED-EE	634	Manure may contain weed seeds and other contaminants	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Fish and Wildlife - Inadequate Food (Effect)	Fish and Wildlife - Inadequate Food (Rationale)	Fish and Wildlife - Inadequate Food (Purpose)	Fish and Wildlife - Inadequate Cover/Shelter (Effect)	Fish and Wildlife - Inadequate Cover/Shelter (Rationale)	Fish and Wildlife - Inadequate Cover/Shelter (Purpose)	Fish and Wildlife - Inadequate Water (Effect)	Fish and Wildlife - Inadequate Water (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Water will be temporarily available in the reservoir.
Irrigation Storage Reservoir	CED-WME	436	Slight to Moderate Improvement	Reservoirs provide food for some fish and wildlife.	No	Slight Worsening	Any cover is eliminated in the area used for the	No	Slight to Moderate Improvement	Reservoirs provide water for wildlife; however entrapment,
Irrigation System, Microirrigation	CED-WME	441	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Water is temporarily provided during the irrigation season.
Irrigation System, Sprinkler	CED-WME	442	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Water is temporarily provided during the irrigation season.
Irrigation System, Surface & Subsurface	CED-WME	443	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Water is temporarily provided during the irrigation season.
Irrigation System, Tailwater Recovery	CED-WME	447	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Water is temporarily provided during the irrigation season.
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Water is temporarily provided when operating.
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Management	CED-WME & ESD-Agron	449	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Manure Transfer	CED-EE	634	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*	*Fish and Wildlife - Inadequate Space (Purpose)*	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
Irrigation Regulating Reservoir	CED-WME	552	No	Slight Worsening	Reservoirs reduce existing space used by wildlife.	No	Neutral	Reservoirs are typically limited in extent.	No	Slight Improvement
Irrigation Storage Reservoir	CED-WME	436	No	Slight Worsening	Reservoirs reduce existing space used by wildlife.	No	Neutral	Reservoirs are typically limited in extent.	No	Slight Improvement
Irrigation System, Microirrigation	CED-WME	441	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Sprinkler	CED-WME	442	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Surface & Subsurface	CED-WME	443	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation System, Tailwater Recovery	CED-WME	447	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Irrigation Water Management	CED-WME & ESD-Agron	449	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Manure Transfer	CED-EE	634	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Imbalance Among and Within Populations (Rationale)*	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)*
Irrigation Regulating Reservoir	CED-WME	552	Reservoirs and adjacent areas provide variety and	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Storage Reservoir	CED-WME	436	Reservoirs and adjacent areas provide variety and	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation System, Microirrigation	CED-WME	441	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation System, Sprinkler	CED-WME	442	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation System, Surface & Subsurface	CED-WME	443	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation System, Tailwater Recovery	CED-WME	447	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Irrigation Water Management	CED-WME & ESD-Agron	449	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Manure Transfer	CED-EE	634	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No

Practice	Lead Discipline(s)	Practice Code	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)	Domestic Animals - Inadequate Shelter (Effect)	Domestic Animals - Inadequate Shelter (Rationale)	Domestic Animals - Inadequate Shelter (Purpose)	Domestic Animals - Inadequate Stock Water (Effect)	Domestic Animals - Inadequate Stock Water (Rationale)
Irrigation Regulating Reservoir	CED-WME	552	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Reservoirs can also provide stock water.
Irrigation Storage Reservoir	CED-WME	436	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Reservoirs can also provide stock water.
Irrigation System, Microirrigation	CED-WME	441	Moderate to Substantial Improvement	Production will be improved with uniform and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Sprinkler	CED-WME	442	Moderate to Substantial Improvement	Production will be improved with uniform and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Surface & Subsurface	CED-WME	443	Moderate to Substantial Improvement	Production will be improved with uniform and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation System, Tailwater Recovery	CED-WME	447	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Irrigation Water Management	CED-WME & ESD-Agron	449	Moderate to Substantial Improvement	Production will be improved with uniform and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Manure Transfer	CED-EE	634	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*	*Appropriate Land Use(s)*	*Baseline Setting*
Irrigation Regulating Reservoir	CED-WME	552	No	Moderate to Substantial Improvement	Available water reduces stress and mortality.	No	Crop, Forest, Grazed Forest, Grazed Range, Hay,	
Irrigation Storage Reservoir	CED-WME	436	No	Moderate to Substantial Improvement	Available water reduces stress and mortality.	No	Crop, Forest, Grazed Forest, Grazed Range, Hay,	
Irrigation System, Microirrigation	CED-WME	441	No	Not Applicable	Not applicable.	No	All Land Uses	
Irrigation System, Sprinkler	CED-WME	442	No	Not Applicable	Not applicable.	No	Crop, Hay, Headquarters, Mined, Pasture, Recreation,	
Irrigation System, Surface & Subsurface	CED-WME	443	No	Not Applicable	Not applicable.	No	Crop, Hay, Headquarters, Mined, Pasture, Recreation,	
Irrigation System, Tailwater Recovery	CED-WME	447	No	Not Applicable	Not applicable.	No	Crop, Hay, Headquarters, Mined, Pasture, Recreation,	
Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	No	Not Applicable	Not applicable.	No	All Land Uses	
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	No	Not Applicable	Not applicable.	No	All Land Uses	
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	No	Not Applicable	Not applicable.	No	All Land Uses	
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	No	Not Applicable	Not applicable.	No	All Land Uses	
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	No	Not Applicable	Not applicable.	No	All Land Uses	
Irrigation Water Management	CED-WME & ESD-Agron	449	No	Not Applicable	Not applicable.	No	All Land Uses	
Manure Transfer	CED-EE	634	No	Not Applicable	Not applicable.	No	Crop, Hay, Headquarters, Pasture, Wildlife	

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Sheet and Rill (Effect)	Soil Erosion - Sheet and Rill (Rationale)	Soil Erosion - Sheet and Rill (Purpose)	Soil Erosion - Wind (Effect)	Soil Erosion - Wind (Rationale)	Soil Erosion - Wind (Purpose)	Soil Erosion - Ephemeral Gully (Effect)	Soil Erosion - Ephemeral Gully (Rationale)	Soil Erosion - Ephemeral Gully (Purpose)
Mulching	ESD-Agron	484	Moderate to Substantial Improvement	Soil cover reduces erosion from water.	Yes	Moderate to Substantial Improvement	Soil cover reduces erosion from wind.	Yes	Moderate to Substantial Improvement	Soil cover reduces erosion from water.	Yes
Nutrient Management	ESD-NM & CED-EE	590	Neutral	Soil disturbance to incorporate fertilizer loosens the soil and	No	Neutral	Soil disturbance to incorporate fertilizer loosens the soil and	No	Neutral	Soil disturbance to incorporate fertilizer loosens the soil and	No
Obstruction Removal	CED-AE	500	Neutral	The action requires that appropriate erosion control	No	Neutral	The action requires that appropriate erosion control	No	Neutral	The action requires that appropriate erosion control	No
Open Channel	CED-DE	582	Not Applicable	Not applicable.	No	Not Applicable	Not Applicable	No	Not Applicable	Not applicable.	No
Pasture & Hay Planting	ESD-Graz Land Sp	512	Moderate to Substantial Improvement	Establishment of adapted species increases vegetative	Yes	Moderate to Substantial Improvement	Establishment of adapted species increases vegetative	Yes	Moderate to Substantial Improvement	Establishment of adapted species increases vegetative	Yes
Pest Management	ESD-PM & CED-EE	595	Slight to Substantial Improvement	Surface runoff is decreased by changing the way	Yes	Slight to Substantial Improvement	Wind erosion is decreased by changing the way	Yes	Slight to Substantial Improvement	Concentrated flow erosion is decreased by changing the way	Yes
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond	CED-DE	378	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Prescribed Burning	ESD-For	338	Slight to Substantial Improvement	Improved plant production and vegetative cover	No	Slight to Moderate Improvement	Improved plant production and vegetative cover	No	Slight to Substantial Improvement	Improved plant production and vegetative cover	No

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Classic Gully (Effect)	Soil Erosion - Classic Gully (Rationale)	Soil Erosion - Classic Gully (Purpose)	Soil Erosion - Streambank (Effect)	Soil Erosion - Streambank (Rationale)	Soil Erosion - Streambank (Purpose)	Soil Erosion - Shoreline (Effect)	Soil Erosion - Shoreline (Rationale)
Mulching	ESD-Agron	484	Slight Improvement	Mulching will stabilize eroding areas and reduce	Yes	Slight to Moderate Improvement	Mulching will stabilize eroding areas and reduce	Yes	Slight Improvement	Mulching will stabilize eroding areas and reduce
Nutrient Management	ESD-NM & CED-EE	590	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Obstruction Removal	CED-AE	500	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Open Channel	CED-DE	582	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Stabilized channel bottom and sides.	No	Not Applicable	Not applicable.
Pasture & Hay Planting	ESD-Graz Land Sp	512	Slight Improvement	There will be an increase of vegetative cover and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pest Management	ESD-PM & CED-EE	595	Slight to Substantial Improvement	Gully erosion is decreased by changing the way	Yes	Neutral	Pest management activities generally have a negligible	No	Not Applicable	Not applicable.
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond	CED-DE	378	Slight to Substantial Improvement	Stabilization of the gully due to the embankment.	No	Slight Improvement	Reduced peak flows downstream from impoundment.	No	Slight to Moderate Worsening	Increase in shoreline.
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Banks are protected by liners that extend above the water line.
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Banks are protected by liners that extend above the water line.
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Banks are protected by liners that extend above the water line.
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Banks are protected by liners that extend above the water line.
Prescribed Burning	ESD-For	338	Slight Improvement	Improved plant production and vegetative cover	No	Slight Improvement	Improved plant production and vegetative cover	No	Slight Improvement	Improved plant production and vegetative cover

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Shoreline (Purpose)*	*Soil Erosion – Irrigation-induced (Effect)*	*Soil Erosion – Irrigation-induced (Rationale)*	*Soil Erosion – Irrigation-induced (Purpose)*	*Soil Erosion - Mass Movement (Effect)*	*Soil Erosion - Mass Movement (Rationale)*	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*
Mulching	ESD-Agron	484	Yes	Slight to Substantial Improvement	Surface cover reduces erosion.	Yes	Slight Worsening	Increased infiltration could exacerbate mass movement	No	Moderate to Substantial Improvement
Nutrient Management	ESD-NM & CED-EE	590	No	Slight Worsening	Soil disturbance to incorporate fertilizer loosens the soil and	No	Not Applicable	Not applicable.	No	Not Applicable
Obstruction Removal	CED-AE	500	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Open Channel	CED-DE	582	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pasture & Hay Planting	ESD-Graz Land Sp	512	No	Slight to Substantial Improvement	There will be an improvement of protective vegetative	Yes	Neutral	The increase in vegetation enhances soil binding by root	No	Not Applicable
Pest Management	ESD-PM & CED-EE	595	No	Slight to Substantial Improvement	Surface runoff is decreased by changing the way	Yes	Not Applicable	Not applicable.	No	Not Applicable
Pipeline	CED-DE	516	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond	CED-DE	378	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Prescribed Burning	ESD-For	338	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*	*Soil Condition - Organic Matter Depletion (Effect)*	*Soil Condition - Organic Matter Depletion (Rationale)*	*Soil Condition - Organic Matter Depletion (Purpose)*	*Soil Condition - Rangeland Site Stability (Effect)*	*Soil Condition - Rangeland Site Stability (Rationale)*	*Soil Condition - Rangeland Site Stability (Purpose)*
Mulching	ESD-Agron	484	Surface cover reduces erosion.	Yes	Slight to Substantial Improvement	Decreased erosion and biomass addition from	Yes	Not Applicable	Not applicable.	No
Nutrient Management	ESD-NM & CED-EE	590	Not applicable.	No	Slight to Moderate Improvement	Applying sufficient nutrients will maintain or enhance	No	Neutral	Soil disturbance to incorporate fertilizer loosens the soil and	No
Obstruction Removal	CED-AE	500	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Open Channel	CED-DE	582	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pasture & Hay Planting	ESD-Graz Land Sp	512	Not applicable.	No	Moderate to Substantial Improvement	There will be enhanced biomass production, root	No	Not Applicable	Not applicable.	No
Pest Management	ESD-PM & CED-EE	595	Not applicable.	No	Slight to Moderate Improvement	Organic matter depletion is decreased by	Yes	Not Applicable	Not applicable.	No
Pipeline	CED-DE	516	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Short term increase along pipeline route.	No
Pond	CED-DE	378	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Prescribed Burning	ESD-For	338	Not applicable.	No	Slight Improvement	Improved plant production and vegetative cover	No	Slight to Moderate Improvement	Improved plant production and vegetative cover	Yes

Practice	Lead Discipline(s)	Practice Code	Soil Condition - Compaction (Effect)	Soil Condition - Compaction (Rationale)	Soil Condition - Compaction (Purpose)	Soil Condition - Subsidence (Effect)	Soil Condition - Subsidence (Rationale)	Soil Condition - Subsidence (Purpose)	Soil Condition - Contaminants - Salts and Other Chemicals (Effect)	Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)
Mulching	ESD-Agron	484	Slight to Moderate Improvement	Mulch cover may provide some cushion to vehicular	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Reduced evaporation may reduce salt build up. Added organic
Nutrient Management	ESD-NM & CED-EE	590	Slight to Moderate Worsening	Field operations on moist soils cause soil compaction.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Decreased excess nutrients results in reduced salts and
Obstruction Removal	CED-AE	500	Slight Worsening	Equipment used in removing obstructions will	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Open Channel	CED-DE	582	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pasture & Hay Planting	ESD-Graz Land Sp	512	Moderate to Substantial Improvement	There will be enhanced biomass production, root	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Site planted to adapted species could contribute to
Pest Management	ESD-PM & CED-EE	595	Slight to Moderate Improvement	Soil compaction is decreased by changing the way	Yes	Slight to Moderate Improvement	Oxidation of organic matter is decreased by changing the way	Yes	Not Applicable	Not applicable.
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond	CED-DE	378	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Lining decreases contamination immediately below
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Lining decreases contamination immediately below
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Lining decreases contamination immediately below
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Lining decreases contamination immediately below
Prescribed Burning	ESD-For	338	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening	Burning mineralizes organic materials.

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*
Mulching	ESD-Agron	484	No	Slight Improvement	Added carbon immobilizes some N.	No	Neutral	Not applicable.	No	Slight Improvement
Nutrient Management	ESD-NM & CED-EE	590	Yes	Slight to Moderate Improvement	Proper application results in reduced risks of	Yes	Slight to Moderate Improvement	Proper application results in reduced risks of	Yes	Slight to Moderate Improvement
Obstruction Removal	CED-AE	500	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Open Channel	CED-DE	582	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pasture & Hay Planting	ESD-Graz Land Sp	512	No	Moderate to Substantial Improvement	There will be increased N use by grasses and/or	No	Moderate to Substantial Improvement	There will be increased P use by grasses and/or	No	Moderate to Substantial Improvement
Pest Management	ESD-PM & CED-EE	595	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pipeline	CED-DE	516	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond	CED-DE	378	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	No	Slight Improvement	Lining decreases contamination immediately below	No	Slight Improvement	Lining decreases contamination immediately below	No	Slight Improvement
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	No	Slight Improvement	Lining decreases contamination immediately below	No	Slight Improvement	Lining decreases contamination immediately below	No	Slight Improvement
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	No	Slight Improvement	Lining decreases contamination immediately below	No	Slight Improvement	Lining decreases contamination immediately below	No	Slight Improvement
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	No	Slight Improvement	Lining decreases contamination immediately below	No	Slight Improvement	Lining decreases contamination immediately below	No	Slight Improvement
Prescribed Burning	ESD-For	338	No	Slight Improvement	Fire causes mineralization of N in plant materials and	No	Slight Improvement	Fire causes mineralization of P in plant materials and	No	Slight Improvement

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Mulching	**ESD-Agron**	**484**	**Added carbon immobilizes some K.**	**No**	**Slight Improvement**	**Added carbon immobilizes some N.**	**No**	**Neutral**	**Not applicable.**	**No**
Nutrient Management	**ESD-NM & CED-EE**	**590**	**Proper application results in reduced risks of**	**Yes**	**Slight to Moderate Improvement**	**Proper application results in reduced risks of**	**Yes**	**Slight to Moderate Improvement**	**Proper application results in reduced risks of**	**Yes**
Obstruction Removal	**CED-AE**	**500**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Open Channel	**CED-DE**	**582**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pasture & Hay Planting	**ESD-Graz Land Sp**	**512**	**There will be increased K use by grasses and/or**	**No**	**Moderate to Substantial Improvement**	**There will be increased N use by grasses and/or**	**No**	**Moderate to Substantial Improvement**	**There will be increased P use by grasses and/or**	**No**
Pest Management	**ESD-PM & CED-EE**	**595**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pipeline	**CED-DE**	**516**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pond	**CED-DE**	**378**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pond Sealing or Lining, Bentonite Sealant	**CED-SE**	**521C**	**Lining decreases contamination immediately below**	**No**	**Slight Improvement**	**Lining decreases contamination immediately below**	**No**	**Slight Improvement**	**Lining decreases contamination immediately below**	**No**
Pond Sealing or Lining, Compacted Clay Treatment	**CED-SE**	**521D**	**Lining decreases contamination immediately below**	**No**	**Slight Improvement**	**Lining decreases contamination immediately below**	**No**	**Slight Improvement**	**Lining decreases contamination immediately below**	**No**
Pond Sealing or Lining, Flexible Membrane	**CED-CE**	**521A**	**Lining decreases contamination immediately below**	**No**	**Slight Improvement**	**Lining decreases contamination immediately below**	**No**	**Slight Improvement**	**Lining decreases contamination immediately below**	**No**
Pond Sealing or Lining, Soil Dispersant	**CED-SE**	**521B**	**Lining decreases contamination immediately below**	**No**	**Slight Improvement**	**Lining decreases contamination immediately below**	**No**	**Slight Improvement**	**Lining decreases contamination immediately below**	**No**
Prescribed Burning	**ESD-For**	**338**	**Fire causes mineralization of K in plant materials and**	**No**	**Slight Improvement**	**Fire causes mineralization of N in plant materials and**	**No**	**Slight Improvement**	**Fire causes mineralization of P in plant materials and**	**No**

Practice	Lead Discipline(s)	Practice Code	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)	Soil Condition - Contaminants - Residual Pesticides (Effect)	Soil Condition - Contaminants - Residual Pesticides (Rationale)	Soil Condition - Contaminants - Residual Pesticides (Purpose)	Soil Condition - Damage from Sediment Deposition (Effect)	Soil Condition - Damage from Sediment Deposition (Rationale)
Mulching	ESD-Agron	484	Slight Improvement	Added carbon immobilizes some K.	No	Slight Improvement	Soil biological activity under organic mulches	No	Slight Improvement	Mulch cover may trap sediment, but mulch reduces soil erosion.
Nutrient Management	ESD-NM & CED-EE	590	Slight to Moderate Improvement	Proper application results in reduced risks of	Yes	Not Applicable	Not applicable.	No	Slight Improvement	Better vegetative growth results in less erosion.
Obstruction Removal	CED-AE	500	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Erosion control practices are required.
Open Channel	CED-DE	582	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Channel intercepts runoff that might otherwise cause
Pasture & Hay Planting	ESD-Graz Land Sp	512	Moderate to Substantial Improvement	There will be increased K use by grasses and/or	No	Slight to Moderate Improvement	Proper seedbed preparation and the establishment of a	No	Slight to Moderate Improvement	There will be a reduction in erosion due to increased
Pest Management	ESD-PM & CED-EE	595	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Residual pesticides are decreased by changing the way	Yes	Slight to Moderate Improvement	Sedimentation is decreased by changing the way
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond	CED-DE	378	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Sediment is trapped in embankment ponds.
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Slight Improvement	Lining decreases contamination immediately below	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Slight Improvement	Lining decreases contamination immediately below	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Slight Improvement	Lining decreases contamination immediately below	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Slight Improvement	Lining decreases contamination immediately below	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Prescribed Burning	ESD-For	338	Slight Improvement	Fire causes mineralization of K in plant materials and	No	Slight Improvement	Residues in plants and litter are released to the	No	Slight Improvement	Improved plant production and vegetative cover

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*	*Water Quantity - Rangeland Hydrologic Cycle (Rationale)*	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)*
Mulching	ESD-Agron	484	No	Not Applicable	Not applicable.	No	Slight Worsening	Increased infiltration results in more water moving through the	No	Slight to Moderate Improvement
Nutrient Management	ESD-NM & CED-EE	590	No	Not Applicable	Not Applicable	No	Not Applicable	Not applicable.	No	Not Applicable
Obstruction Removal	CED-AE	500	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Open Channel	CED-DE	582	No	Not Applicable	Not applicable.	No	Slight Improvement	Water conveyance reduces seepage.	No	Substantial Improvement
Pasture & Hay Planting	ESD-Graz Land Sp	512	Yes	Not Applicable	Not Applicable	No	Neutral	There will be an increase in plant uptake and	No	Slight to Moderate Improvement
Pest Management	ESD-PM & CED-EE	595	Yes	Not Applicable	Not Applicable	No	Not Applicable	Not applicable.	No	Not Applicable
Pipeline	CED-DE	516	No	Not Applicable	Not Applicable	No	Not Applicable	Not applicable.	No	Not Applicable
Pond	CED-DE	378	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Possible seepage from ponding of water.	No	Slight to Moderate Improvement
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	No	Not Applicable	Not applicable.	No	Slight Improvement	Reduction in seepage due to less water seeping from	No	Not Applicable
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	No	Not Applicable	Not applicable.	No	Slight Improvement	Reduction in seepage due to less water seeping from	No	Not Applicable
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	No	Not Applicable	Not applicable.	No	Slight Improvement	Reduction in seepage due to less water seeping from	No	Not Applicable
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	No	Not Applicable	Not applicable.	No	Slight Improvement	Reduction in seepage due to less water seeping from	No	Not Applicable
Prescribed Burning	ESD-For	338	No	Slight to Substantial Improvement	Restoration and/or maintenance of the function and	Yes	Not Applicable	Not applicable.	No	Slight Improvement

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)*	*Water Quantity - Excessive Subsurface Water (Effect)*	*Water Quantity - Excessive Subsurface Water (Rationale)*	*Water Quantity - Excessive Subsurface Water (Purpose)*	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*
Mulching	ESD-Agron	484	Increased infiltration, reduces runoff and ponding.	No	Slight Worsening	Increased infiltration results in more water moving through the	No	Not Applicable	Not applicable.	No
Nutrient Management	ESD-NM & CED-EE	590	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Obstruction Removal	CED-AE	500	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action may remove obstruction that catches snow.	Yes
Open Channel	CED-DE	582	Channel capacity accommodates runoff and reduces	Yes	Slight to Substantial Improvement	Provides suitable outlets and facilitates drainage.	Yes	Not Applicable	Not applicable.	No
Pasture & Hay Planting	ESD-Graz Land Sp	512	There will be an increase in cover and infiltration, reducing	No	Slight Improvement	There will be increased plant uptake and	No	Not Applicable	Not applicable.	No
Pest Management	ESD-PM & CED-EE	595	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not Applicable	No
Pipeline	CED-DE	516	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond	CED-DE	378	Runoff and peak flows reduced.	No	Slight Worsening	Seepage from ponded water.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not applicable.	No	Slight to Moderate Improvement	Reduced seepage from the pond will result in less	Yes	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not applicable.	No	Slight to Moderate Improvement	Reduced seepage from the pond will result in less	Yes	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not applicable.	No	Slight to Moderate Improvement	Reduced seepage from the pond will result in less	Yes	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not applicable.	No	Slight to Moderate Improvement	Reduced seepage from the pond will result in less	Yes	Not Applicable	Not applicable.	No
Prescribed Burning	ESD-For	338	Improved plant production and vegetative cover	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quantity - Inadequate Outlets (Effect)	Water Quantity - Inadequate Outlets (Rationale)	Water Quantity - Inadequate Outlets (Purpose)	Water Quantity - Inefficient Water Use on Irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)	Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)
Mulching	ESD-Agron	484	Slight Improvement	Reduces needed capacity of outlets due to less runoff.	No	Slight to Substantial Improvement	Increases infiltration and decreases evaporation resulting	Yes	Slight to Substantial Improvement	Increases infiltration and decreases evaporation resulting
Nutrient Management	ESD-NM & CED-EE	590	Not Applicable	Not applicable.	No	Neutral	Excess nitrogen promotes shoot growth in relation to	No	Neutral	Excess nitrogen promotes shoot growth in relation to
Obstruction Removal	CED-AE	500	Slight to Moderate Improvement	The action may remove obstacles blocking outlets.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Open Channel	CED-DE	582	Substantial Improvement	Provides adequate outlet capacity.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pasture & Hay Planting	ESD-Graz Land Sp	512	Slight Improvement	Needed capacity of outlets is reduced due to decreased	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The plant species selected will be adapted to meet the
Pest Management	ESD-PM & CED-EE	595	Not Applicable	Not applicable.	No	Slight Improvement	If this resource concern is negatively impacted by pests,	Yes	Slight Improvement	Water use is more efficient by changing the way pests are
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond	CED-DE	378	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Provides permanent water storage for irrigation.	No	Slight to Substantial Improvement	Provides permanent water storage.
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Retention of water in pond will allow more optimal use of water.	Yes	Slight to Substantial Improvement	Retention of water in pond will allow more optimal use of water.
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Retention of water in pond will allow more optimal use of water.	Yes	Slight to Substantial Improvement	Retention of water in pond will allow more optimal use of water.
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Retention of water in pond will allow more optimal use of water.	Yes	Slight to Substantial Improvement	Retention of water in pond will allow more optimal use of water.
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Retention of water in pond will allow more optimal use of water.	Yes	Slight to Substantial Improvement	Retention of water in pond will allow more optimal use of water.
Prescribed Burning	ESD-For	338	Slight Improvement	Improved plant production and vegetative cover	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
Mulching	ESD-Agron	484	Yes	Slight to Substantial Improvement	Reduces erosion which results in less sediment in	Yes	Slight to Substantial Improvement	Reduces erosion which results in less sediment in water	No	Slight Improvement
Nutrient Management	ESD-NM & CED-EE	590	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Obstruction Removal	CED-AE	500	No	Slight to Substantial Improvement	The action maybe be used to remove sediment.	Yes	Slight to Substantial Improvement	The action maybe be used to remove sediment.	Yes	Not Applicable
Open Channel	CED-DE	582	No	Slight to Moderate Improvement	Improved channel conveyance is more efficient mechanism	No	Slight to Moderate Worsening	Improved channel conveyance is more efficient mechanism	No	Not Applicable
Pasture & Hay Planting	ESD-Graz Land Sp	512	No	Slight Improvement	Reduced erosion due to increased vegetative cover,	No	Slight to Moderate Improvement	Reduced erosion due to increased vegetative cover,	No	Neutral
Pest Management	ESD-PM & CED-EE	595	Yes	Slight Improvement	Sedimentation is decreased by changing the way	Yes	Slight Improvement	Sedimentation is decreased by changing the way	Yes	Not Applicable
Pipeline	CED-DE	516	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond	CED-DE	378	No	Moderate Improvement	Sediment is trapped in impoundment.	No	Neutral	Limited sediment deposition.	No	Slight Improvement
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening
Prescribed Burning	ESD-For	338	No	Slight Improvement	Improved plant production and vegetative cover	No	Slight Improvement	Improved plant production and vegetative cover	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Aquifer Overdraft (Rationale)*	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)*
Mulching	ESD-Agron	484	Increases infiltration and reduces evaporation,	No	Not Applicable	Not applicable.	No	Slight Improvement	The action reduces the need for pesticide use and	No
Nutrient Management	ESD-NM & CED-EE	590	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Obstruction Removal	CED-AE	500	Not applicable.	No	Slight Improvement	The action may remove obstacles blocking inlets to the	Yes	Not Applicable	Not applicable.	No
Open Channel	CED-DE	582	Not applicable.	No	Moderate Improvement	Improved channels will increase flows to other water courses.	No	Not Applicable	Not applicable.	No
Pasture & Hay Planting	ESD-Graz Land Sp	512	Plant species will be selected that are adapted to the	No	Slight Improvement	Selection of adapted species will increased cover and	No	Slight to Moderate Improvement	The action increases soil organic matter and biological	No
Pest Management	ESD-PM & CED-EE	595	Not applicable.	No	Not Applicable	Not applicable.	No	Substantial Improvement	Residual pesticides are decreased by changing the way	Yes
Pipeline	CED-DE	516	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond	CED-DE	378	Seepage from the impoundment impacts recharge	No	Slight Worsening	Controlled release of stored water provides flow	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Liner will reduce the potential for seepage and recharge of the	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Liner will reduce the potential for seepage and recharge of the	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Liner will reduce the potential for seepage and recharge of the	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Liner will reduce the potential for seepage and recharge of the	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Prescribed Burning	ESD-For	338	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)	Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)	Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)	Water Quality - Excessive Salinity in Groundwater (Effect)	Water Quality - Excessive Salinity in Groundwater (Rationale)	Water Quality - Excessive Salinity in Groundwater (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)
Mulching	ESD-Agron	484	Slight Worsening	The action increases infiltration that contributes to	No	Slight Worsening	Better infiltration increases leaching potential.	No	Neutral	Higher organic matter levels may bind heavy metals
Nutrient Management	ESD-NM & CED-EE	590	Substantial Improvement	The amount and timing of nutrient application are	Yes	Slight Improvement	Proper nutrient application should reduce salinity if	No	Slight to Moderate Improvement	The action limits the total amount of heavy metals that
Obstruction Removal	CED-AE	500	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Open Channel	CED-DE	582	Neutral	Rapid removal of water off site has the potential to decrease	No	Neutral	Rapid removal of water off site has the potential to decrease	No	Not Applicable	Not applicable.
Pasture & Hay Planting	ESD-Graz Land Sp	512	Slight to Moderate Improvement	Permanent vegetation will take up excess nutrients.	No	Slight Improvement	There will be an increase in plant uptake when adapted	No	Slight Improvement	Certain plant species can take up heavy metals. Increased
Pest Management	ESD-PM & CED-EE	595	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond	CED-DE	378	Slight Worsening	Nutrients impounded could contaminate groundwater.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Slight to Moderate Improvement	The action reduces the potential for seepage.	Yes	Moderate Improvement	The action prevents contaminants in the pond from moving	Yes	Slight Improvement	The action limits seepage to prevent leaching of heavy
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Slight to Moderate Improvement	The action reduces the potential for seepage.	Yes	Moderate Improvement	The action prevents contaminants in the pond from moving	Yes	Slight Improvement	The action limits seepage to prevent leaching of heavy
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Slight to Substantial Improvement	The action will retain a substantial amount of contaminants in	Yes	Moderate Improvement	The action prevents contaminants in the pond from moving	Yes	Slight Improvement	The action limits seepage to prevent leaching of heavy
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Slight to Substantial Improvement	Liner will retain a substantial amount of contaminants in	Yes	Moderate Improvement	The action prevents contaminants in the pond from moving	Yes	Slight Improvement	The action limits seepage to prevent leaching of heavy
Prescribed Burning	ESD-For	338	Slight Improvement	The action increases plant vigor and uptake of nutrients.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)*
Mulching	ESD-Agron	484	No	Neutral	Better infiltration could increase leaching, but	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Nutrient Management	ESD-NM & CED-EE	590	Yes	Slight Improvement	The action limits the amount of manure that can be applied	No	Not Applicable	Not applicable.	No	Not Applicable
Obstruction Removal	CED-AE	500	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Open Channel	CED-DE	582	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pasture & Hay Planting	ESD-Graz Land Sp	512	No	Slight Improvement	Increased soil microbial activity will enhance competition	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Pest Management	ESD-PM & CED-EE	595	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Substantial Improvement
Pipeline	CED-DE	516	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond	CED-DE	378	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Yes	Slight to Substantial Improvement	The action limits seepage to prevent leaching of	Yes	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Yes	Slight to Substantial Improvement	The action limits seepage to prevent leaching of	Yes	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Yes	Slight to Substantial Improvement	The action limits seepage to prevent leaching of	Yes	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Yes	Slight to Substantial Improvement	The action limits seepage to prevent leaching of	Yes	Not Applicable	Not applicable.	No	Not Applicable
Prescribed Burning	ESD-For	338	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*
Mulching	ESD-Agron	484	The action reduces runoff, erosion and the need for	No	Slight to Moderate Improvement	The action reduces erosion and runoff, reducing the loss of	No	Slight to Moderate Improvement	Less erosion and runoff reduces transport of	No
Nutrient Management	ESD-NM & CED-EE	590	Not applicable.	No	Substantial Improvement	Source, amount, timing, and method of application are	Yes	Neutral	Proper nutrient application will minimize losses due	No
Obstruction Removal	CED-AE	500	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Open Channel	CED-DE	582	Not applicable.	No	Slight Worsening	Rapid removal of water off site has the potential to decrease	No	Neutral	Change in alignment, capacity, and velocity will cause a	No
Pasture & Hay Planting	ESD-Graz Land Sp	512	The action decreases runoff and erosion.	No	Slight to Moderate Improvement	Permanent vegetation will uptake excess	No	Slight to Moderate Improvement	There will be improved vegetative cover with a	No
Pest Management	ESD-PM & CED-EE	595	Residual pesticides are decreased by changing the way	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Suspended sediment is decreased by changing the way	Yes
Pipeline	CED-DE	516	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond	CED-DE	378	Not applicable.	No	Slight to Moderate Improvement	The action impounds water reducing the delivery of nutrients	No	Slight to Substantial Improvement	Suspended sediments are trapped.	Yes
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not applicable.	No	Slight to Moderate Improvement	Liners reduce or prevent seepage losses from waste	Yes	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not applicable.	No	Slight to Moderate Improvement	Liners reduce or prevent seepage losses from waste	Yes	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not applicable.	No	Slight to Moderate Improvement	Liners reduce or prevent seepage losses from waste	Yes	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not applicable.	No	Slight to Moderate Improvement	Liners reduce or prevent seepage losses from waste	Yes	Not Applicable	Not applicable.	No
Prescribed Burning	ESD-For	338	Not applicable.	No	Slight to Moderate Improvement	The action increases plant vigor and uptake of nutrients.	No	Slight Improvement	Improved plant production and vegetative cover	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Salinity in Surface Water (Effect)	Water Quality - Excessive Salinity in Surface Water (Rationale)	Water Quality - Excessive Salinity in Surface Water (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)	Water Quality - Harmful Temperatures of Surface Water (Effect)	Water Quality - Harmful Temperatures of Surface Water (Rationale)
Mulching	ESD-Agron	484	Slight Improvement	Less runoff reduces transport potential of soluble salts.	No	Slight Improvement	Decreased erosion and runoff reduces heavy metal delivery	No	Not Applicable	Not applicable.
Nutrient Management	ESD-NM & CED-EE	590	Slight Improvement	Proper nutrient application should reduce salinity if	No	Slight to Substantial Improvement	Changing pH will alter the solubility of metals. The action	Yes	Not Applicable	Not applicable.
Obstruction Removal	CED-AE	500	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Open Channel	CED-DE	582	Not Applicable	Not applicable.	No	Slight Worsening	Rapid movement of water off site will tend to move	No	Neutral	The action conveys water quickly and will not result in
Pasture & Hay Planting	ESD-Graz Land Sp	512	Slight Improvement	Dense vegetation will increase infiltration and reduce runoff.	No	Slight to Moderate Improvement	Increased uptake by some pasture plants and reduced erosion	No	Not Applicable	Not applicable.
Pest Management	ESD-PM & CED-EE	595	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond	CED-DE	378	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Water released from impoundments may be warmer or cooler
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Prescribed Burning	ESD-For	338	Not Applicable	Not applicable.	No	Slight Improvement	Initial removal of vegetation is followed by improved	No	Neutral	The action is designed or mitigated to maintain

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Temperatures of Surface Water (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*
Mulching	**ESD-Agron**	**484**	**No**	**Slight Improvement**	**Less erosion and runoff reduces delivery of**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Nutrient Management	**ESD-NM & CED-EE**	**590**	**No**	**Slight Improvement**	**Decrease application of pathogens if nutrient source**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Obstruction Removal	**CED-AE**	**500**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Open Channel	**CED-DE**	**582**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pasture & Hay Planting	**ESD-Graz Land Sp**	**512**	**No**	**Slight Improvement**	**The improved vegetative cover and increased soil**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Pest Management	**ESD-PM & CED-EE**	**595**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Pipeline	**CED-DE**	**516**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond	**CED-DE**	**378**	**No**	**Slight to Moderate Worsening**	**Because of aquatic animal feed or decaying vegetation,**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond Sealing or Lining, Bentonite Sealant	**CED-SE**	**521C**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond Sealing or Lining, Compacted Clay Treatment	**CED-SE**	**521D**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond Sealing or Lining, Flexible Membrane	**CED-CE**	**521A**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond Sealing or Lining, Soil Dispersant	**CED-SE**	**521B**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Prescribed Burning	**ESD-For**	**338**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)*	*Air Quality - Excessive Ozone (Effect)*	*Air Quality - Excessive Ozone (Rationale)*	*Air Quality - Excessive Ozone (Purpose)*
Mulching	**ESD-Agron**	**484**	**Mulches can stabilize the soil surface, reducing the**	**No**	**Slight to Moderate Improvement**	**Mulches can stabilize the soil surface, reducing the**	**No**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**
Nutrient Management	**ESD-NM & CED-EE**	**590**	**The proper application of nutrients can reduce**	**Yes**	**Slight to Substantial Improvement**	**The proper application of nutrients can reduce**	**Yes**	**Slight to Substantial Improvement**	**There is a decrease in potential ozone precursor emissions.**	**Yes**
Obstruction Removal	**CED-AE**	**500**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Open Channel	**CED-DE**	**582**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pasture & Hay Planting	**ESD-Graz Land Sp**	**512**	**Establishing permanent vegetation reduces**	**Yes**	**Slight to Moderate Improvement**	**Establishing permanent vegetation reduces**	**Yes**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**
Pest Management	**ESD-PM & CED-EE**	**595**	**The suspension component of wind erosion is decreased**	**Yes**	**Slight to Moderate Improvement**	**The suspension component of wind erosion is decreased**	**Yes**	**Not Applicable**	**Not Applicable**	**No**
Pipeline	**CED-DE**	**516**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pond	**CED-DE**	**378**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pond Sealing or Lining, Bentonite Sealant	**CED-SE**	**521C**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pond Sealing or Lining, Compacted Clay Treatment	**CED-SE**	**521D**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pond Sealing or Lining, Flexible Membrane	**CED-CE**	**521A**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Pond Sealing or Lining, Soil Dispersant	**CED-SE**	**521B**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Prescribed Burning	**ESD-For**	**338**	**Increased plant vigor reduces the potential for generation of**	**No**	**Slight to Moderate Improvement**	**Increased plant vigor reduces the potential for generation of**	**No**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)*
Mulching	ESD-Agron	484	Slight Improvement	If used, vegetation residue stores carbon.	No	Not Applicable	Not applicable.	No	Slight Worsening	Breakdown and decay of organic material is conducive
Nutrient Management	ESD-NM & CED-EE	590	Slight Improvement	Management of nutrients optimizes the storage of soil	No	Slight Improvement	Reduction in N in waste results in less N volatilization	No	Slight to Moderate Improvement	Proper nutrient management reduces methane
Obstruction Removal	CED-AE	500	Neutral	Carbon is released if the obstruction materials are burned.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Open Channel	CED-DE	582	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pasture & Hay Planting	ESD-Graz Land Sp	512	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pest Management	ESD-PM & CED-EE	595	Slight to Moderate Improvement	The release of CO2 by ground disturbing activities is	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond	CED-DE	378	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Prescribed Burning	ESD-For	338	Moderate to Substantial Improvement	CO2 emissions are decreased with the decreased incidence	No	Not Applicable	Not applicable.	No	Moderate Worsening	Combustion of organic material reduces CH4

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*	*Air Quality - NH3 - Ammonia (Effect)*	*Air Quality - NH3 - Ammonia (Rationale)*	*Air Quality - NH3 - Ammonia (Purpose)*	*Air Quality - Chemical Drift (Effect)*	*Air Quality - Chemical Drift (Rationale)*	*Air Quality - Chemical Drift (Purpose)*	*Air Quality - Objectionable Odors (Effect)*
Mulching	**ESD-Agron**	**484**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Nutrient Management	**ESD-NM & CED-EE**	**590**	**No**	**Slight to Moderate Improvement**	**Proper nutrient management reduces NH3**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Obstruction Removal	**CED-AE**	**500**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Open Channel	**CED-DE**	**582**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pasture & Hay Planting	**ESD-Graz Land Sp**	**512**	**No**	**Slight Worsening**	**NH3 emissions may increase with fertilizer application.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pest Management	**ESD-PM & CED-EE**	**595**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Substantial Improvement**	**Pesticide drift is decreased by changing the way**	**Yes**	**Moderate to Substantial Improvement**
Pipeline	**CED-DE**	**516**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond	**CED-DE**	**378**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond Sealing or Lining, Bentonite Sealant	**CED-SE**	**521C**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond Sealing or Lining, Compacted Clay Treatment	**CED-SE**	**521D**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond Sealing or Lining, Flexible Membrane	**CED-CE**	**521A**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Pond Sealing or Lining, Soil Dispersant	**CED-SE**	**521B**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Prescribed Burning	**ESD-For**	**338**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*	*Air Quality - Reduced Visibility (Rationale)*	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Mulching	ESD-Agron	484	Not applicable.	No	Slight to Moderate Improvement	Soil erosion from wind is reduced.	No	Not Applicable	Not applicable.	No
Nutrient Management	ESD-NM & CED-EE	590	Proper management and application/incorpora	Yes	Slight to Moderate Improvement	Reduction in fine particulate matter and ozone	Yes	Not Applicable	Not applicable.	No
Obstruction Removal	CED-AE	500	Not applicable.	No	Slight Worsening	Construction activities increase particulates.	No	Not Applicable	Not applicable.	No
Open Channel	CED-DE	582	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pasture & Hay Planting	ESD-Graz Land Sp	512	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pest Management	ESD-PM & CED-EE	595	Objectionable odors are decreased by changing the way	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pipeline	CED-DE	516	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond	CED-DE	378	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Prescribed Burning	ESD-For	338	Fire increases smoke, particulates, and associated	No	Neutral	Smoke can substantially affect visibility temporarily.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Adverse Air Temperature (Effect)	Air Quality - Adverse Air Temperature (Rationale)	Air Quality - Adverse Air Temperature (Purpose)	Plants not adapted or suited (Effect)	Plants not adapted or suited (Rationale)	Plants not adapted or suited (Purpose)	Plant Condition - Productivity, Health and Vigor (Effect)	Plant Condition - Productivity, Health and Vigor (Rationale)
Mulching	ESD-Agron	484	Slight to Moderate Improvement	Materials can insulate sites from low temperatures	Yes	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Mulching materials improve growing conditions
Nutrient Management	ESD-NM & CED-EE	590	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Nutrients and soil amendments are optimized to enhance	Yes	Slight to Substantial Improvement	Nutrients and soil amendments are optimized to enhance
Obstruction Removal	CED-AE	500	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Open Channel	CED-DE	582	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pasture & Hay Planting	ESD-Graz Land Sp	512	Not Applicable	Not applicable.	No	Substantial Improvement	There will be a selection of well-adapted and	Yes	Substantial Improvement	Plants are selected and managed to maintain optimal
Pest Management	ESD-PM & CED-EE	595	Not Applicable	Not applicable.	No	Substantial Improvement	There will be a selection of well-adapted and	Yes	Substantial Improvement	Pest management (IPM where it is available) reduces
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Available water to facilitate grazing management
Pond	CED-DE	378	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Available water to facilitate grazing management
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Available water to facilitate grazing management
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Available water to facilitate grazing management
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Available water to facilitate grazing management
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Available water to facilitate grazing management
Prescribed Burning	ESD-For	338	Slight to Moderate Worsening	Removal of tall vegetation eliminates shade and increases	No	Moderate to Substantial Improvement	Growing conditions are altered to allow more suitable	Yes	Substantial Improvement	Growing conditions are altered to enhance health and

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*	*Plant Condition - Noxious and Invasive Plants (Effect)*
Mulching	ESD-Agron	484	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Nutrient Management	ESD-NM & CED-EE	590	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Obstruction Removal	CED-AE	500	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Open Channel	CED-DE	582	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pasture & Hay Planting	ESD-Graz Land Sp	512	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement
Pest Management	ESD-PM & CED-EE	595	Yes	Slight to Substantial Improvement	Reducing pest competition, pest damage, and pest	Yes	Slight to Substantial Improvement	Reducing pest competition, pest damage, and pest	Yes	Substantial Improvement
Pipeline	CED-DE	516	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond	CED-DE	378	No	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Not Applicable
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Prescribed Burning	ESD-For	338	Yes	Neutral	When threatened or endangered plants are present,	Yes	Neutral	When threatened or endangered plants are present,	Yes	Moderate to Substantial Improvement

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Noxious and Invasive Plants (Rationale)*	*Plant Condition - Noxious and Invasive Plants (Purpose)*	*Plant Condition - Forage Quality and Palatability (Effect)*	*Plant Condition - Forage Quality and Palatability (Rationale)*	*Plant Condition - Forage Quality and Palatability (Purpose)*	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*
Mulching	ESD-Agron	484	Thick and/or impenetrable mulch cover can prevent	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Nutrient Management	ESD-NM & CED-EE	590	Not applicable.	No	Moderate to Substantial Improvement	Proper management will increase quality and palatability of	Yes	Not Applicable	Not applicable.	No
Obstruction Removal	CED-AE	500	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Open Channel	CED-DE	582	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pasture & Hay Planting	ESD-Graz Land Sp	512	Vegetation is installed and managed to control	Yes	Substantial Improvement	The selection of adapted plant species will have	Yes	Not Applicable	Not applicable.	No
Pest Management	ESD-PM & CED-EE	595	Pest management (IPM where it is available) reduces	Yes	Moderate to Substantial Improvement	Pest management (IPM where it is available) will reduce	Yes	Slight to Substantial Improvement	Undesired plants are managed thereby reducing hazard.	No
Pipeline	CED-DE	516	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond	CED-DE	378	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Prescribed Burning	ESD-For	338	Activities are designed and carried out to manage	Yes	Substantial Improvement	Sites are restored improving forage quality and	Yes	Substantial Improvement	Activities are carried out to reduce fuel loading.	Yes

Practice	Lead Discipline(s)	Practice Code	Fish and Wildlife - Inadequate Food (Effect)	Fish and Wildlife - Inadequate Food (Rationale)	Fish and Wildlife - Inadequate Food (Purpose)	Fish and Wildlife - Inadequate Cover/Shelter (Effect)	Fish and Wildlife - Inadequate Cover/Shelter (Rationale)	Fish and Wildlife - Inadequate Cover/Shelter (Purpose)	Fish and Wildlife - Inadequate Water (Effect)	Fish and Wildlife - Inadequate Water (Rationale)
Mulching	ESD-Agron	484	Slight Improvement	Mulching enhances production of any food species planted.	No	Slight Improvement	Mulching enhances cover/shelter conditions.	No	Not Applicable	Not applicable.
Nutrient Management	ESD-NM & CED-EE	590	Slight Improvement	Management enhances production of any food species	No	Slight Improvement	Management enhances cover/shelter	No	Not Applicable	Not applicable.
Obstruction Removal	CED-AE	500	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Debris removal may remove habitat used for cover/shelter by	No	Not Applicable	Not applicable.
Open Channel	CED-DE	582	Neutral	Constructing or improving channels may increase or	No	Neutral	Constructing or improving channels may increase or	No	Slight to Moderate Worsening	Flow through the channel is accelerated reducing
Pasture & Hay Planting	ESD-Graz Land Sp	512	Slight to Substantial Improvement	Planted species provide food for certain species.	No	Slight to Substantial Improvement	Plant species are selected that are well-adapted and	No	Not Applicable	Not applicable.
Pest Management	ESD-PM & CED-EE	595	Slight to Substantial Improvement	Pest management (IPM where it is available) reduces	Yes	Slight to Substantial Improvement	Pest management (IPM where it is available) reduces	Yes	Not Applicable	Not applicable.
Pipeline	CED-DE	516	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pond	CED-DE	378	Slight to Substantial Improvement	Ponds provide plant and animal foods for certain fish and	Yes	Slight to Substantial Improvement	Plant and structure provide cover/shelter for fish and wildlife.	No	Moderate to Substantial Improvement	Ponds provide water for wildlife; entrapment,
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Duration of water in pond is extended.
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Duration of water in pond is extended.
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Duration of water in pond is extended.
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Duration of water in pond is extended.
Prescribed Burning	ESD-For	338	Slight to Substantial Improvement	Growing conditions are altered to provide a diverse plant	Yes	Slight to Substantial Improvement	Growing conditions are altered to provide a diverse plant	Yes	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*	*Fish and Wildlife - Inadequate Space (Purpose)*	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
Mulching	ESD-Agron	484	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Nutrient Management	ESD-NM & CED-EE	590	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Obstruction Removal	CED-AE	500	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Open Channel	CED-DE	582	No	Neutral	Constructing or improving channel may increase or	No	Slight to Moderate Worsening	Constructing channels will fragment vegetation	No	Neutral
Pasture & Hay Planting	ESD-Graz Land Sp	512	No	Slight Improvement	Selection of adapted species may accommodate	No	Not Applicable	Not applicable.	No	Slight Improvement
Pest Management	ESD-PM & CED-EE	595	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pipeline	CED-DE	516	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond	CED-DE	378	Yes	Slight to Moderate Improvement	Impoundments create additional pond-type	Yes	Slight to Moderate Improvement	Multiple ponds can restore the number and connectivity of	Yes	Slight to Moderate Improvement
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Prescribed Burning	ESD-For	338	No	Moderate to Substantial Improvement	Burning can restore desired habitats/space.	Yes	Moderate to Substantial Improvement	Burning can restore and reconnect desired	Yes	Slight to Substantial Improvement

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Imbalance Among and Within Populations (Rationale)*	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)*
Mulching	ESD-Agron	484	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Nutrient Management	ESD-NM & CED-EE	590	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Obstruction Removal	CED-AE	500	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Open Channel	CED-DE	582	Constructing or improving channel may increase or	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Pasture & Hay Planting	ESD-Graz Land Sp	512	Increase forage supply and cover.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Pest Management	ESD-PM & CED-EE	595	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Pipeline	CED-DE	516	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Pond	CED-DE	378	Ponds and adjacent areas provide variety and diversity for	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Prescribed Burning	ESD-For	338	Stand is rejuvenated and more productive, increasing carrying	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)*	*Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)*	*Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)*	*Domestic Animals - Inadequate Shelter (Effect)*	*Domestic Animals - Inadequate Shelter (Rationale)*	*Domestic Animals - Inadequate Shelter (Purpose)*	*Domestic Animals - Inadequate Stock Water (Effect)*	*Domestic Animals - Inadequate Stock Water (Rationale)*
Mulching	ESD-Agron	484	Slight to Moderate Improvement	Soil fertility is improved which increases forage	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Nutrient Management	ESD-NM & CED-EE	590	Moderate to Substantial Improvement	Nutrients are managed to ensure optimal production	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Management improves livestock water quality.
Obstruction Removal	CED-AE	500	Not Applicable	Not applicable.	No	Slight Worsening	The action may remove structures used for shelter.	No	Not Applicable	Not applicable.
Open Channel	CED-DE	582	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pasture & Hay Planting	ESD-Graz Land Sp	512	Substantial Improvement	Plant species will be selected that accommodate	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pest Management	ESD-PM & CED-EE	595	Moderate to Substantial Improvement	Pest management (IPM where it is available) reduces	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pipeline	CED-DE	516	Not Applicable	Not applicable.	Yes	Not Applicable	Not applicable.	No	Substantial Improvement	Pipeline facilitates the distribution of water to livestock.
Pond	CED-DE	378	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Substantial Improvement	Ponds provide stock water.
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Lining will prolong availability of water for livestock.
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Lining will prolong availability of water for livestock.
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Lining will prolong availability of water for livestock.
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Lining will prolong availability of water for livestock.
Prescribed Burning	ESD-For	338	Substantial Improvement	Plant and/or site conditions are restored to improve	Yes	Slight Worsening	Some shrubs and trees which provide shelter are removed	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*	*Appropriate Land Use(s)*	*Baseline Setting*
Mulching	ESD-Agron	484	No	Not Applicable	Not applicable.	No	All Land Uses	
Nutrient Management	ESD-NM & CED-EE	590	Yes	Slight to Substantial Improvement	Management results in nutritive forage improving livestock	No	Crop, Forest, Grazed Forest, Grazed Range, Hay,	
Obstruction Removal	CED-AE	500	No	Not Applicable	Not applicable.	No	All Land Uses	
Open Channel	CED-DE	582	No	Not Applicable	Not applicable.	No	All Land Uses	
Pasture & Hay Planting	ESD-Graz Land Sp	512	No	Slight to Substantial Improvement	Improved forage cultivars will improve livestock health.	Yes	Hay, Pasture	
Pest Management	ESD-PM & CED-EE	595	No	Moderate to Substantial Improvement	Reducing pest damage to domestic animals decreases	Yes	All Land Uses	
Pipeline	CED-DE	516	Yes	Moderate to Substantial Improvement	Pipelines facilitate the distribution and availability of water	No	All Land Uses	
Pond	CED-DE	378	Yes	Moderate to Substantial Improvement	Available water reduces stress and mortality.	No	All Land Uses	
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Yes	Slight to Substantial Improvement	Reliable water supply decreases stress on animals.	No	All Land Uses	
Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D	Yes	Slight to Substantial Improvement	Reliable water supply decreases stress on animals.	No	All Land Uses	
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Yes	Slight to Substantial Improvement	Reliable water supply decreases stress on animals.	No	All Land Uses	
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Yes	Slight to Substantial Improvement	Reliable water supply decreases stress on animals.	No	All Land Uses	
Prescribed Burning	ESD-For	338	No	Slight to Moderate Improvement	Improved conditions result in more desirable plants and	No	Forest, Grazed Forest, Grazed Range, Hay,	

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Sheet and Rill (Effect)	Soil Erosion - Sheet and Rill (Rationale)	Soil Erosion - Sheet and Rill (Purpose)	Soil Erosion - Wind (Effect)	Soil Erosion - Wind (Rationale)	Soil Erosion - Wind (Purpose)	Soil Erosion - Ephemeral Gully (Effect)	Soil Erosion - Ephemeral Gully (Rationale)	Soil Erosion - Ephemeral Gully (Purpose)
Prescribed Grazing	ESD-Graz Land Sp	528	Moderate to Substantial Improvement	Improving the health and vigor of plant communities will	Yes	Moderate to Substantial Improvement	Improving the health and vigor of plant communities will	Yes	Moderate to Substantial Improvement	Improving the health and vigor of plant communities will	Yes
Pumping Plant	CED-WME	533	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Range Planting	ESD-Graz Land Sp	550	Moderate to Substantial Improvement	Establishment of adapted species increases vegetative	Yes	Moderate to Substantial Improvement	Establishment of adapted species increases vegetative	Yes	Moderate to Substantial Improvement	Establishment of adapted species increases vegetative	Yes
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Moderate to Substantial Improvement	Managing residue to reduce soil disturbance and	Yes	Moderate to Substantial Improvement	Managing residue to reduce soil disturbance and	Yes	Moderate to Substantial Improvement	Managing residue to reduce soil disturbance and	No
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Moderate to Substantial Improvement	Managing residue to reduce soil disturbance and	Yes	Moderate to Substantial Improvement	Managing residue to reduce soil disturbance and	Yes	Moderate to Substantial Improvement	Managing residue to reduce soil disturbance and	Yes
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Moderate to Substantial Improvement	Managing residue to reduce soil disturbance and	Yes	Moderate to Substantial Improvement	Managing residue to reduce soil disturbance and	Yes	Moderate to Substantial Improvement	Managing residue to reduce soil disturbance and	No
Residue Management, Seasonal	ESD-Agron	344	Slight to Moderate Improvement	Managing residue to increase residue cover reduces	Yes	Slight to Substantial Improvement	Managing residue to increase residue cover reduces	Yes	Slight Improvement	Managing residue to increase residue cover reduces	No
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Slight to Moderate Improvement	Establishing or improving native vegetative cover will	No	Slight to Moderate Improvement	Establishing or improving native vegetative cover will	No	Slight to Moderate Improvement	Establishing or improving native vegetative cover will	No
Riparian Forest Buffer	ESD-For & CED-LA	391	Slight to Moderate Improvement	Vegetation and surface litter reduces erosive	No	Slight to Moderate Improvement	Vegetation creates a wind shadow and reduces erosive wind	No	Slight Improvement	Vegetation reduces erosive energy of concentrated flows.	No
Riparian Herbaceous Cover	ESD-Wbio	390	Slight to Moderate Improvement	Vegetation and surface litter reduces erosive	No	Slight to Moderate Improvement	Dense herbaceous vegetation reduces erosion from wind.	No	Slight Improvement	Vegetation reduces erosive energy of concentrated flows.	No
Row Arrangement	CED-AE	557	Moderate Improvement	Rows are arranged in direction, grade, and length to reduce	Yes	Slight Improvement	Adding roughness to the soil across the prevailing wind	No	Moderate Improvement	Rows are arranged in direction, grade, and length to reduce	Yes
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Sediment Basin	CED-AE	350	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Controlled flow will reduce gulley erosion down slope	No

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Classic Gully (Effect)	Soil Erosion - Classic Gully (Rationale)	Soil Erosion - Classic Gully (Purpose)	Soil Erosion - Streambank (Effect)	Soil Erosion - Streambank (Rationale)	Soil Erosion - Streambank (Purpose)	Soil Erosion - Shoreline (Effect)	Soil Erosion - Shoreline (Rationale)
Prescribed Grazing	ESD-Graz Land Sp	528	Slight to Moderate Improvement	There will be decreased overland flow, enhanced	Yes	Slight to Substantial Improvement	There will be enhancement of protective riparian	Yes	Slight to Substantial Improvement	There will be enhancement of protective shoreline
Pumping Plant	CED-WME	533	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Range Planting	ESD-Graz Land Sp	550	Slight to Substantial Improvement	Establishment of adapted species increases vegetative	Yes	Slight to Moderate Improvement	Establishment of adapted species increases vegetative	Yes	Slight to Moderate Improvement	Establishment of adapted species increases vegetative
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Slight Improvement	Mulch till may slow gully growth due to less runoff.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Slight Improvement	No-till may slow gully growth due to less runoff.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Slight Improvement	Ridge till may slow gully growth due to less runoff.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue Management, Seasonal	ESD-Agron	344	Slight Improvement	Residue cover may reduce runoff during critical periods.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Neutral	Effect will vary based upon initial land use.	No	Neutral	Effect will vary based upon initial land use.	No	Neutral	Effect will vary based upon initial land use.
Riparian Forest Buffer	ESD-For & CED-LA	391	Moderate Improvement	Reduces runoff and erosion.	No	Moderate Improvement	Roots of vegetation binds the soil making it resistant to water	No	Moderate Improvement	Roots of vegetation binds the soil making it resistant to water
Riparian Herbaceous Cover	ESD-Wbio	390	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Vegetation and dense roots protects and binds the soil	Yes	Moderate to Substantial Improvement	Vegetation and dense roots protects and binds the soil
Row Arrangement	CED-AE	557	Neutral	The action not installed in gully area	No	Neutral	Reduced erosion and sediment load can create water	No	Not Applicable	Not applicable.
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Sediment Basin	CED-AE	350	Slight to Moderate Improvement	Controlled flow will reduce gulley erosion down slope	No	Neutral	Stream bank erosion due to flows are reduced because of	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Shoreline (Purpose)*	*Soil Erosion – Irrigation-induced (Effect)*	*Soil Erosion – Irrigation-induced (Rationale)*	*Soil Erosion – Irrigation-induced (Purpose)*	*Soil Erosion - Mass Movement (Effect)*	*Soil Erosion - Mass Movement (Rationale)*	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*
Prescribed Grazing	ESD-Graz Land Sp	528	Yes	Slight to Moderate Improvement	There will be an improvement in vegetative cover.	Yes	Neutral	There will be improved stability of soil profile by root	No	Not Applicable
Pumping Plant	CED-WME	533	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Range Planting	ESD-Graz Land Sp	550	Yes	Not Applicable	Not applicable.	No	Neutral	The increase in vegetation enhances soil binding by root	No	Not Applicable
Residue and Tillage Management, Mulch Till	ESD-Agron	345	No	Slight to Moderate Improvement	Less soil disturbance and more residue cover reduces	Yes	Slight Worsening	Increased infiltration could exacerbate mass movement	No	Not Applicable
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	No	Slight to Substantial Improvement	Less soil disturbance and more residue cover reduces	Yes	Slight Worsening	Increased infiltration could exacerbate mass movement	No	Not Applicable
Residue and Tillage Management, Ridge Till	ESD-Agron	346	No	Slight to Moderate Improvement	Less soil disturbance and more residue cover reduces	Yes	Slight Worsening	Increased infiltration could exacerbate mass movement	No	Not Applicable
Residue Management, Seasonal	ESD-Agron	344	No	Slight to Moderate Improvement	More residue on soil surface reduces erosion	Yes	Neutral	Rooting depth could cause slight improvement.	No	Not Applicable
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral
Riparian Forest Buffer	ESD-For & CED-LA	391	No	Not Applicable	Not applicable.	No	Moderate Improvement	Roots of vegetation binds the soil layers making the site	No	Not Applicable
Riparian Herbaceous Cover	ESD-Wbio	390	Yes	Not Applicable	Not applicable.	No	Slight Improvement	Vegetation and dense roots protects and binds the soil	No	Not Applicable
Row Arrangement	CED-AE	557	No	Moderate Improvement	Rows are arranged in direction, grade, and length to reduce	Yes	Not Applicable	Not applicable.	No	Not Applicable
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Sediment Basin	CED-AE	350	No	Not Applicable	Not applicable.	No	Slight Worsening	Increases infiltration and soil instability.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*	*Soil Condition - Organic Matter Depletion (Effect)*	*Soil Condition - Organic Matter Depletion (Rationale)*	*Soil Condition - Organic Matter Depletion (Purpose)*	*Soil Condition - Rangeland Site Stability (Effect)*	*Soil Condition - Rangeland Site Stability (Rationale)*	*Soil Condition - Rangeland Site Stability (Purpose)*
Prescribed Grazing	ESD-Graz Land Sp	528	Not applicable.	No	Moderate to Substantial Improvement	There will be an increase in vegetative cover,	Yes	Moderate to Substantial Improvement	There will be an increase in vegetative cover,	Yes
Pumping Plant	CED-WME	533	Not applicable.	No	Not Applicable	Not applicable.	No			
Range Planting	ESD-Graz Land Sp	550	Not applicable.	No	Moderate to Substantial Improvement	There will be enhanced root development, litter	No	Moderate to Substantial Improvement	There will be enhanced root development, litter	Yes
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Not applicable.	No	Slight Improvement	Decreased erosion and less oxidation from less soil	Yes	Not Applicable	Not applicable.	No
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Not applicable.	No	Slight to Substantial Improvement	Decreased erosion and less oxidation from lack of soil	Yes	Not Applicable	Not applicable.	No
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Not applicable.	No	Slight to Moderate Improvement	Decreased erosion and less oxidation from less soil	Yes	Not Applicable	Not applicable.	No
Residue Management, Seasonal	ESD-Agron	344	Not applicable.	No	Slight Improvement	Increased residue may increase organic matter.	No	Not Applicable	Not applicable.	No
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Effect will vary based upon initial land use.	No	Neutral	Improved vegetative cover may increase soil organic matter.	No	Not Applicable	Not applicable.	No
Riparian Forest Buffer	ESD-For & CED-LA	391	Not applicable.	No	Moderate to Substantial Improvement	Increased vegetative matter and its breakdown increases	Yes	Not Applicable	Not applicable.	No
Riparian Herbaceous Cover	ESD-Wbio	390	Not applicable.	No	Moderate to Substantial Improvement	Increased vegetative matter and its breakdown increases	Yes	Slight to Substantial Improvement	Vegetation and dense roots protects and binds the soil	Yes
Row Arrangement	CED-AE	557	Not applicable.	No	Slight Improvement	Reduced erosion reduces loss of organic material in	No	Not Applicable	Not applicable.	No
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Sediment Basin	CED-AE	350	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition - Compaction (Effect)	Soil Condition - Compaction (Rationale)	Soil Condition - Compaction (Purpose)	Soil Condition - Subsidence (Effect)	Soil Condition - Subsidence (Rationale)	Soil Condition - Subsidence (Purpose)	Soil Condition - Contaminants - Salts and Other Chemicals (Effect)	Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)
Prescribed Grazing	ESD-Graz Land Sp	528	Slight to Substantial Improvement	Soil bulk density decreases on long-term basis because	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	There will be increased vigor of plant community in
Pumping Plant	CED-WME	533	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Maintaining water levels reduces opportunity for	Yes	Not Applicable	Not applicable.
Range Planting	ESD-Graz Land Sp	550	Moderate to Substantial Improvement	Enhanced root development, litter accumulation,	No	Slight Improvement	There will be enhanced root development	No	Slight Improvement	Site planted to adapted species could contribute to
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Slight Improvement	Less intensive tillage reduces the potential for soil compaction.	No	Not Applicable	Not applicable.	No	Slight Improvement	Less tillage disturbance and high residue cropping
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Slight to Moderate Improvement	Fewer field operations and less tillage reduce the	No	Neutral	Drainage creating aerobic conditions is the predominant	No	Slight Improvement	Low disturbance and high residue cropping systems
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Slight to Substantial Improvement	Ridges are protected from compaction due to controlled traffic.	No	Not Applicable	Not applicable.	No	Slight Improvement	Less tillage disturbance and high residue cropping
Residue Management, Seasonal	ESD-Agron	344	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	If residue management increases organic
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening	When prescribed burning is used, organic materials are
Riparian Forest Buffer	ESD-For & CED-LA	391	Moderate to Substantial Improvement	Root penetration and organic matter helps restore soil	No	Not Applicable	Not applicable.	No	Slight Improvement	Increased vegetation will increase salt uptake and increased
Riparian Herbaceous Cover	ESD-Wbio	390	Moderate to Substantial Improvement	Root penetration and organic matter helps restore soil	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Increased vegetation will increase salt uptake and increased
Row Arrangement	CED-AE	557	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Improved moisture control may result in leaching of
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Salts in the root zone are reduced by leaching, drainage
Sediment Basin	CED-AE	350	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*
Prescribed Grazing	ESD-Graz Land Sp	528	Yes	Slight to Moderate Improvement	There will be a greater use of N by more vigorous	Yes	Slight to Moderate Improvement	There will be a greater use of P by more vigorous	Yes	Slight to Moderate Improvement
Pumping Plant	CED-WME	533	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Range Planting	ESD-Graz Land Sp	550	No	Slight to Moderate Improvement	There will be increased N use by vigorously growing	No	Slight to Moderate Improvement	There will be increased P use by vigorously growing	No	Slight to Moderate Improvement
Residue and Tillage Management, Mulch Till	ESD-Agron	345	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Residue and Tillage Management, Ridge Till	ESD-Agron	346	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Residue Management, Seasonal	ESD-Agron	344	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Riparian Forest Buffer	ESD-For & CED-LA	391	No	Slight to Substantial Improvement	Unless the system is overloaded, plants and soil organisms	Yes	Slight to Substantial Improvement	Unless the system is overloaded, plants and soil organisms	Yes	Slight to Substantial Improvement
Riparian Herbaceous Cover	ESD-Wbio	390	No	Slight to Substantial Improvement	Unless the system is overloaded, plants and soil organisms	Yes	Slight to Substantial Improvement	Unless the system is overloaded, plants and soil organisms	Yes	Slight to Substantial Improvement
Row Arrangement	CED-AE	557	No	Slight Improvement	Will reduce soil ersoion, reducing N losses.	No	Slight Improvement	Will reduce soil ersoion and runoff, reducing P losses.	No	Slight Improvement
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Sediment Basin	CED-AE	350	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Prescribed Grazing	**ESD-Graz Land Sp**	**528**	**There will be a greater use of K by more vigorous**	**Yes**	**Slight to Moderate Improvement**	**There will be a greater use of N by more vigorous**	**Yes**	**Slight to Moderate Improvement**	**There will be a greater use of P by more vigorous**	**Yes**
Pumping Plant	**CED-WME**	**533**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Range Planting	**ESD-Graz Land Sp**	**550**	**There will be increased K use by vigorously growing**	**No**	**Slight to Moderate Improvement**	**There will be increased N use by vigorously growing**	**No**	**Slight to Moderate Improvement**	**There will be increased P use by vigorously growing**	**No**
Residue and Tillage Management, Mulch Till	**ESD-Agron**	**345**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Residue and Tillage Management, No Till/Strip Till/Direct Seed	**ESD-Agron**	**329**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Residue and Tillage Management, Ridge Till	**ESD-Agron**	**346**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Residue Management, Seasonal	**ESD-Agron**	**344**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Restoration and Management of Rare or Declining Habitats	**ESD- Wbio**	**643**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Riparian Forest Buffer	**ESD-For & CED-LA**	**391**	**Unless the system is overloaded, plants and soil organisms**	**Yes**	**Slight to Substantial Improvement**	**Unless the system is overloaded, plants and soil organisms**	**Yes**	**Slight to Substantial Improvement**	**Unless the system is overloaded, plants and soil organisms**	**Yes**
Riparian Herbaceous Cover	**ESD-Wbio**	**390**	**Unless the system is overloaded, plants and soil organisms**	**Yes**	**Slight to Substantial Improvement**	**Unless the system is overloaded, plants and soil organisms**	**Yes**	**Slight to Substantial Improvement**	**Unless the system is overloaded, plants and soil organisms**	**Yes**
Row Arrangement	**CED-AE**	**557**	**Will reduce soil ersoion, reducing K losses.**	**No**	**Slight Improvement**	**Will reduce soil ersoion, reducing N losses.**	**No**	**Slight Improvement**	**Will reduce soil ersoion and runoff, reducing P losses.**	**No**
Salinity and Sodic Soil Management	**CED-WME & ESD-Agron**	**610**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Sediment Basin	**CED-AE**	**350**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**

Practice	Lead Discipline(s)	Practice Code	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)	Soil Condition - Contaminants - Residual Pesticides (Effect)	Soil Condition - Contaminants - Residual Pesticides (Rationale)	Soil Condition - Contaminants - Residual Pesticides (Purpose)	Soil Condition - Damage from Sediment Deposition (Effect)	Soil Condition - Damage from Sediment Deposition (Rationale)
Prescribed Grazing	ESD-Graz Land Sp	528	Slight to Moderate Improvement	There will be a greater use of K by more vigorous	Yes	Slight to Moderate Improvement	Vigorous plants are more resistant to pest pressure.	Yes	Moderate Improvement	There will be an increase in vegetative cover,
Pumping Plant	CED-WME	533	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Range Planting	ESD-Graz Land Sp	550	Slight to Moderate Improvement	There will be increased K use by vigorously growing	No	Slight to Substantial Improvement	Proper seedbed preparation and the establishment of a	No	Slight to Substantial Improvement	There will be a reduction in erosion due to increased
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Not Applicable	Not applicable.	No	Neutral	Initially this practice may require increased pesticides.	No	Slight to Moderate Improvement	Maintaining surface residue reduces erosion resulting in
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Not Applicable	Not applicable.	No	Neutral	Initially this practice may require increased pesticides.	No	Slight to Substantial Improvement	Residue management reduces erosion
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Not Applicable	Not applicable.	No	Slight Improvement	Less pesticides are used in ridge till systems.	No	Slight to Moderate Improvement	Maintaining surface residue reduces erosion resulting in
Residue Management, Seasonal	ESD-Agron	344	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Maintaining surface residue reduces erosion resulting in
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	If prescribed burning is used, temporary removal of surface
Riparian Forest Buffer	ESD-For & CED-LA	391	Slight to Substantial Improvement	Unless the system is overloaded, plants and soil organisms	Yes	Slight to Moderate Improvement	Plants and soil organisms uptake residues and soil	Yes	Slight to Moderate Improvement	Vegetation and surface litter traps sediment but is
Riparian Herbaceous Cover	ESD-Wbio	390	Slight to Substantial Improvement	Unless the system is overloaded, plants and soil organisms	Yes	Slight to Moderate Improvement	Plants and soil organisms uptake residues and soil	Yes	Slight to Moderate Improvement	Vegetation and surface litter traps sediment but is
Row Arrangement	CED-AE	557	Slight Improvement	Will reduce soil ersoion, reducing K losses.	No	Neutral	Improved moisture control may result in leaching of soluble	No	Slight to Moderate Improvement	Reduced erosion will result in less sediment available
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Sediment Basin	CED-AE	350	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Sediment is retained in basin.

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*	*Water Quantity - Rangeland Hydrologic Cycle (Rationale)*	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)*
Prescribed Grazing	ESD-Graz Land Sp	528	Yes	Slight to Substantial Worsening	Restoration and/or maintenance of the function and	Yes	Neutral	There is potential for a decrease in seep flow because of	No	Slight to Moderate Improvement
Pumping Plant	CED-WME	533	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Provide drainage by the removal of groundwater.	Yes	Slight to Moderate Improvement
Range Planting	ESD-Graz Land Sp	550	Yes	Moderate to Substantial Improvement	Establishment of adapted species increases vegetative	Yes	Neutral	There will be an increase in plant uptake and	No	Slight to Moderate Improvement
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Yes	Not Applicable	Not applicable.	No	Slight Worsening	Mulch till increases infiltration resulting in more water	No	Slight Improvement
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Yes	Not Applicable	Not applicable.	No	Slight Worsening	No-till increases infiltration resulting in more water	No	Slight to Moderate Improvement
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Yes	Not Applicable	Not applicable.	No	Slight Worsening	Ridge till increases infiltration resulting in more water	No	Slight to Moderate Improvement
Residue Management, Seasonal	ESD-Agron	344	Yes	Not Applicable	Not applicable.	No	Slight Worsening	Increases infiltration resulting in more water moving	No	Slight Improvement
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	No	Not Applicable	Not Applicable	No	Not Applicable	Not applicable.	No	Not Applicable
Riparian Forest Buffer	ESD-For & CED-LA	391	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Plants uptake excess water.	No	Moderate Worsening
Riparian Herbaceous Cover	ESD-Wbio	390	Yes	Slight to Substantial Improvement	Restoration and/or maintenance of the function and	Yes	Slight to Moderate Improvement	Plants uptake excess water.	No	Moderate Worsening
Row Arrangement	CED-AE	557	No	Not Applicable	Not applicable.	No	Slight Worsening	Row arrangement may result in more infiltration.	No	Slight to Moderate Improvement
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	No	Neutral	Not Applicable	No	Not Applicable	Not applicable.	No	Not Applicable
Sediment Basin	CED-AE	350	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Stored water in basin will infiltrate adding to seepage problem.	No	Slight to Moderate Improvement

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)*	*Water Quantity - Excessive Subsurface Water (Effect)*	*Water Quantity - Excessive Subsurface Water (Rationale)*	*Water Quantity - Excessive Subsurface Water (Purpose)*	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*
Prescribed Grazing	ESD-Graz Land Sp	528	Runoff will be reduced and infiltration increased	No	Slight Improvement	There will be an increase in plant uptake.	No	Not Applicable	Not applicable.	No
Pumping Plant	CED-WME	533	Provides drainage by the removal of surface water.	Yes	Slight to Moderate Improvement	Provide drainage by the removal of groundwater.	Yes	Not Applicable	Not applicable.	No
Range Planting	ESD-Graz Land Sp	550	There will be an increase in cover and infiltration, reducing	No	Neutral	There will be an increase in plant uptake and	No	Not Applicable	Not applicable.	No
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Mulch till increases infiltration, reducing runoff and ponding.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	No-till increases infiltration, reducing runoff and ponding.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Ridge till increases infiltration, reducing runoff and ponding.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Residue Management, Seasonal	ESD-Agron	344	Reduces runoff, ponding, and increase infiltration.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Riparian Forest Buffer	ESD-For & CED-LA	391	Vegetation causes flooding and ponding.	No	Slight to Moderate Improvement	Plants uptake excess water.	No	Not Applicable	Not applicable.	No
Riparian Herbaceous Cover	ESD-Wbio	390	Vegetation causes flooding and ponding.	No	Slight to Moderate Improvement	Plants uptake excess water.	No	Not Applicable	Not applicable.	No
Row Arrangement	CED-AE	557	Correct row arrangement provides better	Yes	Slight Worsening	Row arrangement may result in more infiltration.	No	Not Applicable	Not applicable.	No
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Sediment Basin	CED-AE	350	Basin will retard flows reducing the runoff and	No	Slight to Moderate Worsening	Retarded water in basin will infiltrate adding to subsurface	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quantity - Inadequate Outlets (Effect)	Water Quantity - Inadequate Outlets (Rationale)	Water Quantity - Inadequate Outlets (Purpose)	Water Quantity - Inefficient Water Use on Irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)	Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)
Prescribed Grazing	ESD-Graz Land Sp	528	Slight Improvement	Runoff will be reduced and infiltration increased	No	Slight Worsening	Grazing animals causes difficulty in scheduling	No	Slight to Moderate Improvement	There will be increased infiltration, increased available
Pumping Plant	CED-WME	533	Slight to Moderate Improvement	Pump can be used to transfer water to other outlets.	Yes	Slight to Substantial Improvement	Provides control for better water distribution.	Yes	Slight to Substantial Improvement	Provides control for better water distribution.
Range Planting	ESD-Graz Land Sp	550	Slight Improvement	There will be an increase in cover and infiltration, reducing	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	The plant species selected will be adapted to meet the
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Not Applicable	Not applicable.	No	Slight Improvement	Mulch till increases infiltration and decreases	No	Slight to Moderate Improvement	Mulch till increases infiltration and decreases
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	No-till increases infiltration and decreases	No	Slight to Substantial Improvement	No-till increases infiltration and decreases
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Ridge till increases infiltration and decreases	No	Slight to Substantial Improvement	Ridge till increases infiltration and decreases
Residue Management, Seasonal	ESD-Agron	344	Not Applicable	Not applicable.	No	Slight Improvement	Residue increases infiltration and decreases	No	Slight Improvement	Increases water holding capacity because of better
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Riparian Forest Buffer	ESD-For & CED-LA	391	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Riparian Herbaceous Cover	ESD-Wbio	390	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Row Arrangement	CED-AE	557	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Row arrangement with proper grade and length improves	Yes	Moderate to Substantial Improvement	Row arrangement with proper grade and length improves
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Control of salt improves use of available water.	Yes	Slight to Moderate Improvement	Control of salt improves use of available water.
Sediment Basin	CED-AE	350	Slight to Substantial Improvement	Basin will retard flows reducing the runoff and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
Prescribed Grazing	ESD-Graz Land Sp	528	Yes	Slight to Moderate Improvement	There will be a decrease in sediment loads due to reduced	Yes	Slight Improvement	There will be a decrease in sediment loads due to reduced	Yes	Neutral
Pumping Plant	CED-WME	533	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Range Planting	ESD-Graz Land Sp	550	No	Moderate to Substantial Improvement	There will be an increase in protective vegetative	Yes	Slight to Moderate Improvement	There will be an increase in protective vegetative	Yes	Neutral
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Yes	Slight to Moderate Improvement	Mulch till reduces erosion which results in less	No	Slight to Moderate Improvement	Mulch till reduces erosion which results in less	No	Slight Improvement
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Yes	Slight to Substantial Improvement	No-till reduces erosion which results in less	No	Slight to Substantial Improvement	No-till reduces erosion which results in less	No	Slight Improvement
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Yes	Slight to Moderate Improvement	Ridge till reduces erosion which results in less	No	Slight to Moderate Improvement	Ridge till reduces erosion which results in less	No	Slight Improvement
Residue Management, Seasonal	ESD-Agron	344	Yes	Slight Improvement	Increase water holding capacity because of better	Yes	Slight to Moderate Improvement	Residue on soil surface reduces erosion which	Yes	Slight Improvement
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Riparian Forest Buffer	ESD-For & CED-LA	391	No	Substantial Improvement	Riparian areas collect sediment preventing it from	Yes	Substantial Improvement	Riparian areas collect sediment preventing it from	Yes	Not Applicable
Riparian Herbaceous Cover	ESD-Wbio	390	No	Moderate to Substantial Improvement	Riparian areas collect sediment preventing it from	Yes	Substantial Improvement	Riparian areas collect sediment preventing it from	Yes	Not Applicable
Row Arrangement	CED-AE	557	Yes	Slight Improvement	Reduced erosion and sediment for off site transport.	No	Slight Improvement	Reduced erosion and sediment for off site transport.	No	Slight Improvement
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Sediment Basin	CED-AE	350	No	Moderate to Substantial Improvement	Basin traps and retains sediment.	Yes	Moderate to Substantial Improvement	Basin traps and retains sediment.	Yes	Slight Improvement

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Aquifer Overdraft (Rationale)*	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)*
Prescribed Grazing	ESD-Graz Land Sp	528	Improved vigor of plant community increases infiltration	No	Neutral	Improved vigor of plant community increases infiltration	No	Slight to Moderate Improvement	Managing for desirable plant health and vigor	Yes
Pumping Plant	CED-WME	533	Pumps can be used to recharge aquifers. Worsening if used to	Yes	Neutral	Pumps can be used to supplement insufficient flows or	No	Not Applicable	Not applicable.	No
Range Planting	ESD-Graz Land Sp	550	Plant species will be selected that are adapted to the	No	Slight to Moderate Improvement	Selection of adapted species will increased cover and	No	Slight to Moderate Improvement	The action increases soil organic matter and biological	No
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Increased infiltration may improve aquifer recharge and reduce	No	Not Applicable	Not applicable.	No	Slight Improvement	The action increases soil organic matter and biological	No
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Increased infiltration may improve aquifer recharge and reduce	No	Not Applicable	Not applicable.	No	Slight Improvement	The action increases soil organic matter and biological	No
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Increased infiltration may improve aquifer recharge and reduce	No	Not Applicable	Not applicable.	No	Slight Improvement	The action increases soil organic matter and biological	No
Residue Management, Seasonal	ESD-Agron	344	Increased infiltration may improve aquifer recharge and reduce	No	Not Applicable	Not applicable.	No	Slight Worsening	The action increases infiltration.	No
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Riparian Forest Buffer	ESD-For & CED-LA	391	Not applicable.	No	Moderate to Substantial Improvement	Riparian areas intercept precipitation and	No	Slight to Moderate Improvement	Trees, shrubs, and other vegetation take up pesticide	Yes
Riparian Herbaceous Cover	ESD-Wbio	390	Not applicable.	No	Moderate to Substantial Improvement	Riparian areas act as a sponge to collect water and release it	No	Slight to Moderate Improvement	Pesticide degradation may be improved by	Yes
Row Arrangement	CED-AE	557	Better use of rainfall and irrigation water will reduce overdraft.	No	Slight Improvement	Improve infiltration enhances interflow.	No	Slight Worsening	The action increases infiltration.	No
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Sediment Basin	CED-AE	350	Infiltrating water in basin may recharge ground water.	No	Slight Worsening	Water stored in basins will be with held from water	No	Slight Worsening	Water containing pesticides may seep from the basin.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)	Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)	Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)	Water Quality - Excessive Salinity in Groundwater (Effect)	Water Quality - Excessive Salinity in Groundwater (Rationale)	Water Quality - Excessive Salinity in Groundwater (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)
Prescribed Grazing	ESD-Graz Land Sp	528	Slight Improvement	The action increases plant vigor and uptake of nutrients.	No	Slight Improvement	The action results in increased vigor of plant community	No	Slight Improvement	The action results in increased vigor of plant community,
Pumping Plant	CED-WME	533	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Range Planting	ESD-Graz Land Sp	550	Slight to Moderate Improvement	Permanent vegetation will uptake excess	No	Slight Improvement	There will be an increase in plant uptake when adapted	No	Slight Improvement	Certain plant species can take up heavy metals. Increased
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Slight Worsening	The action increases infiltration that contributes to	No	Slight Worsening	Better infiltration increases leaching potential.	No	Slight Improvement	Higher organic matter levels may increase buffering
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Slight Worsening	The action increases infiltration that contributes to	No	Slight Worsening	Better infiltration may increase leaching potential.	No	Slight Improvement	Higher organic matter levels may increase buffering
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Slight Worsening	The action increases infiltration that contributes to	No	Slight Worsening	Better infiltration may increase leaching potential.	No	Slight Improvement	Higher organic matter levels may increase buffering
Residue Management, Seasonal	ESD-Agron	344	Slight Worsening	The action increases infiltration that contributes to	No	Slight Worsening	Better infiltration may increase leaching potential.	No	Slight Improvement	Higher organic matter levels may increase buffering
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Riparian Forest Buffer	ESD-For & CED-LA	391	Substantial Improvement	Permanent vegetation will uptake excess	Yes	Slight Improvement	The action may result in some uptake by plants.	No	Slight Improvement	The action may result in metal uptake by some plants.
Riparian Herbaceous Cover	ESD-Wbio	390	Substantial Improvement	Permanent vegetation will uptake excess	Yes	Slight Improvement	The action may result in some uptake by plants.	No	Slight Improvement	The action may result in metal uptake by some plants.
Row Arrangement	CED-AE	557	Slight to Moderate Improvement	The action facilitates the removal of surface runoff, thus	No	Neutral	Increased percolation may move soluble salts	No	Not Applicable	Not applicable.
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	The action requires removing salts from the root-zone.	No	Slight Worsening	Leaching salts from the root zone may also leach heavy
Sediment Basin	CED-AE	350	Slight Worsening	Nutrients impounded could contaminate groundwater.	No	Slight Worsening	Infiltrating water in the basin may move soluble salts to	No	Slight Worsening	Infiltrating water in the basin may move soluble

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)*
Prescribed Grazing	ESD-Graz Land Sp	528	No	Slight Improvement	The action may increase soil microbial activity	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Pumping Plant	CED-WME	533	No	Not Applicable	Not applicable.	No	Slight Worsening	Spills are possible where petroleum is used.	No	Not Applicable
Range Planting	ESD-Graz Land Sp	550	No	Slight Improvement	Increased soil microbial activity will enhance competition	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Residue and Tillage Management, Mulch Till	ESD-Agron	345	No	Neutral	Better infiltration could increase leaching, but	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	No	Neutral	Better infiltration could increase leaching, but	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement
Residue and Tillage Management, Ridge Till	ESD-Agron	346	No	Neutral	Better infiltration could increase leaching, but	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement
Residue Management, Seasonal	ESD-Agron	344	No	Neutral	Better infiltration could increase leaching, but	No	Not Applicable	Not applicable.	No	Slight Improvement
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Riparian Forest Buffer	ESD-For & CED-LA	391	No	Slight to Moderate Improvement	Riparian areas capture and delay pathogen movement	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement
Riparian Herbaceous Cover	ESD-Wbio	390	No	Slight to Moderate Improvement	Riparian areas capture and delay pathogen movement	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Row Arrangement	CED-AE	557	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	No	Slight Worsening	Leaching salts from the root zone may also leach	No	Not Applicable	Not applicable.	No	Not Applicable
Sediment Basin	CED-AE	350	No	Slight Worsening	Infiltrating water in the basin may move pathogens to the	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*
Prescribed Grazing	ESD-Graz Land Sp	528	Managing for desirable plant health and vigor	Yes	Slight Improvement	The action increases plant vigor and uptake of nutrients.	No	Slight to Substantial Improvement	Management will result in increased plant vigor and	Yes
Pumping Plant	CED-WME	533	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Range Planting	ESD-Graz Land Sp	550	The action decreases runoff and erosion.	No	Slight Improvement	Improving vegetative cover will reduce runoff and erosion,	No	Slight to Substantial Improvement	There will be improved vegetative cover with a	No
Residue and Tillage Management, Mulch Till	ESD-Agron	345	The action decreases runoff and erosion.	No	Slight to Moderate Improvement	Less erosion and runoff reduces transport of	No	Slight Improvement	Less erosion and runoff reduces transport of	No
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	The action decreases runoff and erosion.	No	Slight Improvement	Less erosion and runoff reduces transport of	No	Slight to Substantial Improvement	Less erosion and runoff reduces transport of	No
Residue and Tillage Management, Ridge Till	ESD-Agron	346	The action decreases runoff and erosion.	No	Slight Improvement	Less erosion and runoff reduces transport of	No	Slight to Moderate Improvement	Less erosion and runoff reduces transport of	No
Residue Management, Seasonal	ESD-Agron	344	The action decreases runoff and erosion.	No	Slight Improvement	Less erosion and runoff reduces transport of	No	Slight Improvement	Less erosion and runoff reduces transport of	No
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	There will be improved vegetative cover with a	No
Riparian Forest Buffer	ESD-For & CED-LA	391	Trees, shrubs and other vegetation reduce runoff, trap	Yes	Substantial Improvement	Plants and soil organisms in the buffer will utilize	Yes	Moderate to Substantial Improvement	Vegetation protects soil surface and traps sediment,	Yes
Riparian Herbaceous Cover	ESD-Wbio	390	The action reduces runoff and traps adsorbed pesticides.	Yes	Substantial Improvement	Permanent vegetation will uptake excess	Yes	Moderate to Substantial Improvement	Vegetation protects soil surface and traps sediment,	Yes
Row Arrangement	CED-AE	557	The action reduces runoff and erosion.	No	Slight to Moderate Worsening	The action facilitates the removal of surface runoff, thus	No	Slight to Moderate Improvement	Reduced slope and water velocity will reduce erosion.	No
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Sediment Basin	CED-AE	350	The action collects and stores adsorbed pesticides.	Yes	Substantial Improvement	The action will tend to accumulate contaminants	Yes	Moderate to Substantial Improvement	Basin retains sediment, decreasing runoff turbidity.	Yes

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Salinity in Surface Water (Effect)	Water Quality - Excessive Salinity in Surface Water (Rationale)	Water Quality - Excessive Salinity in Surface Water (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)	Water Quality - Harmful Temperatures of Surface Water (Effect)	Water Quality - Harmful Temperatures of Surface Water (Rationale)
Prescribed Grazing	ESD-Graz Land Sp	528	Slight to Moderate Improvement	The action reduces soil surface evaporation,	No	Slight Improvement	Improved plant growth reduces runoff and increases	Yes	Neutral	The action protects soil and water quality.
Pumping Plant	CED-WME	533	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Range Planting	ESD-Graz Land Sp	550	Slight Improvement	Dense vegetation will increase infiltration and reduce runoff.	No	Slight to Moderate Improvement	Improved plant growth reduces runoff and increases	No	Neutral	The action protects soil and water quality.
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Slight Improvement	Less runoff reduces transport of soluble salts. However	No	Slight Improvement	Decreased erosion and runoff reduces heavy metal delivery	No	Not Applicable	Not applicable.
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Slight Improvement	Less runoff reduces transport of soluble salts. However	No	Slight Improvement	Decreased erosion and runoff reduces heavy metal delivery	No	Not Applicable	Not applicable.
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Slight Improvement	Less runoff reduces transport of soluble salts. However	No	Slight Improvement	Decreased erosion and runoff reduces heavy metal delivery	No	Not Applicable	Not applicable.
Residue Management, Seasonal	ESD-Agron	344	Slight Improvement	Less runoff reduces transport of soluble salts. However	No	Slight Improvement	Decreased erosion and runoff reduces heavy metal delivery	No	Not Applicable	Not applicable.
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Restoration of habitat adjacent to streams or water
Riparian Forest Buffer	ESD-For & CED-LA	391	Slight Improvement	The action increases infiltration and reduces runoff.	No	Slight to Moderate Improvement	The action filters sediment, and some plants may take up	Yes	Slight to Substantial Improvement	Riparian forest canopy shades streams and rivers,
Riparian Herbaceous Cover	ESD-Wbio	390	Slight Improvement	The action increases infiltration and reduces runoff.	No	Slight to Moderate Improvement	The action filters sediment, and some plants may take up	Yes	Slight to Moderate Improvement	Herbaceous plants provide some shade and protect banks,
Row Arrangement	CED-AE	557	Neutral	The action can increase percolation, which reduces the	No	Neutral	Collected runoff may discharge into surface water.	No	Not Applicable	Not applicable.
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Slight to Moderate Worsening	Salts leached from the root zone by drainage may enter	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Sediment Basin	CED-AE	350	Slight to Moderate Improvement	Basins will tend to accumulate contaminants	No	Slight to Moderate Improvement	Basins will tend to accumulate contaminants	No	Neutral	Although water retained in basin is warmer than flowing

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Temperatures of Surface Water (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*
Prescribed Grazing	**ESD-Graz Land Sp**	**528**	**No**	**Slight Improvement**	**Reduced runoff, grazing managent, and properly placed**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Pumping Plant	**CED-WME**	**533**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Range Planting	**ESD-Graz Land Sp**	**550**	**No**	**Slight Improvement**	**The improved vegetative cover and increased soil**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Residue and Tillage Management, Mulch Till	**ESD-Agron**	**345**	**No**	**Slight Improvement**	**Less erosion and runoff reduces delivery of**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Substantial Improvement**
Residue and Tillage Management, No Till/Strip Till/Direct Seed	**ESD-Agron**	**329**	**No**	**Slight Improvement**	**Less erosion and runoff reduces delivery of**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Substantial Improvement**
Residue and Tillage Management, Ridge Till	**ESD-Agron**	**346**	**No**	**Slight Improvement**	**Less erosion and runoff reduces delivery of**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Substantial Improvement**
Residue Management, Seasonal	**ESD-Agron**	**344**	**No**	**Slight Improvement**	**Less erosion and runoff reduces delivery of**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Restoration and Management of Rare or Declining Habitats	**ESD- Wbio**	**643**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Riparian Forest Buffer	**ESD-For & CED-LA**	**391**	**Yes**	**Slight to Substantial Improvement**	**Riparian areas capture and delay pathogen movement**	**Yes**	**Slight Improvement**	**Increased microbial activity in the riparian area breaks**	**Yes**	**Slight Improvement**
Riparian Herbaceous Cover	**ESD-Wbio**	**390**	**Yes**	**Moderate Improvement**	**vegetation traps pathogens providing increased**	**Yes**	**Slight Improvement**	**Increased microbial activity in the riparian area breaks**	**Yes**	**Slight Improvement**
Row Arrangement	**CED-AE**	**557**	**No**	**Slight Improvement**	**Retarding surface water flow will reduce transport of**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Salinity and Sodic Soil Management	**CED-WME & ESD-Agron**	**610**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Sediment Basin	**CED-AE**	**350**	**No**	**Slight to Moderate Improvement**	**Basins will tend to accumulate contaminants**	**No**	**Slight to Moderate Improvement**	**Basins will tend to accumulate contaminants**	**No**	**Not Applicable**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)*	*Air Quality - Excessive Ozone (Effect)*	*Air Quality - Excessive Ozone (Rationale)*	*Air Quality - Excessive Ozone (Purpose)*
Prescribed Grazing	ESD-Graz Land Sp	528	Improved vegetative cover reduces the generation of	Yes	Slight to Moderate Improvement	Improved vegetative cover reduces the generation of	Yes	Neutral	There is a minimal reduction of ozone precursors through	No
Pumping Plant	CED-WME	533	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Replacement of older pumping plants with more efficient	Yes
Range Planting	ESD-Graz Land Sp	550	Establishing permanent vegetation reduces	Yes	Slight to Moderate Improvement	Establishing permanent vegetation reduces	Yes	Neutral	There is a minimal reduction of ozone precursors through	No
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Less soil disturbance, increased residue on	Yes	Slight to Substantial Improvement	Less soil disturbance, increased residue on	Yes	Slight Improvement	Reduced use of machinery reduces ozone precursor	No
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Less soil disturbance, increased residue on	Yes	Slight to Substantial Improvement	Less soil disturbance, increased residue on	Yes	Slight to Moderate Improvement	Reduced use of machinery reduces ozone precursor	No
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Less soil disturbance, increased residue on	Yes	Slight to Substantial Improvement	Less soil disturbance, increased residue on	Yes	Slight to Moderate Improvement	Reduced use of machinery reduces ozone precursor	No
Residue Management, Seasonal	ESD-Agron	344	Residue on the surface during the critical wind erosion	Yes	Slight to Moderate Improvement	Residue on the surface during the critical wind erosion	Yes	Neutral	There is a minimal reduction of ozone precursors through	No
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	If vegetative cover is increased, there is a minimal reduction of	No
Riparian Forest Buffer	ESD-For & CED-LA	391	Vegetation reduces erosive wind velocities and	No	Slight Improvement	Vegetation reduces erosive wind velocities and	No	Neutral	There is a minimal reduction of ozone precursors through	No
Riparian Herbaceous Cover	ESD-Wbio	390	Vegetative cover reduces wind erosion and provides	No	Slight Improvement	Vegetative cover reduces wind erosion and provides	No	Neutral	There is a minimal reduction of ozone precursors through	No
Row Arrangement	CED-AE	557	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Preventing or reducing salt accumulation in the	No	Slight to Moderate Improvement	Preventing or reducing salt accumulation in the	No	Not Applicable	Not applicable.	No
Sediment Basin	CED-AE	350	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)*
Prescribed Grazing	ESD-Graz Land Sp	528	Slight to Moderate Improvement	Improved vegetative cover removes CO2 from the air and	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Pumping Plant	CED-WME	533	Slight to Substantial Improvement	Replacement of older pumping plants with more efficient	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Range Planting	ESD-Graz Land Sp	550	Slight to Moderate Improvement	Vegetation removes CO2 from the air and stores it in the form	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Slight to Moderate Improvement	Reduced use of machinery reduces CO2 emissions and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Slight to Moderate Improvement	Reduced use of machinery reduces CO2 emissions and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Slight to Moderate Improvement	Reduced use of machinery reduces CO2 emissions and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue Management, Seasonal	ESD-Agron	344	Slight to Moderate Improvement	Reduced use of machinery reduces CO2 emissions and	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Riparian Forest Buffer	ESD-For & CED-LA	391	Moderate to Substantial Improvement	Vegetation removes CO2 from the air and stores it in the form	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Riparian Herbaceous Cover	ESD-Wbio	390	Slight to Moderate Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Row Arrangement	CED-AE	557	Neutral	Improved production and vegetative density removes CO2	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Sediment Basin	CED-AE	350	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*	*Air Quality - NH3 - Ammonia (Effect)*	*Air Quality - NH3 - Ammonia (Rationale)*	*Air Quality - NH3 - Ammonia (Purpose)*	*Air Quality - Chemical Drift (Effect)*	*Air Quality - Chemical Drift (Rationale)*	*Air Quality - Chemical Drift (Purpose)*	*Air Quality - Objectionable Odors (Effect)*
Prescribed Grazing	**ESD-Graz Land Sp**	**528**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**
Pumping Plant	**CED-WME**	**533**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Range Planting	**ESD-Graz Land Sp**	**550**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Residue and Tillage Management, Mulch Till	**ESD-Agron**	**345**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**	**The action may require increased use of pesticides and**	**No**	**Slight Improvement**
Residue and Tillage Management, No Till/Strip Till/Direct Seed	**ESD-Agron**	**329**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Worsening**	**The action may require increased use of pesticides and**	**No**	**Slight Improvement**
Residue and Tillage Management, Ridge Till	**ESD-Agron**	**346**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**	**The action may require increased use of pesticides and**	**No**	**Slight Improvement**
Residue Management, Seasonal	**ESD-Agron**	**344**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**
Restoration and Management of Rare or Declining Habitats	**ESD- Wbio**	**643**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Riparian Forest Buffer	**ESD-For & CED-LA**	**391**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**	**Tall vegetation slows surface air movement and**	**No**	**Slight Improvement**
Riparian Herbaceous Cover	**ESD-Wbio**	**390**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Row Arrangement	**CED-AE**	**557**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Salinity and Sodic Soil Management	**CED-WME & ESD-Agron**	**610**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Sediment Basin	**CED-AE**	**350**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*	*Air Quality - Reduced Visibility (Rationale)*	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Prescribed Grazing	ESD-Graz Land Sp	528	Proper management will spread livestock, reducing manure	No	Slight to Moderate Improvement	Reduction in particulates due to improved ground	No	Not Applicable	Not applicable.	No
Pumping Plant	CED-WME	533	Not applicable.	No	Slight Improvement	Replacement of older pumping plants with more efficient	Yes	Not Applicable	Not applicable.	No
Range Planting	ESD-Graz Land Sp	550	Not applicable.	No	Slight to Moderate Improvement	Reduction in particulates due to improved ground	No	Not Applicable	Not applicable.	No
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Residues will reduce wind movement and intercept VOCs, fine	No	Slight to Moderate Improvement	Reduction in wind erosion potential and fugitive dust	No	Not Applicable	Not applicable.	No
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Residues will reduce wind movement and intercept VOCs, fine	No	Slight to Substantial Improvement	Reduction in wind erosion potential and fugitive dust	No	Not Applicable	Not applicable.	No
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Residues will reduce wind movement and intercept VOCs, fine	No	Slight to Substantial Improvement	Reduction in wind erosion potential and fugitive dust	No	Not Applicable	Not applicable.	No
Residue Management, Seasonal	ESD-Agron	344	Residues will reduce wind movement and intercept VOCs, fine	No	Slight to Moderate Improvement	Reduction in wind erosion potential and fugitive dust	No	Not Applicable	Not applicable.	No
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Reestablishment of tall vegetation creates turbulence	No
Riparian Forest Buffer	ESD-For & CED-LA	391	Tall vegetation slows surface air movement and	No	Slight to Substantial Improvement	Tall vegetation slows surface air movement and	No	Slight to Substantial Improvement	Tall vegetation creates turbulence and slows undesired,	No
Riparian Herbaceous Cover	ESD-Wbio	390	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Row Arrangement	CED-AE	557	Not applicable.	No	Neutral	Reduction in wind erosion potential and fugitive dust	No	Not Applicable	Not applicable.	No
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Sediment Basin	CED-AE	350	Proper siting and management are required If used as	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Adverse Air Temperature (Effect)	Air Quality - Adverse Air Temperature (Rationale)	Air Quality - Adverse Air Temperature (Purpose)	Plants not adapted or suited (Effect)	Plants not adapted or suited (Rationale)	Plants not adapted or suited (Purpose)	Plant Condition - Productivity, Health and Vigor (Effect)	Plant Condition - Productivity, Health and Vigor (Rationale)
Prescribed Grazing	ESD-Graz Land Sp	528	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Grazing management is implemented to create or maintain	Yes	Substantial Improvement	Improved plant and animal management enhances growing
Pumping Plant	CED-WME	533	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Increased water availability enhances plant growth, health
Range Planting	ESD-Graz Land Sp	550	Not Applicable	Not applicable.	No	Substantial Improvement	There will be a selection of well-adapted and	Yes	Substantial Improvement	Plants are selected and managed to maintain optimal
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Conserving moisture and improving soil conditions contribute
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Conserving moisture and improving soil conditions contribute
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Conserving moisture and improving soil conditions contribute
Residue Management, Seasonal	ESD-Agron	344	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Conserving moisture and improving soil conditions contribute
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Restoration and management creates or maintains the	Yes	Moderate to Substantial Improvement	Plants are selected and managed to maintain optimal
Riparian Forest Buffer	ESD-For & CED-LA	391	Moderate to Substantial Improvement	Tall vegetation provides shade and moderates	Yes	Moderate to Substantial Improvement	Buffer establishment and management creates or maintains	Yes	Substantial Improvement	Plants are selected and managed to maintain optimal
Riparian Herbaceous Cover	ESD-Wbio	390	Neutral	Vegetation does not reach sufficient heights to provide	No	Moderate to Substantial Improvement	Establishment and management of cover creates or	Yes	Substantial Improvement	Plants are selected and managed to maintain optimal
Row Arrangement	CED-AE	557	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Conserving moisture and reduced erosion will improve plant
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Management of salts and the use of soil amendments	Yes	Slight to Substantial Improvement	Management of salts and the use of soil amendments
Sediment Basin	CED-AE	350	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*	*Plant Condition - Noxious and Invasive Plants (Effect)*
Prescribed Grazing	ESD-Graz Land Sp	528	Yes	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Moderate to Substantial Improvement
Pumping Plant	CED-WME	533	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Range Planting	ESD-Graz Land Sp	550	Yes	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Moderate to Substantial Improvement
Residue and Tillage Management, Mulch Till	ESD-Agron	345	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Residue and Tillage Management, Ridge Till	ESD-Agron	346	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Residue Management, Seasonal	ESD-Agron	344	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Yes	Neutral	When threatened or endangered plants are present,	Yes	Neutral	When threatened or endangered plants are present,	Yes	Moderate to Substantial Improvement
Riparian Forest Buffer	ESD-For & CED-LA	391	Yes	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Moderate to Substantial Improvement
Riparian Herbaceous Cover	ESD-Wbio	390	Yes	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Moderate to Substantial Improvement
Row Arrangement	CED-AE	557	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Sediment Basin	CED-AE	350	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Noxious and Invasive Plants (Rationale)*	*Plant Condition - Noxious and Invasive Plants (Purpose)*	*Plant Condition - Forage Quality and Palatability (Effect)*	*Plant Condition - Forage Quality and Palatability (Rationale)*	*Plant Condition - Forage Quality and Palatability (Purpose)*	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*
Prescribed Grazing	**ESD-Graz Land Sp**	**528**	**Management will increased health and vigor and**	**Yes**	**Moderate to Substantial Improvement**	**Management of plant community will increase quality and**	**Yes**	**Slight to Substantial Improvement**	**Management of plant communities reduces fuel loads.**	**No**
Pumping Plant	**CED-WME**	**533**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Range Planting	**ESD-Graz Land Sp**	**550**	**Vegetation is installed and managed to control**	**Yes**	**Substantial Improvement**	**Selected plant species will have adequate nutritive**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Residue and Tillage Management, Mulch Till	**ESD-Agron**	**345**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Residue and Tillage Management, No Till/Strip Till/Direct Seed	**ESD-Agron**	**329**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Residue and Tillage Management, Ridge Till	**ESD-Agron**	**346**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Residue Management, Seasonal	**ESD-Agron**	**344**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Restoration and Management of Rare or Declining Habitats	**ESD- Wbio**	**643**	**Vegetation is installed and managed to control**	**No**	**Moderate to Substantial Improvement**	**Selected plant species will have adequate nutritive**	**No**	**Not Applicable**	**Not applicable.**	**No**
Riparian Forest Buffer	**ESD-For & CED-LA**	**391**	**Vegetation is installed and managed to control**	**Yes**	**Moderate to Substantial Improvement**	**Plants are managed to optimize forage quality and**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Riparian Herbaceous Cover	**ESD-Wbio**	**390**	**Vegetation is installed and managed to control**	**Yes**	**Moderate to Substantial Improvement**	**Plants are managed to optimize forage quality and**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Row Arrangement	**CED-AE**	**557**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Salinity and Sodic Soil Management	**CED-WME & ESD-Agron**	**610**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**	**Proper management and selection of adapted species will**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Sediment Basin	**CED-AE**	**350**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**

Practice	Lead Discipline(s)	Practice Code	Fish and Wildlife - Inadequate Food (Effect)	Fish and Wildlife - Inadequate Food (Rationale)	Fish and Wildlife - Inadequate Food (Purpose)	Fish and Wildlife - Inadequate Cover/Shelter (Effect)	Fish and Wildlife - Inadequate Cover/Shelter (Rationale)	Fish and Wildlife - Inadequate Cover/Shelter (Purpose)	Fish and Wildlife - Inadequate Water (Effect)	Fish and Wildlife - Inadequate Water (Rationale)
Prescribed Grazing	ESD-Graz Land Sp	528	Slight to Substantial Improvement	Management enhances production and diversity of the	Yes	Slight to Substantial Improvement	Management enhances production and diversity of	Yes	Not Applicable	Not applicable.
Pumping Plant	CED-WME	533	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Range Planting	ESD-Graz Land Sp	550	Slight to Substantial Improvement	Plant species are selected that are well-adapted and	Yes	Slight to Substantial Improvement	Plant species are selected that are well-adapted and	Yes	Not Applicable	Not applicable.
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Slight to Moderate Improvement	Crop residue provides some food for wildlife.	Yes	Slight to Moderate Improvement	Crop residue provides some cover/shelter.	Yes	Not Applicable	Not applicable.
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Slight to Moderate Improvement	Crop residue provides some food for wildlife.	Yes	Slight to Moderate Improvement	Crop residue provides some cover/shelter.	Yes	Not Applicable	Not applicable.
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Slight to Moderate Improvement	Crop residue provides some food for wildlife.	Yes	Slight to Moderate Improvement	Crop residue provides some cover/shelter.	Yes	Not Applicable	Not applicable.
Residue Management, Seasonal	ESD-Agron	344	Slight to Moderate Improvement	Crop residue provides some food for wildlife.	Yes	Slight to Moderate Improvement	Crop residue provides some cover/shelter.	Yes	Not Applicable	Not applicable.
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Moderate to Substantial Improvement	Improved plant diversity and quality and quantity of	Yes	Moderate to Substantial Improvement	Improved plant diversity and quality and quantity of	Yes	Moderate to Substantial Improvement	Fish and wildlife habitat considerations are
Riparian Forest Buffer	ESD-For & CED-LA	391	Moderate to Substantial Improvement	Improved plant diversity and quality and quantity of	Yes	Substantial Improvement	Improved plant diversity and quality and quantity of	Yes	Slight to Moderate Improvement	Water can be temporarily trapped in the riparian area.
Riparian Herbaceous Cover	ESD-Wbio	390	Moderate to Substantial Improvement	Improved plant diversity and quality and quantity of	Yes	Moderate to Substantial Improvement	Improved plant diversity and quality and quantity of	Yes	Slight to Moderate Improvement	Water can be temporarily trapped in the riparian area.
Row Arrangement	CED-AE	557	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Sediment Basin	CED-AE	350	Slight Worsening	Any food species are eliminated in the area used for the basin.	No	Slight Worsening	Any cover is eliminated in the area used for the basin.	No	Slight Improvement	Water is temporarily stored, and sediment and debris are

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*	*Fish and Wildlife - Inadequate Space (Purpose)*	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
Prescribed Grazing	ESD-Graz Land Sp	528	No	Moderate to Substantial Improvement	Management can restore desired habitats/space.	Yes	Moderate to Substantial Improvement	Management can restore and reconnect desired	Yes	Slight to Substantial Improvement
Pumping Plant	CED-WME	533	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Range Planting	ESD-Graz Land Sp	550	No	Moderate to Substantial Improvement	Planting can restore desired habitats/space.	Yes	Moderate to Substantial Improvement	Planting can restore and reconnect desired	Yes	Slight to Moderate Improvement
Residue and Tillage Management, Mulch Till	ESD-Agron	345	No	Slight Improvement	Residue restores some habitat/space.	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	No	Slight Improvement	Residue restores some habitat/space.	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Residue and Tillage Management, Ridge Till	ESD-Agron	346	No	Slight Improvement	Residue restores some habitat/space.	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Residue Management, Seasonal	ESD-Agron	344	No	Slight Improvement	Residue restores some habitat/space.	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Yes	Moderate to Substantial Improvement	Declining habitats/space are restored.	Yes	Moderate to Substantial Improvement	Declining habitats/space are restored and	Yes	Moderate to Substantial Improvement
Riparian Forest Buffer	ESD-For & CED-LA	391	Yes	Moderate to Substantial Improvement	Buffers can restore desired habitats/space.	Yes	Moderate to Substantial Improvement	Buffers can restore and reconnect desired	Yes	Moderate to Substantial Improvement
Riparian Herbaceous Cover	ESD-Wbio	390	Yes	Moderate to Substantial Improvement	Cover can restore desired habitats/space.	Yes	Moderate to Substantial Improvement	Cover can restore and reconnect desired	Yes	Moderate to Substantial Improvement
Row Arrangement	CED-AE	557	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Sediment Basin	CED-AE	350	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Imbalance Among and Within Populations (Rationale)*	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)*
Prescribed Grazing	ESD-Graz Land Sp	528	Stocking rates are determined with the intent of maintaining	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Pumping Plant	CED-WME	533	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Range Planting	ESD-Graz Land Sp	550	Increase forage supply and cover.	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Residue is managed to provide cover during critical	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Residue is managed to provide cover during critical	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Residue is managed to provide cover during critical	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Residue Management, Seasonal	ESD-Agron	344	Residue is managed to provide cover during critical	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Management is designed to minimize limiting factors.	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes
Riparian Forest Buffer	ESD-For & CED-LA	391	Buffers are designed to minimize limiting factors.	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Riparian Herbaceous Cover	ESD-Wbio	390	Cover is designed to minimize limiting factors.	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Row Arrangement	CED-AE	557	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Sediment Basin	CED-AE	350	Vegetated basins provide habitat.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)*	*Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)*	*Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)*	*Domestic Animals - Inadequate Shelter (Effect)*	*Domestic Animals - Inadequate Shelter (Rationale)*	*Domestic Animals - Inadequate Shelter (Purpose)*	*Domestic Animals - Inadequate Stock Water (Effect)*	*Domestic Animals - Inadequate Stock Water (Rationale)*
Prescribed Grazing	ESD-Graz Land Sp	528	Substantial Improvement	Livestock numbers are in balance with available feed and	Yes	Slight to Substantial Improvement	Grazing management considers location of animals and	No	Not Applicable	Not applicable.
Pumping Plant	CED-WME	533	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Substantial Improvement	Pumping plants facilitates the distribution of water
Range Planting	ESD-Graz Land Sp	550	Substantial Improvement	Plant species will be selected that accommodate	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Slight Improvement	There may be some use of the residue for feed and forage by	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Slight Improvement	There may be some use of the residue for feed and forage by	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Slight Improvement	There may be some use of the residue for feed and forage by	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Residue Management, Seasonal	ESD-Agron	344	Slight Improvement	There may be some use of the residue for feed and forage by	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Slight to Moderate Improvement	These sites may be used as feed and forage by livestock if	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Riparian Forest Buffer	ESD-For & CED-LA	391	Moderate to Substantial Improvement	These sites may be used as feed and forage by livestock if	Yes	Moderate to Substantial Improvement	Buffers can provide shade and protection from wind.	No	Not Applicable	Not applicable.
Riparian Herbaceous Cover	ESD-Wbio	390	Moderate to Substantial Improvement	These sites may be used as feed and forage by livestock if	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Row Arrangement	CED-AE	557	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Moderate to Substantial Improvement	Forage vigor and quantity is improved through effective	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Sediment Basin	CED-AE	350	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Captured water in basins can supplement stock

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*	*Appropriate Land Use(s)*	*Baseline Setting*
Prescribed Grazing	ESD-Graz Land Sp	528	No	Moderate to Substantial Improvement	Management results in nutritive forage, reduction and	Yes	Crop, Grazed Forest, Grazed Range, Hay, Headquarters, Native	
Pumping Plant	CED-WME	533	Yes	Moderate to Substantial Improvement	Structures facilitate the distribution and availability of water	No	All Land Uses	
Range Planting	ESD-Graz Land Sp	550	No	Slight to Substantial Improvement	Improved forage cultivars will improve livestock health.	No	Graze Forest, Grazed Range, Native or Naturalized Pasture,	
Residue and Tillage Management, Mulch Till	ESD-Agron	345	No	Not Applicable	Not applicable.	No	Crop, Hay, Pasture	
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	No	Not Applicable	Not applicable.	No	Crop, Hay, Pasture	
Residue and Tillage Management, Ridge Till	ESD-Agron	346	No	Not Applicable	Not applicable.	No	Crop	
Residue Management, Seasonal	ESD-Agron	344	No	Not Applicable	Not applicable.	No	Crop, Hay, Pasture	
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	No	Not Applicable	Not applicable.	No	Forest, Grazed Forest, Grazed Range, Mined, Native	
Riparian Forest Buffer	ESD-For & CED-LA	391	No	Moderate to Substantial Improvement	Riparian vegetation alters temperatures and wind effects	No	All Land Uses	
Riparian Herbaceous Cover	ESD-Wbio	390	No	Moderate to Substantial Improvement	Improved cover results in nutritive forage and reduction	No	Crop, Grazed Rabge, Hay, Headquarters, Mined, Native or	
Row Arrangement	CED-AE	557	No	Not Applicable	Not applicable.	No	Crop	
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	No	Not Applicable	Not applicable.	No	Crop, Hay, Pasture	
Sediment Basin	CED-AE	350	No	Not Applicable	Not applicable.	No	Forest, Grazed Forest, Grazed Range,	

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Sheet and Rill (Effect)	Soil Erosion - Sheet and Rill (Rationale)	Soil Erosion - Sheet and Rill (Purpose)	Soil Erosion - Wind (Effect)	Soil Erosion - Wind (Rationale)	Soil Erosion - Wind (Purpose)	Soil Erosion - Ephemeral Gully (Effect)	Soil Erosion - Ephemeral Gully (Rationale)	Soil Erosion - Ephemeral Gully (Purpose)
Spring Development	CED-AE	574	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Streambank and Shoreline Protection	CED-DE	580	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stripcropping	ESD-Agron	585	Moderate to Substantial Improvement	When applied on or near the contour, this practice	Yes	Moderate to Substantial Improvement	Stripcropping reduces the "L" factor value of WEQ.	Yes	Moderate to Substantial Improvement	Stripcropping can reduce ephemeral gully erosion by	Yes
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Surface Roughening	ESD-Agron	609	Slight Improvement	Soil roughness created for wind erosion also	No	Moderate Improvement	Clods and ridges from tillage temporarily reduce	Yes	Not Applicable	Not applicable.	No
Terrace	CED-AE	600	Substantial Improvement	Terrace shortens slope length and reduces erosion by	Yes	Slight Improvement	Vegetative terraces may shorten the unsheltered distance	No	Moderate to Substantial Improvement	The slope length of the concentrated flow channel is	Yes
Tree/Shrub Establishment	ESD-For & CED-LA	612	Substantial Improvement	Vegetation and surface litter reduces erosive	Yes	Substantial Improvement	Tall vegetation creates a wind shadow, reduces	Yes	Moderate to Substantial Improvement	Vegetation, surface litter and roots reduce erosive	Yes
Tree/Shrub Pruning	ESD-For	660	Slight Improvement	Removal of overstory canopy increases amounts	No	Neutral	Residual vegetation and debris maintain non-erosive	No	Neutral	Residual vegetation and debris maintain non-erosive	No
Underground Outlet	CED-AE	620	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Substantial Improvement	Concentrated flow is eliminated and excess water	Yes
Upland Wildlife Habitat Management	ESD-Wbio	645	Moderate Improvement	Establishment of permanent vegetation reduces	No	Moderate Improvement	Establishment of permanent vegetation reduces	No	Moderate Improvement	Establishment of permanent vegetation reduces	No
Use Exclusion	ESD-For	472	Slight to Moderate Improvement	Control of animals, people and vehicles reduces disturbance	Yes	Slight to Moderate Improvement	Control of animals, people and vehicles reduces disturbance	Yes	Slight to Moderate Improvement	Control of animals, people and vehicles reduces disturbance	Yes
Waste Facility Cover	CED-EE	367	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Classic Gully (Effect)	Soil Erosion - Classic Gully (Rationale)	Soil Erosion - Classic Gully (Purpose)	Soil Erosion - Streambank (Effect)	Soil Erosion - Streambank (Rationale)	Soil Erosion - Streambank (Purpose)	Soil Erosion - Shoreline (Effect)	Soil Erosion - Shoreline (Rationale)
Spring Development	CED-AE	574	Slight Improvement	Collection of water reduces runoff.	No	Slight Improvement	Spring development removes seeps and flows that keep	No	Not Applicable	Not applicable.
Stream Habitat Improvement and Management	ESD-AqEco	395	Not Applicable	Not applicable.	No	Substantial Improvement	Vegetation and dense roots protects and binds the soil	No	Not Applicable	Not applicable.
Streambank and Shoreline Protection	CED-DE	580	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Stream banks are stabilized.	Yes	Moderate to Substantial Improvement	Shorelines are stabilized.
Stripcropping	ESD-Agron	585	Slight Improvement	Reduces runoff causing erosion in the gully.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Surface Roughening	ESD-Agron	609	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Terrace	CED-AE	600	Slight to Moderate Improvement	Changes hydrology of the land unit	Yes	Slight Improvement	Reduces concentrated flow from the land unit.	No	Not Applicable	Not applicable.
Tree/Shrub Establishment	ESD-For & CED-LA	612	Slight to Moderate Improvement	Vegetation, surface litter and roots reduce erosive	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Tree/Shrub Pruning	ESD-For	660	Neutral	Residual vegetation and debris maintain non-erosive	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Underground Outlet	CED-AE	620	Moderate to Substantial Improvement	Concentrated flow is reduced or eliminated and	Yes	Slight Worsening	Concentrated flows are directed to surface streams at	No	Not Applicable	Not applicable.
Upland Wildlife Habitat Management	ESD-Wbio	645	Slight to Moderate Improvement	There will be decreased overland flow, enhanced	No	Slight Improvement	There will be decreased overland flow, enhanced	No	Slight Improvement	There will be decreased overland flow, enhanced
Use Exclusion	ESD-For	472	Slight to Moderate Improvement	Control of animals, people and vehicles reduces disturbance	Yes	Slight to Moderate Improvement	Control of animals, people and vehicles reduces disturbance	Yes	Slight to Moderate Improvement	Control of animals, people and vehicles reduces disturbance
Waste Facility Cover	CED-EE	367	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Shoreline (Purpose)*	*Soil Erosion – Irrigation-induced (Effect)*	*Soil Erosion – Irrigation-induced (Rationale)*	*Soil Erosion – Irrigation-induced (Purpose)*	*Soil Erosion - Mass Movement (Effect)*	*Soil Erosion - Mass Movement (Rationale)*	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*
Spring Development	CED-AE	574	No	Not Applicable	Not applicable.	No	Slight Improvement	Spring development removes seeps and flows that keep	No	Not Applicable
Stream Habitat Improvement and Management	ESD-AqEco	395	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Streambank and Shoreline Protection	CED-DE	580	Yes	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Stabilized side slopes prevents slips associated with	Yes	Not Applicable
Stripcropping	ESD-Agron	585	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Structure for Water Control	CED-DE	587	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Surface Roughening	ESD-Agron	609	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Terrace	CED-AE	600	No	Slight Improvement	Reduced slope length reduces erosion.	Yes	Slight Worsening	Infiltration of trapped runoff may add to soil saturation	No	Not Applicable
Tree/Shrub Establishment	ESD-For & CED-LA	612	No	Not Applicable	Not applicable.	No	Moderate Improvement	Roots of vegetation binds the soil layers making the site	Yes	Slight to Moderate Improvement
Tree/Shrub Pruning	ESD-For	660	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Underground Outlet	CED-AE	620	No	Not Applicable	Not applicable.	No	Slight Improvement	Water is removed from site and not allowed to saturate	No	Slight to Moderate Improvement
Upland Wildlife Habitat Management	ESD-Wbio	645	No	Not Applicable	Not applicable.	No	Slight Improvement	Roots of vegetation binds the soil layers making the site	No	Not Applicable
Use Exclusion	ESD-For	472	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Waste Facility Cover	CED-EE	367	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*	*Soil Condition - Organic Matter Depletion (Effect)*	*Soil Condition - Organic Matter Depletion (Rationale)*	*Soil Condition - Organic Matter Depletion (Purpose)*	*Soil Condition - Rangeland Site Stability (Effect)*	*Soil Condition - Rangeland Site Stability (Rationale)*	*Soil Condition - Rangeland Site Stability (Purpose)*
Spring Development	CED-AE	574	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Streambank and Shoreline Protection	CED-DE	580	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stripcropping	ESD-Agron	585	Not applicable.	No	Slight to Moderate Improvement	Perennial crops in the alternating strips can add organic	No	Not Applicable	Not applicable.	No
Structure for Water Control	CED-DE	587	Structure used for better control and removal of water.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Surface Roughening	ESD-Agron	609	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Terrace	CED-AE	600	Not applicable.	No	Slight Improvement	Reduced erosion will reduce losses of organic matter.	No	Not Applicable	Not applicable.	No
Tree/Shrub Establishment	ESD-For & CED-LA	612	Vegetation and surface litter reduces erosive water energy.	Yes	Moderate to Substantial Improvement	Establishment of permanent woody vegetation can lead	Yes	Not Applicable	Not applicable.	No
Tree/Shrub Pruning	ESD-For	660	Not applicable.	No	Slight Worsening	Removal of woody material from a site removes organic	No	Not Applicable	Not applicable.	No
Underground Outlet	CED-AE	620	Concentrated flow is conveyed away from site to safe outlet.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Upland Wildlife Habitat Management	ESD-Wbio	645	Not applicable.	No	Neutral	New vegetation may be established.	No	Not Applicable	Not applicable.	No
Use Exclusion	ESD-For	472	Control of animals, people and vehicles reduces disturbance	Yes	Slight to Moderate Improvement	Control of animals, people and vehicles help maintain	No	Slight to Substantial Improvement	Barriers reduce the excessive disturbance of soil	Yes
Waste Facility Cover	CED-EE	367	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition - Compaction (Effect)	Soil Condition - Compaction (Rationale)	Soil Condition - Compaction (Purpose)	Soil Condition - Subsidence (Effect)	Soil Condition - Subsidence (Rationale)	Soil Condition - Subsidence (Purpose)	Soil Condition - Contaminants - Salts and Other Chemicals (Effect)	Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)
Spring Development	CED-AE	574	Slight Worsening	Increased animal traffic around developed water	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Stream Habitat Improvement and Management	ESD-AqEco	395	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Streambank and Shoreline Protection	CED-DE	580	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Stripcropping	ESD-Agron	585	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Neutral	If used to manage water tables, this practice may	No	Not Applicable	Not applicable.
Surface Roughening	ESD-Agron	609	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Terrace	CED-AE	600	Slight Worsening	Construction activities cause compaction in the	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Tree/Shrub Establishment	ESD-For & CED-LA	612	Slight to Moderate Improvement	Root penetration and organic matter helps restore soil	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Woody vegetation takes up limited quantities of salts
Tree/Shrub Pruning	ESD-For	660	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Underground Outlet	CED-AE	620	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Upland Wildlife Habitat Management	ESD-Wbio	645	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Use Exclusion	ESD-For	472	Moderate to Substantial Improvement	Control of animals, people and vehicles lessens compactive	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Control of animals, people and vehicles may increase
Waste Facility Cover	CED-EE	367	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*
Spring Development	CED-AE	574	No	Slight to Moderate Improvement	Better water distribution allows less animal	Yes	Slight to Moderate Improvement	Better water distribution allows less animal	Yes	Slight to Moderate Improvement
Stream Habitat Improvement and Management	ESD-AqEco	395	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Streambank and Shoreline Protection	CED-DE	580	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Stripcropping	ESD-Agron	585	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Structure for Water Control	CED-DE	587	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Surface Roughening	ESD-Agron	609	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Terrace	CED-AE	600	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Tree/Shrub Establishment	ESD-For & CED-LA	612	Yes	Slight to Moderate Improvement	Increase vegetative growth and N uptake.	Yes	Slight to Moderate Improvement	Increase vegetative growth and P uptake.	Yes	Slight to Moderate Improvement
Tree/Shrub Pruning	ESD-For	660	No	Slight Improvement	Woody materials that have assimilated N from organic	No	Slight Improvement	Woody materials that have assimilated P from organic	No	Slight Improvement
Underground Outlet	CED-AE	620	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Upland Wildlife Habitat Management	ESD-Wbio	645	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Use Exclusion	ESD-For	472	No	Slight to Moderate Improvement	Control of animals, people and vehicles may increase	No	Slight to Moderate Improvement	Control of animals, people and vehicles may increase	No	Slight to Moderate Improvement
Waste Facility Cover	CED-EE	367	No	Neutral	Covered lagoons tend to have less opportunity for	No	Neutral	Covered lagoons tend to have less opportunity for	No	Neutral

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Spring Development	**CED-AE**	**574**	**Better water distribution allows less animal**	**Yes**	**Slight to Moderate Improvement**	**Better water distribution allows less animal**	**No**	**Slight to Moderate Improvement**	**Better water distribution allows less animal**	**Yes**
Stream Habitat Improvement and Management	**ESD-AqEco**	**395**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Streambank and Shoreline Protection	**CED-DE**	**580**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Stripcropping	**ESD-Agron**	**585**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Structure for Water Control	**CED-DE**	**587**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Surface Roughening	**ESD-Agron**	**609**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Terrace	**CED-AE**	**600**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Tree/Shrub Establishment	**ESD-For & CED-LA**	**612**	**Increase vegetative growth and K uptake.**	**Yes**	**Slight to Moderate Improvement**	**Increase vegetative growth and N uptake.**	**Yes**	**Slight to Moderate Improvement**	**Increase vegetative growth and P uptake.**	**Yes**
Tree/Shrub Pruning	**ESD-For**	**660**	**Woody materials that have assimilated K from organic**	**No**	**Slight Improvement**	**Woody materials that have assimilated N from organic**	**No**	**Slight Improvement**	**Woody materials that have assimilated P from organic**	**No**
Underground Outlet	**CED-AE**	**620**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Upland Wildlife Habitat Management	**ESD-Wbio**	**645**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Use Exclusion	**ESD-For**	**472**	**Control of animals, people and vehicles may increase**	**No**	**Slight to Moderate Improvement**	**Control of animals, people and vehicles may increase**	**No**	**Slight to Moderate Improvement**	**Control of animals, people and vehicles may increase**	**No**
Waste Facility Cover	**CED-EE**	**367**	**Covered lagoons tend to have less opportunity for**	**No**	**Neutral**	**Covered lagoons tend to have less opportunity for**	**No**	**Neutral**	**Covered lagoons tend to have less opportunity for**	**No**

Practice	Lead Discipline(s)	Practice Code	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)	Soil Condition - Contaminants - Residual Pesticides (Effect)	Soil Condition - Contaminants - Residual Pesticides (Rationale)	Soil Condition - Contaminants - Residual Pesticides (Purpose)	Soil Condition - Damage from Sediment Deposition (Effect)	Soil Condition - Damage from Sediment Deposition (Rationale)
Spring Development	CED-AE	574	Slight to Moderate Improvement	Better water distribution allows less animal	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Stream Habitat Improvement and Management	ESD-AqEco	395	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Streambank and Shoreline Protection	CED-DE	580	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Reduction in eroded stream banks and shorelines reduces
Stripcropping	ESD-Agron	585	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Alternating strips of erosion-resistant vegetation reduce
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Controlling the rate of water movement will reduce the
Surface Roughening	ESD-Agron	609	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Wind erosion reduction provides a slight to moderate
Terrace	CED-AE	600	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action reduces erosion and traps sediment.
Tree/Shrub Establishment	ESD-For & CED-LA	612	Slight to Moderate Improvement	Increase vegetative growth and K uptake.	Yes	Slight to Moderate Improvement	Increased organic matter can tie up some pesticides.	Yes	Neutral	Vegetation and surface litter trap sediment from off-
Tree/Shrub Pruning	ESD-For	660	Slight Improvement	Woody materials that have assimilated K from organic	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Underground Outlet	CED-AE	620	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Concentrated water is safely carried off-site without erosion
Upland Wildlife Habitat Management	ESD-Wbio	645	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Use Exclusion	ESD-For	472	Slight to Moderate Improvement	Control of animals, people and vehicles may increase	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Control of animals, people and vehicles reduces erosion,
Waste Facility Cover	CED-EE	367	Neutral	Covered lagoons tend to have less opportunity for	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*	*Water Quantity - Rangeland Hydrologic Cycle (Rationale)*	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)*
Spring Development	CED-AE	574	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Water collected and removed from site.	No	Slight Improvement
Stream Habitat Improvement and Management	ESD-AqEco	395	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Streambank and Shoreline Protection	CED-DE	580	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Stripcropping	ESD-Agron	585	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Increased water infiltration that may move laterally to a	No	Slight Improvement
Structure for Water Control	CED-DE	587	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Surface Roughening	ESD-Agron	609	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Terrace	CED-AE	600	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Because of increased infiltration	No	Moderate to Substantial Improvement
Tree/Shrub Establishment	ESD-For & CED-LA	612	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Deep rooted plants uptake excess water.	No	Slight Worsening
Tree/Shrub Pruning	ESD-For	660	No	Not Applicable	Not applicable.	No	Neutral	The action has a negligible effect.	No	Neutral
Underground Outlet	CED-AE	620	No	Not Applicable	Not applicable.	No	Neutral	The action removes concentrated flows before they infiltrate.	No	Moderate to Substantial Improvement
Upland Wildlife Habitat Management	ESD-Wbio	645	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate Worsening
Use Exclusion	ESD-For	472	No	Slight to Substantial Improvement	Barriers reduce the excessive disturbance of soil	Yes	Slight Improvement	Control of animals, people and vehicles influences vigor and	No	Slight to Moderate Worsening
Waste Facility Cover	CED-EE	367	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Worsening

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)*	*Water Quantity - Excessive Subsurface Water (Effect)*	*Water Quantity - Excessive Subsurface Water (Rationale)*	*Water Quantity - Excessive Subsurface Water (Purpose)*	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*
Spring Development	CED-AE	574	Water collected and removed from site.	No	Slight to Moderate Improvement	Subsurface water collected and removed from the	No	Not Applicable	Not applicable.	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Streambank and Shoreline Protection	CED-DE	580	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stripcropping	ESD-Agron	585	Drifting snow traps results in increased water infiltration	No	Slight Worsening	Drifting snow trapped results in increased infiltration	No	Not Applicable	Not applicable.	No
Structure for Water Control	CED-DE	587	Structure used for flow control, or level regulation of water.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Surface Roughening	ESD-Agron	609	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Terrace	CED-AE	600	Water storage is increased and runoff is reduced.	Yes	Slight to Moderate Worsening	Because of increased infiltration	No	Not Applicable	Not applicable.	No
Tree/Shrub Establishment	ESD-For & CED-LA	612	Vegetation slows surface flow rates and creates ponding.	No	Slight to Moderate Improvement	Deep rooted plants uptake excess water.	No	Slight to Moderate Improvement	Snow is captured by tree/shrub crowns and deposited within	No
Tree/Shrub Pruning	ESD-For	660	The action has a negligible effect.	No	Neutral	The action has a negligible effect.	No	Not Applicable	Not applicable.	Yes
Underground Outlet	CED-AE	620	Ponding and flooding are conveyed to a safe	Yes	Neutral	The action removes concentrated flows before they infiltrate.	No	Not Applicable	Not applicable.	No
Upland Wildlife Habitat Management	ESD-Wbio	645	Vegetation causes flooding and ponding.	No	Slight to Moderate Improvement	Deep rooted plants uptake excess water.	No	Not Applicable	Not applicable.	No
Use Exclusion	ESD-For	472	Control of animals, people and vehicles can improve vigor	No	Slight to Moderate Improvement	Control of animals, people and vehicles influences vigor and	No	Not Applicable	Not applicable.	No
Waste Facility Cover	CED-EE	367	Excluded rainfall on pond will contribute to runoff.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quantity - Inadequate Outlets (Effect)	Water Quantity - Inadequate Outlets (Rationale)	Water Quantity - Inadequate Outlets (Purpose)	Water Quantity - Inefficient Water Use on Irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)	Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)
Spring Development	CED-AE	574	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Provides a dependable supply of water allowing	Yes	Slight to Moderate Improvement	Provides a dependable supply of water allowing
Stream Habitat Improvement and Management	ESD-AqEco	395	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Streambank and Shoreline Protection	CED-DE	580	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Stripcropping	ESD-Agron	585	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Drifting snow trapped results in increased water
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Provides control for better water distribution.	Yes	Slight to Moderate Improvement	Provides control for better water distribution.
Surface Roughening	ESD-Agron	609	Slight Improvement	Wind erosion reduction reduces accumulation of wind	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Terrace	CED-AE	600	Slight to Moderate Improvement	Amount of runoff is regulated and controlled to reduce	No	Not Applicable	Not applicable.	No	Moderate Improvement	The action reduces erosion and runoff and improves water
Tree/Shrub Establishment	ESD-For & CED-LA	612	Slight to Moderate Improvement	Vegetation slows and retains runoff; the need for larger	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Adapted and managed vegetative production allows
Tree/Shrub Pruning	ESD-For	660	Neutral	The action has a negligible effect.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Underground Outlet	CED-AE	620	Moderate Improvement	The action provides local outlets for practices such as	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Upland Wildlife Habitat Management	ESD-Wbio	645	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Use Exclusion	ESD-For	472	Slight Improvement	Control of animals, people and vehicles influences vigor and	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Control of animals, people and vehicles influences vegetation
Waste Facility Cover	CED-EE	367	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
Spring Development	**CED-AE**	**574**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**
Stream Habitat Improvement and Management	**ESD-AqEco**	**395**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Streambank and Shoreline Protection	**CED-DE**	**580**	**No**	**Slight to Substantial Improvement**	**Reduced erosion and stabilized channels result in decrease in**	**Yes**	**Slight to Substantial Improvement**	**Reduced erosion and stabilized channels result in decrease in**	**Yes**	**Not Applicable**
Stripcropping	**ESD-Agron**	**585**	**No**	**Moderate to Substantial Improvement**	**Reduces soil erosion and resulting off-site sediment deposition.**	**Yes**	**Slight to Moderate Improvement**	**Reduces soil erosion and resulting off-site sediment deposition.**	**Yes**	**Not Applicable**
Structure for Water Control	**CED-DE**	**587**	**Yes**	**Slight to Moderate Improvement**	**Controls velocity and enhances sediment transport and**	**Yes**	**Slight to Moderate Improvement**	**Controls velocity and enhances sediment transport and**	**Yes**	**Not Applicable**
Surface Roughening	**ESD-Agron**	**609**	**No**	**Slight to Moderate Improvement**	**Wind erosion reduction reduced soil accumulation in**	**Yes**	**Slight to Moderate Improvement**	**Wind erosion reduction reduced soil accumulation in**	**Yes**	**Not Applicable**
Terrace	**CED-AE**	**600**	**Yes**	**Slight to Moderate Improvement**	**Sediment trapped before it is transported to**	**Yes**	**Slight to Moderate Improvement**	**Sediment trapped before it is transported to**	**Yes**	**Slight Improvement**
Tree/Shrub Establishment	**ESD-For & CED-LA**	**612**	**No**	**Moderate to Substantial Improvement**	**Vegetation collects sediment preventing it from being**	**Yes**	**Moderate to Substantial Improvement**	**Vegetation collects sediment preventing it from being**	**Yes**	**Slight to Moderate Worsening**
Tree/Shrub Pruning	**ESD-For**	**660**	**No**	**Neutral**	**The action has a negligible effect.**	**No**	**Neutral**	**The action has a negligible effect.**	**No**	**Neutral**
Underground Outlet	**CED-AE**	**620**	**No**	**Slight to Moderate Improvement**	**Concentrated water is safely carried off-site without erosion**	**Yes**	**Slight to Moderate Improvement**	**Concentrated water is safely carried off-site without erosion**	**Yes**	**Neutral**
Upland Wildlife Habitat Management	**ESD-Wbio**	**645**	**No**	**Slight Improvement**	**Improved vegetative cover will decrease sedimentation**	**No**	**Slight Improvement**	**Improved vegetative cover will decrease sedimentation**	**No**	**Not Applicable**
Use Exclusion	**ESD-For**	**472**	**No**	**Slight to Moderate Improvement**	**Control of animals, people and vehicles can improve vigor**	**No**	**Slight to Moderate Improvement**	**Control of animals, people and vehicles can improve vigor**	**No**	**Neutral**
Waste Facility Cover	**CED-EE**	**367**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Aquifer Overdraft (Rationale)*	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)*
Spring Development	CED-AE	574	By definition springs are at the land surface, not in	No	Slight Worsening	Spring flows diverted from water courses.	No	Not Applicable	Not applicable.	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Streambank and Shoreline Protection	CED-DE	580	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stripcropping	ESD-Agron	585	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	The action increases infiltration which may be offset by	No
Structure for Water Control	CED-DE	587	Not applicable.	No	Slight to Moderate Improvement	Structure allows better management of water which can	Yes	Not Applicable	Not applicable.	No
Surface Roughening	ESD-Agron	609	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Terrace	CED-AE	600	Increases infiltration for aquifer recharge	No	Slight Worsening	Vegetated areas intercept precipitation and	No	Slight to Moderate Worsening	this practice increases infiltration	No
Tree/Shrub Establishment	ESD-For & CED-LA	612	Deep rooted vegetation can draw water lowering the	No	Slight to Moderate Improvement	Vegetated areas intercept precipitation and	No	Moderate to Substantial Improvement	The action reduces the need for pesticide use and	Yes
Tree/Shrub Pruning	ESD-For	660	Reduction in leaf surface area reduces soil moisture	No	Neutral	Reduction in leaf surface area reduces soil moisture	No	Slight Improvement	Managing for desirable plant vigor reduces the need for	No
Underground Outlet	CED-AE	620	Removal of concentrated flows may result in	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Upland Wildlife Habitat Management	ESD-Wbio	645	Not applicable.	No	Slight Improvement	Vegetated areas intercept precipitation and	No	Not Applicable	Not applicable.	No
Use Exclusion	ESD-For	472	Control of animals, people and vehicles can improve soil	No	Slight to Moderate Improvement	Control of animals, people and vehicles influences vigor and	No	Not Applicable	Not applicable.	No
Waste Facility Cover	CED-EE	367	Not applicable.	No	Neutral	Rainfall secluded from facility will add to runoff.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)	Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)	Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)	Water Quality - Excessive Salinity in Groundwater (Effect)	Water Quality - Excessive Salinity in Groundwater (Rationale)	Water Quality - Excessive Salinity in Groundwater (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)
Spring Development	CED-AE	574	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Stream Habitat Improvement and Management	ESD-AqEco	395	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Streambank and Shoreline Protection	CED-DE	580	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Stripcropping	ESD-Agron	585	Slight Worsening	The action reduces the velocity of runoff and traps drifting	No	Slight Worsening	Stripcropping may reduce the velocity of runoff and trap	No	Slight Worsening	The action reduces the velocity of runoff and traps drifting
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Surface Roughening	ESD-Agron	609	Not Applicable	Not applicable.	No	Neutral	Roughened surface may increase infiltration, moving	No	Slight Worsening	Roughened surface may cause some modest infiltration
Terrace	CED-AE	600	Slight to Moderate Worsening	The action increases infiltration which may provide transport for	No	Slight to Moderate Worsening	The action increases infiltration of water and soluble	No	Slight Worsening	The action increases infiltration of water and soluble
Tree/Shrub Establishment	ESD-For & CED-LA	612	Slight to Moderate Improvement	Permanent vegetation will uptake excess	Yes	Slight Improvement	The action may promote contaminant uptake by plants.	No	Slight Improvement	Establishing metal-accumulating trees and shrubs may
Tree/Shrub Pruning	ESD-For	660	Slight Improvement	The action stimulates plants to take up and assimilate nutrients	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Underground Outlet	CED-AE	620	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Upland Wildlife Habitat Management	ESD-Wbio	645	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Use Exclusion	ESD-For	472	Slight Improvement	Control of animals, people, and vehicles influences vegetation	No	Not Applicable	Not applicable.	No	Slight Improvement	Control of animals, people, and vehicles influences vegetation
Waste Facility Cover	CED-EE	367	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Reduced opportunity for overflow due to rainfall exclusion will

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)*
Spring Development	CED-AE	574	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Stream Habitat Improvement and Management	ESD-AqEco	395	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Streambank and Shoreline Protection	CED-DE	580	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Stripcropping	ESD-Agron	585	No	Slight Worsening	The action reduces the velocity of runoff and traps drifting	No	Neutral	Stripcropping reduces the velocity of runoff and traps	No	Slight to Moderate Improvement
Structure for Water Control	CED-DE	587	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Surface Roughening	ESD-Agron	609	No	Slight Worsening	Roughened surface may cause some modest infiltration	No	Not Applicable	Not applicable.	No	Slight Improvement
Terrace	CED-AE	600	No	Slight Worsening	The action increases infiltration of water and contaminants,	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Tree/Shrub Establishment	ESD-For & CED-LA	612	No	Moderate to Substantial Improvement	Increased vegetative cover and soil microbial activity can	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement
Tree/Shrub Pruning	ESD-For	660	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Underground Outlet	CED-AE	620	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Upland Wildlife Habitat Management	ESD-Wbio	645	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Use Exclusion	ESD-For	472	No	Slight Improvement	Control of animals and people lessens pathogen production	No	Slight Improvement	Reducing vehicular access reduces the potential for	No	Not Applicable
Waste Facility Cover	CED-EE	367	No	Slight Improvement	Reduced opportunity for overflow due to rainfall exclusion will	Yes	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*
Spring Development	CED-AE	574	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Water development will decrease livestock trampling	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Improved vegetation and management will reduce streambank	No
Streambank and Shoreline Protection	CED-DE	580	Not applicable.	No	Slight Improvement	Stabilizing eroding banks will reduce the delivery of nutrients	No	Slight to Substantial Improvement	Reduces erosion on banks and shorelines.	No
Stripcropping	ESD-Agron	585	The action reduces runoff and erosion and traps adsorbed	Yes	Slight to Substantial Improvement	Stripcropping decreases soil erosion by wind and	Yes	Slight to Substantial Improvement	Reduces erosion, slows water and wind velocities,	Yes
Structure for Water Control	CED-DE	587	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Decrease in water velocity will result in reduction in	Yes
Surface Roughening	ESD-Agron	609	The action reduces soil erosion from wind.	No	Not Applicable	Not applicable.	No	Slight Improvement	Formation of clods will reduce wind erosion.	No
Terrace	CED-AE	600	The action reduces runoff and erosion.	No	Slight to Moderate Improvement	Reduced erosion and increased infiltration can result in fewer	No	Slight to Substantial Improvement	Terraces slow water and allow sediment deposition.	No
Tree/Shrub Establishment	ESD-For & CED-LA	612	The action reduces runoff and the need for pesticide use.	Yes	Slight to Moderate Improvement	Permanent vegetation will uptake excess	No	Moderate to Substantial Improvement	Vegetation provides cover, reduces wind velocities, and	Yes
Tree/Shrub Pruning	ESD-For	660	Managing for desirable plant vigor reduces runoff,	No	Slight Improvement	The action stimulates plants to take up and assimilate nutrients	No	Not Applicable	Not applicable.	No
Underground Outlet	CED-AE	620	Not applicable.	No	Neutral	Providing a stable outlet can decrease erosion and the	No	Neutral	Slowing water in associated structures will cause	No
Upland Wildlife Habitat Management	ESD-Wbio	645	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	There will be improved vegetative cover with a	No
Use Exclusion	ESD-For	472	Not applicable.	No	Slight to Moderate Improvement	Control of animals, people and vehicles influences vigor and	No	Not Applicable	Not applicable.	No
Waste Facility Cover	CED-EE	367	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Salinity in Surface Water (Effect)	Water Quality - Excessive Salinity in Surface Water (Rationale)	Water Quality - Excessive Salinity in Surface Water (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)	Water Quality - Harmful Temperatures of Surface Water (Effect)	Water Quality - Harmful Temperatures of Surface Water (Rationale)
Spring Development	CED-AE	574	Slight Improvement	Spring flows provide some dilution effect.	No	Slight to Moderate Improvement	Spring flows are typically better quality than surface	No	Neutral	Springs are cooler than surface water and their proximity to
Stream Habitat Improvement and Management	ESD-AqEco	395	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Restoration of riparian conditions will contribute to
Streambank and Shoreline Protection	CED-DE	580	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	The action includes vegetation along stream courses.
Stripcropping	ESD-Agron	585	Slight Improvement	Stripcropping slows runoff and can increase water,	No	Slight to Substantial Improvement	The action decreases soil erosion by wind and water and may	Yes	Not Applicable	Not applicable.
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	The action is used to control water releases and regulate
Surface Roughening	ESD-Agron	609	Neutral	Roughened surface may cause some modest infiltration	No	Slight Improvement	The action reduces wind erosion, reducing transport of	No	Not Applicable	Not applicable.
Terrace	CED-AE	600	Slight to Moderate Improvement	The action can increase infiltration, which will reduce	No	Slight to Moderate Improvement	The action traps sediment, reduces ephemeral gully	No	Not Applicable	Not applicable.
Tree/Shrub Establishment	ESD-For & CED-LA	612	Slight Improvement	The action promotes contaminant uptake by plants.	No	Slight Improvement	Some plants may take up heavy metals.	No	Slight to Moderate Improvement	Near streams and other water bodies, trees and shrubs
Tree/Shrub Pruning	ESD-For	660	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Underground Outlet	CED-AE	620	Neutral	The action does not increase or decrease the amount of salt	No	Slight Improvement	Decrease in erosion will lead to decrease in sediment bound	No	Neutral	Water collected subsurface will remain relatively
Upland Wildlife Habitat Management	ESD-Wbio	645	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Sound management of upland vegetation tends to improve
Use Exclusion	ESD-For	472	Not Applicable	Not applicable.	No	Slight Improvement	Control of animals, people and vehicles improves vigor and	No	Neutral	Control of animals, people and vehicles influences vigor,
Waste Facility Cover	CED-EE	367	Neutral	Exclusion of rainfall on the facility will reduce incidence of	No	Slight Improvement	Exclusion of rainfall on the facility will reduce incidents of	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Temperatures of Surface Water (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*
Spring Development	CED-AE	574	No	Slight Improvement	Spring flows are typically better quality than surface	No	Slight Improvement	Spring flows are typically better quality than surface	No	Not Applicable
Stream Habitat Improvement and Management	ESD-AqEco	395	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Streambank and Shoreline Protection	CED-DE	580	No	Slight Improvement	Elimination of eroding banks in areas adjacent to	No	Not Applicable	Not applicable.	No	Not Applicable
Stripcropping	ESD-Agron	585	No	Slight Improvement	Stripcropping decreases soil erosion by wind and	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Structure for Water Control	CED-DE	587	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Surface Roughening	ESD-Agron	609	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Terrace	CED-AE	600	No	Slight to Moderate Improvement	Increases infiltration and reduces runoff.	No	Slight to Moderate Improvement	Increases infiltration and reduces runoff.	No	Not Applicable
Tree/Shrub Establishment	ESD-For & CED-LA	612	No	Slight to Substantial Improvement	Woody vegetation captures and delays pathogen movement	Yes	Slight Improvement	Increased microbial activity in the planted area breaks down	Yes	Slight to Moderate Improvement
Tree/Shrub Pruning	ESD-For	660	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Underground Outlet	CED-AE	620	No	Slight Improvement	Decrease in erosion will lead to decrease in sediment bound	No	Slight Improvement	Decrease in erosion will lead to decrease in sediment bound	No	Not Applicable
Upland Wildlife Habitat Management	ESD-Wbio	645	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Use Exclusion	ESD-For	472	No	Slight to Moderate Improvement	Control of animals, people and vehicles influences vigor and	No	Slight Worsening	Control of animals, people and vehicles influences vigor and	No	Slight to Moderate Improvement
Waste Facility Cover	CED-EE	367	No	Neutral	Exclusion of rainfall on the facility will reduce incidence of	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)*	*Air Quality - Excessive Ozone (Effect)*	*Air Quality - Excessive Ozone (Rationale)*	*Air Quality - Excessive Ozone (Purpose)*
Spring Development	CED-AE	574	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	There is a minimal reduction of ozone precursors through	No
Streambank and Shoreline Protection	CED-DE	580	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	There is a minimal reduction of ozone precursors through	No
Stripcropping	ESD-Agron	585	Vegetated strips provide ground cover and reduces wind	Yes	Slight to Substantial Improvement	Vegetated strips provide ground cover and reduces wind	Yes	Not Applicable	Not applicable.	No
Structure for Water Control	CED-DE	587	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Surface Roughening	ESD-Agron	609	Increasing the random roughness of the soil surface	Yes	Slight to Substantial Improvement	Increasing the random roughness of the soil surface	Yes	Not Applicable	Not applicable.	No
Terrace	CED-AE	600	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Tree/Shrub Establishment	ESD-For & CED-LA	612	Permanent vegetative cover reduces wind	No	Slight to Moderate Improvement	Permanent vegetative cover reduces wind	No	Neutral	There is a minimal reduction of ozone precursors through	No
Tree/Shrub Pruning	ESD-For	660	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Underground Outlet	CED-AE	620	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Upland Wildlife Habitat Management	ESD-Wbio	645	Vegetative cover reduces wind erosion and fugitive	No	Slight to Moderate Improvement	Vegetative cover reduces wind erosion and fugitive	No	Neutral	There is a minimal reduction of ozone precursors through	No
Use Exclusion	ESD-For	472	Restricting traffic on an area can result in an improved stand of	Yes	Slight to Moderate Improvement	Restricting traffic on an area can result in an improved stand of	Yes	Not Applicable	Not applicable.	No
Waste Facility Cover	CED-EE	367	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	There is a decrease in potential ozone precursor emissions.	Yes

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)*
Spring Development	CED-AE	574	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Stream Habitat Improvement and Management	ESD-AqEco	395	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Streambank and Shoreline Protection	CED-DE	580	Slight Improvement	If used, vegetation residue stores carbon.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Stripcropping	ESD-Agron	585	Neutral	CO2 emissions are decreased if equipment travel is	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Surface Roughening	ESD-Agron	609	Neutral	Some carbon may be lost due to soil disturbance.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Terrace	CED-AE	600	Neutral	Terracing promotes vegetative growth that removes CO2	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Tree/Shrub Establishment	ESD-For & CED-LA	612	Substantial Improvement	Vegetation removes CO2 from the air and stores it in the form	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Tree/Shrub Pruning	ESD-For	660	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Underground Outlet	CED-AE	620	Not Applicable	Not applicable.	No	Neutral	Planning and management must consider	No	Not Applicable	Not applicable.
Upland Wildlife Habitat Management	ESD-Wbio	645	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Use Exclusion	ESD-For	472	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Facility Cover	CED-EE	367	Neutral	Anaerobic conditions, which are promoted by	Yes	Neutral	Not applicable.	No	Slight to Moderate Improvement	Methane releases may be contained with cover and

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*	*Air Quality - NH3 - Ammonia (Effect)*	*Air Quality - NH3 - Ammonia (Rationale)*	*Air Quality - NH3 - Ammonia (Purpose)*	*Air Quality - Chemical Drift (Effect)*	*Air Quality - Chemical Drift (Rationale)*	*Air Quality - Chemical Drift (Purpose)*	*Air Quality - Objectionable Odors (Effect)*
Spring Development	CED-AE	574	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Stream Habitat Improvement and Management	ESD-AqEco	395	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Streambank and Shoreline Protection	CED-DE	580	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Stripcropping	ESD-Agron	585	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Structure for Water Control	CED-DE	587	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Surface Roughening	ESD-Agron	609	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Terrace	CED-AE	600	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Tree/Shrub Establishment	ESD-For & CED-LA	612	no	Not Applicable	Not applicable.	no	Slight to Moderate Improvement	Tall vegetation slows surface air movement and	Yes	Slight to Moderate Improvement
Tree/Shrub Pruning	ESD-For	660	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Underground Outlet	CED-AE	620	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral
Upland Wildlife Habitat Management	ESD-Wbio	645	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Use Exclusion	ESD-For	472	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Waste Facility Cover	CED-EE	367	Yes	Slight to Moderate Improvement	Proper nutrient management reduces NH3	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*	*Air Quality - Reduced Visibility (Rationale)*	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Spring Development	CED-AE	574	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Streambank and Shoreline Protection	CED-DE	580	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stripcropping	ESD-Agron	585	Not applicable.	No	Slight Improvement	Reduction in wind erosion potential and fugitive dust	No	Not Applicable	Not applicable.	No
Structure for Water Control	CED-DE	587	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Surface Roughening	ESD-Agron	609	Not applicable.	No	Moderate to Substantial Improvement	Reduction in wind erosion potential and fugitive dust	No	Neutral	Roughening disrupts the saltation process but do not slow	No
Terrace	CED-AE	600	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Tree/Shrub Establishment	ESD-For & CED-LA	612	Vegetation will reduce wind movement and	No	Slight to Substantial Improvement	Tall vegetation slows surface air movement and	Yes	Moderate to Substantial Improvement	Tall vegetation creates turbulence and slows undesired,	No
Tree/Shrub Pruning	ESD-For	660	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Underground Outlet	CED-AE	620	Planning and management must preclude transport of	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Upland Wildlife Habitat Management	ESD-Wbio	645	Not applicable.	No	Slight Improvement	Reduction in wind erosion potential and fugitive dust	No	Slight to Moderate Improvement	Creation of tall vegetation creates turbulence and slows	Yes
Use Exclusion	ESD-For	472	Not applicable.	No	Slight Improvement	Reduction in wind erosion potential and fugitive dust	Yes	Not Applicable	Not applicable.	No
Waste Facility Cover	CED-EE	367	Cover will reduce/eliminate volatilization of	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Air Quality - Adverse Air Temperature (Effect)	Air Quality - Adverse Air Temperature (Rationale)	Air Quality - Adverse Air Temperature (Purpose)	Plants not adapted or suited (Effect)	Plants not adapted or suited (Rationale)	Plants not adapted or suited (Purpose)	Plant Condition - Productivity, Health and Vigor (Effect)	Plant Condition - Productivity, Health and Vigor (Rationale)
Spring Development	CED-AE	574	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Available water to facilitate irrigation or grazing management
Stream Habitat Improvement and Management	ESD-AqEco	395	Moderate to Substantial Improvement	Tall vegetation provides shade and moderates	Yes	Moderate to Substantial Improvement	Management and improvement measures create or	Yes	Moderate to Substantial Improvement	Management and improvement measures create or
Streambank and Shoreline Protection	CED-DE	580	Moderate to Substantial Improvement	Tall vegetation provides shade and moderates	No	Moderate to Substantial Improvement	Protection measures create or maintain the desired plant	Yes	Moderate to Substantial Improvement	Protection measures improves site conditions to
Stripcropping	ESD-Agron	585	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Reduced erosion will improve site potential to enhance
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Surface Roughening	ESD-Agron	609	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Terrace	CED-AE	600	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Conserving moisture and reduced erosion will improve plant
Tree/Shrub Establishment	ESD-For & CED-LA	612	Substantial Improvement	Tall vegetation provides shade and moderates	Yes	Substantial Improvement	Plants selected are adapted and suited.	Yes	Substantial Improvement	Plants are selected and managed to maintain optimal
Tree/Shrub Pruning	ESD-For	660	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Substantial Improvement	Pruning increases health and vigor of selected tree/shrub
Underground Outlet	CED-AE	620	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Upland Wildlife Habitat Management	ESD-Wbio	645	Slight to Substantial Improvement	Tall vegetation provides shade and moderates	Yes	Moderate to Substantial Improvement	Management and improvement measures create or	Yes	Moderate to Substantial Improvement	Plants are selected and managed to maintain optimal
Use Exclusion	ESD-For	472	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Control of access encourages plants that are adapted and	Yes	Moderate to Substantial Improvement	Control of animals facilitates grazing management
Waste Facility Cover	CED-EE	367	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*	*Plant Condition - Noxious and Invasive Plants (Effect)*
Spring Development	CED-AE	574	No	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Not Applicable
Stream Habitat Improvement and Management	ESD-AqEco	395	Yes	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Moderate to Substantial Improvement
Streambank and Shoreline Protection	CED-DE	580	Yes	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Moderate to Substantial Improvement
Stripcropping	ESD-Agron	585	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Structure for Water Control	CED-DE	587	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Surface Roughening	ESD-Agron	609	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Terrace	CED-AE	600	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Tree/Shrub Establishment	ESD-For & CED-LA	612	Yes	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Moderate to Substantial Improvement
Tree/Shrub Pruning	ESD-For	660	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Underground Outlet	CED-AE	620	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Upland Wildlife Habitat Management	ESD-Wbio	645	Yes	Neutral	When threatened or endangered plants are present,	No	Neutral	When threatened or endangered plants are present,	No	Moderate to Substantial Improvement
Use Exclusion	ESD-For	472	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement
Waste Facility Cover	CED-EE	367	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Noxious and Invasive Plants (Rationale)*	*Plant Condition - Noxious and Invasive Plants (Purpose)*	*Plant Condition - Forage Quality and Palatability (Effect)*	*Plant Condition - Forage Quality and Palatability (Rationale)*	*Plant Condition - Forage Quality and Palatability (Purpose)*	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*
Spring Development	CED-AE	574	Not applicable.	No	Not Applicable	Not applicable.	Yes	Not Applicable	Not applicable.	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Vegetation is installed and managed to control	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	no
Streambank and Shoreline Protection	CED-DE	580	Vegetation is installed and managed to control	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Stripcropping	ESD-Agron	585	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Structure for Water Control	CED-DE	587	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Surface Roughening	ESD-Agron	609	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Terrace	CED-AE	600	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Tree/Shrub Establishment	ESD-For & CED-LA	612	Vegetation is installed and managed to control	No	Substantial Improvement	Feed and forage plants used by wildlife are managed	Yes	Not Applicable	Not applicable.	No
Tree/Shrub Pruning	ESD-For	660	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Activities are carried out to reduce ladder fuels.	Yes
Underground Outlet	CED-AE	620	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Upland Wildlife Habitat Management	ESD-Wbio	645	Vegetation is installed and managed to control	No	Moderate to Substantial Improvement	Selected plant species will have adequate nutritive	Yes	Not Applicable	Not applicable.	No
Use Exclusion	ESD-For	472	Control of animals, people and vehicles influences vigor and	No	Moderate to Substantial Improvement	Control of animals, people and vehicles influences quality	No	Slight to Substantial Improvement	Access by people and vehicles to high hazard areas can be	Yes
Waste Facility Cover	CED-EE	367	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Fish and Wildlife - Inadequate Food (Effect)	Fish and Wildlife - Inadequate Food (Rationale)	Fish and Wildlife - Inadequate Food (Purpose)	Fish and Wildlife - Inadequate Cover/Shelter (Effect)	Fish and Wildlife - Inadequate Cover/Shelter (Rationale)	Fish and Wildlife - Inadequate Cover/Shelter (Purpose)	Fish and Wildlife - Inadequate Water (Effect)	Fish and Wildlife - Inadequate Water (Rationale)
Spring Development	CED-AE	574	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	Provides water for terrestrial species.
Stream Habitat Improvement and Management	ESD-AqEco	395	Slight to Substantial Improvement	Aquatic habitat is improved providing food for fish and	Yes	Slight to Substantial Improvement	Aquatic habitat is improved providing cover for fish and	Yes	Slight to Substantial Improvement	Riparian and instream improvements will
Streambank and Shoreline Protection	CED-DE	580	Slight to Moderate Improvement	Vegetation planted for stabilization can consist of food	Yes	Slight to Moderate Improvement	Vegetation planted for stabilization can consist of cover for	Yes	Neutral	Measures taken are to be compatible with conservation of fish
Stripcropping	ESD-Agron	585	Slight to Moderate Improvement	Food for wildlife is improved because of proximity of strips to	No	Slight to Moderate Improvement	Cover for wildlife is improved because of proximity of strips to	No	Not Applicable	Not applicable.
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	Yes	Slight to Moderate Improvement	Degree of effect is determined by the species whose
Surface Roughening	ESD-Agron	609	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Terrace	CED-AE	600	Not Applicable	Not applicable.	No	Slight Improvement	Vegetation-backed terraces provide limited cover.	No	Not Applicable	Not applicable.
Tree/Shrub Establishment	ESD-For & CED-LA	612	Slight to Substantial Improvement	Plants are chosen and managed to enhance food value	Yes	Moderate to Substantial Improvement	Plants are chosen and managed to enhance	Yes	Not Applicable	Not applicable.
Tree/Shrub Pruning	ESD-For	660	Slight Improvement	Growth of herbaceous and shrubby plants are	No	Slight Improvement	Growth of herbaceous and shrubby plants are	No	Not Applicable	Not applicable.
Underground Outlet	CED-AE	620	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Upland Wildlife Habitat Management	ESD-Wbio	645	Substantial Improvement	Areas for food are created, restored, or enhanced.	Yes	Substantial Improvement	Areas for cover are created, restored, or enhanced.	Yes	Not Applicable	Not applicable.
Use Exclusion	ESD-For	472	Slight to Substantial Improvement	Control of animals, people and vehicles influences vigor,	Yes	Slight to Substantial Improvement	Control of animals, people and vehicles influences vigor,	Yes	Slight to Moderate Improvement	Control of access protects available water sources.
Waste Facility Cover	CED-EE	367	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*	*Fish and Wildlife - Inadequate Space (Purpose)*	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
Spring Development	CED-AE	574	Yes	Slight to Moderate Improvement	Additional habitat/space is available once spring	No	Slight to Moderate Improvement	Multiple spring developments can reconnect habitats.	No	Slight Improvement
Stream Habitat Improvement and Management	ESD-AqEco	395	Yes	Moderate to Substantial Improvement	Restored habitats increase suitable space for fish.	Yes	Moderate to Substantial Improvement	Restored habitats that were previously fragmenting the	Yes	Moderate Improvement
Streambank and Shoreline Protection	CED-DE	580	Yes	Slight to Moderate Improvement	Stabilized banks and shoreline increase suitable space for	Yes	Slight to Moderate Improvement	Stabilized banks and shoreline that were previously	Yes	Slight Improvement
Stripcropping	ESD-Agron	585	No	Slight Improvement	Strip provides only limited additional space for most	No	Slight Improvement	Strips can connect adjacent habitats to a limited degree.	No	Not Applicable
Structure for Water Control	CED-DE	587	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Surface Roughening	ESD-Agron	609	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Terrace	CED-AE	600	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Tree/Shrub Establishment	ESD-For & CED-LA	612	No	Substantial Improvement	Tall vegetation creates vertical habitat structure and	Yes	Moderate to Substantial Improvement	Vegetation is installed and managed to connect	Yes	Moderate to Substantial Improvement
Tree/Shrub Pruning	ESD-For	660	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Underground Outlet	CED-AE	620	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Upland Wildlife Habitat Management	ESD-Wbio	645	No	Substantial Improvement	Improved plant diversity and quantity and quality of	Yes	Moderate to Substantial Improvement	Vegetation will be established to maintain or enhance	Yes	Substantial Improvement
Use Exclusion	ESD-For	472	Yes	Slight to Substantial Improvement	Excluded use protects wildlife space requirements.	Yes	Slight to Substantial Improvement	Excluded use can protect connections between habitats.	Yes	Slight to Substantial Improvement
Waste Facility Cover	CED-EE	367	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Imbalance Among and Within Populations (Rationale)*	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)*
Spring Development	CED-AE	574	Management is designed to minimize limiting factors.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Habitat management is implemented to remove limiting	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Streambank and Shoreline Protection	CED-DE	580	Habitat management is implemented to remove limiting	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Stripcropping	ESD-Agron	585	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Structure for Water Control	CED-DE	587	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Surface Roughening	ESD-Agron	609	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Terrace	CED-AE	600	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Tree/Shrub Establishment	ESD-For & CED-LA	612	Cover is designed to minimize limiting factors.	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Tree/Shrub Pruning	ESD-For	660	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Underground Outlet	CED-AE	620	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Upland Wildlife Habitat Management	ESD-Wbio	645	Habitat management is implemented to remove limiting	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes
Use Exclusion	ESD-For	472	Control of animals, people and vehicles facilitates the effects	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Waste Facility Cover	CED-EE	367	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)	Domestic Animals - Inadequate Shelter (Effect)	Domestic Animals - Inadequate Shelter (Rationale)	Domestic Animals - Inadequate Shelter (Purpose)	Domestic Animals - Inadequate Stock Water (Effect)	Domestic Animals - Inadequate Stock Water (Rationale)
Spring Development	CED-AE	574	Slight to Substantial Improvement	Improved distribution of animals makes	No	Not Applicable	Not applicable.	No	Substantial Improvement	The spring increases the quality and quantity of water for
Stream Habitat Improvement and Management	ESD-AqEco	395	Slight to Moderate Improvement	Re-establishment of streamside habitat can provide	No	Moderate to Substantial Improvement	Riparian area shrubs and trees can provide shade and	No	Not Applicable	Not applicable.
Streambank and Shoreline Protection	CED-DE	580	Slight Improvement	Re-establishment of streambank vegetation can	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Stripcropping	ESD-Agron	585	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Structure for Water Control	CED-DE	587	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Captured water in structures can supplement stock
Surface Roughening	ESD-Agron	609	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Terrace	CED-AE	600	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Tree/Shrub Establishment	ESD-For & CED-LA	612	Slight to Moderate Improvement	These sites may be used as feed and forage by livestock if	No	Moderate to Substantial Improvement	Tall vegetation provides shelter.	No	Not Applicable	Not applicable.
Tree/Shrub Pruning	ESD-For	660	Slight to Moderate Improvement	Not applicable.	Yes	Slight to Substantial Worsening	Removing branches from lower portion of trees reduces	No	Not Applicable	Not applicable.
Underground Outlet	CED-AE	620	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Upland Wildlife Habitat Management	ESD-Wbio	645	Slight to Moderate Improvement	These sites may be used as feed and forage by livestock if	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Use Exclusion	ESD-For	472	Moderate to Substantial Improvement	Control of animals influences vigor and health of vegetation.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Facility Cover	CED-EE	367	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*	*Appropriate Land Use(s)*	*Baseline Setting*
Spring Development	CED-AE	574	Yes	Moderate to Substantial Improvement	Available water reduces stress and mortality.	No	Forest, Grazed Forest, Grazed Range, Hay,	
Stream Habitat Improvement and Management	ESD-AqEco	395	No	Moderate to Substantial Improvement	Tall vegetation alters temperatures and wind effects	No	All Land Uses	
Streambank and Shoreline Protection	CED-DE	580	No	Not Applicable	Not applicable.	No	All Land Uses	
Stripcropping	ESD-Agron	585	No	Not Applicable	Not applicable.	No	Crop	
Structure for Water Control	CED-DE	587	No	Not Applicable	Not applicable.	No	All Land Uses	
Surface Roughening	ESD-Agron	609	No	Not Applicable	Not applicable.	No	Crop	
Terrace	CED-AE	600	No	Not Applicable	Not applicable.	No	Crop	
Tree/Shrub Establishment	ESD-For & CED-LA	612	No	Moderate to Substantial Improvement	Tall vegetation moderates temperatures and	No	All Land Uses	
Tree/Shrub Pruning	ESD-For	660	Yes	Not Applicable	Not applicable.	No	All Land Uses	
Underground Outlet	CED-AE	620	No	Not Applicable	Not applicable.	No	All Land Uses	
Upland Wildlife Habitat Management	ESD-Wbio	645	No	Not Applicable	Not applicable.	No	All Land Uses	
Use Exclusion	ESD-For	472	No	Moderate to Substantial Improvement	Barriers exclude livestock from unsafe areas and	No	All Land Uses	
Waste Facility Cover	CED-EE	367	No	Not Applicable	Not applicable.	No	Headquarters	

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Sheet and Rill (Effect)	Soil Erosion - Sheet and Rill (Rationale)	Soil Erosion - Sheet and Rill (Purpose)	Soil Erosion - Wind (Effect)	Soil Erosion - Wind (Rationale)	Soil Erosion - Wind (Purpose)	Soil Erosion - Ephemeral Gully (Effect)	Soil Erosion - Ephemeral Gully (Rationale)	Soil Erosion - Ephemeral Gully (Purpose)
Waste Storage Facility	CED-EE	313	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Waste Treatment Lagoon	CED-EE	359	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Waste Utilization	ESD-NM & CED-EE	633	Slight to Moderate Improvement	Additional organic material adds nutrients and	No	Slight Improvement	Additional organic material applied to the soil surface may	No	Slight Improvement	Additional organic material adds nutrients and	No
Wastewater Treatment Strip	CED-EE	635	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Water and Sediment Control Basin	CED-AE	638	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Controlled flow will reduce gulley erosion down slope	Yes
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Water Well	CED-EG	642	Slight to Moderate Improvement	Increased vegetated cover due to better distribution of water	No	Slight to Moderate Improvement	Increased vegetated cover due to better distribution of water	No	Slight to Moderate Improvement	Increased vegetated cover due to better distribution of water	No
Watering Facility	CED-AE	614	Slight to Moderate Improvement	Increased vegetated cover due to better distribution of water	Yes	Slight to Moderate Improvement	Increased vegetated cover due to better distribution of water	Yes	Slight to Moderate Improvement	Increased vegetated cover due to better distribution of water	Yes
Waterspreading	CED-WME	640	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Well Decommissioning	CED-EG	351	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Wetland Creation	ESD-WBio & CED-WME	658	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Wetland Enhancement	ESD-WBio & CED-WME	659	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Wetland Restoration	ESD-WBio & CED-WME	657	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Soil Erosion - Classic Gully (Effect)	Soil Erosion - Classic Gully (Rationale)	Soil Erosion - Classic Gully (Purpose)	Soil Erosion - Streambank (Effect)	Soil Erosion - Streambank (Rationale)	Soil Erosion - Streambank (Purpose)	Soil Erosion - Shoreline (Effect)	Soil Erosion - Shoreline (Rationale)
Waste Storage Facility	CED-EE	313	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Treatment Lagoon	CED-EE	359	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Utilization	ESD-NM & CED-EE	633	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wastewater Treatment Strip	CED-EE	635	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water and Sediment Control Basin	CED-AE	638	Slight to Substantial Improvement	Water diverted from gulley and spread in a nonerosive	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Well	CED-EG	642	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Watering Facility	CED-AE	614	Slight Improvement	Increased grass cover due to better distribution of water	Yes	Moderate to Substantial Improvement	By providing an alternate water source animal traffic	Yes	Moderate to Substantial Improvement	By providing an alternate water source animal traffic
Waterspreading	CED-WME	640	Slight Worsening	Because of higher concentration and velocities from water	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Well Decommissioning	CED-EG	351	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Creation	ESD-WBio & CED-WME	658	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate Improvement	Wetland vegetation would protect shorelines from wind
Wetland Enhancement	ESD-WBio & CED-WME	659	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate Improvement	Wetland vegetation would protect shorelines from wind
Wetland Restoration	ESD-WBio & CED-WME	657	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate Improvement	Wetland vegetation would protect shorelines from wind

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Shoreline (Purpose)*	*Soil Erosion – Irrigation-induced (Effect)*	*Soil Erosion – Irrigation-induced (Rationale)*	*Soil Erosion – Irrigation-induced (Purpose)*	*Soil Erosion - Mass Movement (Effect)*	*Soil Erosion - Mass Movement (Rationale)*	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*
Waste Storage Facility	CED-EE	313	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Waste Treatment Lagoon	CED-EE	359	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Waste Utilization	ESD-NM & CED-EE	633	No	Slight to Moderate Improvement	Additional organic material adds nutrients and	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Wastewater Treatment Strip	CED-EE	635	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Water and Sediment Control Basin	CED-AE	638	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement
Water Harvesting Catchment	CED-WME	636	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Water Well	CED-EG	642	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Watering Facility	CED-AE	614	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Waterspreading	CED-WME	640	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Well Decommissioning	CED-EG	351	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Wetland Creation	ESD-WBio & CED-WME	658	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Wetland Enhancement	ESD-WBio & CED-WME	659	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Wetland Restoration	ESD-WBio & CED-WME	657	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*	*Soil Condition - Organic Matter Depletion (Effect)*	*Soil Condition - Organic Matter Depletion (Rationale)*	*Soil Condition - Organic Matter Depletion (Purpose)*	*Soil Condition - Rangeland Site Stability (Effect)*	*Soil Condition - Rangeland Site Stability (Rationale)*	*Soil Condition - Rangeland Site Stability (Purpose)*
Waste Storage Facility	CED-EE	313	Not applicable.	No	Slight Improvement	The action will allow waste application at rates and times to	No	Not Applicable	Not applicable.	No
Waste Treatment Lagoon	CED-EE	359	Not applicable.	No	Slight Improvement	The action will allow waste application at rates and times to	No	Not Applicable	Not applicable.	No
Waste Utilization	ESD-NM & CED-EE	633	Composted organic material will aid in vegetation	No	Slight to Substantial Improvement	Added organic material will increase biomass production	Yes	Not Applicable	Not applicable.	No
Wastewater Treatment Strip	CED-EE	635	Not applicable.	No	Slight to Moderate Improvement	Treatment process will add organic matter to the site.	No	Not Applicable	Not applicable.	No
Water and Sediment Control Basin	CED-AE	638	Runoff can be controlled or diverted from	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Water Harvesting Catchment	CED-WME	636	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Water Well	CED-EG	642	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Not Applicable	Yes
Watering Facility	CED-AE	614	Not applicable.	No	Not Applicable	Not applicable.	No	Neutral	Traffic may increase around the practice.	Yes
Waterspreading	CED-WME	640	Not applicable.	No	Slight Improvement	The action increases water infiltration and plant uptake,	No	Not Applicable	Not applicable.	No
Well Decommissioning	CED-EG	351	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Wetland Creation	ESD-WBio & CED-WME	658	Not applicable.	No	Slight to Moderate Improvement	Water ponding promotes growth of wetland vegetation	No	Not Applicable	Not applicable.	No
Wetland Enhancement	ESD-WBio & CED-WME	659	Not applicable.	No	Slight Improvement	Water ponding promotes growth of wetland vegetation	No	Not Applicable	Not applicable.	No
Wetland Restoration	ESD-WBio & CED-WME	657	Not applicable.	No	Slight Improvement	Water ponding promotes growth of wetland vegetation	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Soil Condition - Compaction (Effect)	Soil Condition - Compaction (Rationale)	Soil Condition - Compaction (Purpose)	Soil Condition - Subsidence (Effect)	Soil Condition - Subsidence (Rationale)	Soil Condition - Subsidence (Purpose)	Soil Condition - Contaminants - Salts and Other Chemicals (Effect)	Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)
Waste Storage Facility	CED-EE	313	Slight Improvement	Storage will allow better management of waste as to rate	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Treatment Lagoon	CED-EE	359	Slight Improvement	Storage will allow better management of waste as to rate	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Utilization	ESD-NM & CED-EE	633	Neutral	Field operations on moist soils cause soil compaction.	No	Not Applicable	Not applicable.	No	Neutral	Proper waste utilization will not result in salt build
Wastewater Treatment Strip	CED-EE	635	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Worsening	Use of the practice requires adding contaminants to the
Water and Sediment Control Basin	CED-AE	638	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Well	CED-EG	642	Neutral	The action involves production rather than distribution of	No	Not Applicable	Not applicable.	No	Slight Improvement	Where well flows are used for irrigation, contaminants can be
Watering Facility	CED-AE	614	Neutral	Traffic may increase around the practice, but the practice will	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waterspreading	CED-WME	640	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Increased infiltration may permit leaching of some salts below
Well Decommissioning	CED-EG	351	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Creation	ESD-WBio & CED-WME	658	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Enhancement	ESD-WBio & CED-WME	659	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Restoration	ESD-WBio & CED-WME	657	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*
Waste Storage Facility	CED-EE	313	No	Slight to Moderate Improvement	Storage allows better timing of applications as well	No	Slight to Moderate Improvement	Storage allows better timing of applications as well	No	Slight to Moderate Improvement
Waste Treatment Lagoon	CED-EE	359	No	Slight to Substantial Improvement	Treatment reduces organic contaminants in	Yes	Slight to Substantial Improvement	Treatment reduces organic contaminants in	Yes	Slight to Substantial Improvement
Waste Utilization	ESD-NM & CED-EE	633	No	Neutral	Proper application of animal waste or organics will not	No	Neutral	Proper application of animal waste or organics will not	No	Neutral
Wastewater Treatment Strip	CED-EE	635	No	Slight to Moderate Worsening	Use of the practice requires adding contaminants to the	No	Slight to Moderate Worsening	Use of the practice requires adding contaminants to the	No	Slight to Moderate Worsening
Water and Sediment Control Basin	CED-AE	638	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Water Harvesting Catchment	CED-WME	636	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Water Well	CED-EG	642	No	Slight Improvement	Where well flows are used for irrigation, contaminants can be	No	Slight Improvement	Where well flows are used for irrigation, contaminants can be	No	Slight Improvement
Watering Facility	CED-AE	614	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Waterspreading	CED-WME	640	No	Slight Improvement	Increased water availability will allow increased plant	No	Slight Improvement	Increased water availability will allow increased plant	No	Slight Improvement
Well Decommissioning	CED-EG	351	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Wetland Creation	ESD-WBio & CED-WME	658	No	Slight Improvement	Enhanced wetland vegetation may increase nutrient	No	Slight Improvement	Enhanced wetland vegetation may increase nutrient	No	Slight Improvement
Wetland Enhancement	ESD-WBio & CED-WME	659	No	Slight Improvement	Enhanced wetland vegetation may increase nutrient	No	Slight Improvement	Enhanced wetland vegetation may increase nutrient	No	Slight Improvement
Wetland Restoration	ESD-WBio & CED-WME	657	No	Slight Improvement	Enhanced wetland vegetation may increase nutrient	No	Slight Improvement	Enhanced wetland vegetation may increase nutrient	No	Slight Improvement

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Waste Storage Facility	**CED-EE**	**313**	**Storage allows better timing of applications as well**	**No**	**Slight to Moderate Improvement**	**Storage allows better timing of applications as well**	**No**	**Slight to Moderate Improvement**	**Storage allows better timing of applications as well**	**No**
Waste Treatment Lagoon	**CED-EE**	**359**	**Treatment reduces organic contaminants in**	**Yes**	**Slight to Substantial Improvement**	**Treatment reduces organic contaminants in**	**No**	**Slight to Substantial Improvement**	**Treatment reduces organic contaminants in**	**Yes**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**Proper application of animal waste or organics will not**	**No**	**Neutral**	**Proper application of animal waste or organics will not**	**No**	**Neutral**	**Proper application of animal waste or organics will not**	**No**
Wastewater Treatment Strip	**CED-EE**	**635**	**Use of the practice requires adding contaminants to the**	**No**	**Slight to Moderate Worsening**	**Use of the practice requires adding contaminants to the**	**No**	**Slight to Moderate Worsening**	**Use of the practice requires adding contaminants to the**	**No**
Water and Sediment Control Basin	**CED-AE**	**638**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water Harvesting Catchment	**CED-WME**	**636**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water Well	**CED-EG**	**642**	**Where well flows are used for irrigation, contaminants can be**	**No**	**Slight Improvement**	**Where well flows are used for irrigation, contaminants can be**	**No**	**Slight Improvement**	**Where well flows are used for irrigation, contaminants can be**	**No**
Watering Facility	**CED-AE**	**614**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Waterspreading	**CED-WME**	**640**	**Increased water availability will allow increased plant**	**No**	**Slight Improvement**	**Increased water availability will allow increased plant**	**No**	**Slight Improvement**	**Increased water availability will allow increased plant**	**No**
Well Decommissioning	**CED-EG**	**351**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**Enhanced wetland vegetation may increase nutrient**	**No**	**Slight Improvement**	**Enhanced wetland vegetation may increase nutrient**	**No**	**Slight Improvement**	**Enhanced wetland vegetation may increase nutrient**	**No**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**Enhanced wetland vegetation may increase nutrient**	**No**	**Slight Improvement**	**Enhanced wetland vegetation may increase nutrient**	**No**	**Slight Improvement**	**Enhanced wetland vegetation may increase nutrient**	**No**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**Enhanced wetland vegetation may increase nutrient**	**No**	**Slight Improvement**	**Enhanced wetland vegetation may increase nutrient**	**No**	**Slight Improvement**	**Enhanced wetland vegetation may increase nutrient**	**No**

Practice	Lead Discipline(s)	Practice Code	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)	Soil Condition - Contaminants - Residual Pesticides (Effect)	Soil Condition - Contaminants - Residual Pesticides (Rationale)	Soil Condition - Contaminants - Residual Pesticides (Purpose)	Soil Condition - Damage from Sediment Deposition (Effect)	Soil Condition - Damage from Sediment Deposition (Rationale)
Waste Storage Facility	CED-EE	313	Slight to Moderate Improvement	Storage allows better timing of applications as well	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Treatment Lagoon	CED-EE	359	Slight to Substantial Improvement	Treatment reduces organic contaminants in	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Utilization	ESD-NM & CED-EE	633	Neutral	Proper application of animal waste or organics will not	No	Slight Improvement	Adding organic material to the soil may increase tie-up	No	Slight Improvement	Increased organic material promotes better vegetative
Wastewater Treatment Strip	CED-EE	635	Slight to Moderate Worsening	Use of the practice requires adding contaminants to the	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water and Sediment Control Basin	CED-AE	638	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	The action is designed to trap sediment.
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Well	CED-EG	642	Slight Improvement	Where well flows are used for irrigation, contaminants can be	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Increased water availability increases vegetative growth
Watering Facility	CED-AE	614	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waterspreading	CED-WME	640	Slight Improvement	Increased water availability will allow increased plant	No	Neutral	Increased soil water availability may increase organic	No	Not Applicable	Not applicable.
Well Decommissioning	CED-EG	351	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Creation	ESD-WBio & CED-WME	658	Slight Improvement	Enhanced wetland vegetation may increase nutrient	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Enhancement	ESD-WBio & CED-WME	659	Slight Improvement	Enhanced wetland vegetation may increase nutrient	No	Neutral	Increased organic matter may tie up pesticides.	No	Not Applicable	Not applicable.
Wetland Restoration	ESD-WBio & CED-WME	657	Slight Improvement	Enhanced wetland vegetation may increase nutrient	No	Neutral	Increased organic matter may tie up pesticides.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*	*Water Quantity - Rangeland Hydrologic Cycle (Rationale)*	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)*
Waste Storage Facility	**CED-EE**	**313**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**Theoretically there will be an increase in infiltration at pond**	**No**	**Neutral**
Waste Treatment Lagoon	**CED-EE**	**359**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**Theoretically there will be an increase in infiltration at pond**	**No**	**Neutral**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Wastewater Treatment Strip	**CED-EE**	**635**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Worsening**	**Infiltration at strip has the potential to aggravate already**	**No**	**Neutral**
Water and Sediment Control Basin	**CED-AE**	**638**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Worsening**	**Retarded water in basin will infiltrate causing seepage**	**No**	**Slight to Moderate Improvement**
Water Harvesting Catchment	**CED-WME**	**636**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**Runoff is collected and given less infiltration time.**	**No**	**Not Applicable**
Water Well	**CED-EG**	**642**	**No**	**Neutral**	**Not Applicable**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Watering Facility	**CED-AE**	**614**	**No**	**Neutral**	**Traffic may increase around the practice.**	**No**	**Neutral**	**The action may result in minor amounts of increased infiltration**	**No**	**Neutral**
Waterspreading	**CED-WME**	**640**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**
Well Decommissioning	**CED-EG**	**351**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Substantial Improvement**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Substantial Improvement**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Substantial Improvement**

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)*	*Water Quantity - Excessive Subsurface Water (Effect)*	*Water Quantity - Excessive Subsurface Water (Rationale)*	*Water Quantity - Excessive Subsurface Water (Purpose)*	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*
Waste Storage Facility	CED-EE	313	Polluted runoff is collected and stored.	No	Neutral	Theoretically there will be an increase in infiltration at pond	No	Not Applicable	Not applicable.	No
Waste Treatment Lagoon	CED-EE	359	Polluted runoff is collected and stored, but less likely than	No	Neutral	Theoretically there will be an increase in infiltration at pond	No	Not Applicable	Not applicable.	No
Waste Utilization	ESD-NM & CED-EE	633	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Wastewater Treatment Strip	CED-EE	635	Polluted runoff will be directed to treatment strip with	No	Slight to Moderate Worsening	Infiltration in the treatment strip will add to subsurface	No	Not Applicable	Not applicable.	No
Water and Sediment Control Basin	CED-AE	638	Basin will retard flows reducing runoff.	Yes	Slight to Moderate Worsening	Retarded water in basin will infiltrate causing increased	No	Not Applicable	Not applicable.	No
Water Harvesting Catchment	CED-WME	636	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Water Well	CED-EG	642	Not applicable.	No	Slight to Moderate Improvement	Water is removed from subsurface water source.	No	Not Applicable	Not applicable.	No
Watering Facility	CED-AE	614	The action may result in minor amounts of increased infiltration	No	Neutral	The action may result in minor amounts of increased infiltration	No	Not Applicable	Not applicable.	No
Waterspreading	CED-WME	640	Reduces runoff, ponding, and increase infiltration.	No	Slight Worsening	Reduces runoff, ponding, and increase infiltration.	No	Not Applicable	Not applicable.	No
Well Decommissioning	CED-EG	351	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Wetland Creation	ESD-WBio & CED-WME	658	Provides temporary flood storage reducing flooding	No	Slight Worsening	Increases infiltration to subsurface water.	No	Not Applicable	Not applicable.	No
Wetland Enhancement	ESD-WBio & CED-WME	659	Provides temporary flood storage reducing flooding	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Wetland Restoration	ESD-WBio & CED-WME	657	Provides temporary flood storage reducing flooding	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Practice	Lead Discipline(s)	Practice Code	Water Quantity - Inadequate Outlets (Effect)	Water Quantity - Inadequate Outlets (Rationale)	Water Quantity - Inadequate Outlets (Purpose)	Water Quantity - Inefficient Water Use on Irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)	Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)
Waste Storage Facility	CED-EE	313	Not Applicable	Not applicable.	No	Slight Improvement	Pond contents will provide limited source of moisture.	No	Not Applicable	Not applicable.
Waste Treatment Lagoon	CED-EE	359	Not Applicable	Not applicable.	No	Slight Improvement	Lagoon contents will provide limited source of moisture.	No	Not Applicable	Not applicable.
Waste Utilization	ESD-NM & CED-EE	633	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Additional organic material and waste water adds nutrients,	No	Slight to Moderate Improvement	The action improves water use because of better plant vigor.
Wastewater Treatment Strip	CED-EE	635	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Permanent vegetation improves infiltration and water
Water and Sediment Control Basin	CED-AE	638	Slight Improvement	Basin will retard flows reducing the runoff and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Well	CED-EG	642	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Well development will provide a dependable supply of	Yes	Not Applicable	Not applicable.
Watering Facility	CED-AE	614	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waterspreading	CED-WME	640	Slight Improvement	Reduces needed capacity of outlets due to less runoff.	No	Slight Improvement	Water is collected for more efficient use.	Yes	Slight to Substantial Improvement	Water is distributed for more efficient use.
Well Decommissioning	CED-EG	351	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Creation	ESD-WBio & CED-WME	658	Slight to Substantial Improvement	Provides temporary flood storage reducing needed	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Enhancement	ESD-WBio & CED-WME	659	Slight to Substantial Improvement	Provides temporary flood storage reducing needed	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Restoration	ESD-WBio & CED-WME	657	Slight to Substantial Improvement	Provides temporary flood storage reducing needed	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
Waste Storage Facility	**CED-EE**	**313**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**
Waste Treatment Lagoon	**CED-EE**	**359**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Wastewater Treatment Strip	**CED-EE**	**635**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**
Water and Sediment Control Basin	**CED-AE**	**638**	**No**	**Moderate to Substantial Improvement**	**Basin traps and retains sediment.**	**Yes**	**Moderate to Substantial Improvement**	**Basin traps and retains sediment.**	**Yes**	**Not Applicable**
Water Harvesting Catchment	**CED-WME**	**636**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Water Well	**CED-EG**	**642**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Worsening**
Watering Facility	**CED-AE**	**614**	**No**	**Slight Improvement**	**The action should reduce erosion and resulting sediment**	**No**	**Slight Improvement**	**The action should reduce erosion and resulting sediment**	**No**	**Not Applicable**
Waterspreading	**CED-WME**	**640**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**
Well Decommissioning	**CED-EG**	**351**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate Improvement**	**Wetlands trap sediment.**	**No**	**Slight Improvement**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate Improvement**	**Wetlands trap sediment.**	**No**	**Not Applicable**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate Improvement**	**Wetlands trap sediment.**	**No**	**Not Applicable**

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Aquifer Overdraft (Rationale)*	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)*
Waste Storage Facility	CED-EE	313	Reduced infiltration at pond site could slightly increase	No	Slight Worsening	Polluted runoff will be captured before it reaches water	No	Not Applicable	Not applicable.	No
Waste Treatment Lagoon	CED-EE	359	Reduced infiltration at lagoon site could slightly increase	No	Neutral	Polluted runoff will be captured before it reaches water	No	Not Applicable	Not applicable.	No
Waste Utilization	ESD-NM & CED-EE	633	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action increases soil organic matter and biological	No
Wastewater Treatment Strip	CED-EE	635	Infiltrating water in the strip will increase groundwater.	No	Slight Worsening	Runoff diverted to treatment strip and allowed to infiltrate.	No	Not Applicable	Not applicable.	No
Water and Sediment Control Basin	CED-AE	638	Not applicable.	No	Slight Improvement	Basin will retard flows reducing the runoff and	No	Slight Worsening	Water containing pesticides may seep from the basin.	No
Water Harvesting Catchment	CED-WME	636	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Water Well	CED-EG	642	Wells make it possible for water to be withdrawn from	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Watering Facility	CED-AE	614	Not applicable.	No	Neutral	The action may result in minor amounts of increased infiltration	No	Not Applicable	Not applicable.	No
Waterspreading	CED-WME	640	Increases infiltration for aquifer recharge.	No	Slight Worsening	Flow is diverted from water courses.	No	Slight Worsening	The action increases infiltration	No
Well Decommissioning	CED-EG	351	Decommissioned wells eliminate withdrawals from the	No	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	The action will prevent pesticide residues from	Yes
Wetland Creation	ESD-WBio & CED-WME	658	Increases infiltration for aquifer recharge.	No	Slight Worsening	Vegetated areas intercept precipitation and	No	Slight Improvement	The action captures pesticide residues and facilitates their	No
Wetland Enhancement	ESD-WBio & CED-WME	659	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	The action captures pesticide residues and facilitates their	No
Wetland Restoration	ESD-WBio & CED-WME	657	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	The action captures pesticide residues and facilitates their	No

Practice	Lead Discipline(s)	Practice Code	Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)	Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)	Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)	Water Quality - Excessive Salinity in Groundwater (Effect)	Water Quality - Excessive Salinity in Groundwater (Rationale)	Water Quality - Excessive Salinity in Groundwater (Purpose)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)	Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)
Waste Storage Facility	CED-EE	313	Slight to Moderate Improvement	There could be some increase in infiltration of soluble	Yes	Slight Improvement	Storage provides flexibility in rate, timing, and location	Yes	Slight Improvement	Heavy metals are rarely associated with manure;
Waste Treatment Lagoon	CED-EE	359	Slight to Moderate Improvement	There could be some increase in infiltration of soluble	Yes	Slight Improvement	Storage provides flexibility in rate, timing, and location	Yes	Slight Improvement	Heavy metals are rarely associated with manure;
Waste Utilization	ESD-NM & CED-EE	633	Slight to Moderate Improvement	Proper nutrient application should minimize leaching	Yes	Slight to Moderate Improvement	Proper waste application should minimize leaching	Yes	Not Applicable	Not applicable.
Wastewater Treatment Strip	CED-EE	635	Slight to Moderate Worsening	The action entails the application of waste which increases the	No	Slight Worsening	Infiltrating water in treatment strip may increase soluble	No	Neutral	Heavy metals are rarely associated with manure,
Water and Sediment Control Basin	CED-AE	638	Slight Worsening	Nutrients impounded could contaminate groundwater.	No	Slight Worsening	Infiltrating water in the basin can move soluble salts to the	No	Slight Worsening	Infiltrating water in the basin will move soluble
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Neutral	The action collects and stores water preventing both	No	Not Applicable	Not applicable.
Water Well	CED-EG	642	Not Applicable	Not applicable.	No	Neutral	In coastal areas pumping fresh groundwater may	No	Not Applicable	Not applicable.
Watering Facility	CED-AE	614	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waterspreading	CED-WME	640	Slight Worsening	The action impounds water which has the potential to transport	No	Slight Worsening	The action results in increased infiltration and potential for	No	Slight Worsening	The action results in increased infiltration and potential for
Well Decommissioning	CED-EG	351	Slight to Substantial Improvement	The action seals a well which reduces the potential of	Yes	Slight to Substantial Improvement	Sealing the well will prevent soluble salts on the surface from	Yes	Slight to Substantial Improvement	The action will prevent surface contaminants from
Wetland Creation	ESD-WBio & CED-WME	658	Slight Improvement	The action traps nutrients and organics which are	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Enhancement	ESD-WBio & CED-WME	659	Slight Improvement	The action traps nutrients and organics which are	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Restoration	ESD-WBio & CED-WME	657	Slight Improvement	The action traps nutrients and organics which are	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)*
Waste Storage Facility	CED-EE	313	No	Slight to Moderate Improvement	Storage provides flexibility in rate, timing, and location	No	Not Applicable	Not applicable.	No	Not Applicable
Waste Treatment Lagoon	CED-EE	359	No	Slight to Moderate Improvement	Storage provides flexibility in rate, timing, and location	Yes	Not Applicable	Not applicable.	No	Not Applicable
Waste Utilization	ESD-NM & CED-EE	633	No	Slight to Moderate Improvement	Proper nutrient application should minimize leaching	Yes	Not Applicable	Not applicable.	No	Not Applicable
Wastewater Treatment Strip	CED-EE	635	No	Slight Worsening	Infiltrating water in treatment strip will increase soluble	No	Not Applicable	Not applicable.	No	Not Applicable
Water and Sediment Control Basin	CED-AE	638	No	Slight Worsening	Infiltrating water in the basin may leach pathogens.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement
Water Harvesting Catchment	CED-WME	636	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Water Well	CED-EG	642	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Watering Facility	CED-AE	614	No	Slight Worsening	The action tends to concentrate animals, increasing	No	Not Applicable	Not applicable.	No	Not Applicable
Waterspreading	CED-WME	640	No	Slight Worsening	The action results in increased infiltration and potential for	No	Not Applicable	Not applicable.	No	Slight Improvement
Well Decommissioning	CED-EG	351	Yes	Slight to Substantial Improvement	The action will prevent surface contaminants from	Yes	Not Applicable	Not applicable.	No	Not Applicable
Wetland Creation	ESD-WBio & CED-WME	658	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Wetland Enhancement	ESD-WBio & CED-WME	659	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement
Wetland Restoration	ESD-WBio & CED-WME	657	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*
Waste Storage Facility	CED-EE	313	Not applicable.	No	Moderate to Substantial Improvement	Storage provides flexibility in rate, timing, and location	Yes	Neutral	Better timing of waste application due to storage will	No
Waste Treatment Lagoon	CED-EE	359	Not applicable.	No	Moderate to Substantial Improvement	Storage provides flexibility in rate, timing, and location	Yes	Neutral	Better timing of waste application due to storage will	No
Waste Utilization	ESD-NM & CED-EE	633	Not applicable.	No	Slight to Moderate Improvement	Proper nutrient application should minimize losses due	Yes	Neutral	Proper nutrient application should minimize losses due	No
Wastewater Treatment Strip	CED-EE	635	Not applicable.	No	Moderate to Substantial Improvement	Infiltration and plant uptake in the treatment strip will	Yes	Slight to Moderate Improvement	Vegetation protects soil surface and traps sediment,	No
Water and Sediment Control Basin	CED-AE	638	The action collects and stores adsorbed pesticides.	No	Slight to Moderate Improvement	The action will tend to accumulate contaminants	Yes	Moderate to Substantial Improvement	Basin retains sediment and minimizes turbidity	Yes
Water Harvesting Catchment	CED-WME	636	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Water Well	CED-EG	642	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Watering Facility	CED-AE	614	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Water development will	Yes
Waterspreading	CED-WME	640	The action reduces runoff.	No	Slight to Moderate Improvement	The action impounds surface water which reduces the potential	No	Not Applicable	Not applicable.	No
Well Decommissioning	CED-EG	351	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Wetland Creation	ESD-WBio & CED-WME	658	The action captures pesticide residues and facilitates their	No	Moderate Improvement	Wetland systems will utilize dissolved nutrients and trap	No	Slight to Moderate Improvement	System traps sediment.	No
Wetland Enhancement	ESD-WBio & CED-WME	659	The action captures pesticide residues and facilitates their	No	Moderate Improvement	Wetland systems will utilize dissolved nutrients and trap	No	Slight to Moderate Improvement	System traps sediment.	No
Wetland Restoration	ESD-WBio & CED-WME	657	The action captures pesticide residues and facilitates their	No	Moderate Improvement	Wetland systems will utilize dissolved nutrients and trap	No	Slight to Moderate Improvement	System traps sediment.	No

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Excessive Salinity in Surface Water (Effect)*	*Water Quality - Excessive Salinity in Surface Water (Rationale)*	*Water Quality - Excessive Salinity in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)*	*Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)*	*Water Quality - Harmful Temperatures of Surface Water (Effect)*	*Water Quality - Harmful Temperatures of Surface Water (Rationale)*
Waste Storage Facility	**CED-EE**	**313**	**Slight to Moderate Improvement**	**Storage provides flexibility in rate, timing, and location**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Waste Treatment Lagoon	**CED-EE**	**359**	**Slight to Moderate Improvement**	**Storage provides flexibility in rate, timing, and location**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**Slight to Moderate Improvement**	**Proper nutrient application should minimize runoff**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Wastewater Treatment Strip	**CED-EE**	**635**	**Slight Improvement**	**Infiltration in the treatment strip may remove some salts**	**Yes**	**Neutral**	**Heavy metals are rarely associated with manure;**	**No**	**Not Applicable**	**Not applicable.**
Water and Sediment Control Basin	**CED-AE**	**638**	**Slight Improvement**	**Basins will tend to accumulate contaminants**	**No**	**Slight to Moderate Improvement**	**Basins will tend to accumulate contaminants**	**No**	**Slight to Moderate Worsening**	**Water retained in basin is generally warmer than**
Water Harvesting Catchment	**CED-WME**	**636**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**Catchment draining for seasonal protection is**
Water Well	**CED-EG**	**642**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Watering Facility	**CED-AE**	**614**	**Slight Improvement**	**Better distribution of animals away from surface water**	**Yes**	**Slight Improvement**	**Improved vegetation due to better distribution of water**	**No**	**Slight Improvement**	**Purpose of practice is to protect vegetation along**
Waterspreading	**CED-WME**	**640**	**Slight Improvement**	**The action increases infiltration, increasing leaching**	**No**	**Slight Improvement**	**The action increases infiltration and reduces surface**	**No**	**Neutral**	**Diverted water does not generally return to surface water**
Well Decommissioning	**CED-EG**	**351**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**Slight Improvement**	**Any salts in surface runoff will be detained in the**	**No**	**Slight to Moderate Improvement**	**Vegetation and anaerobic conditions trap heavy metals.**	**No**	**Neutral**	**Improved hydrological conditions are likely.**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**Slight Improvement**	**Any salts in surface runoff will be detained in the**	**No**	**Slight to Moderate Improvement**	**Vegetation and anaerobic conditions trap heavy metals.**	**No**	**Neutral**	**Improved hydrological conditions are likely.**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**Slight Improvement**	**Any salts in surface runoff will be detained in the**	**No**	**Slight to Moderate Improvement**	**Vegetation and anaerobic conditions trap heavy metals.**	**No**	**Neutral**	**Improved hydrological conditions are likely.**

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Temperatures of Surface Water (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*
Waste Storage Facility	**CED-EE**	**313**	**No**	**Slight to Moderate Improvement**	**Storage provides flexibility in rate, timing, and location**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Waste Treatment Lagoon	**CED-EE**	**359**	**No**	**Moderate to Substantial Improvement**	**Storage provides flexibility in rate, timing, and location**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**No**	**Neutral**	**Proper nutrient application should minimize losses due**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**
Wastewater Treatment Strip	**CED-EE**	**635**	**No**	**Moderate to Substantial Improvement**	**Infiltration and plant uptake in the treatment strip will**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Water and Sediment Control Basin	**CED-AE**	**638**	**No**	**Slight to Moderate Improvement**	**Basins will tend to accumulate contaminants**	**No**	**Slight to Moderate Improvement**	**Basins will tend to accumulate contaminants**	**No**	**Not Applicable**
Water Harvesting Catchment	**CED-WME**	**636**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Water Well	**CED-EG**	**642**	**No**	**Slight Worsening**	**Use of wells to irrigate previously non irrigated land**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Watering Facility	**CED-AE**	**614**	**No**	**Slight Improvement**	**Improved vegetation due to better distribution of water**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Waterspreading	**CED-WME**	**640**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**Increases infiltration**	**No**	**Not Applicable**
Well Decommissioning	**CED-EG**	**351**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**No**	**Slight Improvement**	**Pathogens are trapped in the wetland.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**No**	**Slight Improvement**	**Pathogens are trapped in the wetland.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**No**	**Slight Improvement**	**Pathogens are trapped in the wetland.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)*	*Air Quality - Excessive Ozone (Effect)*	*Air Quality - Excessive Ozone (Rationale)*	*Air Quality - Excessive Ozone (Purpose)*
Waste Storage Facility	**CED-EE**	**313**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**There is a decrease in potential ozone precursor emissions.**	**Yes**
Waste Treatment Lagoon	**CED-EE**	**359**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**There is a decrease in potential ozone precursor emissions.**	**Yes**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**Application of dry manure can result in particulate losses to**	**No**	**Slight Worsening**	**Application of dry manure can result in particulate losses to**	**No**	**Slight to Moderate Improvement**	**Proper land application of manure will minimize**	**Yes**
Wastewater Treatment Strip	**CED-EE**	**635**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**
Water and Sediment Control Basin	**CED-AE**	**638**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water Harvesting Catchment	**CED-WME**	**636**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water Well	**CED-EG**	**642**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Watering Facility	**CED-AE**	**614**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Waterspreading	**CED-WME**	**640**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Well Decommissioning	**CED-EG**	**351**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)*
Waste Storage Facility	CED-EE	313	Not Applicable	Not applicable.	No	Neutral	Not applicable.	No	Slight to Moderate Worsening	Breakdown and decay of organic material is conducive
Waste Treatment Lagoon	CED-EE	359	Slight to Moderate Improvement	Anaerobic conditions provide for a temporary	Yes	Slight to Moderate Improvement	Reduction in N in waste results in less N volatilization	Yes	Slight Worsening	Breakdown and decay of organic material is conducive
Waste Utilization	ESD-NM & CED-EE	633	Slight to Moderate Improvement	Field management of nutrients optimizes the storage of soil	Yes	Slight Improvement	Reduction in N in waste results in less N volatilization	No	Neutral	Not applicable.
Wastewater Treatment Strip	CED-EE	635	Slight Improvement	Vegetation removes CO2 from the air and stores it in the form	No	Neutral	Not applicable.	No	Not Applicable	Not applicable.
Water and Sediment Control Basin	CED-AE	638	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Well	CED-EG	642	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Watering Facility	CED-AE	614	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waterspreading	CED-WME	640	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Well Decommissioning	CED-EG	351	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Creation	ESD-WBio & CED-WME	658	Slight to Moderate Improvement	The accumulation of organic matter and sediments sequester	No	Not Applicable	Not applicable.	No	Slight Worsening	Anaerobic conditions in wetlands would increase production
Wetland Enhancement	ESD-WBio & CED-WME	659	Slight to Moderate Improvement	The accumulation of organic matter and sediments sequester	No	Not Applicable	Not applicable.	No	Slight Worsening	Anaerobic conditions in wetlands would increase production
Wetland Restoration	ESD-WBio & CED-WME	657	Slight to Moderate Improvement	The accumulation of organic matter and sediments sequester	No	Not Applicable	Not applicable.	No	Slight Worsening	Anaerobic conditions in wetlands would increase production

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*	*Air Quality - NH3 - Ammonia (Effect)*	*Air Quality - NH3 - Ammonia (Rationale)*	*Air Quality - NH3 - Ammonia (Purpose)*	*Air Quality - Chemical Drift (Effect)*	*Air Quality - Chemical Drift (Rationale)*	*Air Quality - Chemical Drift (Purpose)*	*Air Quality - Objectionable Odors (Effect)*
Waste Storage Facility	**CED-EE**	**313**	**Yes**	**Slight to Moderate Improvement**	**Proper nutrient management reduces NH3**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Worsening**
Waste Treatment Lagoon	**CED-EE**	**359**	**No**	**Slight to Moderate Improvement**	**Proper nutrient management reduces NH3**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**No**	**Slight to Moderate Improvement**	**Proper nutrient management reduces NH3**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Wastewater Treatment Strip	**CED-EE**	**635**	**No**	**Neutral**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Water and Sediment Control Basin	**CED-AE**	**638**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Water Harvesting Catchment	**CED-WME**	**636**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Water Well	**CED-EG**	**642**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Watering Facility	**CED-AE**	**614**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Waterspreading	**CED-WME**	**640**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Well Decommissioning	**CED-EG**	**351**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**No**	**Neutral**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**No**	**Neutral**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**No**	**Neutral**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*	*Air Quality - Reduced Visibility (Rationale)*	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Waste Storage Facility	**CED-EE**	**313**	**Proper siting and operation of facility will reduce**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Waste Treatment Lagoon	**CED-EE**	**359**	**Type of lagoon and location will determine odor**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**Proper land application/incorporation will reduce**	**Yes**	**Slight Improvement**	**Land application reduces fine particulate matter**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wastewater Treatment Strip	**CED-EE**	**635**	**Not applicable.**	**No**	**Neutral**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water and Sediment Control Basin	**CED-AE**	**638**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water Harvesting Catchment	**CED-WME**	**636**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water Well	**CED-EG**	**642**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Watering Facility	**CED-AE**	**614**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Waterspreading	**CED-WME**	**640**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Well Decommissioning	**CED-EG**	**351**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**Methane production and transport, as well as other odors,**	**No**	**Slight Improvement**	**Reduction of particulates due to reduction in wind**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**Methane production and transport, as well as other odors,**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**Methane production and transport, as well as other odors,**	**No**	**Slight Improvement**	**Reduce wind erosion and intercepting fine particulates and**	**No**	**Not Applicable**	**Not applicable.**	**No**

Practice	Lead Discipline(s)	Practice Code	Air Quality - Adverse Air Temperature (Effect)	Air Quality - Adverse Air Temperature (Rationale)	Air Quality - Adverse Air Temperature (Purpose)	Plants not adapted or suited (Effect)	Plants not adapted or suited (Rationale)	Plants not adapted or suited (Purpose)	Plant Condition - Productivity, Health and Vigor (Effect)	Plant Condition - Productivity, Health and Vigor (Rationale)
Waste Storage Facility	CED-EE	313	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Storage allows nutrient application at a rate, time, and
Waste Treatment Lagoon	CED-EE	359	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Storage allows nutrient application at a rate, time, and
Waste Utilization	ESD-NM & CED-EE	633	Not Applicable	Not applicable.	No	Slight to Substantial Improvement	Nutrients and soil amendments are optimized to enhance	Yes	Slight to Substantial Improvement	Nutrients and soil amendments are applied to optimize
Wastewater Treatment Strip	CED-EE	635	Not Applicable	Not applicable.	No	Substantial Improvement	Plants selected are adapted and suited.	Yes	Slight to Moderate Improvement	Treatment strip will receive excess nutrients which
Water and Sediment Control Basin	CED-AE	638	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water Well	CED-EG	642	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	Yes	Slight Improvement	Increased availability and managed application of
Watering Facility	CED-AE	614	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	Yes	Slight to Moderate Improvement	Available water to facilitate irrigation or grazing management
Waterspreading	CED-WME	640	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Site modification to improve irrigation application enhances
Well Decommissioning	CED-EG	351	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Creation	ESD-WBio & CED-WME	658	Slight to Substantial Improvement	Tall vegetation provides shade and moderates	Yes	Moderate to Substantial Improvement	Plants selected are adapted and suited.	Yes	Moderate to Substantial Improvement	Plants are selected and managed to maintain optimal
Wetland Enhancement	ESD-WBio & CED-WME	659	Slight to Substantial Improvement	Tall vegetation provides shade and moderates	Yes	Moderate to Substantial Improvement	Plants selected are adapted and suited.	Yes	Moderate to Substantial Improvement	Plants are selected and managed to maintain optimal
Wetland Restoration	ESD-WBio & CED-WME	657	Slight to Substantial Improvement	Tall vegetation provides shade and moderates	Yes	Moderate to Substantial Improvement	Plants selected are adapted and suited.	Yes	Moderate to Substantial Improvement	Plants are selected and managed to maintain optimal

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*	*Plant Condition - Noxious and Invasive Plants (Effect)*
Waste Storage Facility	**CED-EE**	**313**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Waste Treatment Lagoon	**CED-EE**	**359**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Wastewater Treatment Strip	**CED-EE**	**635**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Water and Sediment Control Basin	**CED-AE**	**638**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Water Harvesting Catchment	**CED-WME**	**636**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Water Well	**CED-EG**	**642**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Watering Facility	**CED-AE**	**614**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Waterspreading	**CED-WME**	**640**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**
Well Decommissioning	**CED-EG**	**351**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Moderate to Substantial Improvement**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Moderate to Substantial Improvement**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Moderate to Substantial Improvement**

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Noxious and Invasive Plants (Rationale)*	*Plant Condition - Noxious and Invasive Plants (Purpose)*	*Plant Condition - Forage Quality and Palatability (Effect)*	*Plant Condition - Forage Quality and Palatability (Rationale)*	*Plant Condition - Forage Quality and Palatability (Purpose)*	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*
Waste Storage Facility	**CED-EE**	**313**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Waste Treatment Lagoon	**CED-EE**	**359**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Waste Utilization	**ESD-NM & CED-EE**	**633**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**	**Proper management will increase quality and palatability of**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wastewater Treatment Strip	**CED-EE**	**635**	**Vegetation is installed and managed to control**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water and Sediment Control Basin	**CED-AE**	**638**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water Harvesting Catchment	**CED-WME**	**636**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Water Well	**CED-EG**	**642**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Watering Facility	**CED-AE**	**614**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Waterspreading	**CED-WME**	**640**	**Improved soil moisture facilitates improved health and**	**No**	**Not Applicable**	**Not applicable.**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Well Decommissioning	**CED-EG**	**351**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**Vegetation is installed and managed to control**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**Vegetation is installed and managed to control**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**Vegetation is installed and managed to control**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**

Practice	Lead Discipline(s)	Practice Code	Fish and Wildlife - Inadequate Food (Effect)	Fish and Wildlife - Inadequate Food (Rationale)	Fish and Wildlife - Inadequate Food (Purpose)	Fish and Wildlife - Inadequate Cover/Shelter (Effect)	Fish and Wildlife - Inadequate Cover/Shelter (Rationale)	Fish and Wildlife - Inadequate Cover/Shelter (Purpose)	Fish and Wildlife - Inadequate Water (Effect)	Fish and Wildlife - Inadequate Water (Rationale)
Waste Storage Facility	CED-EE	313	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Treatment Lagoon	CED-EE	359	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Utilization	ESD-NM & CED-EE	633	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wastewater Treatment Strip	CED-EE	635	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water and Sediment Control Basin	CED-AE	638	Slight Worsening	Any food species are eliminated in the area used for the basin.	No	Slight Worsening	Any cover is eliminated in the area used for the basin.	No	Slight to Moderate Improvement	Surface runoff retained will provide temporary water to
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement	The action will enhance wet habitat for some species and
Water Well	CED-EG	642	Not Applicable	Not applicable.	Yes	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	Provides dependable water supply to livestock and wildlife
Watering Facility	CED-AE	614	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight to Moderate Improvement	The action supplies water to alternative locations and
Waterspreading	CED-WME	640	Slight to Moderate Improvement	Improved soil moisture may increase plant	No	Slight to Moderate Improvement	Improved soil moisture may increase plant	No	Slight Improvement	Spreading temporarily concentrates natural
Well Decommissioning	CED-EG	351	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Creation	ESD-WBio & CED-WME	658	Substantial Improvement	Areas for food are created.	Yes	Substantial Improvement	Areas for cover/shelter are created.	Yes	Slight to Moderate Improvement	Created wetlands will benefit some species, but their
Wetland Enhancement	ESD-WBio & CED-WME	659	Substantial Improvement	Existing areas for food are enhanced.	Yes	Substantial Improvement	Areas for cover/shelter are enhanced.	Yes	Slight to Moderate Improvement	Enhancement of wetlands will improve habitat and
Wetland Restoration	ESD-WBio & CED-WME	657	Substantial Improvement	Areas for food are restored.	Yes	Substantial Improvement	Areas for cover/shelter are restored.	Yes	Slight to Moderate Improvement	Restoration of degraded wetlands will improve habitat

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*	*Fish and Wildlife - Inadequate Space (Purpose)*	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
Waste Storage Facility	CED-EE	313	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Waste Treatment Lagoon	CED-EE	359	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Waste Utilization	ESD-NM & CED-EE	633	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Wastewater Treatment Strip	CED-EE	635	No	Neutral	Strip provides only limited additional space for most	No	Not Applicable	Not applicable.	No	Not Applicable
Water and Sediment Control Basin	CED-AE	638	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Water Harvesting Catchment	CED-WME	636	Yes	Slight to Moderate Improvement	Additional habitat/space is available once water	No	Slight to Moderate Improvement	Multiple water sources can reconnect habitats.	No	Not Applicable
Water Well	CED-EG	642	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Moderate to Substantial Improvement
Watering Facility	CED-AE	614	Yes	Slight to Moderate Improvement	Additional habitat/space is available once water	No	Slight to Moderate Improvement	Multiple water sources can reconnect habitats.	No	Moderate to Substantial Improvement
Waterspreading	CED-WME	640	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Well Decommissioning	CED-EG	351	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable
Wetland Creation	ESD-WBio & CED-WME	658	Yes	Moderate to Substantial Improvement	Additional wetland space is created.	Yes	Moderate to Substantial Improvement	Multiple wetlands can restore the number and	Yes	Moderate to Substantial Improvement
Wetland Enhancement	ESD-WBio & CED-WME	659	Yes	Moderate to Substantial Improvement	Additional wetland space is enhanced.	Yes	Moderate to Substantial Improvement	Multiple wetlands are enhanced to maintain the number	Yes	Moderate to Substantial Improvement
Wetland Restoration	ESD-WBio & CED-WME	657	Yes	Moderate to Substantial Improvement	Additional wetland space is restored.	Yes	Moderate to Substantial Improvement	Multiple wetlands can restore the number and	Yes	Moderate to Substantial Improvement

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Imbalance Among and Within Populations (Rationale)*	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)*
Waste Storage Facility	CED-EE	313	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Waste Treatment Lagoon	CED-EE	359	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Waste Utilization	ESD-NM & CED-EE	633	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Wastewater Treatment Strip	CED-EE	635	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Water and Sediment Control Basin	CED-AE	638	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Water Harvesting Catchment	CED-WME	636	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Water Well	CED-EG	642	Water helps remove limiting factors.	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Watering Facility	CED-AE	614	Water helps remove limiting factors.	Yes	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Waterspreading	CED-WME	640	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Well Decommissioning	CED-EG	351	Not applicable.	No	Neutral	Activities are designed, installed, and mitigated to an	No	Neutral	Activities are designed, installed, and mitigated to an	No
Wetland Creation	ESD-WBio & CED-WME	658	Habitat management is implemented to remove limiting	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes
Wetland Enhancement	ESD-WBio & CED-WME	659	Habitat management is implemented to remove limiting	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes
Wetland Restoration	ESD-WBio & CED-WME	657	Habitat management is implemented to remove limiting	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes	Moderate to Substantial Improvement	Activities are designed, installed, and mitigated to an	Yes

Practice	Lead Discipline(s)	Practice Code	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)	Domestic Animals - Inadequate Shelter (Effect)	Domestic Animals - Inadequate Shelter (Rationale)	Domestic Animals - Inadequate Shelter (Purpose)	Domestic Animals - Inadequate Stock Water (Effect)	Domestic Animals - Inadequate Stock Water (Rationale)
Waste Storage Facility	CED-EE	313	Not Applicable	Not applicable.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Treatment Lagoon	CED-EE	359	Not Applicable	Not applicable.	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Waste Utilization	ESD-NM & CED-EE	633	Moderate to Substantial Improvement	Wastes are applied to enhance production and	Yes	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wastewater Treatment Strip	CED-EE	635	Slight Improvement	There may be some use of the planting for feed and forage	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Water and Sediment Control Basin	CED-AE	638	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Slight Improvement	Captured water in basins can supplement stock
Water Harvesting Catchment	CED-WME	636	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Substantial Improvement	Collected water provides drinking for livestock.
Water Well	CED-EG	642	Slight to Moderate Improvement	Improved distribution of animals makes	No	Not Applicable	Not applicable.	No	Substantial Improvement	Wells facilitate the availability and distribution of water.
Watering Facility	CED-AE	614	Slight to Substantial Improvement	Improved distribution of animals makes	Yes	Not Applicable	Not applicable.	No	Substantial Improvement	Facilities supply water at remote locations.
Waterspreading	CED-WME	640	Moderate to Substantial Improvement	Production will be improved with uniform and	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Well Decommissioning	CED-EG	351	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Creation	ESD-WBio & CED-WME	658	Slight to Moderate Improvement	These sites may be used as feed and forage by livestock if	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Enhancement	ESD-WBio & CED-WME	659	Slight to Moderate Improvement	These sites may be used as feed and forage by livestock if	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Wetland Restoration	ESD-WBio & CED-WME	657	Slight to Moderate Improvement	These sites may be used as feed and forage by livestock if	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*	*Appropriate Land Use(s)*	*Baseline Setting*
Waste Storage Facility	**CED-EE**	**313**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Headquarters**	
Waste Treatment Lagoon	**CED-EE**	**359**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Headquarters**	
Waste Utilization	**ESD-NM & CED-EE**	**633**	**No**	**Slight to Substantial Improvement**	**Management results in nutritive forage improving livestock**	**No**	**Crop, Grazed Range, Hay, Headquarters, Native or Naturalized**	
Wastewater Treatment Strip	**CED-EE**	**635**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Headquarters**	
Water and Sediment Control Basin	**CED-AE**	**638**	**No**	**Not Applicable**	**Not applicable.**	**No**	**All Land Uses**	
Water Harvesting Catchment	**CED-WME**	**636**	**Yes**	**Moderate to Substantial Improvement**	**Available water reduces stress and mortality.**	**No**	**Crop, Forest, Grazed Forest, Grazed Range, Hay,**	
Water Well	**CED-EG**	**642**	**Yes**	**Moderate to Substantial Improvement**	**Available water reduces stress and mortality.**	**No**	**All Land Uses**	
Watering Facility	**CED-AE**	**614**	**Yes**	**Moderate to Substantial Improvement**	**Available water reduces stress and mortality.**	**No**	**All Land Uses**	
Waterspreading	**CED-WME**	**640**	**No**	**Not Applicable**	**Not applicable.**	**No**	**All Land Uses**	
Well Decommissioning	**CED-EG**	**351**	**No**	**Not Applicable**	**Not applicable.**	**Yes**	**All Land Uses**	
Wetland Creation	**ESD-WBio & CED-WME**	**658**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Forest, Grazed Forest, Grazed Range,**	
Wetland Enhancement	**ESD-WBio & CED-WME**	**659**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Forest, Grazed Forest, Grazed Range,**	
Wetland Restoration	**ESD-WBio & CED-WME**	**657**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Forest, Grazed Forest, Grazed Range,**	

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Sheet and Rill (Effect)*	*Soil Erosion - Sheet and Rill (Rationale)*	*Soil Erosion - Sheet and Rill (Purpose)*	*Soil Erosion - Wind (Effect)*	*Soil Erosion - Wind (Rationale)*	*Soil Erosion - Wind (Purpose)*	*Soil Erosion - Ephemeral Gully (Effect)*	*Soil Erosion - Ephemeral Gully (Rationale)*	*Soil Erosion - Ephemeral Gully (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Slight to Substantial Improvement**	**Vegetation planted across the slope and surface litter**	**No**	**Substantial Improvement**	**Tall vegetation creates a wind shadow, reduces**	**Yes**	**Slight to Substantial Improvement**	**Vegetation across the slope reduces erosive energy of**	**No**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Slight to Substantial Improvement**	**Vegetation restored across the slope and surface litter**	**No**	**Substantial Improvement**	**Restoration of tall vegetation reestablishes a wind**	**Yes**	**Slight to Substantial Improvement**	**Vegetation restored across the slope reduces erosive**	**No**

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Classic Gully (Effect)*	*Soil Erosion - Classic Gully (Rationale)*	*Soil Erosion - Classic Gully (Purpose)*	*Soil Erosion - Streambank (Effect)*	*Soil Erosion - Streambank (Rationale)*	*Soil Erosion - Streambank (Purpose)*	*Soil Erosion - Shoreline (Effect)*	*Soil Erosion - Shoreline (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate Improvement**	**Wetland vegetation would protect shorelines from wind**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Shoreline (Purpose)*	*Soil Erosion – Irrigation-induced (Effect)*	*Soil Erosion – Irrigation-induced (Rationale)*	*Soil Erosion – Irrigation-induced (Purpose)*	*Soil Erosion - Mass Movement (Effect)*	*Soil Erosion - Mass Movement (Rationale)*	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**Roots of vegetation binds the soil layers making the site**	**No**	**Not Applicable**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**Roots of restored vegetation binds the soil layers making**	**No**	**Not Applicable**

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*	*Soil Condition - Organic Matter Depletion (Effect)*	*Soil Condition - Organic Matter Depletion (Rationale)*	*Soil Condition - Organic Matter Depletion (Purpose)*	*Soil Condition - Rangeland Site Stability (Effect)*	*Soil Condition - Rangeland Site Stability (Rationale)*	*Soil Condition - Rangeland Site Stability (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**	**Increased vegetative matter and its breakdown increases**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**	**Restored roots and vegetative matter and its breakdown**	**Yes**	**Not Applicable**	**Not applicable.**	**No**

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Compaction (Effect)*	*Soil Condition - Compaction (Rationale)*	*Soil Condition - Compaction (Purpose)*	*Soil Condition - Subsidence (Effect)*	*Soil Condition - Subsidence (Rationale)*	*Soil Condition - Subsidence (Purpose)*	*Soil Condition - Contaminants - Salts and Other Chemicals (Effect)*	*Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Slight to Moderate Improvement**	**Root penetration and organic matter helps restore soil**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**Most woody species take up limited quantities of salts.**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Slight to Moderate Improvement**	**Restored root penetration and organic matter helps**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**Most woody species take up limited quantities of salts.**

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**No**	**Slight to Moderate Improvement**	**Establishing woody vegetation increases nutrient uptake.**	**No**	**Slight to Moderate Improvement**	**Establishing woody vegetation increases nutrient uptake.**	**No**	**Slight to Moderate Improvement**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**No**	**Slight to Moderate Improvement**	**Vigorously growing woody vegetation increases nutrient**	**No**	**Slight to Moderate Improvement**	**Vigorously growing woody vegetation increases nutrient**	**No**	**Slight to Moderate Improvement**

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Establishing woody vegetation increases nutrient uptake.**	**No**	**Slight to Moderate Improvement**	**Establishing woody vegetation increases nutrient uptake.**	**No**	**Slight to Moderate Improvement**	**Establishing woody vegetation increases nutrient uptake.**	**No**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Vigorously growing woody vegetation increases nutrient**	**No**	**Slight to Moderate Improvement**	**Vigorously growing woody vegetation increases nutrient**	**No**	**Slight to Moderate Improvement**	**Vigorously growing woody vegetation increases nutrient**	**No**

Practice	Lead Discipline(s)	Practice Code	*Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)*	*Soil Condition - Contaminants - Residual Pesticides (Effect)*	*Soil Condition - Contaminants - Residual Pesticides (Rationale)*	*Soil Condition - Contaminants - Residual Pesticides (Purpose)*	*Soil Condition - Damage from Sediment Deposition (Effect)*	*Soil Condition - Damage from Sediment Deposition (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Slight to Moderate Improvement**	**Establishing woody vegetation increases nutrient uptake.**	**No**	**Slight Improvement**	**Increased organic matter may tie up pesticides.**	**No**	**Slight to Moderate Worsening**	**Vegetation and surface litter traps sediment.**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Slight to Moderate Improvement**	**Vigorously growing woody vegetation increases nutrient**	**No**	**Slight Improvement**	**Increased organic matter may tie up pesticides.**	**No**	**Slight to Moderate Worsening**	**Restored vegetation and surface litter traps sediment.**

Practice	Lead Discipline(s)	Practice Code	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*	*Water Quantity - Rangeland Hydrologic Cycle (Rationale)*	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Substantial Improvement**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**	**Plants uptake excess water.**	**No**	**Slight Worsening**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**	**Restored plants uptake excess water.**	**No**	**Slight Worsening**

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)*	*Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)*	*Water Quantity - Excessive Subsurface Water (Effect)*	*Water Quantity - Excessive Subsurface Water (Rationale)*	*Water Quantity - Excessive Subsurface Water (Purpose)*	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Provides temporary flood storage reducing flooding**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Vegetation will slow runoff and create ponding.**	**No**	**Slight to Moderate Improvement**	**Plants uptake excess water.**	**No**	**Substantial Improvement**	**Snow is captured within and down wind of tree/shrub**	**Yes**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Vegetation will slow runoff and create ponding.**	**No**	**Slight to Moderate Improvement**	**Restored plants uptake excess water.**	**No**	**Substantial Improvement**	**Snow is captured within and down wind of restored**	**Yes**

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inadequate Outlets (Effect)*	*Water Quantity - Inadequate Outlets (Rationale)*	*Water Quantity - Inadequate Outlets (Purpose)*	*Water Quantity - Inefficient Water Use on Irrigated Land (Effect)*	*Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)*	*Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)*	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)*	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Not Applicable**	**Not applicable.**	**No**	**Substantial Improvement**	**Tall vegetation reduces wind speeds and**	**Yes**	**Slight to Moderate Improvement**	**Tall vegetation reduces wind speeds and**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Not Applicable**	**Not applicable.**	**No**	**Substantial Improvement**	**Restored tall vegetation reduces wind speeds and**	**Yes**	**Slight to Moderate Improvement**	**Restored tall vegetation reduces wind speeds and**

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)*	*Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Yes**	**Slight Improvement**	**Vegetation across the slope collects sediment preventing**	**No**	**Slight Improvement**	**Vegetation across the slope collects sediment preventing**	**No**	**Slight to Moderate Worsening**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Yes**	**Slight Improvement**	**Restored vegetation collects sediment preventing it from**	**No**	**Slight Improvement**	**Restored vegetation collects sediment preventing it from**	**No**	**Slight to Moderate Worsening**

Practice	Lead Discipline(s)	Practice Code	*Water Quantity - Aquifer Overdraft (Rationale)*	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Deep rooted vegetation can draw water lowering the**	**No**	**Slight to Moderate Worsening**	**Tall vegetation uses available water and restricts runoff.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Restored deep rooted vegetation can draw water**	**No**	**Slight to Moderate Worsening**	**Restored tall vegetation uses available water and**	**No**	**Not Applicable**	**Not applicable.**	**No**

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)*	*Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)*	*Water Quality - Excessive Salinity in Groundwater (Effect)*	*Water Quality - Excessive Salinity in Groundwater (Rationale)*	*Water Quality - Excessive Salinity in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)*	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Substantial Improvement**	**Permanent vegetation will uptake excess**	**No**	**Neutral**	**The action may increase vegetative uptake in the**	**No**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Substantial Improvement**	**Restored vegetation will uptake excess nutrients.**	**No**	**Neutral**	**The action may increase vegetative uptake in the**	**No**	**Not Applicable**	**Not applicable.**

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Improvement**

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate Improvement**	**There will be improved vegetative cover with a**	**No**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**The action reduces soil erosion from wind and may**	**No**	**Slight Improvement**	**Permanent woody vegetation will utilize nutrients and filter**	**No**	**Slight to Moderate Improvement**	**Vegetation across the slope traps sediment preventing**	**No**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**The action reduces soil erosion from wind and may**	**No**	**Substantial Improvement**	**Restored plants and soil organisms uptake nutrients.**	**No**	**Slight Improvement**	**Restored vegetation traps sediment preventing it from**	**No**

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Excessive Salinity in Surface Water (Effect)*	*Water Quality - Excessive Salinity in Surface Water (Rationale)*	*Water Quality - Excessive Salinity in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)*	*Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)*	*Water Quality - Harmful Temperatures of Surface Water (Effect)*	*Water Quality - Harmful Temperatures of Surface Water (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**Water released from impoundments may be warmer or cooler**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**The action reduces wind erosion, reducing transport of**	**No**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**The action reduces wind erosion, reducing transport of**	**No**	**Not Applicable**	**Not applicable.**

Practice	Lead Discipline(s)	Practice Code	*Water Quality - Harmful Temperatures of Surface Water (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**No**	**Slight Improvement**	**Pathogens are trapped in the wetland.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**Increased microbial activity in the planted area breaks down**	**No**	**Slight to Moderate Improvement**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Improvement**	**Increased microbial activity in the restored area breaks**	**No**	**Slight to Moderate Improvement**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)*	*Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)*	*Air Quality - Excessive Ozone (Effect)*	*Air Quality - Excessive Ozone (Rationale)*	*Air Quality - Excessive Ozone (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**When properly spaced, particulate emissions from the**	**Yes**	**Slight to Moderate Improvement**	**When properly spaced, particulate emissions from the**	**Yes**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**When properly renovated, the practice reduces**	**Yes**	**Slight to Moderate Improvement**	**When properly renovated, the practice reduces**	**Yes**	**Neutral**	**There is a minimal reduction of ozone precursors through**	**No**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Slight to Moderate Improvement**	**The accumulation of organic matter and sediments sequester**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**	**Anaerobic conditions in wetlands would increase production**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Slight to Moderate Improvement**	**Vegetation removes CO2 from the air and stores it in the form**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Slight Improvement**	**Vegetation removes CO2 from the air and stores it in the form**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*	*Air Quality - NH3 - Ammonia (Effect)*	*Air Quality - NH3 - Ammonia (Rationale)*	*Air Quality - NH3 - Ammonia (Purpose)*	*Air Quality - Chemical Drift (Effect)*	*Air Quality - Chemical Drift (Rationale)*	*Air Quality - Chemical Drift (Purpose)*	*Air Quality - Objectionable Odors (Effect)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**No**	**Neutral**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Slight Worsening**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**No**	**Slight to Moderate Improvement**	**Interception of NH3 by plants**	**Yes**	**Slight to Substantial Improvement**	**Trees slow surface air movement and intercept chemical**	**Yes**	**Slight to Moderate Improvement**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**No**	**Slight to Moderate Improvement**	**Interception of NH3 by plants**	**Yes**	**Slight to Substantial Improvement**	**Properly renovated windbreaks reduce surface air**	**Yes**	**Slight to Moderate Improvement**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*	*Air Quality - Reduced Visibility (Rationale)*	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Methane production and transport, as well as other odors,**	**No**	**Neutral**	**Not applicable.**	**No**	**Slight to Moderate Improvement**	**Creation of tall vegetation creates turbulence and slows**	**Yes**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Vegetation will reduce wind movement and**	**Yes**	**Slight to Moderate Improvement**	**Reduce wind erosion and intercepting fine particulates and**	**Yes**	**Substantial Improvement**	**Tall vegetation creates turbulence and slows undesired,**	**Yes**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Vegetation will reduce wind movement and**	**Yes**	**Slight to Moderate Improvement**	**Reduce wind erosion and intercepting fine particulates and**	**Yes**	**Substantial Improvement**	**Tall vegetation creates turbulence and slows undesired,**	**Yes**

Practice	Lead Discipline(s)	Practice Code	*Air Quality - Adverse Air Temperature (Effect)*	*Air Quality - Adverse Air Temperature (Rationale)*	*Air Quality - Adverse Air Temperature (Purpose)*	*Plants not adapted or suited (Effect)*	*Plants not adapted or suited (Rationale)*	*Plants not adapted or suited (Purpose)*	*Plant Condition - Productivity, Health and Vigor (Effect)*	*Plant Condition - Productivity, Health and Vigor (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Slight to Substantial Improvement**	**Tall vegetation provides shade and moderates**	**Yes**	**Moderate to Substantial Improvement**	**Plants selected are adapted and suited.**	**Yes**	**Moderate to Substantial Improvement**	**Plants are selected and managed to maintain optimal**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Moderate to Substantial Improvement**	**Temperatures in leeward areas are increased**	**Yes**	**Substantial Improvement**	**Plants selected are adapted and suited.**	**Yes**	**Substantial Improvement**	**Plants are selected and managed to maintain optimal**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Moderate to Substantial Improvement**	**Temperatures in leeward areas are increased**	**Yes**	**Substantial Improvement**	**Renovation maintains adapted and suited plants.**	**Yes**	**Substantial Improvement**	**Plants are renovated and managed to maintain optimal**

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*	*Plant Condition - Noxious and Invasive Plants (Effect)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Yes**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Neutral**	**When threatened or endangered plants are present,**	**No**	**Moderate to Substantial Improvement**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Yes**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Improvement**

Practice	Lead Discipline(s)	Practice Code	*Plant Condition - Noxious and Invasive Plants (Rationale)*	*Plant Condition - Noxious and Invasive Plants (Purpose)*	*Plant Condition - Forage Quality and Palatability (Effect)*	*Plant Condition - Forage Quality and Palatability (Rationale)*	*Plant Condition - Forage Quality and Palatability (Purpose)*	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Vegetation is installed and managed to control**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**	**No**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Vegetation is installed and managed to control**	**No**	**Moderate to Substantial Improvement**	**Forage quality and palatability is improved in the**	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Vegetation is installed and managed to control**	**No**	**Moderate to Substantial Improvement**	**Forage quality and palatability is improved in the**	**Yes**	**Not Applicable**	**Not applicable.**	**No**

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Food (Effect)*	*Fish and Wildlife - Inadequate Food (Rationale)*	*Fish and Wildlife - Inadequate Food (Purpose)*	*Fish and Wildlife - Inadequate Cover/Shelter (Effect)*	*Fish and Wildlife - Inadequate Cover/Shelter (Rationale)*	*Fish and Wildlife - Inadequate Cover/Shelter (Purpose)*	*Fish and Wildlife - Inadequate Water (Effect)*	*Fish and Wildlife - Inadequate Water (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Substantial Improvement**	**Areas for food are created, restored, or enhanced.**	**Yes**	**Substantial Improvement**	**Areas for cover/shelter are created, restored, or**	**Yes**	**Slight to Substantial Improvement**	**Actively managing wetlands (e.g., water levels), improves**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Moderate to Substantial Improvement**	**Improved plant diversity and quality and quantity of**	**Yes**	**Moderate to Substantial Improvement**	**Improved plant diversity and quality and quantity of**	**Yes**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Moderate to Substantial Improvement**	**Improved plant diversity and quality and quantity of**	**Yes**	**Moderate to Substantial Improvement**	**Improved plant diversity and quality and quantity of**	**Yes**	**Not Applicable**	**Not applicable.**

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*	*Fish and Wildlife - Inadequate Space (Purpose)*	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Yes**	**Moderate to Substantial Improvement**	**Additional wetland space is maintained.**	**Yes**	**Moderate to Substantial Improvement**	**Multiple wetlands are managed to maintain the number and**	**Yes**	**Substantial Improvement**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**No**	**Moderate to Substantial Improvement**	**Tall vegetation creates vertical habitat structure and**	**Yes**	**Moderate to Substantial Improvement**	**Vegetation is installed to connect habitats.**	**Yes**	**Slight to Substantial Improvement**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**No**	**Moderate to Substantial Improvement**	**Renovated tall vegetation creates vertical habitat**	**Yes**	**Moderate to Substantial Improvement**	**Vegetation is renovated to connect habitats.**	**Yes**	**Slight to Substantial Improvement**

Practice	Lead Discipline(s)	Practice Code	*Fish and Wildlife - Imbalance Among and Within Populations (Rationale)*	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Habitat management is implemented to remove limiting**	**Yes**	**Moderate to Substantial Improvement**	**Activities are designed, installed, and mitigated to an**	**Yes**	**Moderate to Substantial Improvement**	**Activities are designed, installed, and mitigated to an**	**Yes**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Habitat management is implemented to remove limiting**	**Yes**	**Neutral**	**Activities are designed, installed, and mitigated to an**	**No**	**Neutral**	**Activities are designed, installed, and mitigated to an**	**No**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Habitat management is implemented to remove limiting**	**Yes**	**Neutral**	**Activities are designed, installed, and mitigated to an**	**No**	**Neutral**	**Activities are designed, installed, and mitigated to an**	**No**

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)*	*Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)*	*Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)*	*Domestic Animals - Inadequate Shelter (Effect)*	*Domestic Animals - Inadequate Shelter (Rationale)*	*Domestic Animals - Inadequate Shelter (Purpose)*	*Domestic Animals - Inadequate Stock Water (Effect)*	*Domestic Animals - Inadequate Stock Water (Rationale)*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**Slight to Moderate Improvement**	**These sites may be used as feed and forage by livestock if**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**Slight to Substantial Improvement**	**The quality and quantity of feed and forage plants is**	**Yes**	**Substantial Improvement**	**Tall vegetation provides shelter.**	**Yes**	**Not Applicable**	**Not applicable.**
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**Slight to Substantial Improvement**	**The quality and quantity of feed and forage plants is**	**Yes**	**Substantial Improvement**	**Restored tall vegetation provides shelter.**	**Yes**	**Not Applicable**	**Not applicable.**

Practice	Lead Discipline(s)	Practice Code	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*	*Appropriate Land Use(s)*	*Baseline Setting*
Wetland Wildlife Habitat Management	**ESD-WBio**	**644**	**No**	**Not Applicable**	**Not applicable.**	**No**	**Forest, Grazed Forest, Grazed Range,**	
Windbreak/Shelterbelt Establishment	**ESD-For**	**380**	**No**	**Substantial Improvement**	**Tall vegetation moderates temperatures and**	**Yes**	**Crop, Grazed Range, Hay, Headquarters, Mined, Native or**	
Windbreak/Shelterbelt Renovation	**ESD-For**	**650**	**No**	**Substantial Improvement**	**Restored tall vegetation moderates**	**Yes**	**Crop, Grazed Range, Hay, Headquarters, Mined, Native or**	

Practice	Lead Discipline(s)	Practice Code	Cultural Resources and/or Historic Properties Present or Suspected to be Present (Effect)	Cultural Resources and/or Historic Properties Present or Suspected to be Present (Rationale)	Cultural Resources and/or Historic Properties Present or Suspected to be Present (Purpose)	Depletion of Fossil Fuel Resources (Effect)	Depletion of Fossil Fuel Resources (Rationale)	Depletion of Fossil Fuel Resources (Purpose)	Underutilization of Non-Fossil Energy Sources (Effect)	Underutilization of Non-Fossil Energy Sources (Rationale)	Underutilization of Non-Fossil Energy Sources (Purpose)
Access Road	CED-AE	560	Moderate to Substantial Increase	Initial construction; increased public access can have	No	Slight Decrease	Drivable surfaces improve the fuel efficiency of	No	Not Applicable	Not applicable.	No
Amendments for Treatment of Agricultural Waste	CED-EE	591									
Anaerobic Digester, Ambient Temperature	CED-EE	365	Slight to Substantial Increase	Construction impacts; effects to historic structures	No	Not Applicable	Not applicable.	No	Slight to Substantial Decrease	Utilization is improved when captured biogas is	Yes
Anaerobic Digester, Controlled Temperature	CED-EE	366	Slight to Substantial Increase	Construction impacts; effects to historic structures	No	Not Applicable	Not applicable.	No	Slight to Substantial Decrease	Utilization is improved when captured biogas is	Yes
Anionic Polyacrylamide (PAM) Erosion Control	CED-WME	450	Not applicable.	Not applicable.	No	Slight to Moderate Decrease	Sediment reduction reduces energy needed to clean out	No	Not Applicable	Not applicable.	No
Brush Management	ESD-Graz Land Sp	314	Slight to Substantial Increase	Mechanical removal impacts; TCP important plant	No	No Effect	This practice uses energy. Energy use depends on the	No	Slight Decrease	Potential for using biomass from this practice for non-	No
Channel Bank Vegetation	ESD-Agron	322	Slight to Substantial Increase	Mechanical removal impacts; TCP important plant	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Channel Stabilization	CED-EG	584	Slight to Substantial Increase	Mechanical removal impacts; TCP important plant	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Clearing & Snagging	CED-DE	326	Slight to Substantial Increase	Mechanical removal impacts.	No	No Effect	Implementing this practice requires energy. Energy	No	Not Applicable	Not applicable.	No
Closure of Waste Impoundments	CED-EE & ESD-NM	360	Not applicable.	Not applicable.	No	Slight Decrease	Energy associated with waste impoundment facility	No	Not Applicable	Not applicable.	No
Conservation Cover	ESD-Agron	327	Slight to Substantial Decrease	Historic properties in agricultural context can be	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Conservation Crop Rotation	ESD-Agron	328	Not applicable.	Not applicable.	No	Slight to Substantial Decrease	Depending on the purpose of the practice, a	No	No Effect	Biomass crops could be included in the rotation.	No
Contour Buffer Strips	ESD-Agron	332	Slight to Substantial Increase	Initial plantings; changes in setting can have adverse	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No

Land - Change in Land Use (Effect)	Land - Change in Land Use (Rationale)	Land - Land in Production (Effect)	Land - Land in Production (Rationale)	Capital - Change in Equipment (Effect)	Capital - Change in Equipment (Rationale)	Capital - Total Investment Cost (Effect)	Capital - Total Investment Cost (Rationale)	Capital - Annual Cost (Effect)	Capital - Annual Cost (Rationale)	Capital - Credit & Farm Program Eligibility (Effect)
Substantial	Substantial, cropland changed to roadway.	Substantial decrease	Substantial decrease, land taken out of production	Moderate increase.		Moderate to substantial.		Slight to moderate increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Negligible to slight increase.		Slight to moderate.		Slight to moderate increase.		Situational.
Slight	Potential change from cropland to headquarters.	Slight Decrease		Substantial increase.		Substantial.		Substantial increase.		Situational.
Slight	Potential change from cropland to headquarters.	Slight Decrease		Substantial increase.		Substantial.		Substantial increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Situational.		Slight to moderate.		Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Moderate increase	Negligible except for mechanical. Mechanical brush	Slight to substantial.		Negligible to moderate increase.		Situational.
Not applicable.	Not applicable.	Slight decrease	Slight decrease, channel banks out of production.	Negligible		Substantial.		Moderate increase.		Situational.
Not applicable.	Not applicable.	Slight decrease	Slight decrease, channel banks out of crop production.	Moderate increase.		Substantial.		Slight to moderate increase.		Situational.
Not applicable.	Not applicable.	Slight decrease	Slight short-term decrease, debris placed on farmland.	Moderate increase.		Substantial.		Moderate increase.		Situational.
Not applicable.	Not applicable.	Slight increase	Potential slight increase if facility location is returned	Not applicable.		Not applicable.		Not applicable.	Not applicable	Situational.
Substantial	Substantial if large areas are planted, otherwise N/A.	Substantial	Substantial decrease, land converted to	Moderate Decrease.		Moderate.		Slight increase.		Situational.
Moderate	Moderate, conservation crop added to the crop	Not applicable	Not applicable	Negligible		Not applicable.		Negligible to moderate increase	Negligible to moderate increase, offset by improved	Situational.
Slight	Slight, convert cropland to vegetated strips.	Moderate decrease	Moderate decrease, lose cropland.	Negligible		Substantial.		Slight to moderate increase.		Situational.

Capital - Credit & Farm Program Eligibility (Rationale)	Labor - Labor (Effect)	Labor - Labor (Rationale)	Labor - Change in Management Level (Effect)	Labor - Change in Management Level (Rationale)	Risk - Yield (Effect)	Risk - Yield (Rationale)	Risk - Flexibility (Effect)	Risk - Flexibility (Rationale)	Risk - Timing (Effect)	Risk - Timing (Rationale)
	Slight to moderate decrease	Slight to moderate decrease, more efficient movement	Negligible		Slight Increase	Slight increase due to land conversion.	Slight Decrease	Slight decrease due to more efficient accessibility.	Not applicable.	Not applicable.
	Slight to moderate increase	Situational. Slight to moderate increase, depending on	Negligible		Not applicable.	Not applicable.	Slight Decrease	Negligible to slight decrease due to environmental and	Not applicable.	Not applicable.
	Situational	Situational. Change in labor use patterns.	Substantial increase.		Slight Decrease	Potential for decrease due to improved waste	Slight to Moderate Increase	Slight to moderate increase due to digester	Slight Increase	Some risk associated with timing of construction.
	Situational	Situational. Change in labor use patterns.	Substantial increase.		Slight Decrease	Potential for decrease due to improved waste	Slight to Moderate Increase	Slight to moderate increase due to digester	Slight Increase	Some risk associated with timing of construction.
	Slight increase.		Negligible to slight increase.		Moderate Decrease	Moderate decrease due to increased irrigation efficiency.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Negligible to moderate increase	Negligible for biological and chemical to	Negligible to slight increase.		Moderate to Substantial Decrease	Moderate to substantial decrease due to restoration of	Moderate to Substantial Decrease	Moderate to substantial decrease due to restoration of	Substantial Increase	Substantial increase except for biological.
	Slight increase	Slight increase during establishment.	Slight increase.		Not Applicable.	Not Applicable.	Moderate Increase	Moderate increase due to deferment of affected area until	Moderate Increase	Moderate increase establishment of plants dependent on
	Slight increase.		Slight increase.		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Substantial increase	Substantial increase during establishment.	Moderate increase.		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Slight to Moderate Increase	Slight to moderate during closure operations.	Not applicable.		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Negligible		Slight increase.		Not applicable.	Not applicable.	Negligible		Moderate Increase	Moderate increase during establishment of plants dependent
	Slight to moderate decrease	Slight to moderate decrease with land taken out of	Negligible		Moderate Decrease	Moderate decrease due to improved soil quality, fertility and	Slight Increase	Slight increase due to required crops in rotation.	Substantial Increase	Substantial increase crops should be grown in a planned,
	Slight to moderate increase	Slight to moderate increase to maintain strips annually.	Negligible		Slight Increase	Slight increase due to competition for water & nutrients.	Slight Increase	Slight increase due to following designed row	Slight to Moderate Increase	Slight to moderate increase, depending on the maintenance

Risk - Cash Flow (Effect)	Risk - Cash Flow (Rationale)	Profitability - Change in Profitability (Effect)	Profitability - Change in Profitability (Rationale)	Operations & Maintenance Factor	Practice Life	Estimated Average Installation Cost (2005 Estimates)	Estimated Average Annual Cost Based on an Annual Interest Rate of 5.125%
Slight to Moderate Increase	Slight to moderate increase due to construction needs.	Situational	Moderate decrease to slight increase.	15%	10	$20.00	$5.61
Slight Increase	Slight increase due to implementation cost.	Slight to Moderate Increase	Negligible to moderate increase due to potential for	0%	1	$10.00	$10.00
Slight to Substantial Decrease	Slight to substantial decrease if power generation and	Slight to Substantial Increase	Slight to substantial increase if power generation and	2%	25	$300,000.00	$27,553.19
Slight to Substantial Decrease	Slight to substantial decrease if power generation and	Slight to Substantial Increase	Slight to substantial increase if power generation and	5%	25	$400,000.00	$48,737.59
Slight Increase	Slight increase due to cost of product.	Slight to Moderate Increase	Slight to moderate increase depending on increased yields.	3%	10	$15.00	$2.40
Slight to substantial increase.		Slight to moderate increase.		1%	10	$60.00	$8.42
Moderate Increase	Moderate increase due to establishment costs.	Moderate decrease.		2%	10	$1,000.00	$150.29
Substantial Increase	Substantial increase due to construction or establishment	Moderate decrease.		5%	10	$80.00	$14.42
Substantial Increase	Substantial increase due to application costs.	Slight to moderate decrease.		5%	5	$100.00	$28.18
Slight Increase	Slight increase due to application costs.	Slight Decrease	Slight decrease due to application costs.	2%	15	$7,500.00	$878.69
Slight Increase	Slight increase due to establishment costs.	Moderate to substantial decrease.		3%	3	$75.00	$29.86
Moderate Increase	Moderate increase to moderate increase from changes in	Situational	Slight increase to moderate decrease.	0%	1	$10.00	$10.00
Moderate Increase	Moderate increase due to implementation	Slight to moderate decrease.		2%	10	$50.00	$7.51

Contour Farming	ESD-Agron	330	Not applicable.	Not applicable.	No	No Effect	Using field operations on the contour may require	No	Not Applicable	Not applicable.	No
Cover Crop	ESD-Agron	340	Slight to Substantial Decrease	Historic properties in agricultural context can be	No	Slight to Moderate Decrease	Depending on the purpose of the practice, a	No	Not Applicable	Not applicable.	No
Critical Area Planting	ESD-Agron & CED-LA	342	Slight to Substantial Decrease	Historic properties in agricultural context can be	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cross Wind Ridges	ESD-Agron	589A	Not applicable.	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Cross Wind Trap Strips	ESD-Agron	589C	Slight to Substantial Decrease	Historic properties in agricultural context can be	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Dam	CED-DE	402	Moderate to Substantial Increase	Construction adverse effects; effects of	No	Slight to Substantial Decrease	Utilizing stored water for irrigation can save energy	No	Slight to Substantial Decrease	This practice can be used to facilitate production of	No
Dam, Diversion	CED-AE	348	Moderate to Substantial Increase	Construction adverse effects; effects of	No	Slight to Substantial Decrease	Utilizing stream water for irrigation can save energy	No	Slight to Substantial Decrease	This practice can be used to facilitate production of	No
Deep Tillage	ESD-Agron	324	Slight to Substantial Increase	Historic properties below existing plow zone can be	No	Slight Increase	This practice uses energy; however the outcome of this	No	Not Applicable	Not applicable.	No
Dike	CED-HE	356	Moderate to Substantial Increase	Construction adverse effects; effects of	No	Slight to Substantial Decrease	This practice can substantially reduce energy used to	No	Not Applicable	Not applicable.	No
Diversion	CED-DE	362	Moderate to Substantial Increase	Construction adverse effects; effects of	No	Slight Decrease	This practice may reduce energy needed to repair	No	Not Applicable	Not applicable.	No
Dry Hydrant	CED-HE	432	Slight to Substantial Increase	Construction adverse impacts.	No	Slight to Moderate Decrease	This practice utilizes a local water source for fire fighting,	No	Not Applicable	Not applicable.	No
Early Successional Habitat Development/Mgt.	ESD-WBio	647	Not applicable.	Not applicable.	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Fence	ESD-Graz Land Sp	382	Slight to Substantial Increase	Dependent on fence type, construction methods, resource	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Field Border	ESD-Agron	386	Slight to Substantial Decrease	Historic properties in agricultural context can be	No	Not Applicable	Not applicable.	No	Not Applicable	Not applicable.	No
Filter Strip	ESD-Agron & CED-EE	393	Slight to Substantial Decrease	Historic properties in agricultural context can be	No	Slight Decrease	Energy is saved by removing sediment at the source as	No	Not Applicable	Not applicable.	No
Firebreak	ESD-For	394	Slight to Substantial Increase	Construction impacts.	No	Slight to Substantial Decrease	Protection of resources and property from	No	Not Applicable	Not applicable.	No

Not applicable.	Not applicable.	Slight decrease	Slight decrease, corners and end pieces taken out of	Negligible		Not applicable.		Slight to moderate increase.		Situational.
Slight to Substantial	Substantial if large areas are planted, N/A if small areas	Substantial decrease	Substantial decrease if permanent cover is added to rotation.	Slight Increase.		Not applicable.		Moderate increase.		Situational.
Slight to Substantial	Substantial, if large areas are planted, N/A if small areas	Substantial decrease	Substantial decrease, land converted to	Negligible		Substantial.		Moderate increase.		Situational.
Slight.		Slight decrease		Negligible		Not applicable.		Slight to moderate increase.		Situational.
Slight.		Slight decrease		Negligible		Moderate.		Slight increase.		Situational.
Substantial	Substantial, to convert to water & sediment storage.	Moderate to substantial decrease		Substantial increase.		Substantial.		Slight to moderate increase.		Situational.
Substantial	Substantial, convert to water storage and spillway.	Substantial decrease	Substantial decrease, convert to water storage and	Substantial increase.		Moderate.		Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable	Not applicable.	Moderate increase.		Not applicable.		Slight to moderate increase.		Situational.
Substantial	Substantial, to convert to dike and water & sediment	Substantial decrease	Substantial decrease, lose cropland as dike is	Substantial increase.		Substantial.		Slight to moderate increase.		Situational.
Slight to Substantial	N/A if no change in irrigation, substantial if in irrigation	Slight decrease	Slight decrease, lose cropland as diversion is installed.	Substantial increase.		Moderate.		Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable	Not applicable.	Not applicable.		Moderate to substantial.		Not applicable.	Not applicable	Situational.
Not applicable.	Not applicable.	Not applicable	Not applicable.	Negligible		Slight.		Negligible		Situational.
Not applicable.	Not applicable.	Not applicable	Not applicable.	Slight Increase.		Substantial.		Slight to moderate increase.		Situational.
Slight	Slight, cropland converted to border.	Moderate decrease	Moderate decrease, lost cropland.	Negligible		Moderate.		Slight increase.		Situational.
Slight	Slight, cropland converted to strips.	Moderate decrease	Moderate decrease, lost cropland.	Negligible		Moderate.		Slight increase.		Situational.
Slight	Slight, cropland converted to firebreak.	Substantial decrease	Substantial decrease, lost cropland.	Slight Increase.		Moderate.		Slight increase.		Situational.

	Slight to moderate increase	Slight to moderate increase, more time required for tillage	Negligible		Not applicable.	Not applicable.	Slight to Moderate Increase	Slight to moderate increase due to following designed	Negligible	
	Slight to moderate increase	Slight to moderate increase to plant crop.	Negligible		Slight Decrease	Slight decrease due to improved soil quality.	Moderate Increase	Moderate increase due to incorporating additional cropping	Substantial Increase	Substantial increase - cover crop must not interfere with major
	Slight to moderate increase	Slight to moderate increase during smoothing/planting,	Negligible		Substantial Decrease	Substantial decrease in adjacent eroding areas.	Moderate Decrease	Moderate decrease due to control of eroding areas.	Moderate Increase	Moderate increase must apply the practice when plants
	Slight to moderate increase	Slight to moderate increase, more time required for tillage	Slight increase.		Slight Decrease	Slight decrease due to reduction of wind blown sediment.	Slight to Moderate Increase	Slight to moderate due to following designed row	Negligible	
	Slight to moderate increase	Slight to moderate increase, more time required for tillage	Slight increase.		Slight Increase	Slight increase from land use conversion, slight increase from	Slight Increase	Slight increase due to incorporating strips into cropping	Substantial Increase	Substantial increase - strips must be established prior to
	Slight to substantial decrease	Slight to substantial decrease, less time required for water	Moderate to substantial increase.		Not applicable.	Not applicable.	Slight Increase	Slight increase due to conversion of land to water storage	Not applicable.	Not applicable.
	Slight to substantial decrease	Slight to substantial decrease, less time required for water	Moderate to substantial increase.		Not applicable.	Not applicable.	Slight Decrease	Slight decrease due to more efficient and safe use of water.	Not applicable.	Not applicable.
	Slight to moderate increase	Slight to moderate increase for performing tillage	Negligible		Slight Decrease	Slight decrease due to improved infiltration and root	Slight Decrease	Slight decrease due to more conductive growing conditions.	Moderate Increase	Moderate increase - practice should be implemented prior to
	Negligible		Negligible		Slight Decrease	Negligible to slight decrease due to protection from	Not applicable.	Not applicable.	Moderate Increase	Moderate increase - practice should be installed prior to
	Negligible		Negligible		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Not applicable.	Not applicable.	Not applicable.		Slight to Substantial Decrease	Slight to substantial decrease in risk to capital equipment	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Negligible to substantial increase	Negligible to substantial increase depending if habitat	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to improved habitat.	Slight to Moderate Decrease	Decrease in risk due to substantial to moderate increase in	Not applicable.	Not applicable.
	Moderate Decrease	Substantial increase during installation, moderate decrease	Negligible		Not applicable.	Not applicable.	Slight to Moderate Decrease	Slight to moderate decrease based on management	Not applicable.	Not applicable.
	Slight decrease	Slight decrease due to efficient equipment turns at	Negligible		Slight Decrease	Negligible to slight decrease due to reduction of erosion.	Negligible		Slight Increase	Slight increase - practice needs to be established during
	Slight to moderate increase	Slight to moderate increase to maintain annually.	Slight to moderate increase.		Slight Increase	Slight increase due to land use conversion.	Negligible		Negligible	
	Slight to moderate increase	Slight to moderate increase to maintain annually.	Negligible		Not applicable.	Not applicable.	Substantial Decrease	Substantial decrease, allowing protection for	Substantial Increase	Substantial increase - must be installed prior to burning.

Slight Increase	Slight increase due to higher fuel and labor requirements.	Slight decrease.		0%	1	$5.00	$5.00
Slight Increase	Slight increase due to production of extra crop without	Situational	Moderate decrease to slight increase.	1%	1	$70.00	$70.70
Substantial Increase	Substantial increase due to implementation and	Slight to moderate decrease.		3%	10	$200.00	$32.06
Slight Increase	Slight increase due to fuel and labor requirements.	Situational	Slight decrease or increase.	5%	5	$90.00	$25.36
Slight Increase	Slight increase due to establishment costs.	Situational	Slight decrease or increase.	5%	5	$90.00	$25.36
Substantial Increase	Substantial increase due to construction costs.	Situational	Substantial increase or decrease.	3%	15	$5,000.00	$635.79
Substantial Increase	Substantial increase due to construction costs.	Situational	Substantial increase or decrease.	3%	15	$5,000.00	$635.79
Slight Increase	Negligible to slight increase due to trips over the field.	Slight to moderate increase.		0%	3	$20.00	$7.36
Substantial Increase	Substantial increase due to construction costs.	Situational	Substantial increase or decrease.	10%	20	$2.00	$0.36
Substantial Increase	Substantial increase due to construction costs.	Situational	Substantial increase or decrease.	2%	10	$5.00	$0.75
Slight to Moderate Increase	Slight to moderate increase due to implementation	Slight to Moderate Decrease	Short-term slight to moderate decrease due to	1%	15	$1,000.00	$107.16
Slight Increase	Negligible increase because of implementation	Slight to moderate decrease.		1%	15	$100.00	$10.72
Moderate to Substantial Increase	Moderate to substantial increase due to installation	Slight to moderate increase.		2%	20	$2.25	$0.23
Slight Increase	Slight increase due to establishment costs.	Slight decrease.		1%	10	$0.25	$0.04
Slight Increase	Slight increase due to establishment costs.	Slight decrease.		2%	10	$150.00	$22.54
Slight Increase	Slight increase due to establishment costs.	Slight decrease.	Slight decrease.	20%	10	$3.00	$0.99

Fish Passage	ESD-AqEco	396	Slight to Substantial Increase	Construction impacts.	No	Not Applicable	Not Applicable	No	Not Applicable	Not applicable.	No
Fishpond Management	ESD-AqEco	399	Not applicable.	Not applicable.	No	Slight Increase	Fertilizer and feed required for the operation of	No	Not Applicable	Not applicable.	No
Forage Harvest Management	ESD- Graz Land Sp	511	Not applicable.	Not applicable.	No	Slight to Substantial Decrease	Properly harvested forage produces a higher quality feed	No	Not Applicable	Not applicable.	No
Forest Stand Improvement	ESD-For	666	Slight to Substantial Increase	Construction impacts (mechanical).	No	No Effect	This practice uses energy, however the energy used	No	Slight to Substantial Decrease	This practice facilitates the production of	Yes
Grade Stabilization Structure	CED-DE	410	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight Decrease	Sediment reduction downstream of structure requires	No	Not Applicable	Not applicable.	No
Grassed Waterway	ESD-Agron & CED-AE	412	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight to Moderate Decrease	Practice reduces the energy required to repair or farm around	No	Not Applicable	Not applicable.	No
Herbaceous Wind Barriers	ESD-Agron	603	Slight to Substantial Decrease	Historic properties in agricultural context can be	No	Slight Decrease	Reduced evapotranspiration and increased	No	Not Applicable	Not applicable.	No
Irrigation Canal or Lateral	CED-DE	320	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight to Substantial Decrease	This practice facilitates gravity flow of irrigation	No	Not Applicable	Not applicable.	No
Irrigation Field Ditch	CED-WME	388	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight to Substantial Decrease	This practice facilitates gravity flow of irrigation	No	Not Applicable	Not applicable.	No
Irrigation Land Leveling	CED-WME	464	Slight to Substantial Increase	Construction impacts (mechanical) where	No	Slight to Substantial Decrease	This practice facilitates gravity flow of irrigation	No	Not Applicable	Not applicable.	No
Irrigation Regulating Reservoir	CED-WME	552	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight to Substantial Decrease	This practice facilitates gravity flow of irrigation	No	Not Applicable	Not applicable.	No
Irrigation Storage Reservoir	CED-WME	436	Slight to Substantial Increase	Construction impacts (mechanical);	No	Slight to Substantial Decrease	This practice facilitates gravity flow of irrigation	No	Not Applicable	Not applicable.	No
Irrigation System, Microirrigation	CED-WME	441	Slight to Substantial Increase	Construction impacts (mechanical) in	No	Substantial Decrease	This practice substantially reduces the amount of water	No	Not Applicable	Not applicable.	No
Irrigation System, Sprinkler	CED-WME	442	Not applicable.	Not applicable.	No	Slight Decrease	This practice utilizes more energy than many other irrigation	No	Not Applicable	Not applicable.	No
Irrigation System, Surface & Subsurface	CED-WME	443	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight to Substantial Decrease	Gravity fed irrigation is energy efficient but water inefficient.	No	Not Applicable	Not applicable.	No
Irrigation System, Tailwater Recovery	CED-WME	447	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight to Substantial Decrease	This practice facilitates gravity flow of irrigation	No	Not Applicable	Not applicable.	No

Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Negligible**		**Negligible to slight.**		**Negligible**		**Situational.**
Slight to moderate.		**Not applicable.**	**Not applicable.**	**Substantial increase.**		**Moderate.**		**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Slight Increase.**		**Not applicable.**		**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Moderate increase.**		**Moderate.**		**Slight increase.**		**Situational.**
Slight	**Slight, convert to structure.**	**Slight decrease**	**Slight decrease, lose cropland as structure is installed.**	**Moderate increase.**		**Substantial.**		**Slight to moderate increase.**		**Situational.**
Slight to Moderate	**Moderate if large areas planted, N/A if small areas planted.**	**Substantial**	**Substantial decrease, land converted to**	**Slight Increase.**		**Substantial.**		**Slight to moderate increase.**		**Situational.**
Slight.		**Slight decrease**		**Slight Increase.**		**Substantial.**		**Slight increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease.**		**Moderate increase.**		**Substantial.**		**Slight to moderate increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease.**		**Slight Increase.**		**Moderate.**		**Slight to moderate increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight increase**		**Moderate increase.**		**Moderate.**		**Slight to moderate increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**		**Substantial increase.**		**Substantial.**		**Slight to moderate increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**		**Substantial increase.**		**Substantial.**		**Slight to moderate increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**	**Slight short-term decrease in cropland as pipeline is**	**Substantial increase.**		**Moderate.**		**Moderate increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**	**Slight short-term decrease in cropland as pipeline is**	**Substantial increase.**		**Moderate.**		**Moderate increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**	**Slight short-term decrease in cropland as pipeline is**	**Moderate increase.**		**Moderate.**		**Slight to moderate increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Not applicable**	**Not applicable**	**Substantial increase.**		**Substantial.**		**Slight to moderate increase.**		**Situational.**

	Slight increase	Slight increase during installation of practice.	Not applicable.		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Slight to substantial increase	Slight to substantial increase if new operation.	Slight to moderate increase.		Slight to Moderate Decrease	Slight to moderate decrease due to favorable habitat.	Moderate Decrease	Moderate decrease due to favorable habitat.	Not applicable.	Not applicable.
	Slight increase	Slight increase to move livestock to other pastures.	Slight increase		Slight to Moderate Decrease	Slight to moderate decrease from improved health,	Slight Decrease	Slight decrease due to more effective management	Substantial Increase	Substantial increase - practice must be applied following a
	Moderate to substantial increase.		Slight increase.		Slight to Moderate Decrease	Slight to moderate decrease due to reduction of	Slight to Moderate Decrease	Slight to moderate decrease due to reduction of	Not applicable.	Not applicable.
	Negligible		Negligible		Not applicable.	Not applicable.	Slight to Moderate Increase	Slight to moderate increase due to design	Not applicable.	Not applicable.
	Slight to moderate decrease	Slight to moderate decrease with smoother field	Negligible		Slight Increase	Slight increase due to land use conversion.	Slight Increase	Slight increase due to design specifications.	Substantial Increase	Substantial increase - must allow for vegetative
	Slight to moderate increase.		Slight increase.		Slight Increase	Slight increase from land use conversion, slight increase from	Slight Increase	Slight increase due to incorporating barriers into	Slight Increase	Slight increase - practice should be established prior to
	Slight to moderate increase.		Moderate increase.		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Substantial Decrease	Substantial decrease due to conveyance of water to the farm.	Not applicable.	Not applicable.
	Slight to moderate increase.		Moderate increase.		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Substantial Decrease	Substantial decrease due to conveyance of water to the field.	Not applicable.	Not applicable.
	Negligible		Moderate to substantial	Moderate to substantial due to high level of	Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Substantial Decrease	Substantial decrease due to uniform and efficient application	Substantial Increase	Substantial increase - practice must be applied prior to
	Slight to moderate increase.		Slight to moderate increase.		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Substantial Decrease	Substantial decrease because of assurance of water	Substantial Increase	Substantial increase - practice must be applied prior to need
	Slight to moderate increase.		Slight to moderate increase.		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Substantial Decrease	Substantial decrease because of assurance of water	Substantial Increase	Substantial increase - practice must be applied prior to need
	moderate increase	Substantial increase during installation, then slight to	Moderate to substantial increase	Moderate to substantial increase from timing,	Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Slight Decrease	Slight decrease due to more flexible irrigation	Not applicable.	Not applicable.
	Moderate to Substantial Increase	Substantial increase using cable or hose toe, moderate	Moderate increase	Moderate increase, timing and maintenance require	Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Substantial Decrease	Substantial decrease due to more flexible irrigation	Not applicable.	Not applicable.
	Moderate increase	Moderate increase to maintain channels and monitor water	Moderate increase	Moderate increase, timing and maintenance require	Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Moderate Decrease	Moderate decrease due to more flexible irrigation	Not applicable.	Not applicable.
	Negligible		Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Slight Decrease	Slight decrease due to more efficient use of water.	Not applicable.	Not applicable.

Slight Increase	Slight increase due to installation costs.	Slight decrease due to installation costs.	Slight decrease due to installation costs.	3%	15	$2,500.00	$317.90
Slight Increase	Negligible to slight increase due to installation costs.	Slight to substantial increase.	Slight to substantial increase.	0%	1	$1,000.00	$1,000.00
Slight Decrease	Slight decrease because of higher yields and reduced	Slight to moderate increase.	Slight to moderate increase.	0%	5	$6.00	$1.39
Moderate to Substantial Increase	Moderate to substantial increase due to	Situational	Slight decrese to moderate increase.	0%	10	$300.00	$39.09
Substantial Increase	Substantial increase due to construction cost.	Slight to moderate decrease.		1%	15	$6,000.00	$642.95
Substantial Increase	Substantial increase due to construction costs.	Slight to moderate decrease.		2%	10	$250.00	$37.57
Slight Increase	Slight increase due to establishment costs.	Situational	Slight decrease to moderate increase.	3%	5	$3.00	$0.79
Moderate to Substantial Increase	Moderate to substantial increase due to construction	Situational	Moderate decrease to substantial increase.	5%	15	$0.85	$0.13
Slight to Moderate Increase	Slight to moderate increase due to construction cost.	Situational	Slight decrease to moderate increase.	20%	15	$1.00	$0.30
Slight to Moderate Increase	Slight to moderate increase due to application cost.	Situational	Slight decrease to moderate increase.	3%	15	$200.00	$25.43
Moderate to Substantial Increase	Moderate to substantial increase due to construction	Slight to moderate increase.		1%	15	$5,000.00	$535.79
Substantial Increase	Substantial increase due to construction cost.	Slight to moderate increase.		1%	15	$5,000.00	$535.79
Slight Increase	Slight increase due to conversion cost.	Situational	Moderate decrease or increase.	5%	10	$1,500.00	$270.44
Substantial Increase	Substantial increase due investment cost.	Situational	Moderate decrease or increase.	2%	15	$1,200.00	$140.59
Substantial Increase	Substantial increase due to investment cost.	Situational	Moderate decrease or increase.	3%	15	$200.00	$25.43
Moderate Increase	Moderate increase due to construction cost.	Situational	Moderate decrease or increase.	3%	20	$10,000.00	$1,110.95

Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete	CED-DE	428A	Slight to Substantial Increase	Consider if ditch is historic structure.	No	Moderate to Substantial Decrease	Gravity fed irrigation is energy efficient but water inefficient.	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic	CED-DE	430DD	Slight to Substantial Increase	Construction impacts (mechanical).	No	Moderate to Substantial Decrease	Pipeline conveyance often requires pumping pressure;	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Low-pressure, Underground, Plastic	CED-DE	430EE	Slight to Substantial Increase	Construction impacts (mechanical).	No	Moderate to Substantial Decrease	Pipeline conveyance often requires pumping pressure;	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Nonreinforced Concrete	CED-DE	430CC	Slight to Substantial Increase	Construction impacts (mechanical).	No	Moderate to Substantial Decrease	Pipeline conveyance often requires pumping pressure;	No	Not Applicable	Not applicable.	No
Irrigation Water Conveyance, Pipeline, Steel	CED-DE	430FF	Slight to Substantial Increase	Construction impacts (mechanical).	No	Moderate to Substantial Decrease	Pipeline conveyance often requires pumping pressure;	No	Not Applicable	Not applicable.	No
Irrigation Water Management	CED-WME & ESD-Agron	449	Not applicable.	Not applicable.	No	Slight to Substantial Decrease	Optimizing water use for irrigation reduces energy needs.	No	Not Applicable	Not applicable.	No
Manure Transfer	CED-EE	634	Slight to Substantial Increase	Construction impacts (mechanical); buried	No	Slight to Substantial Increase	Transporting manure requires energy. The amount required	No	Not Applicable	Not Applicable	No
Mulching	ESD-Agron	484	Not applicable.	Not applicable.	No	Slight to Moderate Decrease	Reduced evaporation, erosion and sedimentation,	No	Not Applicable	Not Applicable	No
Nutrient Management	ESD-NM & CED-EE	590	Not applicable.	Not applicable.	No	No Effect	The energy associated with nitrogen fertilizers	No	Slight to Substantial Decrease	When nitrogen needs of the crop can be supplied by organic	No
Obstruction Removal	CED-AE	500	Slight to Substantial Increase	Adverse effects to historic structures and landscapes.	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Open Channel	CED-DE	582	Slight to Substantial Increase	Construction impacts (mechanical).	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Pasture & Hay Planting	ESD-Graz Land Sp	512	Not applicable.	Not applicable.	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Pest Management	ESD-PM & CED-EE	595	Not applicable.	Not applicable.	No	No Effect	The energy needed for pest control depends on the	No	Not Applicable	Not Applicable	No
Pipeline	CED-DE	516	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight to Moderate Decrease	Piping livestock water eliminates the need for hauling.	No	Not Applicable	Not Applicable	No
Pond	CED-DE	378	Slight to Substantial Increase	Construction impacts (mechanical);	No	Slight Decrease	Collection of rainwater/runoff for conservation	No	Not Applicable	Not Applicable	No
Pond Sealing or Lining, Bentonite Sealant	CED-SE	521C	Not applicable.	Not applicable.	No	Slight Decrease	On freshwater ponds water loss is prevented, saving	No	Not Applicable	Not Applicable	No

Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**	**Slight decrease, lose cropland as ditch is installed.**	**Moderate increase.**		**Substantial.**		**Slight increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**	**Slight short-term decrease in cropland as pipeline is**	**Slight Increase.**		**Substantial.**		**Slight increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**	**Slight short-term decrease in cropland as pipeline is**	**Slight Increase.**		**Substantial.**		**Slight increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**	**Slight short-term decrease in cropland as pipeline is**	**Slight Increase.**		**Substantial.**		**Slight increase.**		**Situational.**
Slight to Substantial	**N/A if no change in crops irrigated, substantial if water**	**Slight decrease**	**Slight short-term decrease in cropland as pipeline is**	**Slight Increase.**		**Substantial.**		**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable**	**Not applicable**	**Slight Increase.**		**Not applicable.**		**Slight increase**	**Slight increase, offset by effective and efficient use of**	**Situational.**
Not applicable.	**Not applicable.**	**Slight decrease**	**Slight short-term decrease, lose cropland as system**	**Substantial increase.**		**Moderate.**		**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Slight Increase.**		**Not applicable.**		**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Slight Increase.**		**Not applicable.**		**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Moderate increase.**		**Substantial.**		**Not applicable.**	**Not applicable.**	**Situational.**
Slight to Substantial	**N/A, if currently farmed, substantial if change from non-use**	**Slight decrease**	**Slight decrease, channel banks taken out of production.**	**Moderate increase.**		**Substantial.**		**Slight to moderate increase.**		**Situational.**
Slight to Substantial	**N/A, if currently grazed, substantial if change from crop,**	**Substantial increase**	**Substantial increase if land brought into production.**	**Slight Increase.**		**Moderate.**		**Not applicable.**	**Not applicable.**	**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Slight Increase.**		**Not applicable.**		**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Slight Decrease**	**Slight short-term decrease**	**Moderate increase.**		**Moderate.**	**Moderate.**	**Slight increase.**		**Situational.**
Substantial	**Substantial, land use changes to water storage.**	**Substantial decrease**	**Substantial decrease, water storage takes land**	**Substantial increase.**		**Substantial.**	**Substantial.**	**Slight to moderate increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Not applicable.**		**Substantial.**	**Substantial.**	**Slight increase.**		**Situational.**

	Moderate increase	Moderate increase to maintain channels and monitor water	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Slight Decrease	Slight decrease due to more efficient distribution of water.	Not applicable.	Not applicable.
	Moderate increase	Moderate increase to maintain channels and monitor water	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Slight Decrease	Slight decrease due to more efficient distribution of water.	Not applicable.	Not applicable.
	Moderate increase	Moderate increase to maintain channels and monitor water	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Slight Decrease	Slight decrease due to more efficient distribution of water.	Not applicable.	Not applicable.
	Moderate increase	Moderate increase to maintain channels and monitor water	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Slight Decrease	Slight decrease due to more efficient distribution of water.	Not applicable.	Not applicable.
	Moderate increase	Moderate increase to maintain channels and monitor water	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to increased irrigation	Slight Decrease	Slight decrease due to more efficient distribution of water.	Not applicable.	Not applicable.
	Slight to moderate increase	Slight to moderate increase to monitor soil moisture and	Slight to moderate increase	Slight to moderate increase from timing practices, require	Slight to Moderate Decrease	Slight to moderate decrease due to effective	Slight to Moderate Decrease	Slight to moderate decrease due to the effective	Substantial Increase	Substantial increase - practice must be implemented in a
	Moderate to substantial decrease.		Slight decrease.		Not applicable.	Not applicable.	Moderate Decrease	Moderate decrease due to increase in manure disposial	Not applicable.	Not applicable.
	Moderate to substantial increase	Moderate to substantial increase during application.	Negligible		Slight Decrease	Slight decrease due to conserved moisture and	Slight Increase	Slight increase due to incorporating practice into the	Substantial Increase	Substantial increase - practice must applied prior to
	Negligible		Slight increase	Slight increase to take soil test, calibrate equipment,	Slight Decrease	Slight decrease due to more effective use of nutrients.	Slight Increase	Slight increase due to closer management of	Substantial Increase	Substantial increase - practice must be applied in an
	Negligible		Slight increase.		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Negligible		Negligible		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Moderate to substantial increase	Moderate to substantial increase in seedbed	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to incresed yields.	Slight Increase	Slight increase due to deferment of affected area until	Substantial Increase	Substantial increase - practice implemented during
	Slight to moderate increase	Slight to moderate increase to scout crops.	Moderate to substantial increase	Moderate to substantial increase for selecting control	Slight to Moderate Decrease	Slight to moderate decrease due to healthier	Slight Increase	Slight increase due to closer management	Substantial Increase	Substantial increase - practice must be applied when
	Slight to moderate decrease.		Slight to moderate decrease.		Not Applicable.	Not Applicable.	Moderate Decrease	Moderate decrease due to enhanced capability of grazing	Not applicable.	Not applicable.
	Slight to moderate increase	Slight to moderate increase depending on use of pond.	Slight to moderate increase	Slight to moderate increase depending on use of pond.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Negligible		Slight increase.		Slight Decrease	Negligible to slight decrease due to reduction of seepage	Substantial Decrease	Substantial decrease due to reduction of seepage losses.	Moderate Increase	Moderate increase - practice should be applied prior to

Substantial Increase	Substantial increase due to construction cost.	Situational	Moderate decrease or increase.	3%	20	$7.00	$0.78
Moderate Increase	Moderate increase due to construction cost.	Situational	Slight to moderate decrease or increase.	0%	25	$10.00	$0.72
Moderate Increase	Moderate increase due to construction cost.	Situational	Slight to moderate decrease or increase.	0%	25	$8.50	$0.61
Moderate Increase	Moderate increase due to construction cost.	Situational	Slight to moderate decrease or increase.	0%	20	$15.00	$1.22
Moderate Increase	Moderate increase due to construction cost.	Situational	Slight to moderate decrease or increase.	0%	25	$25.00	$1.80
Slight to Moderate Decrease	Slight to moderate decrease from higher yields and reduced	Slight to moderate increase.		0%	1	$30.00	$30.00
Slight to Moderate Increase	Slight to moderate increase due to implementation	Slight to moderate decrease.		5%	10	$35,000.00	$6,310.22
Slight Increase	Negligible to slight increase because of application cost.	Situational	Slight decrease to slight increase.	0%	1	$100.00	$100.00
Slight Decrease	Slight decrease due to higher yields and reduced costs.	Situational	Slight decrease or increase.	0%	1	$20.00	$20.00
Slight to Moderate Increase	Slight to moderate increase because of application cost.	Slight to moderate decrease.		5%	10	$5,000.00	$901.46
Substantial Increase	Substantial increase due to construction cost.	Slight to moderate increase.		2%	15	$2.00	$0.23
Slight Increase	Slight increase because of implementation cost.	Slight increase.		1%	10	$90.00	$12.63
Slight Decrease	Slight decrease because of higher yields and reduced	Situational	Slight decrease or increase.	0%	1	$25.00	$25.00
Slight to Moderate Increase	Slight to moderate increase because of implementation cost.	Situational	Slight decrease to moderate increase.	2%	20	$2.50	$0.25
Moderate to Substantial Increase	Moderate to substantial increase due to high	Situational	Moderate decrease to substantial increase.	1%	20	$5,000.00	$455.48
Slight to Moderate Increase	Slight to moderate increase due to application costs.	Situational	Moderate decrease to substantial increase.	3%	15	$8,000.00	$1,017.26

Pond Sealing or Lining, Compacted Clay Treatment	CED-SE	521D									
Pond Sealing or Lining, Flexible Membrane	CED-CE	521A	Not applicable.	Not applicable.	No	Slight Decrease	On freshwater ponds water loss is prevented, saving	No	Not Applicable	Not Applicable	No
Pond Sealing or Lining, Soil Dispersant	CED-SE	521B	Not applicable.	Not applicable.	No	Slight Decrease	On freshwater ponds water loss is prevented, saving	No	Not Applicable	Not Applicable	No
Prescribed Burning	ESD-For	338	Slight to Substantial Increase	Adverse effects to historic structures and landscapes.	No	Slight to Moderate Decrease	This practice reduces energy requirements for fire	No	Slight Increase	Burning removes potential biomass fuel.	No
Prescribed Grazing	ESD-Graz Land Sp	528	Not applicable.	Not applicable.	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Pumping Plant	CED-WME	533	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight to Moderate Increase	Pumping requires substantial energy resources.	No	Slight to Moderate Decrease	Alternative sources of power such as wind, solar and	No
Range Planting	ESD-Graz Land Sp	550	Slight to Substantial Increase	Planting impacts (mechanical) on previously	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Residue and Tillage Management, Mulch Till	ESD-Agron	345	Not applicable.	Not applicable.	No	Moderate Decrease	Reducing soil disturbance reduces fuel requirements of	No	Not Applicable	Not Applicable	No
Residue and Tillage Management, No Till/Strip Till/Direct Seed	ESD-Agron	329	Not applicable.	Not applicable.	No	Substantial Decrease	Minimizing soil disturbance dramatically reduces	No	Not Applicable	Not Applicable	No
Residue and Tillage Management, Ridge Till	ESD-Agron	346	Not applicable.	Not applicable.	No	Slight to Moderate Decrease	Reducing soil disturbance reduces fuel requirements of	No	Not Applicable	Not Applicable	No
Residue Management, Seasonal	ESD-Agron	344	Not applicable.	Not applicable.	No	No Effect	Managing to reduce tillage will reduce depletion of fossil	No	Not Applicable	Not Applicable	No
Restoration and Management of Rare or Declining Habitats	ESD- Wbio	643	Not applicable.	Not applicable.	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Riparian Forest Buffer	ESD-For & CED-LA	391	Slight to Substantial Decrease	Historic properties in agricultural context can be	No	Slight to Moderate Decrease	Establishing forest buffers on cropland removes need for	No	Slight to Moderate Decrease	This practice can potentially provide a source of biomass	Yes
Riparian Herbaceous Cover	ESD-Wbio	390	Slight to Substantial Decrease	Historic properties in agricultural context can be	No	Slight to Moderate Decrease	Establishing forest buffers on cropland removes need for	No	Not Applicable	Not Applicable	No
Row Arrangement	CED-AE	557	Not applicable.	Not applicable.	No	Slight Decrease	The practice increases irrigation efficiency.	No	Not Applicable	Not Applicable	No
Salinity and Sodic Soil Management	CED-WME & ESD-Agron	610	Not applicable.	Not applicable.	No	Slight to Moderate Increase	This practice requires substantial energy expenditures	No	Not Applicable	Not Applicable	No

Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.		Substantial.	Substantial.	Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.		Substantial.	Substantial.	Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.		Substantial.	Substantial.	Slight increase.		Situational.
Not applicable.	Not applicable.	Moderate increase	Moderate increase, more land is reclaimed for	Slight Increase.		Slight.	Slight.	Negligible		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Slight Increase.		Not applicable.	Not applicable.	Negligible		Situational.
Slight.		Moderate to substantial increase.		Substantial increase.		Not applicable.	Not applicable.	Slight to moderate increase.		Situational.
Slight to Substantial	N/A, if currently grazed, substantial if change from crop,	Substantial increase	Substantial increase if land is brought into production.	Slight Increase.		Moderate.	Moderate.	Not applicable.	Not applicable.	Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Slight Increase.		Not applicable.	Not applicable.	Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Moderate increase.		Not applicable.	Not applicable.	Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Slight Increase.		Not applicable.	Not applicable.	Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Slight Increase.		Not applicable.	Not applicable.	Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Moderate increase.		Slight.	Slight.	Negligible		Situational.
Slight to substantial.		Slight to substantial.		Slight Increase.		Substantial.	Substantial.	Slight increase.		Situational.
Slight to substantial.		Slight to substantial.		Slight Increase.		Substantial.	Substantial.	Slight increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Negligible		Not applicable.	Not applicable.	Negligible		Situational.
Slight to substantial.		Slight to substantial.		Slight Increase.		Not applicable.	Not applicable.	Negligible		Situational.

	Negligible		Slight increase.		Slight Decrease	Negligible to slight decrease due to reduction of seepage	Substantial Decrease	Substantial decrease due to reduction of seepage losses.	Moderate Increase	Moderate increase - practice should be applied prior to
	Negligible		Slight increase.		Slight Decrease	Negligible to slight decrease due to reduction of seepage	Substantial Decrease	Substantial decrease due to reduction of seepage losses.	Moderate Increase	Moderate increase - practice should be applied prior to
	Negligible		Slight increase.		Slight Decrease	Negligible to slight decrease due to reduction of seepage	Substantial Decrease	Substantial decrease due to reduction of seepage losses.	Moderate Increase	Moderate increase - practice should be applied prior to
	Slight to moderate increase	Slight to moderate increase depending on period of burning.	Slight increase	Slight increase determining safe time and	Slight Decrease	Slight decrease due to improved forage production quality	Moderate Increase	Moderate increase due to preparation of area prior to burn.	Substantial Increase	Substantial increase - practice must be applied according to
	Slight to moderate increase	Slight to moderate increase to move livestock between	Slight increase	Slight increase to determine when to move livestock and	Slight to Moderate Decrease	Slight to moderate decrease from improved health,	Slight to Moderate Increase	Slight to moderate increase because of increased	Substantial Increase	Substantial increase - practice must be applied according to
	Moderate increase.		Moderate increase.		Not applicable.	Not applicable.	Slight to Moderate Decrease	Slight to moderate decrease in risk due to proper water	Not applicable.	Not applicable.
	Slight increase.		Slight increase.		Not applicable.	Not applicable.	Slight Increase	Slight increase due to deferment of affected area until	Substantial Increase	Substantial increase - practice must be implemented during
	Slight to moderate decrease	Slight to moderate decrease with fewer tillage operations.	Slight increase.		Moderate Decrease	Slight increase in short term, long-term moderate decrease.	Slight to Moderate Increase	Slight to moderate increase because of adoption of new	Slight to Moderate Decrease	Slight to moderate decrease - longer field season.
	Slight to moderate decrease	Slight to moderate decrease with fewer tillage operations.	Slight to moderate increase	Slight to moderate increase to control weeds and other	Moderate Decrease	Slight increase in short term, long-term moderate decrease.	Slight to Moderate Increase	Slight to moderate increase because of adoption of new	Slight to Moderate Decrease	Slight to moderate decrease - longer field season.
	Slight to moderate decrease	Slight to moderate decrease with fewer tillage operations.	Slight increase.		Moderate Decrease	Slight increase in short term, long-term moderate decrease.	Slight to Moderate Increase	Slight to moderate increase because of adoption of new	Slight to Moderate Decrease	Slight to moderate decrease - longer field season.
	Slight increase.		Slight increase.		Moderate Decrease	Slight increase in short term, long-term moderate decrease.	Slight to Moderate Increase	Slight to moderate increase because of adoption of new	Slight to Moderate Decrease	Slight to moderate decrease - longer field season.
	Negligible to substantial increase	Negligible to substantial increase depending if habitat	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to improved habitat.	Slight to Moderate Increase	Substantial to moderate increase in habitat capabilities.	Not applicable.	Not applicable.
	Slight to moderate decrease	Slight to moderate decrease with land taken out of	Slight increase.		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Slight to moderate decrease	Slight to moderate decrease with land taken out of	Slight increase.		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Slight to moderate increase.		Slight increase.		Slight Decrease	Slight decrease due to adequate drainage and erosion control.	Slight Increase	Slight increase due to following designed row	Negligible	
	Slight to moderate.		Slight to moderate increase.		Slight to Moderate Decrease	Slight to moderate decrease increase due to reduced salt	Slight Increase	Slight increase based on methods used to reduce	Moderate to Substantial Increase	Moderate to substantial increase, depending on level

Slight to Moderate Increase	Slight to moderate increase due to application costs.	Situational	Moderate decrease to substantial increase.	3%	15	$5,000.00	$635.79
Slight to Moderate Increase	Slight to moderate increase due to application costs.	Situational	Moderate decrease to substantial increase.	3%	20	$8,000.00	$888.76
Slight to Moderate Increase	Slight to moderate increase due to application costs.	Situational	Moderate decrease to substantial increase.	5%	20	$5,000.00	$655.48
Slight Decrease	Slight decrease due to higher yield.	Slight to moderate increase.		1%	5	$25.00	$6.04
Slight to Moderate Decrease	Slight to moderate decrease due to higher yields and	Slight to moderate increase.		0%	5	$7.00	$1.62
Slight to Moderate Increase	Slight to moderate increase because of implementation	Slight to moderate decrease.		2%	15	$6,500.00	$761.53
Slight Increase	Slight increase because of implementation	Slight increase.		1%	10	$90.00	$12.63
Slight Decrease	Slight decrease due to reduced costs.	Situational	Slight decrease or increase.	0%	1	$20.00	$20.00
Slight Decrease	Slight decrease due to reduced costs.	Situational	Slight decrease or increase.	0%	1	$20.00	$20.00
Slight Decrease	Slight decrease due to reduced costs.	Situational	Slight decrease or increase.	0%	1	$20.00	$20.00
Slight Decrease	Slight decrease due to reduced costs.	Situational	Slight decrease or increase.	0%	1	$5.00	$5.00
Slight Increase	Negligible increase because of implementation	Slight to substantial decrease.		1%	15	$1,000.00	$107.16
Slight to Moderate Increase	Slight to moderate increase due to establishment cost.	Situational	Slight increase to substantial decrease.	1%	15	$4,000.00	$428.63
Slight to Moderate Increase	Slight to moderate increase due to establishment cost.	Situational	Slight increase to moderate decrease.	1%	10	$250.00	$35.07
Slight Increase	Slight increase due to high fuel and labor requirements.	Situational	Slight decrease to slight increase.	0%	5	$0.25	$0.06
Slight Increase	Slight increase due to establishment costs.	Situational	Moderate decrease to slight increase.	0%	1	$15.00	$15.00

Sediment Basin	CED-AE	350	Slight to Substantial Increase	Construction impacts (mechanical).	No	Moderate to Substantial Increase	This practice requires energy intensive operation	No	Not Applicable	Not Applicable	No
Spring Development	CED-AE	574	Slight to Substantial Increase	Construction impacts.	No	Slight to Moderate Decrease	Energy associated with pumping is saved when this	No	Not Applicable	Not Applicable	No
Stream Habitat Improvement and Management	ESD-AqEco	395	Slight to Substantial Increase	Construction impacts (mechanical).	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Streambank and Shoreline Protection	CED-DE	580	Slight to Substantial Increase	Construction impacts (mechanical).	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Stripcropping	ESD-Agron	585	Not applicable.	Not applicable.	No	No Effect	Fuel use may be increased by implementation of	No	Not Applicable	Not Applicable	No
Structure for Water Control	CED-DE	587	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight to Moderate Decrease	This practice may reduce the need for pumping.	No	Not Applicable	Not Applicable	No
Surface Roughening	ESD-Agron	609	Not applicable.	Not applicable.	No	Substantial Increase	Use of this practice indicates a need for additional long term	No	Not Applicable	Not Applicable	No
Terrace	CED-AE	600	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight Increase	The practice reduces sedimentation off-site but periodic	No	Not Applicable	Not Applicable	No
Tree/Shrub Establishment	ESD-For & CED-LA	612	Slight to Substantial Increase	Construction impacts (mechanical)	No	Not Applicable	Not Applicable	No	Slight to Substantial Decrease	Practice can establish trees for biomass energy.	Yes
Tree/Shrub Pruning	ESD-For	660	Not applicable.	Not applicable.	No	Slight Increase	Pruning requires energy.	No	Slight to Moderate Decrease	The practice provides immediate biomass for energy	No
Underground Outlet	CED-AE	620	Slight to Substantial Increase	Construction impacts (mechanical).	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Upland Wildlife Habitat Management	ESD-Wbio	645	Not applicable.	Not applicable.	No	Slight Increase	Maintenance of this practice requires energy.	No	Not Applicable	Not Applicable	No
Use Exclusion	ESD-For	472	Slight to Substantial Decrease	Appropriate when used to avoid effects on historic	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Waste Facility Cover	CED-EE	367	Not applicable.	Not applicable.	No	Not Applicable	Not Applicable	No	Slight to Substantial Decrease	Practice facilitates methane collection for renewable fuel	Yes
Waste Storage Facility	CED-EE	313	Slight to Substantial Increase	Construction impacts (mechanical);	No	No Effect	Regular maintenance of this practice requires pumping. If	No	Not Applicable	Not Applicable	No
Waste Treatment Lagoon	CED-EE	359	Slight to Substantial Increase	Construction impacts (mechanical);	No	No Effect	Regular maintenance of this practice requires pumping;	No	Slight to Moderate Increase	Potential methane production is not utilized.	No

Substantial	**Substantial, convert to water & sediment storage.**	**Substantial decrease**	**Substantial decrease, land converted to water &**	**Substantial increase.**		**Substantial.**	**Substantial.**	**Moderate increase.**		**Situational.**
Slight to Substantial	**N/A, if currently grazed or wildlife, substantial if change**	**Substantial increase**	**Substantial increase if land is brought into production.**	**Moderate increase.**		**Substantial.**	**Substantial.**	**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Moderate increase.**		**Moderate.**	**Moderate.**	**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Slight decrease**	**Slight decrease, channel banks out of crop production.**	**Moderate increase.**		**Substantial.**	**Substantial.**	**Slight to moderate increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Slight decrease**	**N/A, or slight decrease, corners and end rows taken**	**Negligible**		**Not applicable.**	**Not applicable.**	**Negligible to slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Slight decrease**	**Slight decrease, structure built on cropland.**	**Moderate increase.**		**Substantial.**	**Substantial.**	**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Slight Increase.**		**Not applicable.**	**Not applicable.**	**Negligible to slight increase.**		**Situational.**
Slight	**Slight, convert to terrace and water/sediment**	**Moderate decrease**	**Moderate decrease, lose cropland as terrace is installed.**	**Moderate increase.**		**Substantial.**	**Substantial.**	**Slight to moderate increase.**		**Situational.**
Substantial	**Substantial, if converting to woodland.**	**Substantial decrease.**		**Slight Increase.**		**Substantial.**	**Substantial.**	**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Negligible**		**Moderate.**	**Moderate.**	**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Substantial increase**	**Substantial increase, if land brought into production.**	**Moderate increase.**		**Substantial.**	**Substantial.**	**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Slight Increase.**		**Slight.**	**Slight.**	**Negligible**		**Situational.**
Substantial.		**Substantial decrease.**		**Slight Increase.**		**Not applicable.**	**Not applicable.**	**Slight increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Not applicable.**	**Not applicable.**	**Moderate to substantial increase.**		**Substantial.**	**Substantial.**	**Slight to moderate.**		**Situational.**
Not applicable.	**Not applicable.**	**Slight decrease**	**Slight decrease, structure built on cropland.**	**Substantial increase.**		**Substantial.**	**Substantial.**	**Moderate increase.**		**Situational.**
Not applicable.	**Not applicable.**	**Slight decrease**	**Slight decrease, structure build on cropland.**	**Substantial increase.**		**Substantial.**	**Substantial.**	**Moderate increase.**		**Situational.**

	Negligible		Negligible		Not applicable.	Not applicable.	Substantial Decrease	Substantial decrease in risk due to maintained capacity	Not applicable.	Not applicable.
	Slight to moderate increase.		Slight to moderate increase.		Not applicable.	Not applicable.	Slight Decrease	Slight decrease in risk due to dependable water	Not applicable.	Not applicable.
	Slight to substantial increase	Slight to substantial increase during installation.	Slight to moderate increase.		Slight Decrease	Slight decrease due to favorable habitat.	Slight Decrease	Slight decrease due to favorable habitat.	Not applicable.	Not applicable.
	Substantial increase		Negligible		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Slight increase	Slight increase where short rows exist, when moving	Slight to moderate increase	Slight to moderate increase to manage new mix of	Slight Decrease	Slight decrease due to reduction of water erosion.	Slight to Moderate Increase	Slight to moderate increase due to following designed	Negligible	
	Slight to moderate decrease.		Slight increase.		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Substantial Increase	Substantial increase - control the stage, discharge, delivery
	Moderate increase	Moderate increase to perform tillage/roughening	Negligible		Not applicable.	Not applicable.	Slight Increase	Slight increase due to incorporating practice into	Substantial Increase	Substantial increase - applied during periods of high
	Slight to moderate increase	Slight to moderate increase to maintain terraces annually.	Negligible		Situational.		Slight Increase	Slight increase due to following designed row	Slight to Moderate Increase	Slight to moderate increase, depending on the presence and
	Moderate to substantial increase	Moderate to substantial increase during planting,	Negligible		Not Applicable.	Not Applicable.	Not applicable.	Not applicable.	Substantial Increase	Substantial increase - species should be suitable for the
	Moderate increase.		Slight increase.		Slight Decrease	Slight decrease due to improved growing conditions.	Not applicable.	Not applicable.	Substantial Increase	Substantial increase - consider effects on the nesting and
	Slight increase	Slight increase to maintain risers.	Negligible		Slight Decrease	Negligible to slight decrease due to improved drainage.	Slight to Moderate Increase	Slight to moderate increase depending on design criteria.	Moderate Increase	Moderate increase, based on degree of excess surface
	Slight to Moderate Increase	Slight to moderate depending on size, species and intensity	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to improved habitat.	Slight to Moderate Increase	Substantial to moderate increase in habitat capabilities.	Not applicable.	Not applicable.
	Slight to moderate decrease	Slight to moderate decrease with land taken out of	Slight increase.		Moderate Increase	Moderate increase due to unavailability of deferred area.	Moderate Increase	Moderate increase due to incorporating deferred area into	Substantial Increase	Substantial increase - forage must be available for
	Negligible to slight.		Slight to moderate increase.		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Slight to substantial increase	Slight to substantial increase depending on type of storage	Moderate to substantial increase	Moderate to substantial increase for timing and	Not applicable.	Not applicable.	Moderate to Substantial Increase	Moderate to substantial increase because of design	Substantial Increase	Substantial increase, depending on state and/or federal laws.
	Slight to moderate increase	Slight to moderate increase due to bi-annual pumpouts.	Moderate to substantial increase	Moderate to substantial increase for timing and	Not applicable.	Not applicable.	Moderate to Substantial Increase	Moderate to substantial increase because of design	Substantial Increase	Substantial increase, depending on state and/or federal laws.

Moderate to Substantial Increase	Moderate to substantial increase to construction	Situational	Moderate decrease to slight increase.	3%	20	$3,500.00	$388.83
Moderate Increase	Moderate increase due to construction costs.	Slight to moderate increase.		0%	10	$3,000.00	$390.88
Slight Increase	Slight increase due to installation costs.	Situational	Slight decrease to moderate increase.	2%	10	$4,500.00	$676.31
Moderate Increase	Moderate increase due to construction or establishment	Moderate decrease.		10%	20	$30.00	$5.43
Slight Increase	Slight increase due to higher fuel and labor requirements.	Slight decrease.		1%	5	$10.00	$2.42
Moderate to Substantial Increase	Moderate to substantial increase due to construction	Situational	Sight decrease to moderate increase.	1%	20	$10,000.00	$910.95
Slight Increase	Negligible to slight increase due to fuel and labor	Slight decrease.		3%	1	$15.00	$15.45
Moderate Increase	Moderate increase due to construction costs.	Situational	Slight decrease to slight increase.	0%	10	$1.25	$0.16
Slight to Moderate Increase	Slight to moderate increase because of establishment costs.	Slight decrease.		0%	15	$600.00	$58.29
Slight Increase	Slight increase due to implementation cost.	Slight decrease.		1%	10	$200.00	$28.06
Moderate Increase	Moderate increase due to construction cost.	Situational	Slight decrease to moderate increase.	3%	20	$6.00	$0.67
Slight Increase	Negligible increase because of implementation	Slight decrease.		0%	1	$10.00	$10.00
Slight to Moderate Increase	Slight to moderate increase due to loss of grazing.	Slight to moderate decrease.		3%	10	$12.00	$1.92
Moderate Decrease	Situational. Negligible to moderate decrease	Moderate Increase	Situational. Negligible to moderate increase in	1%	25	$2,000.00	$163.69
Substantial Increase	Substantial increase due to implementation	Slight to moderate decrease.		2%	15	$150,000.00	$17,573.70
Substantial Increase	Substantial increase due to implementation	Slight to moderate decrease.		2%	15	$75,000.00	$8,786.85

Waste Utilization	ESD-NM & CED-EE	633	Slight to Substantial Increase	If buried pipelines are utilized.	No	Not Applicable	Not Applicable	No	Slight to Substantial Decrease	This practice provides the mechanism for	Yes
Wastewater Treatment Strip	CED-EE	635	Slight to Substantial Increase	Initial plantings; changes in setting can have adverse	No	Slight Increase	Maintenance of this practice requires regular cleanout.				
Water and Sediment Control Basin	CED-AE	638	Slight to Substantial Increase	Construction impacts (mechanical).	No	No Effect	This practice requires energy for maintenance,	No	Not Applicable	Not Applicable	No
Water Harvesting Catchment	CED-WME	636	Slight to Substantial Increase	Construction impacts (mechanical).	No	Slight Decrease	The need for pumping is reduced by this practice.				
Water Well	CED-EG	642	Slight to Substantial Increase	Construction impacts (mechanical).	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Watering Facility	CED-AE	614	Slight to Substantial Increase	Construction impacts (mechanical).	No	No Effect	Pumping requires energy; however, many facilities do not	No	Slight to Substantial Decrease	Facilities can use wind or solar powered pumps or	
Waterspreading	CED-WME	640	Slight to Substantial Increase	Construction impacts (mechanical).	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Well Decommissioning	CED-EG	351	Not applicable.	Not applicable.	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Wetland Creation	ESD-WBio & CED-WME	658	Slight to Substantial Increase	Construction impacts (mechanical).	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Wetland Enhancement	ESD-WBio & CED-WME	659	Slight to Substantial Increase	Construction impacts (mechanical).	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Wetland Restoration	ESD-WBio & CED-WME	657	Slight to Substantial Increase	Construction impacts (mechanical).	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Wetland Wildlife Habitat Management	ESD-WBio	644	Not applicable.	Not applicable.	No	Not Applicable	Not Applicable	No	Not Applicable	Not Applicable	No
Windbreak/Shelterbelt Establishment	ESD-For	380	Slight to Substantial Increase	Consider impacts to historic landscapes.	No	Slight Decrease	Practice will improve water use efficiency and reduce plant	No	Not Applicable	Not Applicable	No
Windbreak/Shelterbelt Renovation	ESD-For	650	Slight to Substantial Increase	Consider impacts to historic landscapes.	No	Slight Decrease	Practice will improve water use efficiency and reduce plant	Yes	Not Applicable	Not Applicable	No

Not applicable.	Not applicable.	Not applicable.	Not applicable.	Moderate increase.		Substantial.	Substantial.	Moderate increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Slight Increase.		Substantial.	Substantial.	Slight increase.		Situational.
Substantial	Substantial, convert to water and sediment storage.	Substantial decrease	Substantial decrease, change cropland to water &	Substantial increase.		Substantial.	Substantial.	Slight to moderate increase.		Situational.
Slight to substantial		Slight to substantial.		Moderate increase.		Not applicable.	Not applicable.	Slight increase	Slight increase, offset by improvements in	Situational.
Slight to Substantial	Substantial for irrigation, N/A for animal watering	Substantial Increase	Substantial for irrigation, N/A for animal watering	Substantial increase.		Substantial.	Substantial.	Slight to moderate increase.		Situational.
Not applicable.	Not applicable.	Moderate Increase	Moderate if livestock can access additional land.	Slight Increase.		Moderate.	Moderate.	Slight increase.		Situational.
Negligible to slight.		Slight Increase	Negligible to slight increase.	Slight Increase.		Substantial.	Substantial.	Slight increase.		Situational.
Not applicable.	Not applicable.	Substantial decrease	Substantial decrease, if land taken out of	Slight Increase.		Slight to moderate.	Slight to moderate.	Slight to moderate decrease.		Situational.
Substantial	Substantial, convert to wetland.	Substantial decrease	Substantial decrease, convert from cropland to	Moderate increase.		Substantial.	Substantial.	Slight to moderate increase.		Situational.
Substantial	Substantial, convert to wetland.	Substantial decrease	Substantial decrease, convert from cropland to	Moderate increase.		Substantial.	Substantial.	Slight to moderate increase.		Situational.
Substantial	Substantial, convert to wetland.	Substantial decrease	Substantial decrease, convert from cropland to	Moderate increase.		Substantial.	Substantial.	Slight to moderate increase.		Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Slight Increase.		Slight.	Slight.	Negligible		Situational.
Substantial	Substantial, cropland converted to woodland.	Substantial decrease	Substantial decrease, cropland taken out of	Slight Increase.		Substantial.	Substantial.	Not applicable.	Not applicable	Situational.
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Slight Increase.		Moderate.	Moderate.	Slight increase.		Situational.

	Slight to substantial increase	Slight to substantial increase depending on type of waste and	Moderate to substantial increase	Moderate to substantial increase for timing and	Slight Decrease	Negligible to slight decrease due to proper utilization of	Moderate Increase	Moderate increase because of runoff and pollution	Substantial Increase	Substantial increase - only apply when plant resources can
	Slight increase.		Slight increase.		Not applicable.	Not applicable.	Slight Increase	Slight increase due to design criteria.	Not applicable.	Not applicable.
	Negligible		Negligible		Not applicable.	Not applicable.	Slight Decrease	Slight decrease due to improved farmability of sloping	Not applicable.	Not applicable.
	Slight to moderate increase.		Slight increase.		Slight Decrease	Slight decrease due to improved drainage.	Slight Decrease	Slight decrease due to more conductive growing conditions.	Not applicable.	Not applicable.
	Negligible to moderate increase.		Negligible		Not applicable.	Not applicable.	Substantial Decrease	Substantial decrease due to provision of water.	Not applicable.	Not applicable.
	Slight increase.		Slight to moderate increase.		Not applicable.	Not applicable.	Slight Decrease	Slight decrease due to opportunity for improved grazing	Not applicable.	Not applicable.
	Slight to moderate increase.		Slight increase.		Slight to Moderate Decrease	Slight to moderate decrease due to water distribution.	Moderate Increase	Moderate increase due to design criteria.	Not applicable.	Not applicable.
	Slight to substantial decrease.		Negligible		Situational	Negligible to substantial.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Slight to moderate decrease	Slight to moderate decrease with land taken out of	Slight increase.		Slight Decrease	Slight decrease due to a more conducive habitat.	Slight to Moderate Increase	Substantial increase in habitat capabilities.	Not applicable.	Not applicable.
	Slight to moderate decrease	Slight to moderate decrease with land taken out of	Slight increase.		Slight Decrease	Slight decrease due to a more conducive habitat.	Slight to Moderate Increase	Substantial increase in habitat capabilities.	Not applicable.	Not applicable.
	Slight to moderate decrease	Slight to moderate decrease with land taken out of	Slight increase.		Slight Decrease	Slight decrease due to a more conducive habitat.	Slight to Moderate Increase	Substantial increase in habitat capabilities.	Not applicable.	Not applicable.
	Negligible to substantial increase	Negligible to substantial increase depending if water	Negligible		Slight to Moderate Decrease	Slight to moderate decrease due to improved habitat.	Slight to Moderate Increase	Substantial to moderate increase in habitat capabilities.	Not applicable.	Not applicable.
	Negligible		Negligible		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Substantial Increase	Substantial increase - species should be suitable for the
	Negligible		Negligible		Not applicable.	Not applicable.	Not applicable.	Not applicable.	Substantial Increase	Substantial increase - species should be suitable for planned

Slight Increase	Slight increase due to application costs.	Slight to moderate decrease.		1%	1	$12.00	$12.12
Slight Increase	Slight increase due to construction costs.	Situational	Slight increase or decrease.	3%	15	$400.00	$50.86
Slight to Moderate Increase	Slight to moderate increase due to construction costs.	Situational	Moderate decrease to slight increase.	3%	10	$2,500.00	$400.73
Moderate to Substantial Increase	Moderate to substantial increase due to construction	Situational	Slight decrease to moderate increase.	0%	10	$3,500.00	$456.02
Substantial Increase	Substantial increase due to implementation	Situational	Slight decrease to substantial increase.	1%	20	$7,500.00	$683.21
Slight Increase	Slight increase due to implementation cost.	Slight increase.		1%	10	$1,250.00	$175.36
Slight to Moderate Increase	Slight to moderate increase because of construction costs.	Situational	Slight increase or decrease.	3%	15	$25.00	$3.18
Not applicable.	Not applicable.	Moderate to substantial decrease.		0%	20	$500.00	$40.55
Slight Increase	Slight increase due to installation costs.	Situational	Moderate decrease to slight increase.	1%	15	$1,000.00	$107.16
Slight Increase	Slight increase due to installation costs.	Situational	Moderate decrease to slight increase.	1%	15	$400.00	$42.86
Slight Increase	Slight increase due to installation costs.	Situational	Moderate decrease to slight increase.	1%	15	$750.00	$80.37
Slight Increase	Negligible increase because of implementation	Situational	Slight increase or decrease.	1%	1	$10.00	$10.10
Slight to Moderate Increase	Slight to moderate increase due to establishment costs.	Situational	Slight decrease to moderate increase.	1%	15	$1.00	$0.11
Slight to Moderate Increase	Slight to moderate increase due to implementation	Situational	Slight decrease to moderate increase.	3%	15	$0.25	$0.03

Cultural Resources and/or Historic Properties Present or Suspected to be Present (Effect)	The degree to which implementation of the conservation practice is expected to increase or decrease the risk of cultural resource disturbance, degradation, or loss.
Depletion of Fossil Fuel Resources (Effect)	Inefficient use of fossil-originated energy sources (diesel, gasoline, propane, natural gas, coal), lubricants, and other materials.
Underutilization of Non-Fossil Energy Sources (Effect)	Available and cost-effective alternative energy sources (solar, wind, biofuel, hydroelectric, geothermal) are not being used or are being used inefficiently.
Land - Change in Land Use	The degree to which implementing the conservation practice is expected to cause a change from one land use to another.
Land - Land in Production	The degree to which implementing the conservation practice is expected to cause an increase or decrease in the amount of land in production.
Capital - Change in Equipment	The degree to which implementing the conservation practice is expected to cause an increase or decrease in the amount of capital equipment required for farm or ranch operations.
Capital - Total Investment Cost	A qualitative measure of the increase in total investment dollars required in order to implement the conservation practice.
Capital - Annual Cost	A qualitative measure of the expected change in annual capital costs required in order to operate and maintain the conservation practice.
Capital - Credit & Farm Program Eligibility	Included to make conservation planners aware of the potential availability of funding for implementing conservation practices.
Labor - Labor	The degree to which implementing the conservation practice is likely to cause an increase or decrease in the total amount of overall farm or ranch labor required for operations.
Labor - Change in Management Level	The degree to which implementing the conservation practice is likely to cause an increase or decrease in the total amount of required active management on a farm or ranch.
Risk - Yield	The degree to which risk, as related to crop or livestock yields, is expected to increase or decrease as a result of implementing the conservation practice.
Risk - Flexibility	The degree to which risk, as related to the flexibility of farm or ranch operations, is expected to increase or decrease as a result of implementing the conservation practice. For example, converting from flood irrigation to a sprinkler system gives a farmer an increase in flexibility of irrigation, which results in a decrease in the level of risk associated with inflexibility of operations.
Risk - Timing	The degree to which risk, as related to the timing of farm or ranch operations, is expected to increase or decrease as a result of implementing the conservation practice.
Risk - Cash Flow	The degree to which risk, as related to cash flow in farm or ranch operations, is expected to increase or decrease as a result of implementing the conservation practice.
Profitability - Change in Profitability	The degree to which farm or ranch profitability is expected to increase or decrease as a result of implementing the conservation practice.
Operations & Maintenance Factor	The percentage of initial installation cost that a producer is expected to need to spend on an annual basis in order to perform the operations and maintenance (O&M) necessary to meeting the requirements of NRCS practice standards. To calculate expected annual O&M costs, multiply the installation cost by the O&M factor.
Practice Life	The period of time, measured in years, during which the conservation practice must remain fully functional--through design, construction, implementation, and/or O&M--in order to meet the requirements of NRCS practice standards.
Estimated Average Installation Cost (2005 Estimates)	An estimate, based on national data, of the average total cost of installing a typical or representative case of the conservation practice. This figure includes only "cost-shareable" expenses and is intended to give conservation planners a rough or "ballpark" idea as to the relative costs of implementing different conservation practices. It is not intended for use as the basis for calculating actual cost estimates for specific conservation systems or practices on individual land units.
Estimated Average Annual Cost	Calculated by amortizing the estimated average annual installation cost over the practice standard life of the practice and then adding expected annual O&M costs in order to estimate the average annual cost of implementing the practice.

TERM	DESCRIPTION
Practice Setting	*A description of the practice as typically used and its representative setting. Applicable land use(s) and other specific information may be listed to further define the situation being rated for "effects."*
Baseline Setting	*A description of the conditions that exist in the planning situation on which the effects of practice application are based.*
Effect:	*The magnitude of the practice's effect on the resource concern assuming the practice is fully functional. WORSENING indicates the concern becomes greater and IMPROVEMENT denotes the concern diminishes. The term SLIGHT signifies a noticeable but limited increase or decrease in the resource concern commensurate with the potential influence at the site level (e.g., generally no more than a 10 percent change in measurable quantities achievable at the site level). The term SUBSTANTIAL denotes that the practice clearly and markedly increases or decreases the resource concern (e.g., usually more than a 50 percent change at the site level). The term MODERATE describes a condition more than SLIGHT and less than SUBSTANTIAL. A rating of NEUTRAL indicates that the fully-functioning practice normally causes no change, a negligible change, or a "net" no effect in the resource concern. NOT APPLICABLE means the practice normally has no relation to the resource concern.*
Rationale	*Explanation of how the practice produces the effect*
Purpose	*YES indicates the concern is stated or encompassed in the practice standard's purpose section.*

	A	B	C
1	***Resource Concern***	***Description of Concern***	***National Quality Criteria***
2	**Soil Erosion - Sheet and Rill**	Detachment and transport of soil particles caused by rainfall splash and runoff degrade soil quality.	Sheet and rill erosion does not exceed the Soil Loss Tolerance “T”.
3	**Soil Erosion - Wind**	Detachment and transport of soil particles caused by wind degrade soil quality and/or damage plants.	Wind erosion does not exceed the Soil Loss Tolerance “T” or, for plant damage, does not exceed Crop Damage Tolerances.
4	**Soil Erosion - Ephemeral Gully**	Small channels caused by surface water runoff degrade soil quality and tend to increase in size. On cropland, they can be obscured by heavy tillage.	Surface water runoff is controlled sufficiently to stabilize the small channels and prevent reoccurrence of new channels.
5	**Soil Erosion - Classic Gully**	Deep, permanent channels caused by the convergence of surface runoff degrade soil quality. They enlarge progressively by headcutting and lateral widening.	Surface water runoff is controlled sufficiently to stop progression of headcutting and widening.
6	**Soil Erosion - Streambank**	Accelerated loss of streambank soils restricts land and water use and management.	Accelerated streambank soil loss does not exceed a level commensurate with upstream land use and normal geomorphological processes on site.
7	**Soil Erosion - Shoreline**	Soil is eroded along shorelines by wind and wave action, causing physical damage to vegetation, limiting land use, or creating a safety hazard.	Shoreline erosion is stabilized to a level that does not restrict the use or management of adjacent land, water or structures.
8	**Soil Erosion – Irrigation-induced**	Improper irrigation water application and equipment operation are causing soil erosion that degrades soil quality.	Irrigation-induced erosion does not exceed the Soil Loss Tolerance “T”.
9	**Soil Erosion - Mass Movement**	Soil slippage, landslides, or slope failure, normally on hillsides, result in large volumes of soil movement	Shallow slumps, slides, or slips are prevented or minimized so that the mass movement of soil material does not exceed naturally occurring rates.
10	**Soil Erosion – Road, road sides and Construction Sites**	Soil loss occurs on areas left unprotected during or after road building and/or construction activities.	Sites are adequately protected from soil loss during and after road building and construction activities.
11	**Soil Condition - Organic Matter Depletion**	Soil organic matter has or will diminish to a level that degrades soil quality.	Soil Conditioning Index is positive.
12	**Soil Condition - Rangeland Site Stability**	The capacity to limit redistribution and loss of soil resources (including nutrients and organic matter) by wind and water.	Indicators of Rangeland Health Attribute rating for Soil/Site Stability show Slight to Moderate or less departure from Ecological Reference Sheet (ESD).
13	**Soil Condition - Compaction**	Compressed soil particles and aggregates caused by mechanical compaction adversely affect plant-soil-moisture relationships.	Mechanically compacted soils are renovated sufficiently to restore plant root growth and/or water movement.
14	**Soil Condition - Subsidence**	Loss of volume and depth of organic soils due to oxidation caused by above normal microbial activity resulting from excessive drainage or extended drought.	The timing and regime of soil moisture is managed to attain acceptable subsidence rates.
15	**Soil Condition - Contaminants - Salts and Other Chemicals**	Inorganic chemical elements and compounds such as salts, selenium, boron, and heavy metals restrict the desired use of the soil or exceed the soil buffering capacity	Salinity levels cause less than a 10% decrease in plant yield. Other contaminants do not exceed plant tolerances or are below toxic levels for plants or animals.
16	**Soil Condition – Contaminants: Animal Waste and Other Organics – N**	Nitrogen nutrient levels from applied animal waste and other organics restrict desired use of the land.	Nitrogen nutrient application levels do not exceed soil storage/plant uptake capacities based on soil test recommendations and risk analysis results.
17	**Soil Condition – Contaminants: Animal Waste and Other Organics – P**	Phosphorus nutrient levels from applied animal waste and other organics restrict desired use of the land.	Phosphorus nutrient application levels do not exceed soil storage/plant uptake capacities based on soil test recommendations and risk analysis results.

	A	B	C
1	***Resource Concern***	***Description of Concern***	***National Quality Criteria***
18	**Soil Condition – Contaminants: Animal Waste and Other Organics – K**	Potassium nutrient levels from applied animal waste and other organics restrict desired use of the land.	Potassium nutrient application levels do not exceed soil storage/plant uptake capacities based on soil test recommendations and risk analysis results.
19	**Soil Condition – Contaminants: Commercial Fertilizer – N**	Over application of nitrogen degrades plant health and vigor or exceeds the soil capacity to retain nutrients.	Soil nutrient levels of nitrogen do not exceed crop needs based on realistic yield goals, and appropriate pH levels are maintained.
20	**Soil Condition – Contaminants: Commercial Fertilizer – P**	Over application of phosphorus degrades plant health and vigor or exceeds the soil capacity to retain nutrients.	Soil nutrient levels of phosphorus do not exceed crop needs based on realistic yield goals, and appropriate pH levels are maintained.
21	**Soil Condition – Contaminants: Commercial Fertilizer – K**	Over application of potassium degrades plant health and vigor or exceeds the soil capacity to retain nutrients.	Soil nutrient levels of potassium do not exceed crop needs based on realistic yield goals, and appropriate pH levels are maintained.
22	**Soil Condition -Contaminants - Residual Pesticides**	Residual pesticides in the soil have an adverse effect on non-target plants and animals.	Pesticides are applied, stored, handled, and disposed of so that residues in the soil do not adversely affect non-target plants and animals.
23	**Soil Condition - Damage from Sediment Deposition**	Sediment deposition damages or restricts land use/management or adversely affects ecological processes.	Sediment deposition is sufficiently reduced to maintain desired land use/management and ecological processes.
24	**Water Quantity - Rangeland Hydrologic Cycle**	The capacity to capture, store, and safely release water from rainfall, run-on, and snowmelt (where relevant).	Indicators of Rangeland Health Attribute rating for Hydrologic Cycle are Slight to Moderate or less departure from Ecological Reference Sheet (ESD).
25	**Water Quantity - Excessive Seepage**	Subsurface water oozing to the surface restricts land use and management.	Subsurface water is managed to limit periods of saturation that are unfavorable to the present or intended land use. Management complies with wetland policies.
26	**Water Quantity - Excessive Runoff, Flooding, or Ponding**	The land becomes inundated restricting land use and management.	Excess water amounts and/or rates of flow are controlled consistent with desired present or intended land use goals and wetland policies.
27	**Water Quantity - Excessive Subsurface Water**	Water saturates upper soil layers restricting land use and management.	Subsurface water is managed to limit periods of saturation compatible with the present or intended land use and wetland policies.
28	**Water Quantity - Drifted Snow**	Wind-blown snow deposits and accumulates around and over surface structures restricting ingress, egress and conveyance of humans and animals.	Snowdrifts are reduced or prevented to allow ingress, egress, and conveyance of humans and animals.
29	**Water Quantity - Inadequate Outlets**	Natural or constructed outlets too small to remove excess water in a timely manner.	Outlets are designed, installed, upgraded or maintained to adequately convey water for present or intended uses.
30	**Water Quantity - Inefficient Water Use on Irrigated Land**	Limited water supplies are not optimally utilized.	Land and water management is planned and coordinated to provide optimal use of natural and applied moisture.
31	**Water Quantity - Inefficient Water Use on Non-irrigated Land**	Natural moisture is not optimally utilized.	Management provides optimum use of natural moisture for the present or intended land use.
32	**Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition**	Sediment deposits in ditches, canals, culverts, and other water conveyances reduce the desired flow capacity.	Conveyance structures are upgraded or maintained to adequately convey water for present or intended uses.
33	**Water Quantity -Reduced Storage of Water Bodies by Sediment Accumulation**	Sediment deposits in water bodies reduce the desired volume capacity.	Water bodies and contributing source areas are treated to allow sufficient water storage for present and intended uses.
34	**Water Quantity - Aquifer Overdraft**	Water withdrawals exceed recharge rates.	Land and water management are coordinated to conserve aquifer water levels.
35	**Water Quantity – Insufficient Flows in Water Courses**	Water flows are not consistently available in sufficient quantities to support ecological processes and land use and management.	Authorized uses and management of water are coordinated to minimize the impacts on water course flows.

	A	B	C
1	***Resource Concern***	***Description of Concern***	***National Quality Criteria***
36	**Water Quality - Harmful Levels of Pesticides in Groundwater**	Residues resulting from the use of pest control chemicals degrade groundwater quality.	Pesticides are applied, stored, handled, disposed of, and managed so that groundwater uses are not adversely affected
37	**Water Quality - Excessive Nutrients and Organics in Groundwater**	Pollution from natural or human induced nutrients such as N, P, S (including animal and other wastes) degrades groundwater quality.	Nutrients and organics are stored, handled, disposed of, and applied such that groundwater uses are not adversely affected.
38	**Water Quality - Excessive Salinity in Groundwater**	Pollution from salts such as Ca, Mg, Na, K, HCO3, CO3, Cl, and SO4 degrades groundwater quality.	Salts are stored, handled, disposed of, applied, and managed such that groundwater uses are not adversely affected.
39	**Water Quality - Harmful Levels of Heavy Metals in Groundwater**	Natural or human induced metal pollutants present in toxic amounts degrade groundwater quality.	Materials containing heavy metals are stored, handled, disposed of, applied, and managed such that groundwater uses are not adversely affected.
40	**Water Quality - Harmful Levels of Pathogens in Groundwater**	Kinds and numbers of viruses, protozoa, and bacteria are present at a level that degrades groundwater quality.	Materials that harbor pathogens are stored, handled, disposed of, applied, and managed such that groundwater uses are not adversely affected.
41	**Water Quality - Harmful Levels of Petroleum in Groundwater**	Fuel, oil, gasoline and other hydrocarbons present in toxic amounts degrade groundwater quality.	Petroleum products are used, stored, handled, disposed of, and managed such that groundwater uses are not adversely affected.
42	**Water Quality - Harmful Levels of Pesticides in Surface Water**	Pest control chemicals present in toxic amounts degrade surface water quality.	Pesticides are applied, stored, handled, disposed of, and managed such that surface water uses are not adversely affected
43	**Water Quality - Excessive Nutrients and Organics in Surface Water**	Pollution from natural or human induced nutrients such as N, P, S (Including animal and other wastes) degrades surface water quality.	Nutrients and organics are stored, handled, disposed of, and managed such that surface water uses are not adversely affected.
44	**Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water**	Pollution from mineral or organic particles degrades surface water quality.	Movement of mineral and organic particles is managed such that surface water uses are not adversely affected.
45	**Water Quality - Excessive Salinity in Surface Water**	Pollution from salts such as Ca, Mg, Na, K, HCO3, HCO3, CO3, Cl, and SO4 degrades surface water quality.	Salts are stored, handled, disposed of, applied, and managed such that surface water uses are not adversely affected.
46	**Water Quality - Harmful Levels of Heavy Metals in Surface Water**	Natural or human induced metal pollutants are present in toxic amounts that degrade surface water quality.	Materials containing heavy metals are stored, handled, disposed of, applied, and managed such that surface water uses are not adversely affected.
47	**Water Quality - Harmful Temperatures of Surface Water**	Undesired thermal conditions degrade surface water quality.	Use and management of land and water are coordinated to minimize impacts on surface water temperatures.
48	**Water Quality - Harmful Levels of Pathogens in Surface Water**	Kinds and numbers of viruses, protozoa, and bacteria are present at a level that degrades surface water quality.	Materials that harbor pathogens are stored, handled, disposed of, applied, and managed such that surface water uses are not adversely affected.
49	**Water Quality - Harmful Levels of Petroleum in Surface Water**	Fuel, oil, gasoline and other hydrocarbons present in toxic amounts degrade surface water quality.	Petroleum products are used, stored, handled, and disposed of such that groundwater uses are not adversely affected.
50	**Air Quality - Particulate matter less than 10 micrometers in diameter (PM 10)**	Particulate matter less than 10 micrometers in diameter are suspended in the air causing potential health hazards to humans and animals.	Land use and management operations comply with PM 10 requirements of the State or Federal Implementation Plan and all applicable Federal, Tribal, State, and Local regulations
51	**Air Quality - Particulate matter less than 2.5 micrometers in diameter (PM 2.5)**	Particulate matter less than 2.5 micrometers in diameter are suspended in the air causing potential health hazards to humans and animals.	Land use and management operations comply with PM 2.5 requirements of the State or Federal Implementation Plan and all applicable Federal, Tribal, State, and Local regulations.
52	**Air Quality - Excessive Ozone**	High concentrations of ozone (O3) are adversely affecting human health, reducing plant yields, and leading to the creation of smog.	Land use and management operations comply with requirements of the State or Federal Implementation Plan and all applicable Federal, Tribal, State, and Local regulations.

	A	B	C
1	***Resource Concern***	***Description of Concern***	***National Quality Criteria***
53	**Air Quality - Excessive Greenhouse Gas – CO2 (carbon dioxide)**	Increased CO2 concentrations are adversely affecting ecosystem processes.	Land use and management operations comply with requirements of the State or Federal Implementation Plan and all applicable Federal, Tribal, State, and Local regulations.
54	**Air Quality - Excessive Greenhouse Gas – N2O (nitrous oxide)**	Increased N2O concentrations are adversely affecting ecosystem processes.	Land use and management operations comply with requirements of the State or Federal Implementation Plan and all applicable Federal, Tribal, State, and Local regulations.
55	**Air Quality - Excessive Greenhouse Gas – CH4 (methane)**	Increased CH4 concentrations are adversely affecting ecosystem processes. .	Land use and management operations comply with requirements of the State or Federal Implementation Plan and all applicable Federal, Tribal, State, and Local regulations.
56	**Air Quality - Ammonia (NH3)**	Animal waste and inorganic commercial fertilizers emit ammonia that contributes to odor, is a PM2.5 precursor, and contributes to acid rain.	Land use and management operations comply with requirements of all applicable Federal, Tribal, State, and Local regulations.
57	**Air Quality - Chemical Drift**	Materials applied for pest control drift downwind and contaminate/injure non-targeted fields, crops, soils, water, animals and humans.	Land use and management operations comply with all applicable Federal, Tribal, State, and Local regulations, and applicable label directions.
58	**Air Quality - Objectionable Odors**	Land use and management operations produce offensive smells.	Odor-producing facilities and activities are planned and sited to mitigate potential nuisance impacts and meets all applicable Tribal, State, and Local regulations.
59	**Air Quality - Reduced Visibility**	Sight distance is impaired due to airborne particles causing unsafe conditions and impeded viewing of natural vistas especially in Class I viewing areas (primarily national parks and monuments).	Land use and management operations comply with all applicable Federal, Tribal, State, and Local regulations including state and local smoke and/or burn management plans.
60	**Air Quality - Undesirable Air Movement**	Wind velocities (too little or too much) reduce animal or plant productivity, impact human comfort and increase energy consumption.	Devices and practices are sited and planned to mitigate excess or deficient air movement.
61	**Air Quality - Adverse Air Temperature**	Air temperatures (too cold or too hot) reduce animal or plant productivity, impact human comfort and increase energy consumption.	Devices and practices are planned and sited to mitigate temperature extremes.
62	**Plants not adapted or suited**	Plants are not adapted and/or suited to site conditions or client objectives.	Selected plants are adapted to the soil and climatic conditions or the site is modified to make it suitable for the desired plants. Plants are sustainable, do not negatively impact other resources, and meet client objectives. For specific land uses, additional criteria apply: Cropland: A healthy stand with vigorous growth. Yields 75% of client expectations. Rangeland: Plants on or planned for the site are listed in applicable Ecological Site Descriptions (ESD) Pastureland: Plants on or planned for the site have a site adaptation score greater than 3 using Pasture Condition Scoring (PCS)and are listed in applicable Forage Suitability Groups (FSG)reports. Hayland: Plants on or planned for the site are listed in applicable Forage Suitability Groups (FSG)reports. Forestland/Agroforest: Plants on or planned for the site are listed in Ecological Site Descriptions (ESD)

	A	B	C
1	***Resource Concern***	***Description of Concern***	***National Quality Criteria***
63	**Plant – Condition – Productivity, Health and Vigor**	Plants do not produce the yields, quality, and soil cover to meet client objectives.	Selected plants on or planned for the site are sufficiently productive to meet or exceed client needs. For specific land uses, additional criteria apply: Cropland: A healthy stand with vigorous growth produces at least 75% of site potential. Rangeland: The plant community has a similarity index of at least 60% or an upward trend for similarity indices less than 60%. Pastureland: Forage yields are at least 75% of high management estimates cited in FSG reports. Hayland: Forage yields at least 75% of high mgt. estimates cited in Forage Suitability Groups (FSG) reports. Forestland/Agroforest: Forests consist of healthy stands with vigorous growth having a stand density within 25% of optimum stocking on a stems/acre basis. Plants chosen for agroforest applications are consistent with Conservation Tree and Shrub Groups (CTSG) listings and height performance.
64	**Plant Condition – Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing under the Endangered Species Act**	The site includes individuals, habitat or potential habitat for one or more plant species listed or proposed for listing under the Endangered Species Act.	Populations and/or habitats of Threatened and Endangered plant species are managed to maintain, increase or improve current populations, health, or sustainability.
65	**Plant Condition – Threatened or Endangered Plant Species: Declining Species, Species of Concern**	The site includes individuals, habitat or potential habitat for one or more plant species that the State or Tribal government with jurisdiction, or the State Technical Committee, has identified as a species of concern. This includes plant species that have been identified as candidates for listing under the Endangered Species Act.	Populations and/or habitats of plant species of concern are managed to maintain, increase, or improve current populations, health, or sustainability.
66	**Plant Condition - Noxious and Invasive Plants**	The site has noxious or invasive plants present.	The site is managed to control noxious and invasive plants and to minimize their spread.
67	**Plant Condition - Forage Quality and Palatability**	Plants do not have adequate nutritive value or palatability for the intended use	Forage plants are managed to produce the desired nutritive value and palatability for the intended use.
68	**Plant Condition – Wildfire Hazard**	The kinds and amounts of fuel loadings (plant biomass) pose risks to human safety, structures, and resources should wildfire occur.	Fuel loadings are reduced and/or isolated to meet client needs in minimizing the risk and incidence of wildfire.
69	**Fish and Wildlife - Inadequate Food**	Quantity and quality of food is unavailable to meet the life history requirements of the species or guild of species of concern	Food availability meets the life history requirements of the species or guild of species of concern.
70	**Fish and Wildlife – Inadequate Cover/Shelter**	Cover/shelter for the species of concern is unavailable or inadequate. For aquatic species, this includes lack of hiding, thermal, and/or refuge cover	The ecosystem or habit types support the necessary plant species in the kinds, amounts, and physical structure; and the connectivity of fish and wildlife cover is adequate to support, over time, the species of concern.
71	**Fish and Wildlife – Inadequate Water**	The quantity and quality of water is unacceptable for the species of concern	The quantity and quality of water meets the life history requirements of the species of concern.
72	**Fish and Wildlife – Inadequate Space**	Lack of area and fragmentation of areas disrupt life history requirements of the species of concern	Adequate area and connectivity of areas meet life history requirements of the species of concern. (Examples: staging areas for rest and feeding, lekking areas for breeding, migratory movement corridors)
73	**Fish and Wildlife – Habitat Fragmentation**	Habitat has insufficient structure, extent, and connectivity to provide ecological functions and/or achieve management objectives.	Fish and wildlife habitats are connected and are maintained sufficiently to support the species or guild of species of concern.

	A	B	C
1	***Resource Concern***	***Description of Concern***	***National Quality Criteria***
74	**Fish and Wildlife - Imbalance Among and Within Populations**	Populations are not in proportion to available quantities and qualities of food (plants, predator/prey), cover/shelter, water, and space and other life history requirements.	Land and water use and management are consistent with direct population management activities conducted by fish and wildlife agencies.
75	**Fish and Wildlife – Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing under the Endangered Species Act**	The site includes individuals, habitat or potential habitat for one or more fish or wildlife species listed or proposed for listing under the Endangered Species Act.	Populations and/or habitats of Threatened and endangered fish and wildlife species and/or habitats they occupy are managed to maintain, increase, or improve current populations, health, or sustainability.
76	**Fish and Wildlife – Threatened and Endangered Species: Declining Species, Species of Concern**	The site includes individuals, habitat or potential habitat for one or more fish or wildlife species that the State or Tribal government with jurisdiction, or the State Technical Committee, has identified as a species of concern. This includes fish and wildlife species that have been identified as candidates for listing under the Endangered Species Act.	Populations and/or habitats of fish and wildlife species of concern are managed to maintain, increase, or improve current populations, health, or sustainability.
77	**Domestic Animals – Inadequate Quantities and Quality of Feed and Forage**	Total feed and forage is insufficient to meet the nutritional and production needs of the kinds and classes of livestock	Feed and forage including supplemental nutritional requirements are provided to meet production goals for the kinds and classes of livestock. Native grazers are factored into the total feed and forage balance computations.
78	**Domestic Animals – Inadequate Shelter**	Livestock are not protected sufficiently to meet the production goals for the kinds and classes of livestock	Artificial and/or natural shelter is provided to meet production goals for the kinds and classes of livestock.
79	**Domestic Animals – Inadequate Stock Water**	The quantity, quality and distribution of drinking water is insufficient to meet the production goals for the kinds and classes of livestock	Sufficient water of acceptable quality is provided and adequately distributed to meet production goals for the kinds and classes of livestock. To reduce potential for water contamination, watering facilities are constructed or modified to minimize mortality to indigenous wildlife.
80	**Domestic Animals - Stress and Mortality**	Animals exhibit illness or death from disease, parasites, insects, poisonous plants, or other factors	Land and water use and management are consistent with activities conducted to alleviate stress and mortality factors.

LOOKUP TABLES - CHANGES DO NOT AFFECT CELLS ALREADY ENTERED! Gray ranges not currently used.		
Name:	**Name:**	**Name: (re. NHCP, Notice 133)**
effects	**yes_no**	**disciplines**
		ESD—Ecological Sciences Division
Not Applicable	Yes	CED—Conservation Engineering Division
Neutral	No	Agron—Agronomist
Slight Improvement		WBio—Biologist
Slight to Moderate Improvement		For—Forester
Slight to Substantial Improvement	**Name:**	Graz Land Sp—Grazing Land Specialist
Moderate Improvement	**cost_mgt**	NM—Nutrient Management Specialist
Moderate to Substantial Improvement		PM—Pest Management Specialist
Substantial Improvement	High	AE—Agricultural Engineer
Substantial Worsening	Medium	AQS-Air Quality Specialist
Moderate to Substantial Worsening	Low	CE—Construction Engineer
Moderate Worsening	Low-Medium	DE—Design Engineer
Slight to Moderate Worsening	Medium-High	EE—Environmental Engineer
Slight to Substantial Worsening	Low-High	EG—Engineering Geologist
Slight Worsening		HE—Hydraulic Engineer
		LA—Landscape Architect
		SE—Soils Engineer
		WME—Water Management Engineer
		AqEco—Aquatic Ecologist
		AC-Agricultural Climatologist

Practice	Lead Discipline(s)	Practice Code	*Soil Erosion - Sheet and Rill (Effect)*	*Soil Erosion - Sheet and Rill (Rationale)*
Irrigation Water Conveyance, Pipeline, Rigid Gated Pipeline (ft)	CED-DE	430HH	Not Applicable	Not applicable.
Wildlife Watering Facility (no)	ESD-WBio	648	Not Applicable	Not applicable.

Practice	Lead Discipline(s)	Practice Code	*Cultural Resources and/or Historic Properties Present or Suspected to be Present (Effect)*	*Cultural Resources and/or Historic Properties Present or Suspected to be Present (Rationale)*
Irrigation Water Conveyance, Pipeline, Rigid Gated Pipeline (ft)	CED-DE	430HH	No	If used in above ground applications.
Wildlife Watering Facility (no)	ESD-WBio	648	Slight to Substantial Increase	Construction impacts (mechanical).

Soil Erosion - Sheet and Rill (Purpose)	Soil Erosion - Wind (Effect)	Soil Erosion - Wind (Rationale)	Soil Erosion - Wind (Purpose)	Soil Erosion - Ephemeral Gully (Effect)
No	Not Applicable	Not applicable.	No	Not Applicable
No	Not Applicable	Not applicable.	No	Not Applicable

Cultural Resources and/or Historic Properties Present or Suspected to be Present (Purpose)	Depletion of Fossil Fuel Resources (Effect)	Depletion of Fossil Fuel Resources (Rationale)	Depletion of Fossil Fuel Resources (Purpose)	Underutilization of Non-Fossil Energy Sources (Effect)
No	Moderate to Substantial Decrease	Pipeline conveyance often requires pumping pressure;	No	Not Applicable
No	Not Applicable	Not Applicable	No	Not Applicable

Soil Erosion - Ephemeral Gully (Rationale)	*Soil Erosion - Ephemeral Gully (Purpose)*	*Soil Erosion - Classic Gully (Effect)*	*Soil Erosion - Classic Gully (Rationale)*	*Soil Erosion - Classic Gully (Purpose)*
Not applicable.	**Yes**	**Not Applicable**	**Not applicable.**	**No**
Not applicable.	**No**	**Slight Decrease**	**Increased grass cover due to better distribution of water**	**No**

Underutilization of Non-Fossil Energy Sources (Rationale)	*Underutilization of Non-Fossil Energy Sources (Purpose)*	*Land - Change in Land Use (Effect)*	*Land - Change in Land Use (Rationale)*	*Land - Land in Production (Effect)*
Not applicable.	**No**	**N/A if no change in crops irrigated, substantial if water**		**Slight short-term decrease in cropland as pipeline is**
Not Applicable	**No**	**Not applicable.**		**Not applicable.**

Soil Erosion - Streambank (Effect)	Soil Erosion - Streambank (Rationale)	Soil Erosion - Streambank (Purpose)	Soil Erosion - Shoreline (Effect)	Soil Erosion - Shoreline (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Moderate to Substantial Decrease	By providing an alternate water source animal traffic	No	Moderate to Substantial Decrease	By providing an alternate water source animal traffic

Land - Land in Production (Rationale)	Capital - Change in Equipment (Effect)	Capital - Change in Equipment (Rationale)	Capital - Total Investment Cost (Effect)	Capital - Total Investment Cost (Rationale)
	Slight Increase.		Substantial.	
	Moderate increase.		Moderate.	

Soil Erosion - Shoreline (Purpose)	Soil Erosion – Irrigation-induced (Effect)	Soil Erosion – Irrigation-induced (Rationale)	Soil Erosion – Irrigation-induced (Purpose)	Soil Erosion - Mass Movement (Effect)
No	Slight Decrease	More even and uniform distribution of water.	No	Not Applicable
No	Not Applicable	Not applicable.	No	Not Applicable

Capital - Annual Cost (Effect)	Capital - Annual Cost (Rationale)	Capital - Credit & Farm Program Eligibility (Effect)	Capital - Credit & Farm Program Eligibility (Rationale)	Labor - Labor (Effect)
Slight increase.		Situational.		Moderate increase to maintain channels and monitor water
Negligible.		Situational.		Slight to substantial depending on fluctuation of water

Soil Erosion - Mass Movement (Rationale)	*Soil Erosion - Mass Movement (Purpose)*	*Soil Erosion – Road, road sides and Construction Sites (Effect)*	*Soil Erosion – Road, road sides and Construction Sites (Rationale)*	*Soil Erosion – Road, road sides and Construction Sites (Purpose)*
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**

Labor - Labor (Rationale)	*Labor - Change in Management Level (Effect)*	*Labor - Change in Management Level (Rationale)*	*Risk - Yield (Effect)*	*Risk - Yield (Rationale)*
	Negligible.		**Slight to moderate decrease due to increased irrigation**	
	Negligible.		**Not applicable.**	

Soil Condition - Organic Matter Depletion (Effect)	Soil Condition - Organic Matter Depletion (Rationale)	Soil Condition - Organic Matter Depletion (Purpose)	Soil Condition - Rangeland Site Stability (Effect)	Soil Condition - Rangeland Site Stability (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Risk - Flexibility (Effect)	Risk - Flexibility (Rationale)	Risk - Timing (Effect)	Risk - Timing (Rationale)	Risk - Cash Flow (Effect)
Slight decrease due to more efficient distribution of water.		Not applicable.		Moderate increase due to construction cost.
Substantial to moderate increase in habitat capabilities.		Not applicable.		Slight increase because of implementation

Soil Condition - Rangeland Site Stability (Purpose)	Soil Condition - Compaction (Effect)	Soil Condition - Compaction (Rationale)	Soil Condition - Compaction (Purpose)	Soil Condition - Subsidence (Effect)
No	Not Applicable	Not applicable.	No	Not Applicable
No	Not Applicable	Not applicable.	No	Not Applicable

Risk - Cash Flow (Rationale)	Profitability - Change in Profitability (Effect)	Profitability - Change in Profitability (Rationale)	Operations & Maintenance Factor	Practice Life
	Slight to moderate decrease or increase.		0%	15
	Slight increase of decrease.		0%	5

Soil Condition - Subsidence (Rationale)	*Soil Condition - Subsidence (Purpose)*	*Soil Condition - Contaminants - Salts and Other Chemicals (Effect)*	*Soil Condition - Contaminants - Salts and Other Chemicals (Rationale)*	*Soil Condition - Contaminants - Salts and Other Chemicals (Purpose)*
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**

Estimated Average Installation Cost (2005 Estimates)	*Estimated Average Annual Cost Based on an Annual Interest Rate of 5.125%*
$7.00	**$0.68**
$1,500.00	**$347.66**

Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Effect)	Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Rationale)	Soil Condition - Contaminants - Animal Waste and Other Organics - Nitrogen (Purpose)	Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Effect)	Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Soil Condition - Contaminants - Animal Waste and Other Organics - Phosphorus (Purpose)	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Effect)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Rationale)*	*Soil Condition - Contaminants - Animal Waste and Other Organics - Potassium (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Effect)*
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**

Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Rationale)	*Soil Condition – Contaminants - Commercial Fertilizer - Nitrogen (Purpose)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Effect)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Rationale)*	*Soil Condition – Contaminants - Commercial Fertilizer - Phosphorus (Purpose)*
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**

Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Effect)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Rationale)	Soil Condition – Contaminants - Commercial Fertilizer - Potassium (Purpose)	Soil Condition - Contaminants - Residual Pesticides (Effect)	Soil Condition - Contaminants - Residual Pesticides (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Soil Condition - Contaminants - Residual Pesticides (Purpose)	*Soil Condition - Damage from Sediment Deposition (Effect)*	*Soil Condition - Damage from Sediment Deposition (Rationale)*	*Soil Condition - Damage from Sediment Deposition (Purpose)*	*Water Quantity - Rangeland Hydrologic Cycle (Effect)*
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
No	**No Effect**	**Pond or structure may trap sediment.**	**No**	**Not Applicable**

Water Quantity - Rangeland Hydrologic Cycle (Rationale)	*Water Quantity - Rangeland Hydrologic Cycle (Purpose)*	*Water Quantity - Excessive Seepage (Effect)*	*Water Quantity - Excessive Seepage (Rationale)*	*Water Quantity - Excessive Seepage (Purpose)*
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**
Not applicable.	**No**	**No Effect**	**The action may result in minor amounts of increased infiltration**	**No**

Water Quantity - Excessive Runoff, Flooding, or Ponding (Effect)	Water Quantity - Excessive Runoff, Flooding, or Ponding (Rationale)	Water Quantity - Excessive Runoff, Flooding, or Ponding (Purpose)	Water Quantity - Excessive Subsurface Water (Effect)	Water Quantity - Excessive Subsurface Water (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
No Effect	The action may result in minor amounts of increased infiltration	No	No Effect	The action may result in minor amounts of increased infiltration

Water Quantity - Excessive Subsurface Water (Purpose)	*Water Quantity - Drifted Snow (Effect)*	*Water Quantity - Drifted Snow (Rationale)*	*Water Quantity - Drifted Snow (Purpose)*	*Water Quantity - Inadequate Outlets (Effect)*
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**

Water Quantity - Inadequate Outlets (Rationale)	*Water Quantity - Inadequate Outlets (Purpose)*	*Water Quantity - Inefficient Water Use on Irrigated Land (Effect)*	*Water Quantity - Inefficient Water Use on Irrigated Land (Rationale)*	*Water Quantity - Inefficient Water Use on Irrigated Land (Purpose)*
Not applicable.	**No**	**Slight to Substantial Decrease**	**Pipe will convey water and make it possible to use more**	**Yes**
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**

Water Quantity - Inefficient Water Use on Non-irrigated Land (Effect)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Rationale)	Water Quantity - Inefficient Water Use on Non-irrigated Land (Purpose)	Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Effect)	Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Slight Decrease	The action should reduce erosion and resulting sediment

Water Quantity - Reduced Capacity of Conveyances by Sediment Deposition (Purpose)	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Effect)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Rationale)*	*Water Quantity - Reduced Storage of Water Bodies by Sediment Accumulation (Purpose)*	*Water Quantity - Aquifer Overdraft (Effect)*
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
No	**Slight Decrease**	**The action should reduce erosion and resulting sediment**	**No**	**Not Applicable**

Water Quantity - Aquifer Overdraft (Rationale)	*Water Quantity - Aquifer Overdraft (Purpose)*	*Water Quantity – Insufficient Flows in Water Courses (Effect)*	*Water Quantity – Insufficient Flows in Water Courses (Rationale)*	*Water Quantity – Insufficient Flows in Water Courses (Purpose)*
Not applicable.	**No**	**Slight Decrease**	**Less water is diverted because conveyance losses**	**No**
Not applicable.	**No**	**No Effect**	**The action may result in minor amounts of increased infiltration**	**No**

Water Quality - Harmful Levels of Pesticides in Groundwater (Effect)	Water Quality - Harmful Levels of Pesticides in Groundwater (Rationale)	Water Quality - Harmful Levels of Pesticides in Groundwater (Purpose)	Water Quality - Excessive Nutrients and Organics in Groundwater (Effect)	Water Quality - Excessive Nutrients and Organics in Groundwater (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Slight Increase	The action increases the potential for nutrients to be

Water Quality - Excessive Nutrients and Organics in Groundwater (Purpose)	*Water Quality - Excessive Salinity in Groundwater (Effect)*	*Water Quality - Excessive Salinity in Groundwater (Rationale)*	*Water Quality - Excessive Salinity in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Effect)*
No	**Slight to Moderate Decrease**	**Efficient and uniform irrigation reduces transport to ground**	**Yes**	**Slight Decrease**
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**

Water Quality - Harmful Levels of Heavy Metals in Groundwater (Rationale)	*Water Quality - Harmful Levels of Heavy Metals in Groundwater (Purpose)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Effect)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Groundwater (Purpose)*
The action eliminates seepage losses from canals, which	**No**	**Slight Decrease**	**The action eliminates seepage losses from canals, which**	**No**
Not applicable.	**No**	**Slight Increase**	**Wildlife will concentrate at water sources, increasing**	**No**

Water Quality - Harmful Levels of Petroleum in Groundwater (Effect)	Water Quality - Harmful Levels of Petroleum in Groundwater (Rationale)	Water Quality - Harmful Levels of Petroleum in Groundwater (Purpose)	Water Quality - Harmful Levels of Pesticides in Surface Water (Effect)	Water Quality - Harmful Levels of Pesticides in Surface Water (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Water Quality - Harmful Levels of Pesticides in Surface Water (Purpose)	*Water Quality - Excessive Nutrients and Organics in Surface Water (Effect)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Rationale)*	*Water Quality - Excessive Nutrients and Organics in Surface Water (Purpose)*	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Effect)*
No	**Slight Decrease**	**Utilizing pipelines for water delivery reduces the delivery**	**No**	**Not Applicable**
No	**Slight Decrease**	**Permanent woody vegetation will utilize nutrients and filter**	**No**	**No Effect**

Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Rationale)	*Water Quality - Excessive Suspended Sediment and Turbidity in Surface Water (Purpose)*	*Water Quality - Excessive Salinity in Surface Water (Effect)*	*Water Quality - Excessive Salinity in Surface Water (Rationale)*	*Water Quality - Excessive Salinity in Surface Water (Purpose)*
Not applicable.	**No**	**Slight Decrease**	**The action eliminates the potential for irrigation water to**	**No**
Water development will improve animal distribution.	**No**	**Not Applicable**	**Not applicable.**	**No**

Water Quality - Harmful Levels of Heavy Metals in Surface Water (Effect)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Rationale)	Water Quality - Harmful Levels of Heavy Metals in Surface Water (Purpose)	Water Quality - Harmful Temperatures of Surface Water (Effect)	Water Quality - Harmful Temperatures of Surface Water (Rationale)
Slight Increase	The action may transport water from heavy metal source	No	No Effect	Conservation irrigation systems minimize affects to
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Water Quality - Harmful Temperatures of Surface Water (Purpose)	*Water Quality - Harmful Levels of Pathogens in Surface Water (Effect)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Rationale)*	*Water Quality - Harmful Levels of Pathogens in Surface Water (Purpose)*	*Water Quality - Harmful Levels of Petroleum in Surface Water (Effect)*
No	**Slight Increase**	**May collect runoff and return flows may deliver possible**	**No**	**No Effect**
No	**Slight Decrease**	**Better distribution of animals results in less concentration of**	**No**	**Not Applicable**

Water Quality - Harmful Levels of Petroleum in Surface Water (Rationale)	*Water Quality - Harmful Levels of Petroleum in Surface Water (Purpose)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Effect)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Rationale)*	*Air Quality - Particulate matter less than 10 micrometers in diameter - PM 10 (Purpose)*
May collect runoff and return flows may deliver possible	**No**	**Not Applicable**	**Not applicable.**	**No**
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**

Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Effect)	Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Rationale)	Air Quality - Particulate matter less than 2.5 micrometers in diameter - PM 2.5 (Purpose)	Air Quality - Excessive Ozone (Effect)	Air Quality - Excessive Ozone (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Air Quality - Excessive Ozone (Purpose)	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Effect)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Rationale)*	*Air Quality - Excessive Greenhouse Gas – CO2 - carbon dioxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Effect)*
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**

Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Rationale)	*Air Quality - Excessive Greenhouse Gas – N2O - nitrous oxide (Purpose)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Effect)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Rationale)*	*Air Quality - Excessive Greenhouse Gas – CH4 - methane (Purpose)*
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**

Air Quality - NH3 - Ammonia (Effect)	Air Quality - NH3 - Ammonia (Rationale)	Air Quality - NH3 - Ammonia (Purpose)	Air Quality - Chemical Drift (Effect)	Air Quality - Chemical Drift (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Air Quality - Chemical Drift (Purpose)	*Air Quality - Objectionable Odors (Effect)*	*Air Quality - Objectionable Odors (Rationale)*	*Air Quality - Objectionable Odors (Purpose)*	*Air Quality - Reduced Visibility (Effect)*
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
No	**Not Applicable**	**Not applicable.**	**No**	**No Effect**

Air Quality - Reduced Visibility (Rationale)	*Air Quality - Reduced Visibility (Purpose)*	*Air Quality - Undesirable Air Movement (Effect)*	*Air Quality - Undesirable Air Movement (Rationale)*	*Air Quality - Undesirable Air Movement (Purpose)*
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**

Air Quality - Adverse Air Temperature (Effect)	Air Quality - Adverse Air Temperature (Rationale)	Air Quality - Adverse Air Temperature (Purpose)	Plants not adapted or suited (Effect)	Plants not adapted or suited (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Plants not adapted or suited (Purpose)	*Plant Condition - Productivity, Health and Vigor (Effect)*	*Plant Condition - Productivity, Health and Vigor (Rationale)*	*Plant Condition - Productivity, Health and Vigor (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*
No	**Slight to Substantial Decrease**	**Increased water availability and access enhances**	**No**	**Not Applicable**
No	**Not Applicable**	**Not applicable.**	**No**	**No Effect**

Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)	*Plant Condition - Threatened or Endangered Plant Species: Plant Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Effect)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Rationale)*	*Plant Condition - Threatened or Endangered Plant Species: Declining Species, Species of Concern (Purpose)*
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**
When threatened or endangered plants are present,	**No**	**No Effect**	**When threatened or endangered plants are present,**	**No**

Plant Condition - Noxious and Invasive Plants (Effect)	Plant Condition - Noxious and Invasive Plants (Rationale)	Plant Condition - Noxious and Invasive Plants (Purpose)	Plant Condition - Forage Quality and Palatability (Effect)	Plant Condition - Forage Quality and Palatability (Rationale)
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.
Not Applicable	Not applicable.	No	Not Applicable	Not applicable.

Plant Condition - Forage Quality and Palatability (Purpose)	*Plant Condition - Wildfire Hazard (Effect)*	*Plant Condition - Wildfire Hazard (Rationale)*	*Plant Condition - Wildfire Hazard (Purpose)*	*Fish and Wildlife - Inadequate Food (Effect)*
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
No	**Not Applicable**	**Not applicable.**	**No**	**Moderate to Substantial Decrease**

Fish and Wildlife - Inadequate Food (Rationale)	*Fish and Wildlife - Inadequate Food (Purpose)*	*Fish and Wildlife - Inadequate Cover/Shelter (Effect)*	*Fish and Wildlife - Inadequate Cover/Shelter (Rationale)*	*Fish and Wildlife - Inadequate Cover/Shelter (Purpose)*
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**
Wildlife water improves use of under-utilized areas	**Yes**	**Moderate to Substantial Decrease**	**Wildlife water improves use of under-utilized areas**	**Yes**

Fish and Wildlife - Inadequate Water (Effect)	*Fish and Wildlife - Inadequate Water (Rationale)*	*Fish and Wildlife - Inadequate Water (Purpose)*	*Fish and Wildlife - Inadequate Space (Effect)*	*Fish and Wildlife - Inadequate Space (Rationale)*
Not Applicable	**Not applicable.**	**No**	**Not Applicable**	**Not applicable.**
Substantial Decrease	**Purpose is to improve water quality and quantity for**	**Yes**	**Moderate to Substantial Decrease**	**Additional habitat/space is available once water**

Fish and Wildlife - Inadequate Space (Purpose)	*Fish and Wildlife - Habitat Fragmentation (Effect)*	*Fish and Wildlife - Habitat Fragmentation (Rationale)*	*Fish and Wildlife - Habitat Fragmentation (Purpose)*	*Fish and Wildlife - Imbalance Among and Within Populations (Effect)*
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
Yes	**Moderate to Substantial Decrease**	**Multiple water sources can reconnect habitats.**	**Yes**	**Moderate to Substantial Decrease**

Fish and Wildlife - Imbalance Among and Within Populations (Rationale)	*Fish and Wildlife - Imbalance Among and Within Populations (Purpose)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Effect)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Rationale)*	*Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Fish and Wildlife Species Listed or Proposed for Listing Under the Endangered Species Act (Purpose)*
Not applicable.	**No**	**No Effect**	**Activities are designed, installed, and mitigated to an**	**No**
Water helps remove limiting factors.	**Yes**	**Moderate to Substantial Decrease**	**Activities are designed, installed, and mitigated to an**	**Yes**

Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Effect)	Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Rationale)	Fish and Wildlife - Threatened and Endangered Fish and Wildlife Species: Declining Species, Species of Concern (Purpose)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Effect)	Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Rationale)
No Effect	Activities are designed, installed, and mitigated to an	No	Not Applicable	Not applicable.
Moderate to Substantial Decrease	Activities are designed, installed, and mitigated to an	Yes	Not Applicable	Not applicable.

Domestic Animals - Inadequate Quantities and Quality of Feed and Forage (Purpose)	*Domestic Animals - Inadequate Shelter (Effect)*	*Domestic Animals - Inadequate Shelter (Rationale)*	*Domestic Animals - Inadequate Shelter (Purpose)*	*Domestic Animals - Inadequate Stock Water (Effect)*
No	**Not Applicable**	**Not applicable.**	**No**	**Not Applicable**
No	**Not Applicable**	**Not applicable.**	**No**	**Slight to Moderate Decrease**

Domestic Animals - Inadequate Stock Water (Rationale)	*Domestic Animals - Inadequate Stock Water (Purpose)*	*Domestic Animals - Stress and Mortality (Effect)*	*Domestic Animals - Stress and Mortality (Rationale)*	*Domestic Animals - Stress and Mortality (Purpose)*
Not applicable.	**No**	**Not Applicable**	**Not applicable.**	**No**
Water may be used by livestock.	**No**	**Not Applicable**	**Not applicable.**	**No**

Appropriate Land Use(s)
Crop, Hay, Pasture
Forest, Grazed Forest, Grazed Range, Hay, Mined, Native or