
MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

For NRCS Planning and Program Implementation

The *Maryland NRCS Practice Effects on Threatened and Endangered Species* (NRCS Practice Effects) was developed in coordination with NRCS and USFWS biologists. The purpose of the document is to provide conservation planners in Maryland with a consistent process for determining the potential effects of NRCS conservation practices on T&E species. The protection and conservation of T&E species is consistent with the NRCS mission, and is required for compliance with NRCS policy, the National Environmental Policy Act (NEPA), and the Endangered Species Act (ESA).

The *NRCS Practice Effects* document is not intended to be the only source of guidance for protecting and conserving T&E species, but is provided as a planning tool for evaluating the potential effects of NRCS practices. Further guidance on NEPA and ESA compliance for T&E species can be found in the document, *Guidance for Endangered Species Act Compliance and T&E Species Conservation in Maryland*, which includes the standard operating procedure for use of the *NRCS Practice Effects* document. A decision diagram has been developed to assist with determining the course of action when making an effects determination using the *NRCS Practice Effects* document.

The *NRCS Practice Effects* document lists the potential effects of NRCS conservation practices on T&E species, and provides recommendations for avoiding adverse effects, identifying beneficial effects, implementing beneficial management activities, and identifying the need for consultation or coordination. Potential effects and recommendations on the document are shown as abbreviations and codes. The format of the recommendation code is a letter followed by a number, in which the letter identifies the type of recommendation. Definitions of the effects and recommendation categories, and recommendation code key are provided below.

Currently, the NRCS Practice Effects document only provides potential effects for the federal-listed species that are likely to be encountered in the environments in which NRCS activities are typically conducted. State-listed species must also be considered when determining the potential effects of proposed practices.

DEFINITIONS

Effects Categories. The following terms are used for effects determinations:

May Affect – This category includes both potentially beneficial and potentially adverse effects.

May Benefit (MB) – The proposed practice may benefit T&E species. A practice that affects T&E species beneficially is required to do so without adverse effects (unless an incidental take permit has been issued).

May Benefit and/or Adversely Affect (MBAA) – The proposed practice may benefit and/or adversely affect T&E species, depending on how the practice is implemented. Even though a practice is potentially beneficial, requirements to avoid adverse effects must be implemented.

May Adversely Affect (MAA) – The proposed practice may adversely affect T&E species. If adverse effects can not be avoided, consultation is required.

Not Likely to Adversely Affect (NLTAA) – The proposed practice is determined to be *not likely to adversely affect* T&E species. When a NLTAA determination is made, planning can proceed. Conditions are often applied to a NLTAA determination. A NLTAA determination can be made when:

- The proposed practice is determined to have a beneficial effect on T&E species, without any adverse effects; or,
- The practice can be implemented in a manner that avoids adverse effects on T&E species.

No Effect (NE) – The proposed practice is determined to have no effect, either beneficial or adverse, on T&E species. When a *no effect* determination is made, planning can proceed.

Recommendation Categories. The following categories are used in the *NRCS Practice Effects* document:

Adverse (X) – Specific conditions for when a proposed practice may adversely affect T&E species.

Avoid (A) – Conditions that when met, can avoid adverse effects on T&E species. If these conditions can not be met, and alternatives to the practice are not available, consultation is required.

Beneficial (B) – Conditions when a practice may beneficially affect T&E species. This information can be used for the purposes of proactive T&E species conservation.

BMP's Required (R) – A BMP is required to be implemented to avoid adverse effects on T&E species.

Consult/Coordination (C) – Consultation or coordination with an appropriate agency is required. Consultation or coordination may be required when an effect is beneficial or potentially adverse. Coordination typically refers to situations in which the fish and wildlife agency has previously analyzed the effects of the practice, but coordination with the agency is needed to avoid adverse effects. Situations in which practices are being implemented for the specific benefit of a species (e.g. habitat restoration) often require coordination.

Management Recommendation (M) – Recommendation to support T&E species conservation, but not required to avoid adverse effects.

NLTAA (N) – Condition required to avoid adverse effects on T&E species. This category may provide an alternative to “avoid” recommendations.

RECOMMENDATION CODE KEY**ADVERSE**

- X1 May adversely affect if earthmoving or placement occurs adjacent to stream at or upstream of known species locations. If practice must be placed adjacent to stream, not likely to adversely affect (NLTAA) provided best management practices to abate sediment are implemented.
- X2 Tree removal associated with the practice may adversely affect Indiana bat if conducted within a 2 mile radius of known maternity colonies. Any tree removal within this radius should be conducted between November 15th and March 31st. Trees over 5-inch DBH with the following characteristics should not be removed at any time: Tree species with exfoliating bark such as shellbark or shagbark hickories and white oak; dead and dying trees with exfoliating bark, broken tree tops, and splintered or split areas; trees with cavities or hollowed areas. If this recommendation cannot be met, consult with FWS.
- X3 Will adversely affect Puritan tiger beetle if implemented on cliffs providing PTB habitat.
- X4 Potentially adverse if being constructed/implemented within occupied habitat or within 300 feet upstream of occupied habitat; consult with FWS. Otherwise, may be beneficial if it reduces trampling or vehicle use in these areas, or increases stream stability.

AVOID

- A1 Avoid placement/practice within 100 feet of habitat supporting the species.
- A2 Avoid placement within 300 feet of wetland or waterway supporting the species.
- A3 Avoid tree and shrub planting within 300 feet of habitat supporting the species.
- A4 Avoid practice within habitat supporting species.
- A5 Avoid animal waste application within 100 feet of wetland or waterway supporting the species.
- A6 Avoid impacts to surface and groundwater hydrology of habitat supporting the species.
- A7 Avoid clearing trees over 10-inch DBH in woodlands within known distribution of Delmarva fox squirrel.
- A8 Avoid use of herbicide within 100 feet of known species population.
- A9 Avoid cutting trees or brush within a 100-foot buffer along habitat streams or wetlands.
- A10 Avoid herbicide use within species known habitat; limit herbicide use to ground-based foliar application adjacent (within 200 feet) to species habitat.
- A11 Avoid placing water intake in immediate vicinity of mussel beds.
- A12 Avoid direct discharge into streams or wetlands providing habitat for species.
- A13 Avoid practice within 300 feet of habitat supporting species.

BENEFICIAL

- B1 Beneficial if practice implemented adjacent to streams at or upstream of known species locations.
- B2 Beneficial if practice implemented adjacent to wetlands supporting species.
- B3 Beneficial if grazing is restricted within 100 feet of habitat stream or wetland.
- B4 May benefit from reduced pesticide use within 2-mile radius of known Indiana bat maternity colonies.
- B5 May be beneficial if it involves tree-planting within known Delmarva fox squirrel or Indiana bat distribution. Particularly beneficial to DFS if it provides corridor between isolated woodlands. Particularly beneficial to Indiana bat if it involves planting of shagbark hickory or other trees with exfoliating bark within a 2 mile radius of known maternity colonies (Carroll County).
- B6 Beneficial (reduction of sediment) within subwatershed of aquatic and wetland species, provided it does not involve conversion from pasture or woodlands to cropland.

- B7 May be beneficial as a water quality buffer, provided it does not increase siltation or impact hydrology of habitat supporting species.
- B8 May be beneficial if used to prevent livestock or off-road-vehicles from entering streams supporting the species.
- B9 Beneficial in existing heavy use areas if it reduces sediment and livestock waste reaching stream or wetland habitat of the species.
- B10 Beneficial if addressing existing pollution source to habitat.
- B11 Beneficial if practice implemented adjacent to streams at or upstream of known species locations, provided no brush or tree removal involved.
- B12 Beneficial if implemented in drainage area within 1,000 feet of waters or wetlands supporting species.

BMP'S REQUIRED

- R1 Implement BMP's to address transport of nutrients, sediments or toxic substances to wetlands and waters supporting the species.
- R2 If practice is placed adjacent to wetland providing habitat for this species, use best management practices to abate sediment.

CONSULT/COORDINATE

- C1 Maintenance grazing is beneficial in bog turtle habitat if criteria in MD NRCS *Bog Turtle Habitat Maintenance Grazing Guidance* and applicable conservation measures in FWS March 10, 2006 Biological Opinion and appendices are followed. Otherwise, requires further consultation with FWS.
- C2 Beneficial in bog turtle habitat if done as part of a bog turtle management plan approved by DNR-WHS and in accordance with conservation measures in FWS March 10, 2006 Biological Opinion and appendices. Otherwise, requires further consultation with FWS.
- C3 May be beneficial if designed for restoration of bog turtle habitat, but would require coordination with DNR-WHS and/or FWS.
- C4 May be beneficial if planned and conducted in coordination with DNR-WHS for benefit of species.
- C5 Consult with FWS if within or adjacent to Puritan tiger beetle habitat. May be beneficial if used for cliff habitat restoration.
- C6 Consult with FWS if practice is within 200 feet of known habitat of Northeastern bulrush (Cherry Run USGS Quad).
- C7 Can be beneficial if conducted as part of a sandplain gerardia management plan in coordination with DNR-WHS.
- C8 Coordination with FWS and/or DNR-WHS required if within, or less than 1000 feet upstream of stream segment or wetland supporting species.
- C9 Requires consultation in streams known to support species, but potentially beneficial at some locations.

MANAGEMENT RECOMMENDATION

- M1 Maintaining connections between blocks of habitat is recommended for the benefit the species.
- M2 Maintenance of forested buffers along streams is recommended for the benefit of the species.

NOT LIKELY TO ADVERSELY AFFECT (NLTA)

- N1 NLTA provided not planting reed canarygrass or similarly aggressive wetland-tolerant species within 1,000 feet of habitat supporting the species.
- N2 NLTA if tapping deep aquifer not controlling hydrology of habitat.
- N3 NLTA provided any clearing of woodlands and treelines with trees over 10-inch DBH is less than or equal to 1/2 acre, within known species occurrence.

MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Access Control (472)					
Animal	Bog Turtle	MBAA	C2	B8	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B8	
	Indiana Bat	NE			
	Maryland Darter	MB		B8	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE		B8	
	Harperella	MB		B8	
	Northeastern Bulrush	NE		B8	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE		B8	
	Swamp Pink	MB		B8	
Access Road (560)					
Animal	Bog Turtle	MAA	A2 A6		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	X1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	X1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1 A6		
	Harperella	MAA	A1 A6		
	Northeastern Bulrush	MAA	A1 A6		
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MAA	A1 A6		
	Swamp Pink	MAA	A1 A6		
Agrichemical Mixing Facility (702)					
Animal	Bog Turtle	MAA	A2 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 R1		
	Northeastern Beach Tiger Beetle	MAA	A13 R1		
	Puritan Tiger Beetle	MAA	A13 R1		
Plant	Canby's Dropwort	MAA	A2 A12 R1		
	Harperella	MAA	A2 A12 R1		
	Northeastern Bulrush	MAA	A2 A12 R1		
	Sandplain Gerardia	MAA	A13		
	Sensitive Joint-vetch	MAA	A2 A12 R1		
	Swamp Pink	MAA	A2 A12 R1		

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Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Amendments for the Treatment of Agricultural Waste (591)					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
Anaerobic Digester, Controlled Temperature (366)					
Animal	Bog Turtle	MAA	A2 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 R1		
	Northeastern Beach Tiger Beetle	MAA	A1		
	Puritan Tiger Beetle	MAA	A1		
Plant	Canby's Dropwort	MAA	A2 R1		
	Harperella	MAA	A2 R1		
	Northeastern Bulrush	MAA	A2 R1		
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2 R1		
	Swamp Pink	MAA	A2 R1		
Animal Mortality Facility (316)					
Animal	Bog Turtle	MAA	A2 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 R1		
	Northeastern Beach Tiger Beetle	MAA	A1		
	Puritan Tiger Beetle	MAA	A1		
Plant	Canby's Dropwort	MAA	A2 R1		
	Harperella	MAA	A2 R1		
	Northeastern Bulrush	MAA	A2 R1		
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2 R1		
	Swamp Pink	MAA	A2 R1		

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Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Brush Management (314)					
Animal	Bog Turtle	MBAA	C2 R1		
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	MAA	R1		M2
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		M2
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	MBAA	C5		
Plant	Canby's Dropwort	MBAA	A4 A10 C4 R1		
	Harperella	MAA	A4 A10 R1		M2
	Northeastern Bulrush	MBAA	A4 A10 C6 R1		
	Sandplain Gerardia	MBAA	A1 A10 C7		
	Sensitive Joint-vetch	MAA	A4 A10 R1		
	Swamp Pink	MAA	A4 A10		
Closure of Waste Impoundment (360)					
Animal	Bog Turtle	MAA	R1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	NE			
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	MAA	R1		
	Puritan Tiger Beetle	MAA	R1		
Plant	Canby's Dropwort	MAA	A12 R1		
	Harperella	MAA	A12 R1		
	Northeastern Bulrush	MAA	A12 R1		
	Sandplain Gerardia	MAA	R1		
	Sensitive Joint-vetch	MAA	A12 R1		
	Swamp Pink	MAA	A12 R1		
Composting Facility (317)					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 A6 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 A6 R1		
	Northeastern Beach Tiger Beetle	MAA	A1		
	Puritan Tiger Beetle	MAA	A1		
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	A2 A6 R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2 A6 R1		
	Swamp Pink	MAA	A5 A6 R1		

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Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Conservation Cover (327)					
Animal	Bog Turtle	MBAA	A3 A4 N1	B12	
	Delmarva Fox Squirrel	MBAA	A7 N3	B5	
	Dwarf-wedge Mussel	MB		B6 B11 M2	
	Indiana Bat	MBAA	X2	B5	
	Maryland Darter	MB		B6 B11 M2	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	MAA	X3		
Plant	Canby's Dropwort	MBAA	A3 A4 A10 N1	B12	
	Harperella	MBAA	A10	B6 B11 M2	
	Northeastern Bulrush	MBAA	A3 A4 A10 N1	B12	
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10 N1	B12	
	Swamp Pink	MBAA	A3 A4 A10 N1	B12	
Conservation Crop Rotation (328)					
Animal	Bog Turtle	MB		B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B6	
	Indiana Bat	NE			
	Maryland Darter	MB		B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B12	
	Harperella	MB		B6	
	Northeastern Bulrush	MB		B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MB		B12	
	Swamp Pink	MB		B12	
Constructed Wetland (656)					
Animal	Bog Turtle	MBAA	A4 A12	B10	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	A12	B10	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A12	B10	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A2 A12 R1	B10	
	Harperella	MBAA	A2 A12 R1	B10	
	Northeastern Bulrush	MBAA	A2 A12 R1	B10	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MBAA	A2 A12 R1	B10	
	Swamp Pink	MBAA	A2 A12 R1	B10	

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Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Contour Buffer Strips (332)					
Animal	Bog Turtle	MBAA	A4 N1	B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B6	
	Indiana Bat	MAA	X2		
	Maryland Darter	MB		B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	N1	B12	
	Harperella	MB		B6	
	Northeastern Bulrush	MBAA	N1	B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MBAA	N1	B12	
	Swamp Pink	MBAA	N1	B12	
Contour Farming (330)					
Animal	Bog Turtle	MB		B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B6	
	Indiana Bat	NE			
	Maryland Darter	MB		B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B12	
	Harperella	MB		B6	
	Northeastern Bulrush	MB		B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MB		B12	
	Swamp Pink	MB		B12	
Cover Crop (340)					
Animal	Bog Turtle	MB		B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B6	
	Indiana Bat	NE			
	Maryland Darter	MB		B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B12	
	Harperella	MB		B6	
	Northeastern Bulrush	MB		B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MB		B12	
	Swamp Pink	MB		B12	

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Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Critical Area Planting (342)					
Animal	Bog Turtle	MBAA	A3 A4 A10 N1	B12	
	Delmarva Fox Squirrel	MB		B5	
	Dwarf-wedge Mussel	MB		B6 B11 M2	
	Indiana Bat	MBAA	X2	B5	
	Maryland Darter	MB		B6 B11 M2	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	MAA	X3		
Plant	Canby's Dropwort	MBAA	A3 A4 A10 N1	B12	
	Harperella	MBAA	A10	B6 B11 M2	
	Northeastern Bulrush	MBAA	A3 A4 A10 N1	B12	
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10 N1	B12	
	Swamp Pink	MBAA	A3 A4 A10 N1	B12	
Diversion (362)					
Animal	Bog Turtle	MAA	A4 A6 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	X1 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	X1 R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4 A6 R1		
	Harperella	MAA	X1 A6 R1		
	Northeastern Bulrush	MAA	A1 R1		
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MAA	R1		
	Swamp Pink	MAA	A4 A6 R1		
Dry Hydrant (432)					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A11		
	Indiana Bat	NE			
	Maryland Darter	MAA	A4		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4		
	Harperella	MAA	A4		
	Northeastern Bulrush	MAA	A4		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A4		
	Swamp Pink	MAA	A4		

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Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Fence (382)					
Animal	Bog Turtle	MBAA	C2	B8	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B8	
	Indiana Bat	MAA	X2		
	Maryland Darter	MB		B8	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B8	
	Harperella	MB		B8	
	Northeastern Bulrush	MB		B8	
	Sandplain Gerardia	MB		B8	
	Sensitive Joint-vetch	MB		B8	
	Swamp Pink	MB		B8	
Field Border (386)					
Animal	Bog Turtle	MBAA	A3 A4 A10 N1	B12	
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	MB		B6 B11 M2	
	Indiana Bat	MAA	X2		
	Maryland Darter	MB		B6 B11 M2	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	MAA	X3		
Plant	Canby's Dropwort	MBAA	A3 A4 A10 N1	B12	
	Harperella	MBAA	A10	B6 B11 M2	
	Northeastern Bulrush	MBAA	A3 A4 A10 N1	B12	
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10 N1	B12	
	Swamp Pink	MBAA	A3 A4 A10 N1	B12	
Filter Strip (393)					
Animal	Bog Turtle	MBAA	A4 N1	B12	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MB		B6 B11 M2	
	Indiana Bat	MAA	X2		
	Maryland Darter	MB		B6 B11 M2	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	MAA	X3		
Plant	Canby's Dropwort	MBAA	A4 A10 N1	B12	
	Harperella	MBAA	A10	B6 B11 M2	
	Northeastern Bulrush	MBAA	A4 A10 N1	B12	
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10 N1	B12	
	Swamp Pink	MBAA	A4 A10 N1	B12	

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Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Fish Passage (396)					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	C9		
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	C8		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	MAA	A4		
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
Fishpond Management (399)					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	MAA	A10		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
Forage Harvest Management (511)					
Animal	Bog Turtle	MBAA	A4		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Forest Stand Improvement (666)					
Animal	Bog Turtle	MBAA	C2		
	Delmarva Fox Squirrel	MBAA	A7 C4		M1
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MBAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6 A13		
	Harperella	MAA	A9 A10		
	Northeastern Bulrush	MAA	A6 A13		
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	MBAA	A6 A13 C4		
	Swamp Pink	MBAA	A6 A13 C4		
Grade Stabilization Structure (410)					
Animal	Bog Turtle	MBAA	C3	B7	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	A4	B10	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	C8	B10	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B10	
	Harperella	MBAA	C9	B10	
	Northeastern Bulrush	MB		B10	
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MB		B10	
	Swamp Pink	MB		B10	
Grassed Waterway (412)					
Animal	Bog Turtle	MBAA	A4 R1	B10	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	R1	B10	M2
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	R1	B10	M2
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 R1	B10	
	Harperella	MBAA	R1	B10	M2
	Northeastern Bulrush	MBAA	A4 R1	B10	
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MBAA	A4 R1	B10	
	Swamp Pink	MBAA	A4 R1	B10	

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Heavy Use Area Protection (561)					
Animal	Bog Turtle	MBAA	A2 A6 R1	B9	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MB		B9	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A2 A6 R1	B9	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A2 A6 R1	B9	
	Harperella	MBAA	A4	B9	
	Northeastern Bulrush	MBAA	A4 R1	B9	
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MBAA	A2 A6 R1	B9	
	Swamp Pink	MBAA	A4 A6 R1	B9	
Hedgerow Planting (422)					
Animal	Bog Turtle	MAA	A3 N1		
	Delmarva Fox Squirrel	MB		B5	
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MB		B5	
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE	X3		
Plant	Canby's Dropwort	MAA	A3 A10 N1		
	Harperella	MAA	A10		
	Northeastern Bulrush	MAA	A3 A10 N1		
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MAA	A4 A10 N1		
	Swamp Pink	MAA	A3 A10 N1		
Irrigation System, Microirrigation (441)					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A6		
	Indiana Bat	NE			
	Maryland Darter	MAA	A6		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6		
	Harperella	MAA	A6		
	Northeastern Bulrush	MAA	A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE	A6		
	Swamp Pink	NE	A6		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Irrigation System, Sprinkler (442)					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A6		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A6		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1 A6 R1		
	Harperella	MAA	A6 R1		
	Northeastern Bulrush	MAA	A1 A6 R1		
	Sandplain Gerardia	MAA	R1		
	Sensitive Joint-vetch	MAA	A1 A6 R1		
	Swamp Pink	MAA	A1 A6 R1		
Irrigation System, Tailwater Recovery (447)					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
Irrigation Water Management (449)					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A6		
	Indiana Bat	NE			
	Maryland Darter	MAA	A6		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6		
	Harperella	MAA	A6		
	Northeastern Bulrush	MAA	A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A6		
	Swamp Pink	MAA	A6		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Lined Waterway or Outlet (468)					
Animal	Bog Turtle	MBAA	A4 R1	B10	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	R1	B10	M2
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	R1	B10	M2
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 R1	B10	
	Harperella	MBAA	R1	B10	M2
	Northeastern Bulrush	MBAA	A4 R1	B10	
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MBAA	A4 R1	B10	
	Swamp Pink	MBAA	A4 R1	B10	
Manure Transfer (634)					
Animal	Bog Turtle	MAA	A2 R1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A1 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A1 R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 R1		
	Harperella	MAA	A1 R1		
	Northeastern Bulrush	MAA	A1 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A2 R1		
	Swamp Pink	MAA	A2 R1		
Nutrient Management (590)					
Animal	Bog Turtle	MAA	A5		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A5		
	Indiana Bat	NE			
	Maryland Darter	MAA	A5		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A5		
	Harperella	MAA	A5		
	Northeastern Bulrush	MAA	A5		
	Sandplain Gerardia	MAA	A5		
	Sensitive Joint-vetch	MAA	A5		
	Swamp Pink	MAA	A5		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Pasture and Hay Planting (512)					
Animal	Bog Turtle	MAA	A4	N1	
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	MAA	A9		
	Indiana Bat	NE	X2		
	Maryland Darter	MAA	A9		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1	A10	N1
	Harperella	MAA	A9	A10	
	Northeastern Bulrush	MAA	A1	A10	N1
	Sandplain Gerardia	NE	A1	A10	
	Sensitive Joint-vetch	MAA	A1	A10	N1
	Swamp Pink	MAA	A1	A10	N1
Pest Management (595)					
Animal	Bog Turtle	MBAA	C2		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MB			B4
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A10		
	Harperella	MAA	A10		
	Northeastern Bulrush	MAA	A10		
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	MBAA	A10	C4	
	Swamp Pink	MAA	A10		
Pipeline (516)					
Animal	Bog Turtle	MAA	A4		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A4		
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4		
	Harperella	MAA	A4		
	Northeastern Bulrush	MAA	A4		
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A4		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Pond (378)					
Animal	Bog Turtle	MAA	A1 A6		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A4		
	Indiana Bat	NE	X2		
	Maryland Darter	MAA	A1 A6		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4 A6 R1		
	Harperella	MAA	A4 A6 R1		
	Northeastern Bulrush	MAA	A4 A6 R1		
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MAA	A4 A6 R1		
	Swamp Pink	MAA	A13 A6 R1		
Pond Sealing or Lining, Bentonite Sealant (521C)					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4 A6		
	Harperella	MAA	A4 A6		
	Northeastern Bulrush	MAA	A4 A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A4 A6		
	Swamp Pink	MAA	A13 A6		
Pond Sealing or Lining, Flexible Membrane (521A)					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4 A6		
	Harperella	MAA	A4 A6		
	Northeastern Bulrush	MAA	A4 A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A4 A6		
	Swamp Pink	MAA	A13 A6		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Pond Sealing or Lining, Soil Dispersant (521B)					
Animal	Bog Turtle	MAA	A1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4 A6 R1		
	Harperella	MAA	A4 A6 R1		
	Northeastern Bulrush	MAA	A4 A6 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A4 A6 R1		
	Swamp Pink	MAA	A13 A6 R1		
Prescribed Forestry (409)					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	MBAA	A7 C4		M1
	Dwarf-wedge Mussel	MAA	A9		
	Indiana Bat	MBAA	X2		
	Maryland Darter	MAA	A9		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6 A13		
	Harperella	MAA	A9 A10		
	Northeastern Bulrush	MAA	A6 A13		
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	MBAA	A6 A13 C4		
	Swamp Pink	MBAA	A6 A13 C4		
Prescribed Grazing (528)					
Animal	Bog Turtle	MBAA	C1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	A9	B8	
	Indiana Bat	NE			
	Maryland Darter	MBAA	A9	B8	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4		
	Harperella	MBAA	A9	B8	
	Northeastern Bulrush	MAA	A4		
	Sandplain Gerardia	MAA	A4		
	Sensitive Joint-vetch	MAA	A4		
	Swamp Pink	MAA	A4		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Residue and Tillage Management, Mulch Till (345)					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (329)					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
Residue Management, Seasonal (344)					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Restoration and Management of Rare or Declining Habitats (643)					
Animal	Bog Turtle	MBAA	C4		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	C4		
	Harperella	NE			
	Northeastern Bulrush	MBAA	C6		
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	MBAA	C4		
	Swamp Pink	MBAA	C4		
Riparian Forest Buffer (391)					
Animal	Bog Turtle	MBAA	A3		B12
	Delmarva Fox Squirrel	MB			B5
	Dwarf-wedge Mussel	MB			B6
	Indiana Bat	MB			B5
	Maryland Darter	MB			B6
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A3 A10		B12
	Harperella	MBAA	A10		B6
	Northeastern Bulrush	MBAA	A3 A10		B12
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10		B12
	Swamp Pink	MBAA	A3 A10		B12
Riparian Herbaceous Cover (390)					
Animal	Bog Turtle	MBAA	A4 N1		B12
	Delmarva Fox Squirrel	MBAA	A7		
	Dwarf-wedge Mussel	MB			B6 B11 M2
	Indiana Bat	MAA	X2		
	Maryland Darter	MB			B6 B11 M2
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 A10 N1		B12
	Harperella	MBAA	A10		B6 B11 M2
	Northeastern Bulrush	MBAA	A4 A10 N1		B12
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10 N1		B12
	Swamp Pink	MBAA	A4 A10 N1		B12

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Roof Runoff Structure (558)					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
Sediment Basin (350)					
Animal	Bog Turtle	MBAA	A1 A6		B7
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	A6 A9		B11
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A6 A9		B11
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 A6 R1		B7
	Harperella	MBAA	A4 A6 R1		B11
	Northeastern Bulrush	MBAA	A4 A6 R1		B7
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MBAA	A4 A6 R1		B7
	Swamp Pink	MBAA	A4 A6 R1		B7
Shallow Water Development and Management (646)					
Animal	Bog Turtle	MAA	A1 A6		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1 A6		
	Harperella	NE			
	Northeastern Bulrush	MAA	A1 A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A1 A6		
	Swamp Pink	MAA	A1 A6		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Sinkhole and Sinkhole Area Treatment (725)					
Animal	Bog Turtle	MAA	A4		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	MAA	A4 A6 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			
Spring Development (574)					
Animal	Bog Turtle	MAA	A6		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6		
	Harperella	MAA	A6		
	Northeastern Bulrush	MAA	A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A6		
Stream Crossing (578)					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	X4		
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	X4		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4	B8	
	Harperella	MBAA	X4		
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MBAA	A4	B8	

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Stream Habitat Improvement and Management (395)					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	C8		
	Indiana Bat	NE			
	Maryland Darter	MBAA	C8		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	MBAA	C8		
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A4		
Streambank and Shoreline Protection (580)					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	C8		
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	C8		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	MBAA	C8		
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE	A4		
Stripcropping (585)					
Animal	Bog Turtle	MB		B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MB		B6	
	Indiana Bat	NE			
	Maryland Darter	MB		B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MB		B12	
	Harperella	MB		B6	
	Northeastern Bulrush	MB		B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MB		B12	
	Swamp Pink	MB		B12	

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Structure for Water Control (587)					
Animal	Bog Turtle	MBAA	C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A4		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A4	A6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2	A6	
	Harperella	MAA	A4	A6	
	Northeastern Bulrush	MAA	A4	A6	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A4	A6	
Subsurface Drain (606)					
Animal	Bog Turtle	MAA	A2	A6	R1
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2	A6	R1
	Harperella	MAA	R1		
	Northeastern Bulrush	MAA	A2	A6	R1
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A2	A6	R1
Surface Drainage, Field Ditch (607)					
Animal	Bog Turtle	MAA	A2	A6	R1
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2	A6	R1
	Harperella	MAA	R1		
	Northeastern Bulrush	MAA	A2	A6	R1
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A2	A6	R1

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Surface Drainage, Main or Lateral (608)					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A2 A6 R1		
Terrace (600)					
Animal	Bog Turtle	MBAA	A2 A6 R1	B12	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	R1	B6	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	R1	B6	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A2 A6 R1	B12	
	Harperella	MBAA	R1	B6	
	Northeastern Bulrush	MBAA	A2 A6 R1	B12	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MBAA	A2 A6 R1	B12	
Transition to Organic Production (789)					
Animal	Bog Turtle	NE			
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MB		B4	
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Tree/Shrub Establishment (612)					
Animal	Bog Turtle	MBAA	A3		B12
	Delmarva Fox Squirrel	MB			B5
	Dwarf-wedge Mussel	MB			B6
	Indiana Bat	MBAA	X2		B5
	Maryland Darter	MB			B6
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A6 A13		B12
	Harperella	MBAA	A9 A10		B6
	Northeastern Bulrush	MBAA	A6 A13		B12
	Sandplain Gerardia	MAA	A13		
	Sensitive Joint-vetch	MBAA	A6 A13		B12
	Swamp Pink	MBAA	A6 A13		B12
Underground Outlet (620)					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A2 A6 R1		
Upland Wildlife Habitat Management (645)					
Animal	Bog Turtle	MBAA	A3 C3		
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	NE			
	Indiana Bat	MAA	X2		
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE			
	Harperella	NE			
	Northeastern Bulrush	NE			
	Sandplain Gerardia	MBAA	C7		
	Sensitive Joint-vetch	NE			
	Swamp Pink	NE			

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Vegetated Treatment Area (635)					
Animal	Bog Turtle	MBAA	A2 A12	B10	
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	A4 A12	B10	
	Indiana Bat	NE			
	Maryland Darter	MBAA	A12	B10	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A2 A12	B10	
	Harperella	MBAA	A12	B10	
	Northeastern Bulrush	MBAA	A2 A12	B10	
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MBAA	A2 A12	B10	
	Swamp Pink	MBAA	A2 A12	B10	
Waste Storage Facility (313)					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 A6 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 A6 R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	A2 A6 R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2 A6 R1		
	Swamp Pink	MAA	A2 A6 R1		
Waste Treatment Lagoon (359)					
Animal	Bog Turtle	MAA	A2 A6 R1		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MAA	A2 A6 R1		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A2 A6 R1		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A2 A6 R1		
	Harperella	MAA	A2 A6 R1		
	Northeastern Bulrush	MAA	A2 A6 R1		
	Sandplain Gerardia	MAA	A1		
	Sensitive Joint-vetch	MAA	A2 A6 R1		
	Swamp Pink	MAA	A2 A6 R1		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Waste Utilization (633)					
Animal	Bog Turtle	MAA	A5		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A5		
	Indiana Bat	NE			
	Maryland Darter	MAA	A5		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A5		
	Harperella	MAA	A5		
	Northeastern Bulrush	MAA	A5		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A5		
	Swamp Pink	MAA	A5		
Water and Sediment Control Basin (638)					
Animal	Bog Turtle	MBAA	A1 A6 R1	B7	
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	A6 A9 R1	B11	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A6 A9 R1	B11	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A4 A6 R1	B7	
	Harperella	MBAA	A4 A6 R1	B11	
	Northeastern Bulrush	MBAA	A4 A6 R1	B7	
	Sandplain Gerardia	MBAA	A4		
	Sensitive Joint-vetch	MBAA	A4 A6 R1	B7	
	Swamp Pink	MBAA	A4 A6 R1	B7	
Water Well (642)					
Animal	Bog Turtle	MAA	A6 N2		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MAA	A6 N2		
	Indiana Bat	NE			
	Maryland Darter	MAA	A6 N2		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A6 N2		
	Harperella	MAA	A6 N2		
	Northeastern Bulrush	MAA	A6 N2		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A6 N2		
	Swamp Pink	MAA	A6 N2		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Watering Facility (614)					
Animal	Bog Turtle	MBAA	A1 C3		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	MBAA	A4	B8	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A4	B8	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	NE	A1		
	Harperella	MBAA	A4	B8	
	Northeastern Bulrush	NE	A1		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE	A1		
	Swamp Pink	NE	A1		
Wetland Creation (658)					
Animal	Bog Turtle	MAA	A1 A6		
	Delmarva Fox Squirrel	MAA	A7		
	Dwarf-wedge Mussel	MAA	A6 A9		
	Indiana Bat	MAA	X2		
	Maryland Darter	MAA	A6 A9		
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A1 A6		
	Harperella	MAA	A1 A6 A9 A10		
	Northeastern Bulrush	MAA	A1 A6		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	NE			
	Swamp Pink	MAA	A1 A6		
Wetland Restoration (657)					
Animal	Bog Turtle	MBAA	A1 A6 C3		
	Delmarva Fox Squirrel	MAA	A7 N3		M1
	Dwarf-wedge Mussel	MBAA	A6 A9	B11	
	Indiana Bat	MAA	X2		
	Maryland Darter	MBAA	A6 A9	B11	
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A1 A6 C4		
	Harperella	MBAA	A1 A6 A9 A10 B11		
	Northeastern Bulrush	MBAA	A1 A6 C4		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A1 A6 A10		
	Swamp Pink	MBAA	A1 A6 C4		

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MARYLAND NRCS PRACTICE EFFECTS ON THREATENED AND ENDANGERED SPECIES

Animal/Plant	Species	Potential Effect	Recommendation	Benefit	Mgmt
Wetland Wildlife Habitat Management (644)					
Animal	Bog Turtle	MBAA	C2		
	Delmarva Fox Squirrel	NE			
	Dwarf-wedge Mussel	NE			
	Indiana Bat	NE			
	Maryland Darter	NE			
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MAA	A4		
	Harperella	NE			
	Northeastern Bulrush	MAA	A4		
	Sandplain Gerardia	NE			
	Sensitive Joint-vetch	MAA	A4		
	Swamp Pink	MAA	A4		
Windbreak/Shelterbelt Establishment (380)					
Animal	Bog Turtle	MBAA	A3		B12
	Delmarva Fox Squirrel	MB			B5
	Dwarf-wedge Mussel	MB			B6
	Indiana Bat	MBAA	X2		B5
	Maryland Darter	MB			B6
	Northeastern Beach Tiger Beetle	NE			
	Puritan Tiger Beetle	NE			
Plant	Canby's Dropwort	MBAA	A3 A10		B12
	Harperella	MBAA	A10		B6
	Northeastern Bulrush	MBAA	A3 A10		B12
	Sandplain Gerardia	MAA	A1 A10		
	Sensitive Joint-vetch	MBAA	A4 A10		B12
	Swamp Pink	MBAA	A3 A10		B12

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