## Conservation Activity Plan (CAP) 138 and Organic System Plan Supplements

### CAP 138

The CAP 138 is an NRCS Conservation Activity Plan that helps farmers who are interested in transitioning from conventional farming practices to organic production by addressing the natural resource concerns on their operation. To receive financial and technical assistance from NRCS for the completion of a CAP, it must be prepared by NRCS-certified technical service providers (TSPs). CAPs must meet the technical planning requirements established by the agency and are used by NRCS employees to draft a final certified conservation plan, if requested by the producer.

The CAP 138 consists of three sections:

1. Resource Inventory
2. Erosion Control inventory
3. Summary Record of Planned NRCS Conservation Practices

### Organic System Plan Supplements

The Resource Inventory, section one of the CAP 138, may serve as a portion of an Organic System Plan (OSP), but it is not a replacement for one. The information included in the resource inventory can be relevant and useful in applying for organic certification; however, the producer is responsible for completing all of the OSP requirements not addressed by the Resource Inventory. The National Organic Program (NOP) worked closely with NRCS to develop the attached updated Resource Inventory. The Resource Inventory, when submitted with the supplemental companion document Resource Inventory Supplement, contains all of the required components of an OSP. Current NOP regulations do not require the use of a specific OSP. The use of the Resource Inventory and the Resource Inventory Supplement document is completely optional.

### Instructions for use:

1. To receive technical assistance in filling out the CAP 138, producers should contact their local NRCS service center. NRCS can help locate a TSP or provide conservation planning services outside of the CAP 138 requirements.
2. TSPs must develop all three sections required by the CAP 138. In some cases, more information will be provided by your TSP or NRCS than what is necessary for the CAP 138 or the OSP.
3. The NOP does not require the submission of the erosion control inventory (Section Two of the Cap 138), RUSLE2 or WEPS printouts, record of planned NRCS conservation practices (Section 3 of the CAP 138) or NRCS Implementation Requirements. You are not required to submit these to your certifier. Anything submitted as part of your OSP will undergo a rigorous review and audit.
4. To meet all of the requirements for an OSP both the Resource Inventory and the Resource Inventory Supplement must be completed.

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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# CAP 138 Section One

NOP § 205.401

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|---|---|---|
| Producer(s) | | |
| Farm, ranch or business name | | |
| Mailing address | | |
| Physical address | | |
| City | State | Zip code |
| Primary phone number | Alternate phone number | Fax number (optional) |
| Email address | | |
| County (or counties) where farm/ranch is located | | |
| Name and number of Technical Service Provider:<br>Signature of TSP:<br>Date: | | |
| Signature of applicant(s) | | Date |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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## Land Requirements NOP § 205.103, § 205.202

1. Land Management (§ 205.202(a) and (b))

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|---|
| 1.1 When did you begin managing this land? (MM/DD/YY) |
| 1.2 What is your estimated harvest date of a certified organic crop from this land? |
| 1.3 Describe, in general terms, how this land has been managed for the past 3 years: crops grown, fallow, pasture, etc.; organic or non-organic management; farming practices used: |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
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## Maps § 205.202(c)

| 2.1 Attach Field Map(s). Provide an accurate conservation plan map that shows each field included on the farm listed above. | |
|---|---|
| Show boundaries and area to be certified organic. The map should be 8 ½ x 11". This may be a Farm Service Agency map, or aerial photograph, as long as it is clearly readable when photocopied. This map must be current and dated. An updated (revised or new) map must be submitted whenever information on the map changes (field numbers, acres, buffers, adjoining land use, etc.) USDA – NRCS Soils Map of the Farming Operation with soils descriptions for the planned land uses. | |
| ***The map attached includes the following:*** | |
| ☐ field name(s)/number(s) with land use | ☐ north arrow |
| ☐ adjoining land use(s) | ☐ landmarks such as buildings, farm or public roads, railroad tracks |
| ☐ area (acres) | ☐ slope(s) |
| ☐ buffers (if applicable) | ☐ windbreaks, hedgerows or woodlands |
| ☐ location of planned structural conservation practices | **Required for ruminant livestock producers:** |
| | ☐ location, size and identification of pastures |
| | ☐ location and types of permanent fences |
| | ☐ feeding area(s) (to feed without crowding) |
| | ☐ location and source of water and shade |
| 2.2 Attach a Farm Overview Map that shows the location of this farm and all other farm locations in your operation. | |
| ☐ Attached | ☐ Not applicable; one farm location |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

## Boundaries, Adjacent Land Use and Buffer Areas (§ 205.202(c)

3.1 Describe your farm borders and adjacent land use (organic farms, fallow fields, CRP land, wild lands, non-organic crop or livestock production, residential use, etc.)

3.2 Describe the measures you take (management practices, communications and/or physical barriers) to prevent contamination by prohibited materials that are or may be applied to adjacent or nearby land (neighboring parcels or fields in split operations).

☐ No areas of concern

3.3 Describe buffer areas for each field/pasture that you maintain on your organic land to protect crops from contamination. Please specify whether you grow crops in the buffer area, and whether you plan to sell or represent them as organic. If you need more space, please attach a separate page.

☐ Buffer description attached

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
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## Natural Resource Management

**NOP § 205.2 Organic production, Natural Resources of the Operation § 205.200, § 205.203, § 205.239, § 205.240**

**Key NOP standards related to natural resource management:**

**§ 205.2 Definitions:**

**Organic production**. A production system that is managed in accordance with the Act and regulations in this part to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.

**Natural resources of the operation**. The physical, hydrological, and biological features of a production operation, including soil, water, wetlands, woodlands, and wildlife.

§ 205.200: Production practices implemented in accordance with this subpart must maintain or improve the natural resources of the operation, including soil and water quality.

§ 205.203(a): The producer must select and implement tillage and cultivation practices that maintain or improve the physical, chemical, and biological condition of soil and minimize soil erosion.

§ 205.203(c): The producer must manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances.

§ 205.206(b)(2): Pest problems may be controlled through mechanical or physical methods including but not limited to the development of habitat for natural enemies of pests. [See also § 205.206(a)(2)]

§ 205.239(b)(4): The producer of an organic livestock operation may provide temporary confinement for an animal because of risk to soil or water quality. [See also § 205.239(a)(3)]

§ 205.239(e): The producer of an organic livestock operation must manage manure in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, heavy metals, or pathogenic organisms and optimizes recycling of nutrients and must manage pastures and other outdoor access areas in a manner that does not put soil or water quality at risk.

§ 205.240(c)(8): The pasture plan shall include a description of the erosion control and protection of natural wetlands and riparian areas practices.

Organic standards specifically address soil (conservation and health) and water (conservation and quality; contamination prevention). As quoted above, the standards also include a general requirement to maintain or improve natural resources (soil, water, wetlands, woodlands and wildlife) by integrating cultural, biological and mechanical practices to foster cycling of resources, promote ecological balance, and conserve biodiversity. Organic production practices must maintain or improve their natural resources.

While natural resource management is a core organic standard, producer strategies will be specific to each site and type of production. Each operation's practices are adapted to the features of the land and local conditions, especially related to: soil (soil types, slope, risks of erosion, and overall health); water (position in the watershed, presence of water courses and riparian areas, and water availability or scarcity); and wetlands, woodlands and wildlife (ecosystem type, biological diversity and habitat on and around the farm).

Organic farming practices can conserve soil, increase soil health, protect water and contribute to biological diversity within—and often beyond—its boundaries. On-farm practices may include: soil building to increase organic matter, humus, biological activity and diversity of soil organisms; water conservation to benefit domestic/native species and riparian ecosystems; inclusion of a diversity of flowering plants, habitat or shelter for pollinators, insects, other arthropods, spiders, bats, raptors and other pest predators; planting diverse pastures; non-lethal livestock predator control; wildlife friendly fencing; monitoring and control of specific non-native invasive species; establishment of grassed waterways, hedgerows or other plantings to check erosion and foster habitat; wetland and riparian area protection; native habitat restoration; or efforts to promote wildlife migration corridors and conservation.

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
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As you describe your natural resource management practices, please note that some of your answers to questions about natural resource management may be relevant to other sections of this OSP as they relate to crop rotation, nutrient and manure management. The following questions are intended to address general, whole-farm goals and approaches to organic natural resource management.

3.1 Please describe how your farming or ranching practices—crop and/or livestock production practices—maintain or improve natural resources, foster cycling of nutrients, promote ecological balance, and conserve biodiversity. Please list the specific strategies or NRCS practices you use that contribute to each general goal listed below, as applicable. Use the space below or note in charts for questions 4.1a. – 4.1e.

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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4.1a Conserve, soil, improve soil condition, prevent soil erosion. TSPs or planners will use the attached national and State resource concerns and planning criteria document to identify resource concerns.

| Resource Concerns | Concern (Yes or No)<br><br>List by field (1,2,3, etc.) | Planned NRCS Conservation Practices to address. Specify which fields will have these practices. |
|---|---|---|
| SOIL EROSION<br><br>☐ Sheet, rill & wind erosion<br>☐ Concentrated flow erosion<br>☐ Excessive bank erosion | | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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| Resource Concerns | Concern (Yes or No)<br><br>List by field (1,2,3, etc.) | Planned NRCS Conservation Practices to address. Specify which fields will have these practices. |
|---|---|---|
| Soil Quality Degradation<br><br>☐ Subsidence<br>☐ Compaction<br>☐ Organic matter depletion<br>☐ Concentration of salts or chemicals | | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

4.1b Prevent water contamination by plant nutrients; protect water quality.

| Resource Concerns | Concern (Yes or No)<br><br>List by field (1,2,3, etc.) | Planned NRCS Conservation Practices to address. Specify which fields will have these practices. |
|---|---|---|
| Water Quality Degradation<br><br>☐ Excess nutrients in water<br>☐ Pesticides transported to water<br>☐ Excess pathogens and chemicals<br>☐ Excessive salts in waters<br>☐ Petroleum, heavy metals and other pollutants<br>☐ Excessive sediment<br>☐ Elevated water temp | | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

4.1c Conserve water

| Resource Concerns | Concern (Yes or No)<br><br>List by field (1,2,3, etc.) | Existing NRCS Conservation Practices to address. Specify which fields have these practices. |
|---|---|---|
| Insufficient Water<br><br>☐ Inefficient moisture mgmt<br>☐ Inefficient use of irrigation water | | |
| Excess Water<br><br>☐ Ponding<br>☐ Flooding<br>☐ Seasonal high water table<br>☐ Seeps and drifted snow | | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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4.1d Conserve biodiversity (soil organisms, pollinators, natural enemies of pests, predators, native habitat, vegetation, and wildlife

| Resource Concerns | Concern (Yes or No)<br><br>List by field (1,2,3, etc.) | Existing NRCS Conservation Practices to address. Specify which fields have these practices. |
|---|---|---|
| Degraded Plant Condition<br><br>☐ Undesirable plant productivity/health<br>☐ Inadequate structure and composition<br>☐ Excessive plant pest pressure<br>☐ Wildfire hazard | | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
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| Resource Concerns | Concern (Yes or No)<br><br>List by field (1,2,3, etc.) | Existing NRCS Conservation Practices to address. Specify which fields have these practices. |
|---|---|---|
| Inadequate Habitat for Fish & Wildlife<br><br>☐ Habitat degradation | | |
| | | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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4.1e Livestock

| Resource Concerns | Concern (Yes or No)<br><br>List by field (1,2,3, etc.) | Existing NRCS Conservation Practices to address. Specify which fields have these practices. |
|---|---|---|
| Livestock Production Limitation<br><br>☐ Inadequate feed and storage<br>☐ Inadequate livestock shelter<br>☐ Inadequate livestock water | | |
| | | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
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**4.17 Other practices that maintain or improve natural resources (soil, water, wetlands, woodlands and wildlife), foster cycling of nutrients, promote ecological balance, and conserve biodiversity.**

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
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| Soil Management and Crop Rotation | NOP § 205.2 Crop Rotation, § 205.203, § 205.205 |
|---|---|

**5.1 What are the major practice components of your soil-building/crop nutrient management plan? Check all that will be used.**

- ☐ crop rotation
- ☐ cover crops
- ☐ compost
- ☐ fertilizer materials or blends
- ☐ other (describe):
- ☐ incorporation of crop residue
- ☐ manure
- ☐ soil inoculants
- ☐ mined lime
- ☐ mulch
- ☐ biodynamic preparations
- ☐ green manures

5.2 List all materials used or planned for use on your Materials List.

☐ All materials used or planned for use are listed on my Materials List. ☐ No materials are used.

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Describe your crop rotation plan(s), in general terms, including its main goals (soil organic matter; weed and pest management, nutrient management; erosion; biological diversity). List the sequence and frequency of crops/plant families, cover crops, green manures or sod. If you use more than one basic rotation sequence, please describe each rotation you use. For perennial crops, describe management of ground cover, alley cropping, intercropping or hedgerows.

Please note: Records documenting crop rotation on each field will be verified at your inspection. Please be prepared to show documentation. Examples:

- Vegetable and Small Fruit Rotation: Brassica family vegetables—fall-planted strawberries (1-2 years' harvest, depending on weather and condition of plants)—winter cover crop—warm season vegetables—winter cover crop—cut flowers— cover crop. Break disease cycles of Phytopthora and Botrytis in strawberries.
- Spring grain—legume green manure—winter grain—oilseed. Manage soil moisture, control weeds, cycle nutrients and provide nitrogen for grain crops.
- Apple orchard and vineyard—winter cover crops between rows; grass in apples; legume blend in vineyard, hedgerow of native shrubs along north farm roads. Increase organic matter, prevent nutrient leaching, provide habitat for songbirds and natural enemies of pests.

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
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**5.3** continued

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| 5.4 Describe and indicate, as applicable, the issues you address with your crop rotation and soil management practices. |
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| a. Organic matter increase: |
| b. Soil compaction or crusting: |
| c. Wind erosion: |
| d. Water Erosion: |
| e. Salinity: |
| f. Pest management: |
| g. Water availability: |
| h. Water Infiltration |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

| |
|---|
| i. Soil structure: |
| j. Deficient nutrients: |
| k. Excess Nutrients |
| l. pH: |
| m. Disease management: |
| n. Water availability: |
| o. Soil structure: |
| p. Deficient or excess nutrients: |
| q. Disease management: |
| r. Weed Management: |
| s. Feed for Livestock: |
| t. Overall Farm Biodiversity: |
| u. Other (describe): |

| 5.5 Describe, and indicate, as applicable, how you monitor the effectiveness of your rotation and soil management plan? |
|---|
| a. Soil observation: |
| b. Crop observation: |
| c. Plant tissue tests: |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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|---|
| d. Soil (nutrient) tests: |
| e. Crop yield comparison: |
| f. Microbiological tests: |
| g. Soil organic matter content: |
| h. Crop quality tests: |
| i. other: |

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| 5.6 When and how often (daily, weekly, monthly, yearly, as needed) do you do each type of monitoring? What monitoring records do you keep? |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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## Pest, Disease and Weed Management & Monitoring

## NOP §205.206, § 205.600-602, § 205.103

6.1 Check the management practices you use to prevent crop pests, weeds, and diseases. Add the name of your significant (recurring or potentially problematic) diseases (fungus, bacteria, virus) and all pest types: insects, mites, birds, rodents, birds, deer, etc. There is no need to name weeds individually.

| Pest prevention practice | Weeds | Pests | Diseases |
|---|---|---|---|
| Crop rotation | | | |
| Soil and crop nutrient management | | | |
| Cover crops/green manures/smother crops | | | |
| Diversified plantings / planting arrangements | | | |
| Sanitation measures to remove disease vectors, weed seeds, and pest habitat | | | |
| Selection of suitable species/growing location | | | |
| Disease/pest/weed resistant varieties | | | |
| Timing of planting | | | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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| Pest prevention practice | Weeds | Pests | Diseases |
|---|---|---|---|
| Water / Irrigation management | | | |
| Mechanical or physical means (hoeing, pruning, picking, vacuuming, etc.) | | | |
| Augment pest predators/ parasites/beneficials | | | |
| Develop habitat for natural enemies | | | |
| Construct habitat for predators (raptor perches, owl or bat boxes, frog ponds, etc.) | | | |
| Mechanical cultivation/tillage or hand weeding | | | |
| Mulching with biodegradable materials | | | |
| Mowing or Livestock grazing | | | |
| Flaming, heat, steam, or electrical | | | |
| Plastic or synthetic mulch / solarization | | | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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| Pest prevention practice | Weeds | Pests | Diseases |
|---|---|---|---|
| Burning crop residue (see item 5 next page) | | | |
| Others (describe): | | | |

6.2 List any pest, disease or weed problems and practices not addressed in the table above.

| Problem Weed, Disease or Pest (insect, mite, nematode, rodent, deer, etc.) |
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| |
| Describe specific preventative practices (or materials) you use to control these pests. |
| |

6.3 If you use materials to manage pests (including natural botanical, mineral or allowed synthetics), please list all of these on your Materials List.

☐ No pest management materials used

| Listed Pesticides: |
|---|
| |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
| --- | --- | --- | --- |
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6.4 Describe the conditions under which you would use a material for pest management:

6.5 Describe how and when you monitor the effectiveness of your pest management program, and whether you keep any monitoring records. Please have any records available for inspection:

6.5 Do you burn crop residues? No ☐ Yes ☐ /Ĩ ĽĞĢ deĢĐđšďĞ the crop, purpose, lŽĐĂłšŽŶand timing of burning.

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
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## Materials List — NOP § 205.203, § 205.206, § 205.600-606

7. List all materials (except seed and planting stock) you use or plan to use. Include soil amendments--fertilizers, minerals, micronutrients, compost, manure; inoculants and seed treatments; pest / disease / weed management substances and adjuvants; crop production aids, or any other materials applied to soil, crops, water, or stored products. If you need more space, please attach a list.

**List attached**

| Product Name or Type of Product (e.g. poultry manure) (be specific) | Manufacturer or Raw Material Supplier | Use / Type of Product | Restriction or Annotation – Completed by 3rd Party Verifier | Third Party Verification** - Completed by 3rd Party Verifier |
|---|---|---|---|---|
| **Example:** Dipel DF | Valent Biosciences Corp. | Bt | Preventative pest control used | OMRI listed 2011 |
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**Per NOP regulation: Allowability of Materials may be established by an EPA "For Organic Production" label, by the brand name listed on the Organic Materials Review Institute (OMRI) or Washington State Department of Agriculture (WSDA) List, or a list maintained or recognized by your certifier. If the materials do not appear on one of these lists, you must obtain approval from your certifier by submitting a label or other documentation from the manufacturer that discloses all ingredients.

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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## Greenhouse Crop Production — NOP § 205.2, § 205.201(a)(5), § 205.202(c)

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|---|
| 8. Complete this Greenhouse Crop Production form along with your other applicable Crop forms if you produce organic seedlings, transplants, or crops in a greenhouse, high tunnel, hoophouse or coldframe. |
| 8.1 Indicate the scope of your greenhouse operations. |
| ☐ Greenhouse crop production is part of my farming operation and located on certified organic land. Please show your greenhouse location and size on your farm map. ☐ Shown on map |
| ☐ This operation consists primarily or exclusively of greenhouse production. Please submit a separate Land Requirements form for your greenhouse operation, with a Map showing the production area, location and size of greenhouses, shade or lath houses, outdoor areas, material storage area, irrigation system, soil mixing and seeding equipment, product staging, packing, cooling and loading areas, as applicable. |
| ☐ Land Requirements Form (page 2 of this document) |
| 8.2 Describe your greenhouse structure type(s). Check all that apply. |
| ☐ Hoop house(s) |
| ☐ Greenhouse(s) |
| ☐ Cold frame(s) |
| ☐ Other (describe |
| 8.3 Describe your greenhouse crops. Check all that apply. |
| ☐ Annual transplants or starts: |
| ☐ Harvested crops (e.g. fruits, vegetables, cut flowers, herbs: |
| ☐ Perennials—planting or sale of whole plants as organic: |
| ☐ Other (describe): |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
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8.4 Are greenhouse crops grown in soil? ☐ No ☐ Yes

8.5 Are crops grown in planting medium? ☐ No ☐ Yes

If yes, include all components of the potting soil or planting medium mixture on your Materials list.

8.6 Do you produce both organic and non-organic greenhouse crops? ☐ No, organic only ☐ Yes

8.7 Is your organic greenhouse adjacent to non-organic greenhouse production areas? ☐ No ☐ Yes

8.8 If Yes, to question 6 or 7, please address each potential risk listed below by describing the management practices and physical barriers you use to prevent commingling or contamination:

8.9 Planting Medium (including soil mix materials, wetting agents and fertilizer materials) storage areas, soil mixing, container/tray filling and seeding equipment:

8.10 Production or Growing Areas—separation and identification:

8.11 Plant and Container Identification—labels and tags:

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

| 8.12 Irrigation system: Identify your water source. Describe your use of water with respect to fertilizer materials and equipment. If water lines are shared, attach a diagram of piping, pumps, valves and backflow preventers, as applicable. | |
|---|---|
| ☐ Diagram attached | ☐ Not Applicable; separate equipment and water lines, dedicated to organic. |
| 8.13 Ventilation system—prevention of drift of prohibited materials. | |
| 8.14 Planting Containers—identification, cleaning, and cleaning materials. | |
| Please be prepared to show documentation of all systems and practices described above. | |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

## Compost and Manure Use and/or Production — NOP § 205.203

**9. Manure**

9.1 Do you use uncomposted, raw, or aged manure? ☐ Yes ☐ No

If yes, check or describe how your use of raw manure is compliant with NOP standards. Manure is:

| | |
|---|---|
| ☐ | Applied to land producing a crop not intended for human consumption (pasture, hay, cover crops, etc.). |
| ☐ | Incorporated at least 120 days before harvest of a crop whose edible portion may contact the soil surface or soil particles. |
| ☐ | Incorporated at least 90 days before harvest of a crop whose edible portion does not directly contact the soil surface or soil particles |
| ☐ | A pelletized manure product listed or documented to meet NOP requirements of heating at 150° F for one hour or 165° F with <12% moisture content, or other procedure compliant with NOP Guidance 5006 on processed manure. |

Please be prepared to show records of manure use (locations used, crops grown, application and harvest dates).

9.2 If you use off-farm manure, describe its source(s) and livestock type and production practices (e.g. from caged layers, dairy barn cleanout and bedding, etc.):

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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| **10. Soil and Water Quality** |
|---|
| Describe how you manage manure, and compost production to protect crops, soil and water (wells, aquifer, ponds or reservoirs, lakes, streams, etc.) from contamination by plant nutrients, heavy metals or pathogenic organisms. (Examples include: use of feeding pads; frequent manure removal, application and incorporation; stockpile manure/ produce and store compost away from water/drainage areas; manure "applied" by grazing livestock; manure storage/ composting on impermeable pads, or covered to prevent leaching, etc.): |
| |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
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## Wild Crop Harvest — NOP § 205.207, 5022

**11. For use if you harvest wild crops for sale as organic.**

11.1 List the wild crops you harvest or plan to harvest.

11.2 Complete a Land Requirements form (page 2 of this document) for each wild crop harvest area, including map(s) and prior land use or materials use documentation.

- Designate on your map(s) the area to be harvested, boundaries, borders, buffer zones, point and non-point sources of contaminants and prohibited materials, and crops to be harvested.
- For land-based wild crop harvest areas, attach documentation that no prohibited materials have been applied to the land within the last three years.
- For aquatic-based wild crop harvest areas, attach documentation that no prohibited materials have been applied or contaminated the harvest area within the last three years.

☐ All features listed above.

☐ Attached is a Land Requirements form + map + documentation of prior materials use specific to the wild crop harvest area.

11.3 Please describe the natural environment of the harvest area (e.g., scrub steppe, oak woodland, etc).

11.4 List any rare, endangered or threatened terrestrial or aquatic plants or animals that occur in the harvest area.

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

| |
|---|
| 11.5 Describe methods used to prevent negative impact, and monitoring procedures used to verify lack of impact. |
| 11.6 Describe your wild crop harvest plan for each wild crop. |
| 11.7 How do your harvest practices ensure the health, sustained growth, and long-term viability of the wild crop(s), and protect the environment in which it grows? Describe your system (methods and frequency) of monitoring the health of the wild crop population and the condition of natural resources in the harvest environment, including soil and water quality. |
| 11.8 Approximately what percentage of the wild crop is harvested at each harvest? |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

## Livestock Living Conditions — NOP § 205.239, § 205.240

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|---|
| 12.1 Describe the locations and living conditions for each class of organic livestock, including pastures or range, outdoor and indoor feeding yards, feeding pads, feedlots, housing and/or shelter. |
| 12.2 Describe how you manage yards, feeding areas and lanes to keep them well-drained and clean, and to prevent runoff of wastes and contamination of water, or drainage across property boundaries. |
| 12.3 Describe the locations and sources of shade within outdoor access areas. |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

| |
|---|
| 12.4 Describe the source(s) of clean drinking water, water delivery systems or equipment, and location(s) of drinking water for livestock in housing, outdoor areas and on pasture (as applicable). |
| 12.5 Identify all water sources within or adjacent to the property. Describe how you prevent erosion around water sources, damage to natural wetlands and riparian areas, and risks of contamination of water. |
| 12.6 List the types of bedding used for each class of livestock. Indicate whether they were produced on-farm or purchased, the source (if purchased), and the certifier (if applicable). Roughages used as bedding must be certified organic. |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

## Pasture for Ruminant Livestock — NOP § 205.201, § 205.237, § 205.240

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|---|
| 13.1 Describe your grazing season in general terms: approximate start and end dates; precipitation patterns and climatic conditions that define the grazing season in your region. |
| 13.2 Describe the types of pasture you provide to ensure ruminant feeding requirements are met. This may include a description of your pasture resources in terms of predominant species (grasses/forbs, annual/perennial, native/ improved), management, and terrain (hilly/flat/floodplain, etc.). |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

13.3 Describe the types of grazing methods to be used. This may include general grazing management practices (i.e. continuous or extensive, rotational or management intensive grazing (MIG), or multi-species grazing) and the factors that influence your decision-making about animal density or stocking rate, frequency of livestock movement, and length of grazing / resting periods on each location.

13.4 Describe the location and type(s) of fencing used. ☐ Fencing is clearly shown on pasture maps.

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

13.5 Describe the pasture management strategies and cultural practices to be used to ensure that your pastures can provide sufficient quality and quantity of forage throughout the grazing season (i.e., irrigation, fertilization, re-seeding, crop rotation, clipping, growing forage crops, use of residual forage, etc.) to provide at least 30% dry matter intake (DMI) for at least 120 days per year. Include any practices to be used to extend the grazing season.

13.6 Is irrigation available for use on any of your pastures? ☐ Yes ☐ No

13.7 Describe irrigation use and/or limitations

# CAP 138 Section Two

Crop Rotation and Tillage Information

| | |
|---|---|
| **Client Name:** | **Address:** |
| **Farm No./Tract No.:** | **Total Acres:** |
| **Evaluator:** | **Date:** |

**Use a separate sheet for each crop rotation**

**Field(s) _____**

| **Describe the typical crop rotation for these field(s):** |
|---|
| |

| **Describe the Planting System for this crop rotation: (Conventional, No-till, Mulch-till)** |
|---|
| |

| **Describe the Tillage Operations for this crop rotation: (No-till, Moldboard Plow, Chisel Plow, Disking, Ripping) Include the number of trips and operation time (spring/fall) per operation** |
|---|
| |

| **Do you utilize manure in your rotation? If so, indicate type, amount and time applied** | | |
|---|---|---|
| **Yes _____ No_____** | **Type: _____**<br>**Amount: _____** | **Time(s) Applied:** |

| **List the average yield for each crop during the last 2 (two) years of the rotation:** | | |
|---|---|---|
| **Crop _____** | **Yield (year 1) _____** | **Yield (year2) _____** |
| **Crop _____** | **Yield (year 1) _____** | **Yield (year2) _____** |
| **Crop _____** | **Yield (year 1) _____** | **Yield (year2) _____** |
| **Crop _____** | **Yield (year 1) _____** | **Yield (year2) _____** |

| **Describe supporting practices (if any) for each field in this rotation: (Contouring, Strips/Barriers, Diversion/Terrace)** | |
|---|---|
| **Field No. _____** | **Practice: _____** |
| **Field No. _____** | **Practice: _____** |
| **Field No. _____** | **Practice: _____** |

# Crop Rotation and Tillage Information

| | |
|---|---|
| **Client Name:** Example Farmer | **Address:** 123 Cedar Lane |
| **Farm No./Tract No.:** Farm 101, Tract 1103 | **Total Acres:** 70.0 |
| **Evaluator:** Conservation Planner | **Date:** 06/20/2008 |

**Use a separate sheet for each crop rotation**

EXAMPLE

**Field(s)** **1, 2 and 4**

| **Describe the typical crop rotation for these field(s):** |
|---|
| **Fields 1, 2 and 4 – Corn/FS Soybeans (Wheat cover crop follows all Corn)** |

| **Describe the Planting System for this crop rotation: (Conventional, No-till, Mulch-till)** | | |
|---|---|---|
| **Corn – Conv-till** | **Wheat – Mulch-till** | **Soybeans – Mulch-till** |

| **Describe the Tillage Operations for this crop rotation: (No-till, Moldboard Plow, Chisel Plow, Disking, Ripping) Include the number of trips and operation time (spring/fall) per operation** | | |
|---|---|---|
| **Corn – Chisel Plow 1 (spring), Disk 2 (spring)** | **Wheat – Disk 1 (fall)** | **Soybeans – Disk** |

| **Do you utilize manure in your rotation? If so, indicate type, amount and time applied** | | |
|---|---|---|
| **Yes _X_ No_____** | **Type: Dairy**<br>**Amount: 4000 gal./Acre** | **Time(s) Applied: Before Corn**<br>**Spring (field 1)**<br>**Fall (field 4)** |

| **List the average yield for each crop during the last 2 (two) years of the rotation:** | | |
|---|---|---|
| **Crop: Corn** | **Yield (year 1) 150 bu/ac** | **Yield (year 2) 170 bu/ac** |
| **Crop: Wheat(cover)** | **Yield (year 1) cover** | **Yield (year 2) cover** |
| **Crop: Soybeans** | **Yield (year 1) 40 bu/ac** | **Yield (year 2) 40 bu/ac** |
| **Crop _____** | **Yield (year 1) _____** | **Yield (year 2) _____** |

| **Describe supporting practices (if any) for each field in this rotation: (Contouring, Strips/Barriers, Diversion/Terrace)** |
|---|
| Producer manages these fields along contour a @ 2% grade. Uses Wheat Cover crops for all Corn fields. Cover cops are broadcast spread w/light disk. Applies manure to all corn ground in either spring or fall. Chisel plow has straight point. First disking is heavy, second is light/finish. |

| Last Name(s) | First Name(s) | Farm/Ranch/Business Name | Date |
|---|---|---|---|
| | | | |

# CAP 138 Section Three

## Summary Record of Planned NRCS Conservation Practices
## List all planned practices

| Fields | NRCS Practice Code | NRCS Practice Name | Planned Amount | Planned Implementation Year |
|---|---|---|---|---|
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# National and State Resource Concerns and Planning Criteria
## 10/1/2013

| **Resource Concern - Cause**<br>A resource concern (RC) is an expected degradation of the soil, water, air, plant, or animal resource base to an extent that the sustainability or intended use of the resource is impaired. Because NRCS quantifies or describes resource concerns as part of a comprehensive conservation planning process that includes client objectives, human and energy resources are considered components of the resource base. The "Cause" is the specific reason or threat to the resource that results in the resource concern. | **Description of Concern** | **Land Use**<br>* Required Assessment | **Resource Concern Component**<br>For planning purposes, Some resource concerns are divided into components where there is a clear distinction in the causal factors, the mitigating actions, and the anticipated environmental effect. | **Planning Criteria**<br>A planning criterion is a quantitative or qualitative method to assess the existing condition of the natural resources on a site to determine whether additional treatment is needed to address a specific potential resource concern.<br>**Planning Consideration** - A planning consideration is a description of potential actions or activities that should be considered to help address an identified resource concern and/or to address unintended consequences of an action. Planning considerations are identified for resource concerns when it is not appropriate or technologically feasible to identify specific criteria or a threshold for treatment. | | **Measurement & Assessment Tools**<br>Description of the technology or process for determining if assessment criteria are met. |
|---|---|---|---|---|---|---|
| | | | | ***Screening Level***<br>Screening level criteria are defined, when appropriate, to identify sites with conditions that have little or no probability of needing additional treatment to address the specific resource concern. If the site meets the screening level criteria, then no other assessment is needed to document that planning criteria are met on this site. States can delete or edit nationally identified screening criteria to address localized conditions. | ***Basic Assessment Level***<br>Basic assessment level criteria are used when a site does not meet screening level criteria, or when no screening level criteria are defined. Assessment levels are also used when formulating and evaluating alternatives. National criteria establish the minimum for all sites. States may add state-specific criteria to address local conditions. | |

# National and State Resource Concerns and Planning Criteria
## 10/1/2013

| SOIL | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **SOIL EROSION - Sheet, rill, & wind erosion** | Detachment and transportation of soil particles caused by rainfall runoff/splash, irrigation runoff or wind that degrades soil quality. | • Crop*<br>• Developed Land*<br>• Farmsteads*<br>• Associated Ag Land*<br>• Designated Protected Area*<br>• Other Rural Land*<br>• Pasture* | Sheet & Rill | Permanent ground cover > 90% and slope < 10% | Water erosion rate ≤ T | RUSLE2 |
| | | | Wind | | Wind erosion rate ≤ T | WEPS |
| | | • Forest* | Sheet & Rill<br>Wind | Soil surface organic residue cover > 80% | Site is stable and without visible signs of erosion | Visual Inspection |
| | | • Range* | Sheet & Rill<br>Wind | State established criteria. | RHA - soil site stability - slight to moderate or less<br>**OR**<br>Rangeland Planned Trend is positive | RHA - Rangeland Health Assessment<br>Rangeland Trend Worksheet |
| **SOIL EROSION – Concentrated flow erosion** | Untreated classic gullies may enlarge progressively by head cutting and/or lateral widening. Ephemeral gullies occur in the same flow area and are obscured by tillage. This includes concentrated flow erosion caused by runoff from rainfall, snowmelt or irrigation water. | • Crop* | Ephemeral gullies | Ephemeral gullies are not occuring | Conservation practices and managements are in place to prevent or control ephemeral gullies | Field measurements / observations |
| | | | Classic gullies | Classic gullies are not present | Classic gully management is adequate to stop the progression of head cutting and widening and are offsite impacts are minimized by vegetation and/or structures | |
| | | • Forest*<br>• Farmsteads*<br>• Pasture*<br>• Range*<br>• Developed Land*<br>• Associated Ag Land*<br>• Designated Protected Area*<br>• Other Rural Land* | Classic gullies | Classic gullies are not present | Classic gully management is adequate to stop the progression of head cutting and widening and are offsite impacts are minimized by vegetation and/or structures | |
| **SOIL EROSION– Excessive bank erosion from streams shorelines or water conveyance channels** | Sediment from banks or shorelines threatens to degrade water quality and limit use for intended purposes. | • Crop*<br>• Forest<br>• Range*<br>• Developed Land*<br>• Associated Ag Land*<br>• Designated Protected Area*<br>• Water*<br>• Other Rural Land*<br>• Farmsteads* | | Streams, shoreline or channels are not adjacent to site | For shorelines and water conveyance channels; banks are stable or commensurate with normal geomorphological processes?<br>**AND**<br>If bank erosion is present, it is beyond the client's control or commensurate with normal geomorphological processes?<br>**AND**<br>For streambanks; SVAP2 bank condition element score >=5? | SVAP2 |
| | | • Pasture* | | | Bank erosion is it beyond the client's control or commensurate with normal geomorphological processes?<br>**AND**<br>PCS - streambank / shoreline erosion element score ≥ 4? | SVAP2<br>PCS - Pasture Condition Score |

# National and State Resource Concerns and Planning Criteria
## 10/1/2013

| SOIL | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **SOIL QUALITY DEGRADATION - Subsidence** | Loss of volume and depth of organic soils due to oxidation caused by above normal microbial activity resulting from excessive water drainage, soil disturbance, or extended drought.<br>This excludes karst / sinkholes issues or depressions caused by underground activities. | • Crop<br>• Forest<br>• Associated Ag Land<br>• Designated Protected Area<br>• Pasture | | Histisol soils are not present<br><br>**OR**<br><br>Histisols soils are not exhibiting subsidence | Subsidence is adequately managed to meet client's objectives | Client input / planner observation |
| **SOIL QUALITY DEGRADATION – Compaction** | Management induced soil compaction resulting in decreased rooting depth that reduces plant growth, animal habitat and soil biological activity. | • Crop<br>• Forest<br>• Associated Ag Land<br>• Designated Protected Area<br>• Other Rural Land | | Soil compaction is not a problem<br><br>**AND**<br><br>Activities do not cause soil compaction problems | Compaction is managed to meet Client's production and management objectives | Observation of soil and/or plant condition<br>Client input / planner observation |
| | | • Pasture | | | PCS – compaction element score ≥ 4 | PCS - Pasture Condition Score |
| | | • Range | | | RHA - soil site stability - slight to moderate or less<br>**OR**<br>Compaction is managed to meet Client's production and management objectives | RHA - Rangeland Health Assessment<br>Observation of soil and/or plant condition |
| **SOIL QUALITY DEGRADATION – Organic matter depletion** | Soil organic matter is not adequate to provide a suitable medium for plant growth, animal habitat, and soil biological activity. | • Crop* | | Permanent ground cover > 80% | SCI > 0 | RUSLE2<br>WEPS |
| | | • Pasture | | | SCI > 0<br>**OR**<br>**[**PCS - plant cover element score ≥ 4<br>**AND**<br>PCS - plant residue element score ≥ 4 **]** | PCS - Pasture Condition Score<br>RUSLE2 |
| | | • Range | | Soil organic matter depletion is not a problem<br><br>**AND**<br><br>Activities do not cause soil organic matter depletion | **[**RHA - soil site stability slight to moderate or less<br>**AND**<br>RHA – biotic integrity attribute rating slight to moderate departure or less**]**<br>**OR**<br>Rangeland Planned Trend positive | RHA - Rangeland Health Assessment<br>Rangeland Trend Worksheet |
| | | • Forest | | | Ground cover meets state criteria specific to ecological site<br>**OR**<br>Soil organic matter is managed to meet Client objectives | Client input / planner observation |

# National and State Resource Concerns and Planning Criteria
## 10/1/2013

| SOIL | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **SOIL QUALITY DEGRADATION – Concentration of salts or other chemicals** | Concentration of salts leading to salinity and/or sodicity reducing productivity or limiting desired use, or concentrations of other chemicals impacting productivity or limiting desired use. | • Crop<br>• Pasture<br>• Range<br>• Associated Ag Land<br>• Farmsteads | | Activities do not cause salinity/sodicity problems | Conservation practices and managements are in place to mitigate on-site effects | Soil diagnostic evaluations |
| **WATER** | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
| **EXCESS WATER – Ponding, flooding, seasonal high water table, seeps, and drifted snow** | Surface water or poor subsurface drainage restricts land use and management goals. Wind-blown snow accumulates around and over surface structures, restricting access to humans and animals. | • Crop<br>• Forest<br>• Farmsteads<br>• Pasture<br>• Range<br>• Developed Land<br>• Associated Ag Land<br>• Designated Protected Area<br>• Other Rural Land | Ponding and Flooding | Ponding or flooding not a problem<br>**AND**<br>**A**ctivities do not cause ponding/flooding problems | Excess water is managed to meet Client's objectives | Client input / planner observation |
| | | | Seasonal High Water Table | Seasonal high water table does not cause a problem | | |
| | | | Seeps | Excess water from seeps does not cause a problem | | |
| | | | Drifted Snow | Drifted snow does not cause a problem | | |
| **INSUFFICIENT WATER – Inefficient moisture management** | Natural precipitation is not optimally managed to support desired land use goals or ecological processes. | • Crop<br>• Developed Land<br>• Forest<br>• Associated Ag Land<br>• Designated Protected Area | | Moisture management is not a problem<br>**AND**<br>**A**ctivities do not cause inefficient moisture management problems | Runoff and evapotranspiration levels are minimized to meet Client's management objectives | Client input / planner observation |
| | | • Range* | | | RHA - hydrologic function attributes slight to moderate or less | RHA - Rangeland Health Assessment |
| | | • Pasture | | | PCS – compaction element score ≥ 4<br>**AND**<br>PCS - plant cover element score ≥ 4 | PCS - Pasture Condition Score |
| **INSUFFICIENT WATER – Inefficient use of irrigation water** | Irrigation water is not stored, delivered, scheduled and/or applied efficiently. Aquifer or surface water withdrawals threaten sustained availability of ground or surface water. Available irrigation water supplies have been reduced due to aquifer depletion, competition, regulation and/or drought. | • All* | | PLU is not irrigated | The irrigation system components and management meet state specific efficiency criteria | State identified measurement and assessment tools - Farm Irrigation Rating Index (FIRI), State Version |

# National and State Resource Concerns and Planning Criteria
## 10/1/2013

| WATER | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **WATER QUALITY DEGRADATION: Excess nutrients in surface and ground waters** | Nutrients - organic and inorganic - are transported to receiving waters through surface runoff and/or leaching into shallow ground waters in quantities that degrade water quality and limit use for intended purposes. | • Crop* | Excess nutrients in surface water | Organic or inorganic nutrients are not applied **AND** PLU is not grazed | Nutrient and amendment applications are based on soil or tissue tests and nutrient budgets for realistic yields **AND** Conservation practices and managements are in place to minimize surface water impacts | Client input / planner observation Nutrient budget |
| | | | Excess nutrients in groundwater | | Nutrient and amendment applications are based on soil or tissue tests and nutrient budgets for realistic yields AND Conservation practices and managements are in place to minimize groundwater impacts | |
| | | • Pasture* | Excess nutrients in surface water | | PCS - streambank / shoreline erosion element score ≥ 4 **AND** PCS - livestock concentration areas element score | PCS – Pasture Condition Score Nutrient budget |
| | | | Excess nutrients in groundwater | | | |
| | | • Developed Land | Excess nutrients in surface water | Organic or inorganic nutrients are not applied | Nutrients if applied, are based on a soil test, tissue tests or nutrient budget **AND** Conservation practices and managements are in place to minimize surface water impacts | Nutrient Budget Client input / planner observation |
| | | | Excess nutrients in groundwater | | Nutrients if applied, are based on a soil test, tissue tests or nutrient budget **AND** Conservation practices and managements are in place to minimize groundwater impacts | |
| | | • Other Rural Land<br>• Associated Ag Land<br>• Designated Protected Area<br>• Water<br>• Forest<br>• Range | Excess nutrients in surface water | Organic or inorganic nutrients are not applied **AND** PLU is not grazed **AND** There are no confined livestock areas | Nutrients if applied, are based on a soil test, tissue tests or nutrient budget **AND** Conservation practices and managements are in place to minimize surface water impacts | Nutrient Budget Client input / planner observation |
| | | | Excess nutrients in groundwater | | Nutrients if applied, are based on a soil test, tissue tests or nutrient budget **AND** Conservation practices and managements are in place to minimize groundwater impacts | |

# National and State Resource Concerns and Planning Criteria
## 10/1/2013

| WATER | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **WATER QUALITY DEGRADATION: Excess nutrients in surface and ground waters (continued)** | Nutrients - organic and inorganic - are transported to receiving waters through surface runoff and/or leaching into shallow ground waters in quantities that degrade water quality and limit use for intended purposes. | • Farmsteads* | Excess nutrients in surface water | Organic or inorganic nutrients are not applied<br>**AND**<br>PLU is not grazed<br>**AND**<br>There are no confined livestock areas | Conservation practices and managements are in place to minimize surface water impacts<br>**AND**<br>Surface waters are protected from contamination due to runoff and leaching from storage sites, spill and other concentrated sources | Nutrient Budget<br>Client input / planner observation |
| | | | Excess nutrients in groundwater | | Conservation practices and managements are in place to minimize groundwater impacts<br>**AND**<br>Groundwater is protected from contamination due to runoff and leaching from storage sites, spill and other concentrated sources | |
| **WATER QUALITY DEGRADATION – Pesticides transported to surface and ground waters** | Pest control chemicals are transported to receiving waters in quantities that degrade water quality and limit use for intended purposes. | • All | Pesticides transported to surface water | Pest control chemicals are not applied | Pesticides are stored, handled, disposed and managed to prevent runoff, spills, leaks and leaching<br>**AND**<br>Conservation practices and managements are in place to minimize surface water impacts | Client input / planner observation<br>WinPST |
| | | | Pesticides transported to groundwater | Pest control chemicals are not applied | Pesticides are stored, handled, disposed and managed to prevent runoff, spills, leaks and leaching<br>**AND**<br>Conservation practices and managements are in place to minimize groundwater impacts | |
| **WATER QUALITY DEGRADATION – Excess pathogens and chemicals from manure, bio-solids or compost applications** | Pathogens, pharmaceuticals, and other chemicals carried by land applied soil amendments are transported to receiving waters in quantities that degrade water quality and limit use for intended purposes.<br>This resource concern also includes the off-site transport of leachate and runoff from compost or other organic materials of animal origin. | • Crop*<br>• Farmsteads*<br>• Forest<br>• Developed Land<br>• Associated Ag Land<br>• Other Rural Land<br>• Designated Protected Area<br>• Water<br>• Pasture*<br>• Range | Pathogens and chemicals from manure, bio-solids, or compost applications transported to surface water | Potential sources of pathogens or pharmaceuticals are not applied on the land | Organic materials are applied, stored, and/or handled to mitigate negative impacts to surface water sources | Client input / planner observation |
| | | | Pathogens and chemicals from manure, bio-solids, or compost applications transported to groundwater | Potential sources of pathogens or pharmaceuticals are not applied on the land | Organic materials are applied, stored, and/or handled to mitigate negative impacts to groundwater sources | |

# National and State Resource Concerns and Planning Criteria
## 10/1/2013

| WATER | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **WATER QUALITY DEGRADATION – Excessive salts in surface and ground waters** | Irrigation or rainfall runoff transports salts to receiving water in quantities that degrade water quality and limit use for intended purposes. | • All | Excessive salts in surface water | Excess salt is not a problem<br>**AND**<br>Activities do not contribute to excess salt problem | Salt concentrations are managed to mitigate off-site transport to surface waters | Client input / planner observation |
| | | | Excessive salts in groundwater | | Salt concentrations are managed to mitigate off-site transport to groundwater | |
| **WATER QUALITY DEGRADATION – Petroleum, heavy metals and other pollutants transported to receiving waters** | Heavy metals, petroleum and other pollutants are transported to receiving water sources in quantities that degrade water quality and limit use for intended purposes. | • All | Petroleum, heavy metals, and other pollutants transported to surface water | Activities do not present the potential for contamination by petroleum, heavy metals and other pollutants | Petroleum, heavy metals or other potential pollutants are stored and handled to avoid runoff to surface water | Client input / planner observation |
| | | | Petroleum, heavy metals, and other pollutants transported to groundwater | Activities do not present the potential for contamination by petroleum, heavy metals and other pollutants | Petroleum, heavy metals or other potential pollutants are stored and handled to avoid leaching to groundwater | |
| **WATER QUALITY DEGRADATION – Excessive sediment in surface waters** | Off-site transport of sediment from sheet, rill, gully, and wind erosion into surface water that threatens to degrade surface water quality and limit use for intended purposes. | • Crop*<br>• Developed Land*<br>• Farmsteads*<br>• Other Rural Land<br>• Associated Ag Land<br>• Designated Protected Area<br>• Water<br>• Pasture* | | Permanent ground cover > 90% and slope < 10%<br>**AND**<br>Classic gullies are not present<br>**AND**<br>Streams or shoreline are not on or adjacent to site | Upslope treatment and buffer practices address concentrated flows to water bodies<br>**AND**<br>SVAP2 - bank condition ≥ 5<br>**AND**<br>Livestock and vehicle water crossings are stable<br>**AND**<br>Water erosion rate ≤ T<br>**AND**<br>Wind erosion rate ≤ T | RUSLE2<br>WEPS<br>Client input / planner observation<br>SVAP2 |
| | | • Forest* | | There are no untreated sources of erosion<br>**AND**<br>Streams or shoreline are not on or adjacent to site | Upslope treatment and buffer practices address concentrated flows to water bodies<br>**AND**<br>Heavy use areas are stable<br>**AND**<br>SVAP2 - bank condition ≥ 5 | Client input / planner observation<br>SVAP2 |
| | | • Range* | | | RHA - hydrologic function attribute - slight to moderate or less<br>**AND**<br>SVAP2 - bank condition ≥ 5 | RHA - Rangeland Health Assessment<br>SVAP2 |

# National and State Resource Concerns and Planning Criteria
## 10/1/2013

| WATER | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **WATER QUALITY DEGRADATION – Elevated water temperature** | Surface water temperatures exceed State/Federal standards and/or limit use for intended purposes. | • All | | Water courses on or adjacent to the site are not designated by a State Agency as a temperature impairment<br>**OR**<br>Water course temperature is not a client concern | [SVAP2 - riparian area quality element score ≥ 5<br>**AND**<br>SVAP2 - riparian area quantity quality element score ≥ 5<br>**AND**<br>SVAP2 - canopy cover element score ≥ 6 ]<br>**OR**<br>Existing conservation practices are in place to address water temperature | Client input / planner observation<br>SVAP2 |
| **PLANT** | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
| **DEGRADED PLANT CONDITION – Undesirable plant productivity and health** | Plant productivity, vigor and/or quality negatively impacts other resources or does not meet yield potential due to improper fertility, management or plants not adapted to site.<br>This includes addressing pollinators and beneficial insects. | • Crop<br>• Farmsteads<br>• Developed Land<br>• Designated Protected Area<br>• Associated Ag Land<br>• Other Rural Land | | Plant production and health is not a client concern | Plants are adapted to the site, meet production goals and do not negatively impact other resources<br>**AND**<br>Plant damage from wind erosion is below Crop Damage Tolerance levels | Client input / planner observation<br>Crop Tolerance Table |
| | | • Range* | | | Vegetation meet similarity index or range condition score of 60 or greater for desired plant community and has a positive trend<br>**OR**<br>RHA – biotic integrity attribute rating - slight to moderate departure or less | RHA - Rangeland Health Assessment<br>Rangeland Trend Worksheet<br>Similarity Index Worksheet |
| | | • Pasture* | | Plant production and health is not a client concern | PCS - 30 or above<br>Plants are adapted to the site, meet production goals and do not negatively impact other resources | PCS - Pasture Condition Score |
| | | • Forest | | Plant production and health is not a client concern | Forest species are adapted to site<br>**AND**<br>Composition and stand density meets the Client's objectives and production goals | Forest Inventory plots and/or transects |

# National and State Resource Concerns and Planning Criteria
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| PLANT | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **DEGRADED PLANT CONDITION – Inadequate structure and composition** | Plant communities have insufficient composition and structure to achieve ecological functions and management objectives.<br>This includes degradation of wetland habitat, targeted ecosystems, or unique plant communities. | • Forest<br>• Designated Protected Area<br>• Associated Ag Land<br>• Water<br>• Pasture | | Plant communities support the intended land use and desired ecological functions | Plant communities contain adequate diversity, composition and structure to support desired ecological functions | Ecological Site Descriptions |
| | | • Range* | | Plant communities support the intended land use and desired ecological functions | Plant communities contain adequate diversity, composition and structure to support desired ecological functions<br>**OR**<br>RHA – biotic integrity attribute rating slight to moderate departure or less<br>**OR**<br>Vegetation meet similarity index of 60 or greater for desired plant community and has a positive trend | Ecological Site Descriptions<br>RHA - Rangeland Health Assessment<br>Rangeland Trend Worksheet |
| **DEGRADED PLANT CONDITION – Excessive plant pest pressure** | Excessive pest damage to plants including that from undesired plants, diseases, animals, soil borne pathogens, and nematodes.<br>This concern addresses invasive plant, animal and insect species. | • Crop<br>• Forest*<br>• Farmsteads<br>• Range*<br>• Developed Land<br>• Associated Ag Land<br>• Designated Protected Area<br>• Water<br>• Other Rural Land | | Plant productivity is not limited from pest pressure | Pest damage to plants are below economic or environmental thresholds or client-identified criteria<br>**AND**<br>Plant pests, including noxious and invasive species are managed to meet client objectives | Client input / planner observation |
| | | • Pasture* | | Plant productivity is not limited from pest pressure | PCS - insect and disease pressure element score ≥ 4<br>**AND**<br>PCS - site adaptation element score ≥ 4 | PCS - Pasture Condition Score |
| **DEGRADED PLANT CONDITION– Wildfire hazard, excessive biomass accumulation** | The kinds and amounts of fuel loadings - plant biomass - create wildfire hazards that pose risks to human safety, structures, plants, animals, and air resources. | • All | | Wildfire hazard is not a concern | Fuel loads and fuel ladders are managed to provide defensible space and meet client objectives | Client input / planner observation |

| ANIMAL | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **INADEQUATE HABITAT FOR FISH AND WILDLIFE – Habitat degradation** | Quantity, quality or connectivity of food, cover, space, shelter and/or water is inadequate to meet requirements of identified fish, wildlife or invertebrate species. | All with "wildlife" modifier - (Required when Land Use has a wildlife modifier) | Quantity, quality of food is inadequate to meet requirements of identified fish, wildlife or invertebrate species | | WHSI rating ≥ 0.5<br>**AND** (when surface stream present)<br>**[**SVAP2 – fish habitat complexity element score ≥ 7<br>**AND**<br>SVAP2 – aquatic invertebrate habitat element score ≥ 7 **]**<br>**OR**<br>Conservation practices and management are in place that meet or exceed species or guild-specific habitat model thresholds<br>**OR**<br>Food is available in quality and extent to support habitat requirements for the species of interest | Species-specific wildlife habitat assessment tools<br><br>SVAP2<br><br>Generalized WHS Index finalized by States, and detailed models by selected species and habitat type |
| | | | Quantity, quality of water is inadequate to meet requirements of identified fish, wildlife or invertebrate species | | WHSI rating ≥ 0.5<br>**AND** (when surface stream present)<br>SVAP2 – aquatic invertebrate habitat element score ≥ 7<br>**OR**<br>Conservation practices and management are in place that meet or exceed species or guild-specific habitat model thresholds<br>**OR**<br>Water is available in quality and extent to support habitat requirements for the species of interest | |
| | | | Quantity, quality or cover/shelter is inadequate to meet requirements of identified fish, wildlife or invertebrate species | | WHSI rating ≥ 0.5<br>**AND** (when surface stream present)<br>**[**SVAP2 – barriers to movement element score ≥ 7<br>**AND**<br>SVAP2 – fish habitat complexity element score ≥ 7<br>**AND**<br>SVAP2 – aquatic invertebrate habitat element score ≥ 7 **]**<br>**OR**<br>Conservation practices and management are in place that meet or exceed species or guild-specific habitat model thresholds<br>**OR**<br>Cover is of available quality and extent to support habitat requirements for the species of interest | |

| ANIMAL | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **INADEQUATE HABITAT FOR FISH AND WILDLIFE – Habitat degradation (continued)** | Quantity, quality or connectivity of food, cover, space, shelter and/or water is inadequate to meet requirements of identified fish, wildlife or invertebrate species. | All with "wildlife" modifier - (Required when Land Use has a wildlife modifier) | Habitat continuity and/or space is inadequate to meet requirements of identified fish, wildlife or invertebrate species | | WHSI rating ≥ 0.5<br>**AND** (when surface stream present)<br>**[**SVAP2 – barriers to movement element score ≥ 7<br>**AND**<br>SVAP2 – aquatic invertebrate habitat element score ≥ 7 **]**<br>**OR**<br>Conservation practices and management are in place that meet or exceed species or guild-specific habitat model thresholds<br>**OR**<br>The connectivity of habitat components are adequate to support stable populations of targeted species | Species-specific wildlife habitat assessment tools<br><br>SVAP2<br><br>Generalized WHS Index finalized by States, and detailed models by selected species and habitat type |
| **LIVESTOCK PRODUCTION LIMITATION – Inadequate feed and forage** | Feed and forage quality or quantity is inadequate for nutritional needs and production goals of the kinds and classes of livestock. | • All with "grazed" modifier (Applicable when Land Use is grazed) | | | Livestock forage, roughage and supplemental nutritional requirements addressed. | Client input / planner observation<br>GRAS - Grassland Resource Analysis System |
| **LIVESTOCK PRODUCTION LIMITATION – Inadequate livestock shelter** | Livestock lack adequate shelter from climatic conditions to maintain health or production goals. | • All with "grazed" modifier (Applicable when Land Use is grazed) | | | Artificial or natural shelters meet animal health needs and client objectives. | Client input / planner observation |
| **LIVESTOCK PRODUCTION LIMITATION – Inadequate livestock water** | Quantity, quality and/or distribution of drinking water are insufficient to maintain health or production goals for the kinds and classes of livestock. | • All with "grazed" modifier (Applicable when Land Use is grazed) | | | Water of acceptable quality and quantity adequately distributed to meet animal needs. | Client input / planner observation<br>GRAS - Grassland Resource Analysis System - Tool for water distribution |

# National and State Resource Concerns and Planning Criteria
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| ENERGY | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **INEFFICIENT ENERGY USE – Equipment and facilities** | Inefficient use of energy in the Farm Operation increases dependence on non-renewable energy sources that can be addressed through improved energy efficiency and the use of on-farm renewable energy sources.<br>As an example, this concern addresses inefficient energy use in pumping plants, on-farm processing, drying and storage. | • All | | Client is not interested in improving equipment and facilities energy efficiency | A USDA approved energy audit been implemented that address equipment and facilities to meet client objectives<br>**OR**<br>On-farm renewable energy and/or energy conserving practices have been implemented to meet client objectives | Client input / planner observation<br><br>USDA approved Energy Audit<br><br>NRCS Energy Estimator |
| **INEFFICIENT ENERGY USE – Farming/ranching practices and field operations** | Inefficient use of energy in field operations increases dependence on non-renewable energy sources that can be addressed through improved efficiency and the use of on-farm renewable energy sources. | • All | | Client is not interested in improving energy use in farm and ranch field operations | A USDA approved energy audit been implemented that address field operations to meet client objectives<br>**OR**<br>On-farm renewable energy and/or energy conserving practices have been implemented to meet client objectives | Client input / planner observation<br><br>USDA approved Energy Audit<br><br>NRCS Energy Estimator<br><br>Conservation on the Farm Checklist |

# National and State Resource Concerns and Planning Criteria
## 10/1/2013

| AIR | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **AIR QUALITY IMPACTS - Emissions of Particulate Matter - PM - and PM Precursors** | Direct emissions of particulate matter - dust and smoke -, as well as the formation of fine particulate matter in the atmosphere from other agricultural emissions - ammonia, NOx, and VOCs - cause multiple environmental impacts, such as:<br>- The unintended movement of particulate matter - typically dust or smoke - results in safety or nuisance visibility restriction.<br>- The unintended movement of particulate matter and/or chemical droplets results in unwanted deposits on surfaces.<br>- Increased atmospheric concentrations of particulate matter can impact human and animal health and degrade regional visibility. | • Crop<br>• Pasture<br>• Range<br>• Forest<br>• Other Rural Land<br>• Associated Ag Land<br>• Designated Protected Areas<br>• Developed Land<br>• Farmsteads | | Activities are not present that contribute to agricultural source PM or PM precursor emissions<br>PM Producing Activity Examples:<br>• Prescribed Burn is conducted<br>• Travel ways unpaved or untreated with binding agents<br>• Engines (combustion source)<br>• Tillage<br>• Pesticides are applied<br>• Fertilization (manure/ commercial)<br>• CAFO/manure management)<br>**AND**<br>Episodes or complaints of emissions of PM (dust, smoke, exhaust, etc.), or chemical drift have not occurred | PM and PM Precursor emissions are managed to meet client objectives | Client input / planner observation |
| **AIR QUALITY IMPACTS - Emissions of Greenhouse Gases - GHGs** | Emissions increase atmospheric concentrations of greenhouse gases. | • All | | Activities are not present that produce GHGs emissions<br>GHG Producing Activities:<br>• Fertilization (manure/commercial)<br>• CAFO/manure management<br>• Engines (combustion source)<br>• Tillage<br>**AND**<br>GHGs are not regulated in this planning area | Greenhouse gas emissions are managed to meet client objectives | Client input / planner observation |

# National and State Resource Concerns and Planning Criteria
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| AIR | Description | Land Use | Component | Screening | Assessment Level | Assessment Tools |
|---|---|---|---|---|---|---|
| **AIR QUALITY IMPACTS - Emissions of Ozone Precursors** | Emissions of ozone precursors - NOx and VOCs - resulting in formation of ground- level ozone that cause negative impacts to plants and animals. | • All | | Operations are not present that produce ozone precursor emissions<br>Ozone precursor producing activities:<br>• Engines (combustion source)<br>• Pesticide application<br>• Burning<br>• CAFO/manure management<br>• Fertilization (manure /commercial) | Ozone precursor emissions are managed to meet client objectives | Client input / planner observation |
| **AIR QUALITY IMPACTS - Objectionable odors** | Emissions of odorous compounds - VOCs, ammonia and odorous sulfur compounds - cause nuisance conditions. | • Crop<br>• Pasture<br>• Farmsteads<br>• Other Rural Land | | Activities are not present that contribute to odor nuisance air quality conditions<br>Odor nuisance producing activities:<br>• Pesticide application<br>• CAFO / manure management<br>• Composting is conducted<br>**AND**<br>Odor sources are not regulated in this planning area<br>**AND**<br>Episodes or complaints of odor nuisance have not occurred | Odors are managed to meet client objectives | Client input / planner observation |