APPENDIX A
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APPENDIX B
HERBICIDES AND THEIR PROPERTIES

AMITROLE-T	**CHLORSULFURON**
Trade name: Amitrol-T **Manufacturer(s):** Rhone-Poulene, Inc. **Formulation(s):** 2 lb/gal soluble concentrate, 1% aerosol. **Remarks:** A foliar-applied, translocated, nonselective herbicide. Similar to amitrole, Amitrol-T is reportedly more effective on some weeds. **Water solubility:** 280,000 ppm. **Acute toxicity:** LD-50 -- 5,000 mg/kg. Approximate dose to cause death of 150-pound person: 1.5 cups. **Action in plant:** Pigment inhibitor **Surface loss potential:** Medium **Leaching potential:** Medium **Half-life in soil (days):** 14	**Trade name(s):** Glean, Telar **Manufacturer(s):** E.I. DuPont de Nemours and Co., Inc. **Formulations:** 75% dry flowable. **Remarks:** A selective, preemergence or early postemergence herbicide used at very low rates. Prior ro using, carefully consider crop rotation plans. This material is very active at extremely low rates. Recommended for soils with a pH of 7.5 or less. It is very soluble in water, especially at neutral or higher pH, and is very mobile. **Water solubility:** 300 ppm at pH 5; 28,000 ppm at pH 7. **Acute toxicity:** LD-50 -- 5,545 mg/kg. Approximate dose to cause death of 150-pound person: 1.4 cups Action in plant: Rapid mitotic inhibitor. **Surface loss potential:** Small **Leaching potential:** Large **Half-life in soil (days):** 30

CLOPYRALID	DICAMBA
Trade name(s): Stinger, Confront, Transline, Curtail. **Manufacturer(s):** Dowelanco. **Formulations:** 3 lb/gal ae (Stinger) and 0.38 lb clopyralid plus 2.0 lb ae 2,4-D (Curtail). **Remarks:** A selective postemergence herbicide controlling broadleaf species in the sunflower, legume, and smartweed families. Grass species are especially tolerant to clopyralid. Soil-active herbicide that can easily leach in water. Stinger is labeled for selective postemergence control of broadleaf weeds on rangelands, permanent grass pastures, and noncropland areas. Curtail is labeled for use in cereal grains, fallow systems, and conservation reserve programs (CRP). Clopyralid has moderate persistence, high mobility, and high leaching potential. It is very soluble in water (Baxter, 1992). This herbicide would not be used within designated buffer zones (200 feet minimum) protecting surface water sources, intermittent channels, or within areas of identified as shallow sensitive aquifers (Specimen Label, 1999). This herbicide would not be used within a minimum 50 feet of any well (Specimen Label, 1999). The use of vegetated buffer zones would mitigate the risk of runoff-related contamination to surface water sources. **Water solubility:** 1,000 ppm. **Acute toxicity:** LD-50 -- greater than 5,000 mg/kg. Approximate dose to cause death of 150-pound person: 1.5cups **Surface loss potential:** Small. **Leaching potential:** Large. **Half-life in soil (days):** 20.	**Trade name(s):** Banvel, Banvel SGF **Manufacturer(s):** Sandoz Crop Protection Corp. **Formulations:** 2 and 4 lb/gal water soluble concentrates. **Remarks:** A growth-regulating herbicide readily absorbed and translocated from either roots or foliage. This herbicide produces effects similar to those found with 2,4-D. Dicamba has moderate persistence, high mobility, and high leaching potential. This herbicide would not be used within designated buffer zones (200 feet minimum) protecting surface water sources, intermittent channels, or within areas of identified as shallow sensitive aquifers (Specimen Label, 1999). This herbicide would not be used within a minimum 50 feet of any well (Specimen Label, 1999). Because dicamba can move in surface runoff, it would not be used where impervious surfaces (compacted earth, pavement etc.) exist proximal to water (Specimen Label, 1999). The use of vegetated buffer zones would mitigate the risk of runoff-related contamination to surface water sources. **Water solubility:** 4,500 ppm. **Acute toxicity:** LD-50 -- 1,028 mg/kg. Approximate dose to cause death of 150-pound person: 5 tablespoons. Action in plant: Mimics natural plant hormones. **Surface loss potential:** Small. **Leaching potential:** Large. **Half-life in soil (days):** 14.

2,4-D	GLYPHOSATE
Trade name(s): Several **Manufacturer(s):** DowElanco; Rhone-Poulene Ag Co.; Pennwalt Corp.; Chas. H. Lilly Co.; PBI Gordon etal. **Formulations:** Numerous acids, salts (amines usually), and esters. Sold as liquids, water-soluble powders, dusts (seldom used due to drift hazard), granules, and pellets. **Remarks:** A selective, foliar absorbed, translocated, phenoxy herbicide used mainly in postemergence applications. 2,4-D is effective against many annual and perennial broadleaf weeds. The ester formulations are the most volatile and the amines the least volatile. Plants are most susceptible when they are young and growing rapidly. 2, 4-D is toxic to aquatic organisms, and is relatively mobile in soils. It should not be applied directly to water, or where there is a chance of drift or leaching into water (Sheley et al., 1995). 2,4-D will not be used within 1/2 mile of any potable water source (Specimen Label, 1999) or within designated buffer zones (200 feet minimum) to protect surface water sources. **Water solubility:** 900 ppm. **Acute toxicity:** LD-50 -- 300-1,000 g/kg. Approximate dose to cause death of 150-pound person: 1.3 to 4.6 TS **Action in plant:** Mimics natural plant hormones. **Surface loss potential:** Small (acid), medium (ester and amine). **Leaching potential:** Small (ester), medium (acid and amine) **Half-life in soil (days):** 10	**Trade name(s):** Roundup, Roundup RT, Roundup L&G, Rodeo, Kleenup, Accord, Honcho. **Manufacturer(s):** Monsanto Corp., Chevron Chem. Co. **Formulations:** 4 lb/gal soluble concentrate (active ingredient) (3 lb/gal acid equivalent), and 5.4 lb/gal soluble concentrate (active ingredient) (4 lb/gal acid equivalent). **Remarks:** A non-selective, translocated herbicide with no soil activity. Rainfall within six hours after application may reduce effectiveness. Glyphosate translocates to roots and rhizomes of perennial weeds. Complete control may require retreatment. The Rodeo formulation requires nonionic surfactant and is formulated for aquatic sites. Glysophate has EPA drinking water standards for the protection of public health (EPA, 1999). It has been recommended that glysophate should not be used within 1/2 mile of culinary water sources (Sheley et al., 1995). Persistence and mobility are low, and it tends to adhere to sediments when released into water (EPA, 1999). Because glysophate can move with surface runoff, it would not be used where impervious surfaces (compacted earth, frozen ground, pavement etc.) exist proximal to water (Specimen Label, 1999). The use of vegetated buffer zones would mitigate the risk of runoff-related contamination to surface water sources. **Water solubility:** 12,000 ppm. **Acute toxicity:** LD-50 -- 5,400 mg/kg. Approximate dose to cause death of 150-pound person: 1.5 cups **Action in plant:** Inhibits amino acid and protein synthesis. **Surface loss potential:** Large. **Leaching potential:** Small. **Half-life in soil (days):** 30.
METSULFURON	PICLORAM (restricted use herbicide)
Trade name(s): Ally, Escort. **Manufacturer(s):** E.I. DuPont de Nemours and Co. **Formulations:** 60% dry flowable granule. **Remarks:** Ally/Escort can remain in the soil for 34 months or longer. Ally is not labeled for fallow weed control. Do not use on soils with pH above 7.9. Should not be used more than once on a 22-month period to prevent weeds from becoming resistant to this family of herbicides. Should be applied early postemergence to broadleaf weeds. A nonionic surfactant with 80% active ingredient should be used with Ally. Escort is used on noncropland and rangeland weed control. Metsulfuron is persistent with a long half-life, highly mobile and easily leached (Baxter, 1992). These herbicides would not be used near surface water, or over impervious surfaces where runoff could result in the contamination of surface water. **Water solubility: Unbuffered water 0.109 mg/ml.** **Acute toxicity:** In rats the LD-50 -- is greater than 5,000 mg/kg. Approximate dose to cause death of 150-pound person: 1.4 cups **Action in plant:** Protein synthesis inhibitor, blocks formation of amino acids. **Surface loss potential:** Medium. **Leaching potential:** Large. **Half-life in soil (days):** 120.	**Trade name(s):** Tordon 22K, Tordon RTU. **Manufacturer(s):** DowElanco. **Formulations:** 2 lb/gal soluble concentrate, 5.4% soluble concentrate. **Remarks:** A highly translocated, selective herbicide active through both foliage and roots on many broadleaf herbaceous weeds and woody plants. Picloram is persistent and is more toxic to some broadleaf plants than 2,4-D. Thus, precautions must be followed diligently to avoid injury to desirable plants. Picloram is easily leached from soils. Because it is mobile in both soils and water, it is also considered a threat to shallow groundwater (Shukla et al., 1998l; US EPA, 1999, Specimen Label, 1999). It is among the most persistent of its family of herbicides (U.S. EPA, 1999) with a half life in soils of arid climates up to 4 years (Novotny and Chesters, 1981; Shulka et al., 1998). For these reasons it would not be used within designated buffer zones (200 feet minimum), or near surface water, dry channels, wetlands, culinary water sources, or over any identified sensitive aquifer. This herbicide is unsuitable for use in riparian areas. **Water solubility:** 430 ppm. **Acute toxicity:** LD-50 -- 8,200 mg/kg. Approximate dose to cause death of 150-pound person: 2.4 cups **Action in plant:** Mimics natural plant hormones. **Surface loss potential:** Small. **Leaching potential:** Large. **Half-life in soil (days):** 90.

APPENDIX C
TEPS LIFE HISTORY SUMMARY TABLES

Threatened, Endangered, Proposed, and Sensitive Plant Species

San Rafael cactus (Pediocactus despainii)
Status: Endangered
Habitat: Gentle slopes, benches, and hilltops (southern exposures) in open PJ communities on limestone gravels between 6,000-6,200 feet elevation
Flowering period: March-May
Location: Loa RD: Exists in southern area of 1000 Lake Allotment; suitable habitat exists on the Solomon Allotment. Richfield RD: suitable habitat exists on the Beaver Dams, South Water Hollow, Red Creek, and Meadow Gulch Allotments.

Last Chance townsendia (Townsendia aprica)
Status: Threatened
Habitat: Salt desert shrub and pinyon-juniper communities on clay or silt-clay soils of the Arapien and Mancos shale formations between 6,100-8,000 feet elevation
Flowering period: April-May
Location: Loa RD: 1000 Lake Allotment; suitable habitat exists on the Solomon Allotment. Richfield Rd: Red Creek and Meadow Gulch Allotments; suitable habitat exists on the Beaver Dams and South Water Hollow Allotments

Ute ladies' tresses (Spiranthes diluvialis)
Status: Threatened
Habitat: Relatively undisturbed sub-irrigated floodplains of alluvial material varying from cobblestone with silt-sand filling the interstices to mostly sand in cottonwood, tamarix, willow, and pinyon-juniper communities at 4,400-6810 feet elevation
Location: Species not found on Fishlake NF.

Winkler foot cactus (Pediocactus winkleri)
Status: Threatened (Draft Conservation Assessment Strategy)
Habitat: Poor quality saline, finely-textured substrates in salt desert shrub communities between 4,790-5,210 feet elevation
Flowering period: March-May
Location: Species not found on the Fishlake NF. Loa RD: Suitable habitat exists on the 1000 Lake and Solomon Allotments. Richfield RD: suitable habitat exists on the Beaver Dams, South Water Hollow, and Red Creek Allotments.

Maguire daisy (Erigeron maguirei Cronq.)
Status: Threatened
Habitat: Cool, moist mesic wash bottoms and dry partially shaded slopes of eroded sandstone cliffs. Wingate, Chinle, and Navajo Sandstone Formations in mountain shrub, Douglas fir, ponderosa pine, and lower limits of juniper woodland communities between 5,600 – 7,200 feet elevation.
Flowering period: June - July
Location: Loa Ranger District

Barneby woody aster (Aster kingii var. barnebyana)
Status: Sensitive
Habitat: Mountain mahogany and oak communities on rock outcrops composed of Precambium quartzite between 7,345-9000 feet in elevation
Location: Fillmore RD: Wildhorse Allotment (high rocky outcrops).

Bicknell milkvetch (Astragalus consobrinus)
Status: Sensitive
Habitat: Volcanic gravel, gravelly or sandy knolls, barren stony hillsides, cobblestone bluffs, and outwash fans on sandstone and volcanic debris in PJ and sagebrush communities at 5,200-8,500 feet elevation
Flowering period: May-mid July
Location: Loa RD: Solomon (Morrell Pond area) and 1000 Lake Allotments (Bullberry)

Tushar paintbrush (Castilleja parvula var. parvula)
Status: Sensitive
Habitat: Alpine areas on igneous gravels and outcrops between 10,000 to 12,100 feet elevation.
Flowering period: July
Location: Beaver RD: North Indian, Circleville (Delano Peak), Marysvale, and Ten Mile Allotments.

creeping draba (Draba sobolifera)
Status: Sensitive
Habitat: Igneous soils and talus slopes as a member of alpine tundra or spruce-fir communities between 7,500-12,000 feet elevation
Flowering period: July-August
Location: Beaver RD: North Indian Allotment.

Nevada willowherb (Epilobium nevadense)
Status: Sensitive
Habitat: PJ and mountain brush communities on limestone cliffs and gravels at the base of cliffs in elevations of 7,000-8,000 feet **Flowering period**: July-September
Location: Fillmore RD: populations/habitat exist w/in the RD, but none are found in allotments w/in the project area

Elsinore buckwheat (Eriogonum batemanii var. ostlundii)
Status: Sensitive
Habitat: Igneous outcrops and gravels in shadscale, sagebrush, ponderosa pine, mixed desert shrub, and PJ communities between 5,495-6512 feet elevation
Flowering period: July-September
Location: Fillmore RD: Cottonwood, Elsinore Flat Canyon, Poulsen, and Joseph Allotments. Beaver and Richfield RDs: populations/habitat exist in these allotments, but none are found in allotments w/in the project area

Wonderland alice-flower (Gilia caespitosa)
Status: Sensitive
Habitat: Exposed sandstone outcrops, cliff walls and sandy wash bottoms between 5,100-9,000 feet elevation in open PJ woodlands mixed with mountain brush, sagebrush steppe, or ponderosa pine forests
Flowering period: June-July
Location: Loa RD: 1000 Lake (western slopes)

little penstemon (Penstemon parvus)
Status: Sensitive
Habitat: Sagebrush-grass, PJ, and spruce communities on tertiary volcanic gravels in sandy, gravelly loam at elevations between 8,200 and 11,500 feet
Flowering period: June-August
Location: Loa RD: UM Allotment (Water Flat); suitable habitat exists in the 1000 Lake and Solomon Allotments; Richfield RD (suspected occurrence, location not verified)

Ward beardtongue (Penstemon wardii)
Status: Sensitive
Habitat: Bald Knoll and Arapien Shale formations at 5,200-6810 feet elevations in desert shrub, PJ, sagebrush, shadscale, and greasewood communities
Flowering period: May-June
Location: Loa RD: Solomon Allotment (Morrell and Farrell Pond area); suitable habitat exists in the 1000 Lake Allotment. Fillmore RD: Cottonwood, Poulsen, Elsinore-Flat Canyon, and Joseph Allotments. Richfield RD: suitable habitat exists on the Glenwood Allotment. Beaver RD (northeastern areas)

Beaver Mountain groundsel (Senecio castoreus)
Status: Sensitive
Habitat: Windswept ridges to the spruce-fir community ranging in elevation from 10,000 – 12,100 feet in elevation
Location: Beaver RD: North Indian Allotment

Arizona willow (Salix arizonica)
Status: Sensitive
Habitat: Along riparian corridors above 8,500 feet elevation in unshaded or partially-shaded wet meadows, streamsides, commonly located in or adjacent to perennial water.
Flowering period: Late June-July
Location: Richfield RD: Niotche Creek Allotment (upper reaches of Niotche Creek); suitable habitat exists on the Flat Top Allotment. Loa RD: UM Allotment (UM Creek south to Zedds Meadow); suitable habitta exists on the Daniels Allotment.

Maguire campion (Silene petersonii)
Status: Sensitive
Habitat: Ponderosa pine, Rocky Mountain juniper, bristlecone pine, spruce-fir, and aspen-sagebrush communities on open calcareous and igneous gravels between 6,955 and 11,200 feet elevation
Flowering period: July-August
Location: No known populations occur on the Fishlake NF; suitable habitat exists along the northern extremities of the Forest along the I-80 corridor and near the boundary with the Manti LaSal NF.

Bicknell thelesperma (Thelesperma subnudum var. alpinum)
Status: Sensitive
Habitat: Navajo Sandstone and Carmel limestone on peculiar vari-colored phases in PJ, mountain brush, and bristlecone pine communities between 7,380-9,000 feet elevation
Flowering period: June-July
Location: Loa RD: 1000 Lake Allotment; suitable habitat exists on the Solomon Allotment.

Sevier townsendia (Townsendia jonesia var. lutea)
Status: Sensitive
Habitat: Salt desert shrub and juniper communities at 5,500-6,000 feet elevation in Arapien shale and Arapien clays in volcanic rubble
Flowering period: May-June
Location: Fillmore RD: suitable habitat occurs on the Cottonwood Allotment. Richfield RD: suitable habitat occurs in the Glenwood Allotment.

Pinnate spring parsley (Cymopterus beckii)
Status: Sensitive
Habitat: Pinyon-juniper, mountain brush, and ponderosa pine communities, sandy or stoney places between 5,575 – 7,050 feet elevation.
Flowering period: April - June
Location: Loa RD

Fish Lake naiad (Najas caespitosa)
Status: Sensitive
Habitat: Aquatic; shallow water to about 12 inches deep at 8,800 feet elevation
Flowering period: July or August
Location: Loa Rd (Fish Lake, Pelican Point)

Sensitive Fish Species

Bonneville cutthroat trout (Oncorhynchus clarki utah)
Status: Sensitive
Habitat: Areas with a 1:1 pool to riffle ratio and slow deep water with vegetated streambanks for shade, stability, and cover. They prefer summer water temperatures of 55 degrees F.
Spawning period: April-June
Location: Beaver, Fillmore, Richfield RDs

Colorado River cutthroat trout (Oncorhynchus clarki pleuriticus)
Status: Sensitive
Habitat: Coarse woody debris, greater depth and lower velocities have been found to be positively associated with Colorado Cutthroat Trout presence, however, habitat requirements are poorly understood; most conclusions are confounded by small population size and restricted habitat areas
Spawning period: When spring floods begin to recede in late spring and early summer
Location: Loa RD

Theatened, Endangered, Proposed, and Sensitive Wildlife Species

peregrine falcon (Falco peregrinus anatum)
Status: Endangered
Habitat: Peregrine falcons usually forage along marshes, streams, and lakes within a 10-mile radius around the nest
Nesting period: Mid April-August
Location: Beaver RD (Pine Creek Sulphur Beds Allotment--Indian Creek). Richfield RD (Salina Canyon – UDWR's 2001 Peregrine Report lists possible eyerie sight)--Peregrines forage within one mile of a nest for 80% of their foraging.

bald eagle (Haliaeetus leucocephalus)
Status: Threatened
Nesting/fledgling period: March-August
Location: Bald eagles occur on the Fishlake NF during the fall, spring, and winter

Mexican spotted owl (Strix occidentalis lucida)
Status: Threatened
Habitat: PJ zone, below the mixed conifer forests, with steep, narrow, cool canyons
Nesting period: March-mid May
Location: No spotted owls have been confirmed on the Fishlake NF to date.

Utah prairie dog (Cynomys parvidens)
Status: Threatened
Habitat: Deep, well-drained soil, vegetation low enough so that prairie dogs can see over or through, and suitable forage (primarily grasses)
Foraging period: Mid July-mid November
Location: Loa, Beaver RDs

Western yellow-billed cuckoo (coccyzus americanus)
Status: Candidate
Habitat: Riparian habitats dominated by willow and cottonwood
Nesting Period: June-August
Location: No western yellow-billed cuckoos have been confirmed on the Fishlake NF to date.

northern goshawk (Accipiter gentilis)
Status: Sensitive
Habitat: Variety of habitats in coniferous and mixed forests
Nesting period: April-mid July
Location: Several territories documented on the Fishlake NF; no Forest-wide surveys conducted

APPENDIX D
SAFETY PLAN

1. PERSONAL SAFETY

All pesticides are toxic and should be handled with care--but even the most toxic, in the most hazardous circumstances, can be used safely provided recommended precautions are followed:

1. Make sure that you are familiar with current Federal and State pesticide laws and regulations.

2. Make sure that you have the proper pesticide applicator license.

3. Follow all safety precautions on the label. The single, most important approach to pesticide safety is to read the pesticide label before each use and follow the directions. To disregard label directions is a violation of the law no matter how you may view the necessity of complying.

4. Wear proper protective clothing and use protective equipment as instructed on the label.

5. Never eat, drink, or smoke while applying pesticides.

6. Immediately wash off all pesticide spills on clothing or skin with a detergent (which cleans better than soap) and water. A supply of clean water should be on hand when handling pesticides.

7. Bathe after pesticide application and launder clothing separate from other laundry.

8. Lock pesticides in original containers in a properly marked cabinet or storage room separate from food, feed, or fertilizer.

9. Store herbicides separate from other pesticides to avoid contamination.

10. Triple rinse all empty containers and use the rinse water as part of the spray solution. Empty containers should not be used for any other purose. Dispose od empty containers in a proper manner.

11. Be familiar with basic first-aid procedures involving pesticides:
--If swallowed: Get medical attention.
--If on skin: Wash skin with detergent and water.
--If in eyes: Flush eyes with water for 15 minutes; get medical attention
--Avoid breathing vapor or mist.

12. If you suspect poisoning, contact the nearest Poison Control Center, hospital emergency room, or physician. Be sure to take the pesticide label with you and give it to the attending physician.

2. PROTECTIVE GEAR

Special protective gear is usually specified on the label when needed for especially hazardous chemicals or application situations. This gear usually includes one or all of the following: goggles, face mask, respirator, hard hat, waterproof boots, pants, or hat.

Minimum dress acceptable:

A. A long-sleeved, closely woven shirt and long-legged trousers or coveralls
B. Gloves: unlined water proof gloves, long enough to protect the wrist (waterproof means chemically resistant; the gloves can be made from various synthetic materials).
C. Hat: with a brim capable of protecting the back of the neck (or hat with kepi)
D. Boots
E. Goggles or face shield

F. Respirator: You must wear an approved respiratory device when the label directs you to do so. You will need a respirator 1) if you will be exposed to a pesticide for a long time, 2) if the pesticide is highly toxic, or 3) if you are working in an enclosed area.

3. CONSTRAINTS

A. All herbicide treatment projects will be conducted by a licensed applicator.
B. Contracts will be let only to contractors licensed as applicators in the Agricultural and Forest categories.
C. Require that female project personnel of child-bearing age certify they are knowledgeable about the information of the possible hazard to human health from exposure to chemicals.
D. Prevent female applicators from using dicamba because of potential reproductive effects.
E. Follow environmental Protection Agency herbicide label requirements.
F. Ensure that only properly trained personnel handle and use herbicides on lands administered by the Forest Service.
G. Ensure there is a safety plan covering projects involving herbicide use on National Forest System lands.

4. WHAT TO DO FOR POISONING

The first step you should take in any poisoning emergency is to wash the poison off the victim to reduce exposure. Then if you are unable to get the victim to a hospital, call an ambulance, physician, or both. Someone should be with the victim continuously until you get the person to a physician or an ambulance picks him or her up. If you are alone with the victim, see that the victim is breathing and that no further exposure occurs. If the victim is not breathing, give artifical respiration. If possible, take the pesticide label with you for the physician's information. Do not carry an open or contaminated container in the passenger space of a car or truck. If you cannot take the container, make sure you know what pesticide the victim has been using. The trade name, formulation, and EPA Reg. No. are needed.

A. Poison on the skin
The faster the poison is washed off the victim, the less injury will result. Do the following:
1. Remove the victim's clothing
2. Drench the victim's skin with water (shower, hose, faucet, pond, ditch)
3. Throuoghly cleanse the victim's skin, hair, and fingernails with detergent and water
4. Dry and wrap the victim in a blanket

B. Chemical Burns of the skin
1. Remove the victim's contaminated clothing
2. Wash the victim's skin with large amounts of water
3. Immediately cover the skin loosely with a clean, soft cloth
4. Avoid the use of ointments, greases, powders, and other drugs in first aid treatment of burns
5. Treat the victim for shock if necessary

C. Poison in the eye
You must wash out the eye as quickly but as gently as possible:
1. Hold the victim's eyelids open, and wash his or her eyes with a gentle stream of clean, running water. Encourage the victim to blink as much as possible while his or her eye is being washed.
2. Continue washing for 15 minutes or more
3. Do not use chemicals or drugs in wash water. They may increase the extent of injury.

D. Inhaled poisons (dusts, vapors, gases)
To rescue a victim from an enclosed space, use a self-contained breathing aparatus. Otherwise, use extreme caution not to inhale the poison. Also, do the following:
1. Immediately carry the victim to fresh air (do not let him or her walk)
2. Loosen all tight clothing
3. Apply artificial respiration if the victim's breathing has stopped or is irregular
4. Keep the victim as quiet as possible
5. If the victim is convulsing, watch is or her breathing and protect the victim from falling or striking his or her head. Keep the victim's chin up so the air passage remains free for breathing
6. Prevent chilling (wrap the victim in a blanket, but do not overheat)
7. Treat for shock
8. Do not give alcohol in any form

E. Swallowed poisons

The most important choice you make when aiding a person who has swallowed a pesticide is whether to make the person to vomit. You must make this decision quickly and accurately; the victim's life may depend on it.

If vomiting is recommended by the label, do not waste a lot of time inducing vomiting. Use it only as a first aid until you can get the victim to a hospital. Make sure the victim is lying face down or kneeling forward while vomiting. Do not let the victim lie on his or her back because vomitus could enter the lungs and do more damage. Follow these steps:

1. First give the victim large amounts of milk or water--1 to 2 cups for victims up to 5 years of age; up to a quart for victims 5 years of age and older.
2. Induce vomiting by putting your finger or the blunt end of a spoon at the back of the victim's throat or by using syrup of ipecac (use only on physician's orders). Do not use anything that is sharp or pointed! A glass of soapy water will also cause the victim to vomit.
3. The best first aid for a person who has swallowed a poison is to dilute and neutralize the poison as quickly as possible. Also, get the victim to a hospital without delay. For acid or alkaline-based pesticides, give the victim milk or water. Milk is better than water because it dilutes and also neutralizes the poison.

The "Statement of Practical Treatment" on each label will say whether to induce vomiting. If the container is not available, remember that usually it is best to get rid of swallowed poison fast. Here are some exceptions: Never induce vomiting if:

1. The victim is unconscious or in convulsions. The victim could choke to death.
2. The victim has swallowed a corrosive poison. A corrosive poison will burn the throat and mouth as severely coming up as it did going down. Identify the poisn the person has ingested. A corrosive poison is a strong acid or alkali such as dinoseb, and the victim will complain of severe pain and have severe mouth and throat burns.
3. The person has swallowed petroleum products (kerosene, gasoline, oil, lighter fluid). Concentrated petroleum products, like corrosive poisons, cause severe burns. If the victim has swallowed a diluted form of these products, immediately induce vomiting.

F. Shock

Sometimes poison victims go into shock. If untreated or ignored, shock can kill a victim even if the poisoning would not have been fatal.

1. Shock symptoms:
   a. The skin will be pale, moist, cold, and clammy
   b. The eyes will be vacant looking and lackluster with dilated (enlarged) pupils
   c. Breathing will be shallow and irregular
   d. The pulse will be very weak, rapid, and irregular
   e. The victim may be unconscious

2. First aid steps:
   a. Unless the victim is vomiting, keep the victim flat on his or her back with legs raised 1 to 1-1/2 feet above the head level
   b. Keep the victim warm enogh to prevent shivering. Do not overheat.
   c. If the victim is conscious and has not swallowed any poison, give small amounts of water or a dilute salt solution (1/2 teaspoon table salt to 1 quart of water). Give as often as the victim will accept it.
   d. Keep the victim quiet and verbally comforted

5. FIRST AID SUPPLIES TO BE AVAILABLE ON PROJECT SITE

A. Emergency first aid kit. The kit should contain:
   1. A small plastic bottle of common detergent. Use this to wash pesticides quickly off the skin.
   2. A small plastic container of syrup of ipecac (use only on physician's orders).
   3. Salt to aid a person about to go into shock.
   4. A small package or bag of high-potency activated charcoal. Mixed with water and swlalowed, high potency activated charcoal acts as an absorber of most pesticides.
   5. A shaped plastic airway for mouth-to-mouth resuscitation.
   6. A thermos or large plastic bottle (at least one pint) of clean water. If no clean water is available, use any pond or stream water available.

7. Simple adhesive bandages, a roll of gauze, and tape. All cuts and scrapes should be covered to prevent pesticides from easily entering the body.
8. Change for an emergency phone call taped to the inside cover of the first aid kit.
9. An empty plastic container with a tight fitting lid is useful as a drinking glass for inducing vomiting or feeding high potency activated charcoal. It can also be used to collect a sample of vomitus to take to the physician.

B. Suitable transportation available for emergency transport in case of injury to project personnel.
C. Radio communication between the project site and the District Office.
D. Eye wash aparatus with full container of water.
E. A minimum of 10 gallons of water for washing in case of contamination.
F. Hand soap/detergent.
G. An extra change of clothes.

6. HAZARD ANALYSIS

SEQUENTIAL STEPS	**ACTIONS TO ELIMINATE HAZARDS**
Safety Plan	Each pesticide project should have a Safety Plan. There are three sources of information for developing a safety plan: The Work Plan, the pesticide label, and the Forest Service Safety Handbook.
Pre-Work Constraints	1. The application conforms to label instructions. 2. Application is within rates specified on the label. 3. Proper steps are taken to minimize off-target area drift. 4. All persons involved are fully briefed on safe procedures, and are properly protected, supervised, and monitored. 5. Liason is pre-arranged with local medical facilities.
Information and Education	Posting the area with warning signs should be done to inform the public about the treatment area. Detouring traffic and restricting access may be considered.
Contractor Relations	Contracting personnel must be knowledgeable of and adhere to FS directives in performing their work. The project safety plan should specify how this is to be accomplished.
Accident Contingency Plan	1. Employees should never work alone under conditions which would preclude attention in case of an accident. Arrangements should be planned so that if an accident occurs, it is possible to immediately: A. Decontaminate the individual B. Provide emergency first aid C. Provide follow-up medical care 2. The name, telephone number, and location of the physician should be posted at each project site where exposure could occur. 3. First aid procedures and antidotes for the specific pesticide should be identified and posted.
Symptoms of Poisoning	Fatigue, headache, dizziness or drukenness, and nausea and vomiting
Minimum Protective Clothing	Minimum dress acceptable: A. A long-sleeved, closely woven shirt and long-legged trousers or coveralls B. Gloves: unlined water proof gloves, long enough to protect the wrist (waterproof means chemically resistant; the gloves can be made from various synthetic materials). C. Hat: with a brim capable of protecting the back of the neck (or hat with kepi) D. Boots E. Goggles or face shield F. Respirator: You must wear an approved respiratory device when the label directs you to do so. You will need a respirator 1) if you will be exposed to a pesticide for a long time, 2) if the pesticide is highly toxic, or 3) if you are working in an enclosed area.
Handling Pesticides	It is suggested that the following information be prominently displayed where pesticide handlers are likely to congegate: GENERAL RULES FOR HANDLING PESTICIDES: 1. Always wash immediately after handling pesticides or pesticide containers. 2. Inspect containers for leaks before handling. 3. Do not handle containers carelessly. 4. Maintain a spill kit and know how to use it.

SEQUENTIAL STEPS	ACTIONS TO ELIMINATE HAZARDS
	5. Keep people and animals away from leaks or spills. 6. Report spills immedialtely, contain and decontaminate. 7. Inspect vehicles for contamination after unloading. 8. Do not permit vehicles to leave until decontaminated. 9. Do not store pesticides or containers near feed, food, or drink. 10. Do not keep food, drink, tobacco, cups, eating utensils in pesticide work areas. 11. Do not touch eyes or mouth while working with pesticides. 12. Do not eat, drink, or smoke in pesticide work areas. 13. Wash hands before eating, drinking, smoking, or using the toilet. 14. Wear clean rubber gloves and other PPE when handling pesticides. 15. Do not use faulty clothing or equipment. 16. Dispose of contaminated clothing or faulty protective gear in an approved manner, if it cannot be thoroughly cleaned and/or repaired. 17. Read pesticide labels carefully. 18. If seeking medical aid, take the label to the physician. 19. Ensure that clean water and soap are available near pesticide work areas.

7. MEDICAL SERVICES

A. **Emergencies:** 911

B. **Poison Control Center**

Utah: (toll free 1-800-456-7707)
Salt Lake City
Intermountain Regional Poison Control Center
50 N. Medical Drive
Salt Lake City, UT 84112
(801)-581-2151

C. **Hospitals**

Fillmore:	Fillmore Community Medical Center, South Hwy 99	435-743-5591
Beaver:	Beaver Valley Hospital, 85 N 400 E Beaver	435-438-2531
Richfield:	Sevier Valley Hospital, 1100 N Main	435-896-8271
Loa-Bicknell-Torrey:	Wayne County Medical Clinic, 128 S 300 W	435-425-3744

APPENDIX E
PROPOSED FOREST PLAN AMENDMENT

Noxious weed goals and objectives in the current Fishlake National Forest Land and Resource Management Plan (Forest Plan) are not effective in implementing comprehensive standards and guidelines such as weed prevention mitigation practices. The Fishlake National Forest is proposing to amend the Forest Plan to provide direction implementing the latest national noxious weed policies for noxious weed and invasive plant prevention and treatment. Specifically, it is proposed to revise, replace or add noxious weed goals, objectives, management direction, and forest-wide standards and guidelines so that noxious weeds can be controlled to achieve and maintain biological diversity and ecosystem health goals. Attachment 1 lists the proposed long-range goal and objectives to achieve the goal. Objectives are specific actions that will be taken to move toward achievement of the goal. In addition, general directions along with appropriate standards and guidelines are proposed. Standards are specific "required" actions. Guidelines are specific "recommended" actions. Included as a standard is implementation of weed prevention mitigation practices. The mitigation practices are included as Attachment 2 for your review.

MODIFICATION OF THE NOXIOUS WEED EA PROPOSED ACTION

It is proposed to document this amendment in the noxious weed environmental analysis process. Therefore the Proposed Action will be modified to include amendment of the Forest Plan:

> **Proposed Action**: To implement a noxious weed prevention and early detection strategy and to annually treat noxious weeds through Integrated Pest Management (IPM), including biological, ground-based chemical, cultural, mechanical, or manual methods. Implicit in the implementation of a noxious weed program is the additional proposal to provide supporting noxious weed goals, objectives, management direction, and forest-wide standards and guidelines through an amendment of the Forest Plan.

PURPOSE AND NEED FOR LRMP AMENDMENT

Each Ranger District on the Fishlake National Forest recently updated their inventories of noxious weed infestations. Detailed findings are in the noxious weed project file.
The inventories clearly indicate that noxious weed control is needed on most Ranger Districts at a scale and frequency much greater than provided for in the current Forest Plan. The Forest Plan does not contain the necessary goals, objectives, management direction, and standards and guidelines to implement an aggressive noxious weed program that is in compliance with current National direction and Forest Service agency-wide and Regional emphasis and policies. In addition, the final environmental impact statement (FEIS) supporting the Forest Plan does not adequately examine or disclose the effects of a noxious weed prevention and control program on resources or uses.

> **Purpose.** Provide Forest Plan direction that allows appropriate noxious weed prevention and control to maintain or restore ecosystems while meeting social and economic goals, including health and safety.
>
> **Need.** Forest noxious weed inventories have found that ecosystems infested with noxious weeds are in a condition that threatens their long-term resiliency, bio-diversity, and health. From 1969 to 1985 noxious weed inventories in the Intermountain Region recorded an increase in noxious-weed-infested areas from 74,658 acres to 150,795 acres. This equates to an annual increase of 5.5 percent.
>
> Of considerable concern is the establishment of new species that are not now common to the Fishlake National Forest. There are 53 noxious weed species identified on the Regional Designated Noxious Weed and Undesirable Plant List. Twenty-one of these species are identified as currently existing in the State of Utah. Thirteen of these 21 species occur on the neighboring Fishlake National Forest and pose an invasive threat to the Fishlake National Forest. In addition, from a list of "Important Alien Plant Species in the Northern Arizona/Southern Utah Area" compiled in 1995 by the BLM, Arizona Strip District, two more species, not currently on the Fishlake or Fishlake National Forests, are potential threats to establishment on the Fishlake National Forest.
>
> The need to amend the Forest Plan is summarized below:

- New relevant scientific information on limiting the spread of noxious weeds is not considered in the current Forest Plan. The existing Goals and Objectives in the Forest Plan are not effective in implementing effective and efficient prevention and control programs. Although the current Forest Plan is consistent with Integrated Pest Management (IPM) treatment recommendations and priorities for managing noxious weeds, it is insufficient in addressing strategies for effecting prevention and control and the social and environmental effects these practices might have. The Forest Plan is silent on implementation of standards and guidelines for noxious weed prevention and control.

- Forest Service policy was revised in 1995 to include new standards and refined direction for Integrated Pest Management (IPM). The revised policy emphasizes the importance of integrating noxious weed management in ecosystem analysis, assessment, and forest planning. It needs to be integrated in Forest Plan direction.

- Many weeds not now known to exist on the Fishlake National Forest are adaptable to the Forest's environment. These weeds are considered likely to invade unless appropriate preventative measures are taken. The current Forest Plan is silent on weed prevention mitigation practices.

- Since the Forest Plan was approved, numbers of noxious weed species invading sites on the Forest have increased, and extent of acres infested have grown considerably in size. These infested sites now pose a direct threat to agricultural production, biodiversity, and integrity of wildland ecosystems. Croplands, rangelands, forests, parks, preserves, wilderness areas, wildlife refuges, and urban spaces all are adversely affected. The current Forest Plan does not provide adequate direction for developing noxious weed prevention and control strategies. Current program implementation, including appropriate management actions is not authorized by the Forest Plan.

ATTACHMENT 1
GOALS, OBJECTIVES, FOREST DIRECTION, AND STANDARDS AND GUIDELINES

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS AND GUIDELINES
Noxious Weeds and Invasive Plants	**GOAL:** Noxious weeds and undesirable invasive plants are managed and controlled to prevent new infestations, control existing populations and eradicate invasions where possible and practical so that ecological biodiversity, ecosystem stability and function, and native plant composition, structure, and successional patterns are maintained or improved.	
	OBJECTIVE: Administration and Planning. Institutionalize consideration of noxious weeds in resource planning and project analyses. Place priority emphasis on program funding and target accomplishment of noxious weed control efforts.	
	FOREST DIRECTION: Ensure there is consistent administrative direction in all Forest resource areas.	A. (G) Noxious weed management and control strategies should be coordinated as a multi-resource effort. B. (G) "Primary" noxious weeds identified from State and Forest Service Regional lists should be prioritized for treatment and may not include some species on these lists such as: Bermudagrass, field bindweed, Johnsongrass, quackgrass, etc. Prioritizing noxious weeds other than "primary" may occur when it is environmentally necessary and economically efficient C. (G) Awareness of noxious weeds and their potential impacts will be stressed at all levels of the Forest through briefings and training sessions. D. (S) A Forest-wide noxious weed strategy must be developed to specify implementation programs for priority treatment.
	FOREST DIRECTION: Incorporate weed prevention and management into Forest operations and project designs.	A. (S) Environmental analyses for construction, reconstruction, soil disturbing projects, and other activities authorized on the Forest will consider weed risk in development and evaluation of alternatives and mitigating measures. Documentation of what was considered will be maintained in each project record.
	OBJECTIVE: Education and Awareness. Work with all potential cooperators on implementing public awareness informational campaigns including signing, public notices, advertisements, classroom materials and presentations, and enforcement of closure orders and mitigation practices.	
	FOREST DIRECTION: Increase weed awareness and prevention efforts among Forest users.	A. (G) Education programs should be used to increase weed awareness and prevent weed spread by Forest users. B. (G) Weed awareness bulletins/interpretive signs should be posted at all noxious weed areas where public access is available, at all NFS trailheads, and along roadsides to alert Forest users about noxious weed programs and their roles in prevention and control.
	OBJECTIVE: Prevention and Early Detection. Review, and modify where necessary, all activities authorized or conducted on the Forest for their potential to spread weeds or create conditions that are conducive to weed establishment.	

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS AND GUIDELINES
Noxious Weeds and Invasive Plants	**OBJECTIVE: <u>Prevention and Early Detection.</u>** Review, and modify where necessary, all activities authorized or conducted on the Forest for their potential to spread weeds or create conditions that are conducive to weed establishment.	
	FOREST DIRECTION: Prevent noxious weed and invasive plant entry and spread.	A. (S) Weed prevention mitigation measures will be incorporated in the development of noxious weed prevention and control strategies and will be considered in all Forest project work and resource activities. Documentation of what was considered will be maintained in each project record. B. (G) Contingencies for noxious weed and exotic plant prevention and control, following wildfire, should be included in Burned Area Emergency Rehabilitation (BAER) reports and other burn area recovery plans. C. (G) Strategies will include direction to find and identify new invaders before infestations reach one acre in size.
	OBJECTIVE: **<u>Coordination and Cooperation.</u>** Combine efforts with local weed management units, other Federal, State, and local agencies and private landowners to consolidate and coordinate weed control across jurisdictional boundaries.	D. (S) Cleaning of ATV's used in weed treatment project activity is required following each project.
	FOREST DIRECTION: Cooperate in control and prevention activities on adjacent lands and with other land management agencies and private landowners.	A. (G) Work with all potential cooperators, including County and State governments, private landowners, university extension, research, and other Federal agencies to develop cooperative noxious weed control programs. B. (G) Compatible and accessible inventory, data, mapping, and monitoring standards should be developed with all partners.. C. (G) Memorandums of Understanding (MOUs) or agreements for pooling funds with public or private landowners for the most efficient use of resources in noxious weed management should continue to be developed and implemented as needed to progress toward meeting goals and objectives.. D. (G) Actively participate on local weed boards and interagency noxious weed programs as needed to ensure meeting goals and objectives. E. (G) Cooperation with Federal, State, and local road and highway departments should be used to integrate cooperative control across all ownerships.
	OBJECTIVE: <u>Inventory and Mapping.</u> Expand and improve systems for detecting, inventorying, reporting, and monitoring noxious weed and invasive plant infestations. Include identification of vulnerable weed habitats and emphasis on early detection of weed invasions within these habitats.	
	FOREST DIRECTION: Develop consistent inventory, data, and mapping standards across resource, agency, and jurisdictional boundaries.	A. (S) Noxious weed infestations will be mapped on all NFS lands in a manner compatible with modern technologies such as Geographic Information Systems (GIS) and Global Positioning Systems (GPS). Infestations will be mapped within 6 months of discovery. B. (G) Inventory of ecosystems and vegetation types vulnerable to invasion by noxious weeds and invasive plants should be included in noxious weed management strategies and environmental analyses.

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS AND GUIDELINES
Noxious Weeds and Invasive Plants	**OBJECTIVE: <u>Containment, Control, and Eradication.</u>** Keep noxious weed and invasive plant infestations below economically or ecologically damaging levels and from spreading to new areas. Implement Integrated Pest Management (IPM) on an area-wide basis. Plan and determine priorities and strategies for noxious weed control and eradication.	
	FOREST DIRECTION: Develop strategies to eradicate, control, and contain noxious weeds.	A. (S) Integrated Pest Management (IPM) techniques, including biological control agents, ground-based herbicide applications, physical and mechanical methods, and cultural control (including fire) will be included in noxious weed management strategies. B. (G) A noxious weed strategy should be developed to prioritize areas for noxious weed eradication, control, and containment using the following guideline: Noxious weeds should be controlled in the following priority: 1. Invasion of new noxious weed species. 2. Infestation in new areas. 3. Expansion of existing infestations. 4. Reduction in acreage of current infestations.
	OBJECTIVE: <u>Restoration.</u> Develop and implement effective methods to restore forest and rangeland plant communities and ecosystem processes and to return lost components or functions to degraded lands.	C. (S) Apply herbicide treatments using certified applicators, following label instructions.
	FOREST DIRECTION: Develop rehabilitation methods to restore degraded lands.	A. (G) Establish desirable perennial, competitive grass species that are adapted to the climatic and environmental conditions of the restoration areas to minimize reinvasion by noxious weeds. The use and perpetuation of native species should be emphasized where effective and economical. B. (G) The process of revegetation must first identify the desirable plant community that meets management objectives, and then determine the seeding method, noxious weed treatment method, species to be seeded, and follow-up treatments to best achieve the desirable plant community. C. (G) The decision to revegetate must consider direct costs (seedbed preparation, seeds and seeding, follow-up management), indirect costs (risk of failure, non-use during establishment period), and benefits (increased forage, improved ecosystem function, soil conservation, biodiversity). D. (G) Revegetation efforts should focus on sites and methods with the greatest potential for increasing net benefits in the shortest amount of time.
	OBJECTIVE: <u>Research.</u> Increase cooperation with all members of the research community, strengthen research efforts in weed ecology and biological control agents, and expand coordination and cooperation with universities and agricultural extension, FS Research, APHIS, and Natural Resource Conservation Service	E. (S) Weed prevention mitigation practices will be considered and appropriately incorporated in the development of revegetation and rehabilitation strategies. Documentation of what was considered will be maintained in each project record.
	FOREST DIRECTION: Apply current research findings in weed ecology, plant dynamics, and alternative control methods.	A. (G) New research on the use of biological control, suitable herbicides, vegetative competition, and ecosystem information on vulnerability should be used to maintain the most effective efforts for noxious weed management. B. (G) Adaptive management processes should be used to adjust project implementation methods and applications in accordance with state-of-the art information.

APPENDIX F
FISHLAKE NATIONAL FOREST
WEED PREVENTION PRACTICES GUIDE

SUPPORTING DIRECTION

This Noxious Weed Prevention Practices Guide is consistent with and in compliance with the ***USDA-Forest Service GUIDE To Noxious Weed Prevention Practices***. This Guide provides more detailed discussion of specific prevention practices than the USDA Guide.

The Noxious Weed Prevention Practices Guide provides a toolbox of ideas for use in mitigating identified weed risks in resource management operations. The Guide adds no new requirements or regulations.

Two weed prevention practices are required by Forest Service policy:

Cleaning of equipment used in off-road operations for forest management activities is required before operating in the project areas.

Certified weed-free feed is required for use on all National Forest System lands in the state of Utah.

All other weed prevention practices in this Guide are optional for use based upon an analysis of weed risks. This list of practices, if applied, is considered to be good overall direction, however, not all of these practices can be implemented in every project.

MANAGEMENT OBJECTIVES	PREVENTION PRACTICES
The *objective* is to stop the spread of existing noxious weed infestations and prevent invasion of new sites or new noxious weeds. The basis for these Prevention and Control Measures are National Policy: FSM 2080.	These are practices to be used to meet the intent of Management Objectives. All Practices are "recommended" for implementation. Consideration of these Practices and appropriate application has been determined to be essential in the prevention of invasion and spread of noxious weeds.

Land Use Planning and Implementation	
1) Incorporate noxious weed prevention into project layout, design, and alternative evaluation.	1.1) Environmental analyses for Forest use or resource management projects will consider noxious weed risk in evaluating project location and design and development of alternatives and mitigating measures, including any or all of the following, as determined to be appropriate by the Forest Officer in charge: 1) the presence of existing noxious weed infestations within the project site by species and magnitude, 2) habitat type, aspect, and vulnerability to noxious noxious weed invasion, 3) the risk for invasion or spread of noxious weeds that could be caused by the project, 4) evaluation of alternatives for noxious weed-free and/or low-risk sites for project implementation, 5) evaluation of alternative implementation methods which would reduce risk of invasion or spread of noxious weeds, 6) provision of mitigation measures designed to minimize risk of invasion or spread of noxious weeds, and 7) evaluation of direct, indirect, and cumulative effects to noxious weed species and populations. Soil disturbance activities will include noxious weed prevention measures. 1.2) Project implementation for all ground-disturbing operations, within noxious weed infested areas, will include provisions for monitoring and inspecting for at least one and preferably two growing seasons following operations. Ground-disturbing operations include, but are not limited to: range seedings, timber harvest, reforestation, wildlife browse plantings, road construction, and fire-burned areas and staging areas.

Ground Disturbance and Revegetation	
Soil disturbance occurs when sites within an activity area equalling or accumulating to at least 1/4 acre in size have ground surface that has been scarified, denuded, loosened, removed, compacted, filled, and/or exposed to mineral soil.	
2) Remove seed sources that could be picked up by passing vehicles and limit seed transport.	2.1) Ground disturbing operations within noxious weed infested areas must comply with mitigation measures recommended by the Ranger District Weed Specialist and approved by the Responsible Forest Officer. 2.2) Select noxious weed-free project construction staging areas.
3) Retain shade to suppress noxious weeds.	3.1) Except when removal is required for public safety, minimize the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance, particularly on southerly aspects.
4) Re-establish vegetation on bare ground (caused by ground-disturbing activities) to minimize noxious weed spread.	4.1) For all ground-disturbing activities in noxious weed areas, seed all disturbed soil in a manner that optimizes plant establishment for that specific site, - unless ongoing disturbance at the site will prevent noxious weed establishment or spread. Monitor and re-seed as needed until site is successfully revegetated according to project standards. Exceptions to this mitigation measure will require monitoring as per #1.2 and treatment of invading noxious weeds. **Exceptions** include: a) Grading and blading of travel ways, borrow ditches, rights-of-way, and drainage ways on system roads which are routinely maintained. b) Areas where management objectives would be adversely affected by seeding grass species; i.e.: reforestation plantations. 4.2) Where practical, topsoil should be stockpiled and replaced on disturbed areas such as road embankments, cuts, fills, and shoulders; gravel pits; skid trails; landings; staging areas; etc. 4.3) Replanting should be done immediately after the disturbance activity to take advantage of the seedbed and to establish desirable species before the arrival of invading noxious weeds. Use a seed mix that includes fast, early season species to provide quick, dense revegetation. Seed will be certified weed-seed free before purchase to ensure minimum noxious weed content. 4.4) Use local seeding guidelines for detailed procedures and appropriate mixes. If the risk for invasion by noxious weeds is high, use aggressive, early season species. If the risk is low, use a more diverse mixture of native species that may take longer to establish. Include natives, pioneer species and/or nurse crops. Select for low nutrient demanding species to reduce the need for fertilization. Monitor all seeded sites. Spot re-seed as needed. 4.5) Consider the following practices: 1) applying weed-seed free mulch with seeding, 2) surface scarification in the form of extreme surface roughening, 3) seeding at double the standard rate at initial ground disturbance, and full rate again at the end of the project, and 4) limiting the use of fertilizer where it would favor noxious weed growth. 4.6) Use only weed-seed free straw and mulch on road stabilization and erosion control projects.

Gravel Pits and Material Borrow Sources	
5) Minimize the movement of existing and new noxious weed species caused by moving infested gravel and fill material.	5.1) New Pits: Do not establish new material sources on sites where noxious weeds are present, unless the site has first been treated for eradication and the top 8" of contaminated material is stripped and stockpiled. 5.2) All active gravel and borrow sources must be inspected and determined to be noxious weed free, and if noxious weed-infested, stripping and stockpiling of contaminated material must be implemented before material use and transport. 5.3 Monitor the area where pit material from treated noxious weed-infested pit sites is used to ensure that any noxious weeds transported to that site are detected early and treated for eradication.

Road Maintenance	
8) Minimize roadside sources of weed seed that could be transported to other areas, and maximize effectiveness of weed control.	8.1) Ranger District noxious weed prevention and control programs should include a monitoring plan for annual inspection of system roads and rights-of-way for invasion of noxious weeds. If noxious weeds become established, they must be inventoried and scheduled for treatment.
8) Minimize roadside sources of noxious weed seed that could be transported to other areas, and maximize effectiveness of weed control.	8.2 Blading or pulling of noxious weed-infested roadsides or ditches must be scheduled and coordinated with the Ranger District Weed Specialist to ensure that appropriate mitigation measures are applied. Roadsides and ditches which are infested with noxious weeds will not be bladed or pulled on a routine maintenance schedule unless it is required for public safety or protection of the roadway. 8.3) When necessary to blade noxious weed infested roadsides or ditches, schedule for spring or early summer prior to the seed-set stage or later in the fall after seeds have fallen. Minimize surface disturbance and isolate bladed material to the infested site.

Roadway Obliteration	
9) Reduce noxious weed establishment in obliteration / reclamation projects.	9.1) Treat noxious weeds in obliteration and reclamation projects before roads are made undriveable. Monitor and retreat as necessary.

Recreation, Wilderness, Roadless Areas	
10) Minimize transport and establishment of noxious weeds on NFS lands.	10.1) Treat noxious weeds at trailheads, boat launches, outfitter and public campsites, airstrips, and roads leading to trailheads. 10.2) FS recommendations for remediation by any OHV or equipment user who is convicted of incorrect use which results in detrimental loss of vegetation and/or soil disturbance defined by detrimental displacement or clearly identifiable ruts with berms will include revegetation of disturbed areas according to #4.1 - 4.5. 10.3) Infestations of noxious weeds will be closed to camping until noxious weeds have been eradicated. 10.4) Campgrounds, trail heads, and similar areas that are open to public vehicle use are considered as high-risk areas and should be inspected annually for invasion of noxious weeds. Established infestations must be included in strategies for eradication.
11) Increase noxious weed awareness and prevention efforts among forest users.	11.1) Use education programs (e.g. Leave No Weeds) to increase noxious weed awareness and prevent noxious weed spread by recreationists. 11.2) Post and enforce the statewide noxious weed-free feed Order. 11.3) Post pictures and descriptions of noxious weeds at NFS trailheads and at roadsides in noxious weed areas to inform recreationists of noxious weed presence and dangers of spreading. 11.4) Post prevention practices at NFS trailheads and at roadsides in noxious weed areas. Recommended prevention practices include: 11.41) Pack and saddle stock should be fed only weed-seed free feed for several days prior to traveling off roads in the Forest. Before entering NFS land, animals should be brushed to remove any noxious weed seed. 11.42) Stock should be tied and held in the back country in such a way as to minimize soil disturbance and avoid loss of native / desirable vegetation.
11) Increase noxious weed awareness and prevention efforts among forest users.	11.43) Motorized trail users should inspect and clean their vehicles prior to using NFS lands.
12) Increase noxious weed awareness and prevention efforts among forest users.	12.5) Post notices in publicly accessible noxious weed treatment areas where and when there is a likelihood of contact with herbicide-treated-vegetation.

Cultural Resources	
13) Reduce noxious weed establishment and spread at archeological excavations.	13.1) Archeological excavation areas are considered as high-risk areas and should be inspected for invasion of noxious weeds as per Weed Prevention Measure #1.2. If noxious weeds become established, they must be inventoried and scheduled for treatment.

Wildlife and Fisheries	
14) Ensure noxious weed prevention and control are considered in management of wildlife and fisheries.	14.1) Ranger District noxious weed prevention and control programs should include a monitoring plan for inventory and annual inspection of areas where wildlife concentrate in the winter and spring which results in overuse and/or soil scarification. If noxious weeds become established, they must be inventoried and scheduled for treatment. 14.2) Ranger District noxious weed prevention and control programs should include a monitoring plan for early detection of noxious weed spread or establishment in riparian areas, particulary from existing infestations and previously eradicated sites. New infestations must be treated for eradication before they become well-established.

Grazing Allotment Management	
15) Ensure noxious weed prevention and control are considered in management of all grazing allotments.	15.1) Annual Operating Plans for every grazing allotment should include noxious weed prevention monitoring and reporting direction and provisions for annual inspection of areas where livestock concentrate which results in overuse and/or soil scarification. If noxious weeds become established, they must be inventoried and scheduled for treatment. 15.2) For each grazing allotment containing noxious weed infestations, include direction in the Annual Operating Plan (AOP) for prevention and control of noxious weeds. Items to be addressed in the AOP may include: season of use, exclusion, minimizing ground disturbance, noxious weed seed transportation, maintaining healthy vegetation, control methods, revegetation, monitoring, reporting and education.
16) Minimize ground disturbance and bare soil caused by livestock operations.	16.1) Include ways to minimize ground disturbance in Allotment Management Plans (AMPs) and/or Annual Operating Plans (AOPs) (e.g. salt licks, watering sites, yarding/loafing areas, corrals and other heavy use areas).
17) Minimize transport of noxious weed seed into and within allotments.	17.1) Avoid driving, walking, riding, and/or herding through noxious weed infestations. 17.2) Where and when practical, schedule entry of livestock in units with noxious weed infestations to be for pre seed-set or after seed has fallen. Fence or exclude noxious weed sites, until noxious weeds are eradicated, if scheduling is impractical or unmanageable. 17.6) Entry units grazed by livestock transported onto the Forest from noxious weed-infested areas should be inspected annually for new noxious weeds. If noxious weeds become established, they must be inventoried and scheduled for treatment.
18) Maintain healthy desirable vegetation that is resistant to noxious weed establishment	18.1) Manage forage utilization to maintain the vigor of desirable plant species as described in the Allotment Management Plan. 18.2) Minimize and/or exclude grazing on restoration areas until vegetation is well established.
19) Promote noxious weed awareness and prevention efforts among range permittees	19.1) Use education programs and/or Annual Operating Plan direction to increase noxious weed awareness and prevent noxious weed spread by permittees' livestock and/or management activities. 19.2) Encourage permittees who are certified herbicide applicators to participate in allotment noxious weed control programs.

Timber Harvest	
20) Minimize the creation of sites suitable for noxious weed establishment.	20.1) Avoid driving, walking, skidding, landing, and/or hauling through noxious weed infestations. 20.2) Minimize soil disturbance. Consider winter skidding; broadcast burning over pile burning; smaller slash piles and burning under conditions that minimize heat transfer to the soil; minimizing fire line construction; seeding skid trails, landings and other disturbed sites as described in Weed Prevention Measures #4.1 - 4.5 20.3) Minimize unplanned roads, skid trails, and landings.

Post Timber Harvest	
21) Monitor for noxious weeds after sale activity and treat noxious weeds as needed.	21.1) Timber sale and logging areas are considered as high-risk areas and should be inspected for invasion of noxious weeds as per Weed Prevention Measure #1.2. If noxious weeds become established, they must be inventoried and scheduled for treatment.

Mining and Minerals Exploration	
22) Minimize noxious weed establishment in mining operations and reclamation.	22.1) Retain sufficient bonding until an appropriate percent of the potential vegetation ground cover, as determined by the Responsible Forest Officer, for the site is reestablished. 22.2) Mining and mineral exploration areas are considered as high-risk areas and should be inspected for invasion of noxious weeds as per Weed Prevention Measure #1.2. If noxious weeds become established, they must be inventoried and scheduled for treatment.

Soil and Water	
23) Integrate noxious weed prevention and management in all soil and watershed and stream restoration projects.	23.1) Ranger District noxious weed prevention and control programs should include a monitoring plan for early detection of noxious weed spread or establishment in riparian areas, particulary from existing infestations and previously eradicated sites. New infestations must be treated for eradication before they become well-established.

Lands and Special Uses	
24) Reduce noxious weed establishment and spread in special use permits and easements.	24.1) Holders of special use permits and easements shall be responsible for the prevention and control of noxious weeds on the area authorized when prescribed by the Forest Service. 24.2) Require noxious weed prevention and control requirements in Operating and Maintenance Plans when authorized activities present a high risk for invasion by noxious weeds or the location of the activity is vulnerable to invasion by noxious weeds.

Fire	
Pre-fire, Pre-incident training	
25) Increase noxious weed awareness among fire personnel.	25.1) Include noxious weed risk factors and noxious weed prevention considerations in the Resource Coordinator duties on all Incident Overhead Teams and Fire Rehabilitation Teams.

Wildfire	
26) Mitigate and reduce noxious weed spread during fire operations	26.1) Where practical and timely, establish fire camps, vehicle and crew staging areas, helibases, helispots, cargo and net loading areas, and airstrips in noxious weed-free areas. 26.2) Assign a local Weed Specialist Resource Advisor to the IC Team when the wildfire or control operations occurs in or near a noxious weed area. 26.3) When noxious weed infested areas are used for fire operations, mitigation measures, as determined by the Weed Specialist Resource Advisor, must be fully implemented. Flag noxious weed infestations in areas of fire operations.

27) Mitigate and reduce noxious weed spread during fire operations	27.4) All vehicles sent off Forest for fire assistance in noxious weed infested areas should be cleaned before returning to home units. 27.5) Emphasize Minimal Impact Suppression Tactics (MIST) to reduce soil and vegetation disturbance. Minimize fire and dozer line. 27.6) Avoid or minimize all types of travel trough noxious weed-infested areas

Prescribed Fire	
28) Integrate noxious weed prevention and management in all prescribed burning. Mitigate and reduce noxious weed spread during prescribed fire activities.	28.1) Avoid ignition and burning in noxious weed areas unless it is part of a noxious weed control strategy. 28.2) Avoid ignition and burning in areas with a high risk for invasion of noxious weeds. 28.3) Unplanned burning of noxious weed areas will require post treatment of noxious weed infestations. 28.4) Utilize noxious weed-free helibases and helispots for aerial ignition projects. 28.5) Minimize fireline and soil disturbance.

Fire Rehabilitation	
29) Encourage desirable vegetation during fire rehabilitation activities.	29.1) Seed the entire burn, all cat lines, and severely disturbed areas when there is a high risk of noxious weed spread or invasion and such action is recommended by the local Weed Specialist Resource Advisor and approved by the Responsible Forest Officer. Hand seed catlines and severely disturbed areas. 29.2) Prioritize treatment of noxious weeds on fire access roads as part of rehabilitation plan to reduce noxious weed spread into burned areas. 29.3) Apply for restoration funding for noxious weed infestations as determined by Burned Area Rehabilitation teams.

Administration/General	
30) Ensure all Forest Service administrative sites are noxious weed free.	30.1) Apply noxious weed treatment and prevention on all Forest Service administrative sites including Ranger Stations, trailheads, campgrounds, pastures, interpretive and historic sites.
31) Ensure all Forest Service employees are aware of and knowledgeable about noxious weeds.	31.1) Encourage noxious weed awareness, education, and identification in employee development and training plans.
32) Ensure continuity in noxious weed management programs	32.1) Each unit will have a Weed Specialist who is trained and proficient in noxious weed management.

APPENDIX G

PESTICIDE - USE PROPOSAL (Reference FSM 2150) FS 2100-2 (8/79)	DEPARTMENT/ AGENCY		CONTACT/PHONE NO.
	USDA Forest Service		
	REGION	FOREST	DATE SUBMITTED
	R-4	Fishlake	

1) OBJECTIVE a) Project No. b) Specific Target Pest c) Purpose	a) b) Dalmation toadflax (Linaria genistifolia) c) To stop spread, reduce infeseted area and to eradicate plants.
2) PESTICIDE a) Common Name b) Formulation c) % AI,AE,or lb / Gal. d) Registration No.	a) 2,4-D and Dicamba. b) 2,4-D: emulsifiable liquid concentrate/low-volitile ester; Dicamba: water-soluble liquid concentrate. c) 2,4-D: 44.6%/wt or 3.84 lb/gal. Dicamba: 40.0%/wt. or 4.0 lb/gal. d) 2,4-D EPA Reg. No. 228-139 Dicamba: EPA Reg.No. 55947-1
3) a) Form Applied b) Use Strength (%) or Dilution Rate c) Diluent	a) Emulsion b) 1.5 pints 2,4-D + 0.5 pints Dicamba mixed with 50 to 100 gallons water; (apply spray to completly wet plant) c) Water
4) lbs. AI Per Acre or Other Rate	0.75 lbs 2,4-D and 0.25 lbs dicamba per treatment.
5) APPLICATION a) Method b) Equipment	a) Ground equipment b) ATV mounted or back pack sprayer
6) a) Acres or Other Unit to be Treated b) Number of Applications c) Number of Sites d) Specific Description of Sites	a) b) One with retreatment as needed. c) Spot treatment multiple sites. See Dist. weed inventory map. d) Rangeland, excluding areas of water and areas where a potential of contaminating water is present.
7) a) Month(s) of Year b) States	a) April through August depending on phenology of target pest. b) Utah
8) SENSITIVE AREAS a) Areas to be Avoided b) Areas to be Treated with Caution	a) Water and buffer zones within 200 feet of water. b) Areas where either possible movement into soil or surface washing may cause contact with roots of non-target plants; also near camping/picnic areas and resorts.
9) REMARKS a) Precautions to be Taken b) Use of Trained / Certified Personnel c) State and Local Coordination d) Other Pesticides Being Applied to Same Site e) Monitoring f) Other	a) Comply wtih label precautions; applicators shall wear liquid repellent hat and shoes, chemical resistant gloves , long sleeved shirt, long pants, and recommend face shield and full length chemical-resistant apron when mixing/loading; Remove animals from treated area 30 days before slaughter. b) Only people Certified/Licensed by Utah Dept. of Ag. are authorized to transport/handle/use 2,4-D/dicamba mix. c) Cordinate with area users and local weed districts. d) None e) Post-treatment evalutations made by Ranger Dist. personnel f) Project to be conducted by Forest Service personnel
10) Approval (Signature of Approving Official)	Date:

PESTICIDE - USE PROPOSAL (Reference FSM 2150) FS 2100-2 (8/79)	DEPARTMENT/ AGENCY		CONTACT/PHONE NO.
	USDA Forest Service		
	REGION	FOREST	DATE SUBMITTED
	R-4	Fishlake	

1) OBJECTIVE a) Project No. b) Specific Target Pest c) Purpose	a) b) Canada Thisitle (*Cirsium arvense*) c) To stop spread, reduce infeseted area and to eradicate plants.
2) PESTICIDE a) Common Name b) Formulation c) % AI,AE,or lb / Gal. d) Registration No.	a) 2,4-D and Dicamba. b) 2,4-D: emulsifiable liquid concentrate/low-volitile ester; Dicamba: water-soluble liquid concentrate. c) 2,4-D: 44.6%/wt or 3.84 lb/gal. Dicamba: 40.0%/wt. or 4.0 lb/gal. d) 2,4-D EPA Reg. No. 228-139 Dicamba: EPA Reg.No. 55947-1
3) a) Form Applied b) Use Strength (%) or Dilution Rate c) Diluent	a) Emulsion b) 1.5 pints 2,4-D + 0.5 pints Dicamba mixed with 50 to 100 gallons water; (apply spray to completly wet plant) c) Water
4) lbs. AI Per Acre or Other Rate	0.75 lbs 2,4-D and 0.25 lbs dicamba per treatment.
5) APPLICATION a) Method b) Equipment	a) Ground equipment b) ATV mounted or back pack sprayer
6) a) Acres or Other Unit to be Treated b) Number of Applications c) Number of Sites d) Specific Description of Sites	a) b) One with retreatment as needed. c) Spot treatment multiple sites. See Dist. weed inventory map. d) Rangeland, excluding areas of water and areas where a potential of contaminating water is present.
7) a) Month(s) of Year b) States	a) April through August depending on phenology of target pest. b) Utah
8) SENSITIVE AREAS a) Areas to be Avoided b) Areas to be Treated with Caution	a) Water and buffer zones within 200 feet of water. b) Areas where either possible movement into soil or surface washing may cause contact with roots of non-target plants; also near camping/picnic areas and resorts.
9) REMARKS a) Precautions to be Taken b) Use of Trained / Certified Personnel c) State and Local Coordination d) Other Pesticides Being Applied to Same Site e) Monitoring f) Other	a) Comply wtih label precautions; applicators shall wear liquid repellent hat and shoes, chemical resistant gloves , long sleeved shirt, long pants, and recommend face shield and full length chemical-resistant apron when mixing/loading; Remove animals from treated area 30 days before slaughter. b) Only people Certified/Licensed by Utah Dept. of Ag. are authorized to transport/handle/use 2,4-D/dicamba mix. c) Cordinate with area users and local weed districts. d) None e) Post-treatment evalutations made by Ranger Dist. personnel f) Project to be conducted by Forest Service personnel
10) Approval (Signature of Approving Official)		Date:

PESTICIDE - USE PROPOSAL (Reference FSM 2150) FS 2100-2 (8/79)	DEPARTMENT/ AGENCY		CONTACT/PHONE NO.
	USDA Forest Service		
	REGION	FOREST	DATE SUBMITTED
	R-4	Fishlake	

1) OBJECTIVE a) Project No. b) Specific Target Pest c) Purpose	a) b) Musk Thisitle (*Carduus nutans)* c) To stop spread, reduce infeseted area and to eradicate plants.
2) PESTICIDE a) Common Name b) Formulation c) % AI,AE,or lb / Gal. d) Registration No.	a) 2,4-D and Dicamba. b) 2,4-D: emulsifiable liquid concentrate/low-volitile ester; Dicamba: water-soluble liquid concentrate. c) 2,4-D: 44.6%/wt or 3.84 lb/gal. Dicamba: 40.0%/wt. or 4.0 lb/gal. d) 2,4-D EPA Reg. No. 228-139 Dicamba: EPA Reg.No. 55947-1
3) a) Form Applied b) Use Strength (%) or Dilution Rate c) Diluent	a) Emulsion b) 1.5 pints 2,4-D + 0.5 pints Dicamba mixed with 50 to 100 gallons water; (apply spray to completly wet plant) c) Water
4) lbs. AI Per Acre or Other Rate	0.75 lbs 2,4-D and 0.25 lbs dicamba per treatment.
5) APPLICATION a) Method b) Equipment	a) Ground equipment b) ATV mounted or back pack sprayer
6) a) Acres or Other Unit to be Treated b) Number of Applications c) Number of Sites d) Specific Description of Sites	a) b) One with retreatment as needed. c) Spot treatment multiple sites. See Dist. weed inventory map. d) Rangeland, excluding areas of water and areas where a potential of contaminating water is present.
7) a) Month(s) of Year b) States	a) April through August depending on phenology of target pest. b) Utah
8) SENSITIVE AREAS a) Areas to be Avoided b) Areas to be Treated with Caution	a) Water and buffer zones within 200 feet of water. b) Areas where either possible movement into soil or surface washing may cause contact with roots of non-target plants; also near camping/picnic areas and resorts.
9) REMARKS a) Precautions to be Taken b) Use of Trained / Certified Personnel c) State and Local Coordination d) Other Pesticides Being Applied to Same Site e) Monitoring f) Other	a) Comply wtih label precautions; applicators shall wear liquid repellent hat and shoes, chemical resistant gloves , long sleeved shirt, long pants, and recommend face shield and full length chemical-resistant apron when mixing/loading; Remove animals from treated area 30 days before slaughter. b) Only people Certified/Licensed by Utah Dept. of Ag. are authorized to transport/handle/use 2,4-D/dicamba mix. c) Cordinate with area users and local weed districts. d) None e) Post-treatment evalutations made by Ranger Dist. personnel f) Project to be conducted by Forest Service personnel
10) Approval (Signature of Approving Official)	Date:

PESTICIDE - USE PROPOSAL (Reference FSM 2150) FS 2100-2 (8/79)	DEPARTMENT/ AGENCY		CONTACT/PHONE NO.
	USDA Forest Service		
	REGION	FOREST	DATE SUBMITTED
	R-4	Fishlake	

1) OBJECTIVE a) Project No. b) Specific Target Pest c) Purpose	a) b) Russian knapweed (Centaurea repens) c) To stop spread, reduce infeseted area and to eradicate plants.
2) PESTICIDE a) Common Name b) Formulation c) % AI,AE,or lb / Gal. d) Registration No.	a) Picloram (Tordon 22K) b) Picloram: soluble concentrate. c) Picloram: 21.5%/wt. or 2.0 lb/gal. d) Picloram: EPA Reg. No. 62719-6
3) a) Form Applied b) Use Strength (%) or Dilution Rate c) Diluent	a) Solution b) 1-2 quarts concentrate mixed with 50 to 100 gallons water; (apply spray to completly wet plant) c) Water
4) lbs. AI Per Acre or Other Rate	0.5 lbs to 1.0 lb per treatment.
5) APPLICATION a) Method b) Equipment	a) Ground equipment b) ATV mounted or back pack sprayer
6) a) Acres or Other Unit to be Treated b) Number of Applications c) Number of Sites d) Specific Description of Sites	a) b) One with retreatment as needed. c) Spot treatment multiple sites. See Dist. weed inventory map. d) Rangeland, excluding areas of water and areas where a potential of contaminating water is present.
7) a) Month(s) of Year b) States	a) April through August depending on phenology of target pest. b) Utah
8) SENSITIVE AREAS a) Areas to be Avoided b) Areas to be Treated with Caution	a) Water and buffer zones within 200 feet of water. b) Areas where either possible movement into soil or surface washing may cause contact with roots of non-target plants; also near camping/picnic areas and resorts.
9) REMARKS a) Precautions to be Taken b) Use of Trained / Certified Personnel c) State and Local Coordination d) Other Pesticides Being Applied to Same Site e) Monitoring f) Other	a) Comply wtih label precautions; applicators shall wear liquid repellent hat and shoes, chemical resistant gloves , long sleeved shirt, long pants, and recommend face shield and full length chemical-resistant apron when mixing/loading; Remove animals from treated area 30 days before slaughter. b) Only people Certified/Licensed by Utah Dept. of Ag. are authorized to transport/handle/use Picloram. c) Cordinate with area users and local weed districts. d) None e) Post-treatment evalutations made by Ranger Dist. personnel f) Project to be conducted by Forest Service personnel
10) Approval (Signature of Approving Official)	Date:

PESTICIDE - USE PROPOSAL (Reference FSM 2150) FS 2100-2 (8/79)	DEPARTMENT/ AGENCY		CONTACT/PHONE NO.
	USDA Forest Service		
	REGION	FOREST	DATE SUBMITTED
	R-4	Fishlake	

1) OBJECTIVE a) Project No. b) Specific Target Pest c) Purpose	a) b) Scotch Thisitle (Onopordum *acanthium)* c) To stop spread, reduce infeseted area and to eradicate plants.
2) PESTICIDE a) Common Name b) Formulation c) % AI,AE,or lb / Gal. d) Registration No.	a) 2,4-D and Dicamba. b) 2,4-D: emulsifiable liquid concentrate/low-volitile ester; Dicamba: water-soluble liquid concentrate. c) 2,4-D: 44.6%/wt or 3.84 lb/gal. Dicamba: 40.0%/wt. or 4.0 lb/gal. d) 2,4-D EPA Reg. No. 228-139 Dicamba: EPA Reg.No. 55947-1
3) a) Form Applied b) Use Strength (%) or Dilution Rate c) Diluent	a) Emulsion b) 1.5 pints 2,4-D + 0.5 pints Dicamba mixed with 50 to 100 gallons water; (apply spray to completly wet plant) c) Water
4) lbs. AI Per Acre or Other Rate	0.75 lbs 2,4-D and 0.25 lbs dicamba per treatment.
5) APPLICATION a) Method b) Equipment	a) Ground equipment b) ATV mounted or back pack sprayer
6) a) Acres or Other Unit to be Treated b) Number of Applications c) Number of Sites d) Specific Description of Sites	a) b) One with retreatment as needed. c) Spot treatment multiple sites. See Dist. weed inventory map. d) Rangeland, excluding areas of water and areas where a potential of contaminating water is present.
7) a) Month(s) of Year b) States	a) April through August depending on phenology of target pest. b) Utah
8) SENSITIVE AREAS a) Areas to be Avoided b) Areas to be Treated with Caution	a) Water and buffer zones within 200 feet of water. b) Areas where either possible movement into soil or surface washing may cause contact with roots of non-target plants; also near camping/picnic areas and resorts.
9) REMARKS a) Precautions to be Taken b) Use of Trained / Certified Personnel c) State and Local Coordination d) Other Pesticides Being Applied to Same Site e) Monitoring f) Other	a) Comply wtih label precautions; applicators shall wear liquid repellent hat and shoes, chemical resistant gloves , long sleeved shirt, long pants, and recommend face shield and full length chemical-resistant apron when mixing/loading; Remove animals from treated area 30 days before slaughter. b) Only people Certified/Licensed by Utah Dept. of Ag. are authorized to transport/handle/use 2,4-D/dicamba mix. c) Cordinate with area users and local weed districts. d) None e) Post-treatment evalutations made by Ranger Dist. personnel f) Project to be conducted by Forest Service personnel

10) Approval (Signature of Approving Official)	Date:

PESTICIDE - USE PROPOSAL (Reference FSM 2150) FS 2100-2 (8/79)	DEPARTMENT/ AGENCY		CONTACT/PHONE NO.
	USDA Forest Service		
	REGION	FOREST	DATE SUBMITTED
	R-4	Fishlake	

1) OBJECTIVE a) Project No. b) Specific Target Pest c) Purpose	a) b) Spotted knapweed (*Centaurea maculosa)* c) To prevent weed establishment, to eradicate plants.
2) PESTICIDE a) Common Name b) Formulation c) % AI,AE,or lb / Gal. d) Registration No.	a) 2,4-D and Dicamba. b) 2,4-D: emulsifiable liquid concentrate/low-volitile ester; Dicamba: water-soluble liquid concentrate. c) 2,4-D: 44.6%/wt or 3.84 lb/gal. Dicamba: 40.0%/wt. or 4.0 lb/gal. d) 2,4-D EPA Reg. No. 228-139 Dicamba: EPA Reg.No. 55947-1
3) a) Form Applied b) Use Strength (%) or Dilution Rate c) Diluent	a) Emulsion b) 1.5 pints 2,4-D + 0.5 pints Dicamba mixed with 50 to 100 gallons water; (apply spray to completly wet plant) c) Water
4) lbs. AI Per Acre or Other Rate	0.75 lbs 2,4-D and 0.25 lbs dicamba per treatment.
5) APPLICATION a) Method b) Equipment	a) Ground equipment b) ATV mounted or back pack sprayer
6) a) Acres or Other Unit to be Treated b) Number of Applications c) Number of Sites d) Specific Description of Sites	a) b) One with retreatment as needed. c) Spot treatment of one site. d) Rangeland, excluding areas of water and areas where a potential of contaminating water is present.
7) a) Month(s) of Year b) States	a) April through August depending on phenology of target pest. b) Utah
8) SENSITIVE AREAS a) Areas to be Avoided b) Areas to be Treated with Caution	a) Water and buffer zones within 200 feet of water. b) Areas where either possible movement into soil or surface washing may cause contact with roots of non-target plants; also near camping/picnic areas and resorts.
9) REMARKS a) Precautions to be Taken b) Use of Trained / Certified Personnel c) State and Local Coordination d) Other Pesticides Being Applied to Same Site e) Monitoring f) Other	a) Comply wtih label precautions; applicators shall wear liquid repellent hat and shoes, chemical resistant gloves , long sleeved shirt, long pants, and recommend face shield and full length chemical-resistant apron when mixing/loading; Remove animals from treated area 30 days before slaughter. b) Only people Certified/Licensed by Utah Dept. of Ag. are authorized to transport/handle/use 2,4-D/dicamba mix. c) Cordinate with area users and local weed districts. d) None e) Post-treatment evalutations made by Ranger Dist. personnel f) Project to be conducted by Forest Service personnel
10) Approval (Signature of Approving Official)	Date:

PESTICIDE - USE PROPOSAL (Reference FSM 2150) FS 2100-2 (8/79)	DEPARTMENT/ AGENCY		CONTACT/PHONE NO.
	USDA Forest Service		
	REGION	FOREST	DATE SUBMITTED
	R-4	Fishlake	

1) OBJECTIVE a) Project No. b) Specific Target Pest c) Purpose	a) b) White top *(cardaria draba)* c) To stop spread, reduce infeseted area and to eradicate plants.
2) PESTICIDE a) Common Name b) Formulation c) % AI,AE,or lb / Gal. d) Registration No.	a) 2,4-D and Dicamba. b) 2,4-D: emulsifiable liquid concentrate/low-volitile ester; Dicamba: water-soluble liquid concentrate. c) 2,4-D: 44.6%/wt or 3.84 lb/gal. Dicamba: 40.0%/wt. or 4.0 lb/gal. d) 2,4-D EPA Reg. No. 228-139 Dicamba: EPA Reg.No. 55947-1
3) a) Form Applied b) Use Strength (%) or Dilution Rate c) Diluent	a) Emulsion b) 1.5 pints 2,4-D + 0.5 pints Dicamba mixed with 50 to 100 gallons water; (apply spray to completly wet plant) c) Water
4) lbs. AI Per Acre or Other Rate	0.75 lbs 2,4-D and 0.25 lbs dicamba per treatment.
5) APPLICATION a) Method b) Equipment	a) Ground equipment b) ATV mounted or back pack sprayer
6) a) Acres or Other Unit to be Treated b) Number of Applications c) Number of Sites d) Specific Description of Sites	a) b) One with retreatment as needed. c) Spot treatment multiple sites. See Dist. weed inventory map. d) Rangeland, excluding areas of water and areas where a potential of contaminating water is present.
7) a) Month(s) of Year b) States	a) June through September depending on phenology of target pest. b) Utah
8) SENSITIVE AREAS a) Areas to be Avoided b) Areas to be Treated with Caution	a) Water and buffer zones within 200 feet of water. b) Areas where either possible movement into soil or surface washing may cause contact with roots of non-target plants; also near camping/picnic areas and resorts.
9) REMARKS a) Precautions to be Taken b) Use of Trained / Certified Personnel c) State and Local Coordination d) Other Pesticides Being Applied to Same Site e) Monitoring f) Other	a) Comply wtih label precautions; applicators shall wear liquid repellent hat and shoes, chemical resistant gloves , long sleeved shirt, long pants, and recommend face shield and full length chemical-resistant apron when mixing/loading; Remove animals from treated area 30 days before slaughter. b) Only people Certified/Licensed by Utah Dept. of Ag. are authorized to transport/handle/use 2,4-D/dicamba mix. c) Cordinate with area users and local weed districts. d) None e) Post-treatment evalutations made by Ranger Dist. personnel f) Project to be conducted by Forest Service personnel
10) Approval (Signature of Approving Official)	Date:

Instructions for completing Form FS-2100-2, Pesticide Use Proposal

HEADING - Provide requested information.

OBJECTIVE (Block 1)

a) Project Number - Assign in accordance with field IPMWG procedures.
b) Specific Target Pest - Identify the target pest by common and scientific name. Identify life cycle stage for animals or stage of growth for plants (e.g. emergent or pre-emergent, seedling, sapling, etc.)
c. Purpose - State exact purpose of pesticide use.

PESTICIDE (Block 2)

a) Common name of active ingredient(s) as indicated on the pesticide label. When a combination of pesticides are to used on a single pest, use the word "AND" in listing the pesticide names. When alternate materials are proposed, use the word "OR" in listing the names.
b) Indicate product formulation (i.e., amine, ester, emulsifiable concentrate, granules, solution, etc.).
c) Percentage active ingredient, acid equivalent, or pounds per gallon (as indicated on the pesticide label).
d) List the EPA registration number from the pesticide label.

PESTICIDE - continued (Block 3)

a) Form Applied - e.g., dust, granule, emulsion, bait, solution, gas, etc.
b) Use strength or Dilution Rate - List the quantity of concentrate mixed with the quantity of diluent or indicate the percentage strength of the formulation.
c) Diluent - Identify the pesticide carrier, i.e., water, oil, talc, kerosene, etc.

PESTICIDE - continued - (Block 4)

Pounds of Active Ingredient Per Acre or Other Rate - State pounds of active ingredient per acre to be applied, unless some other unit is indicated. If reporting in acreage is not appropriate, indicate units used. Indoor applications of residual sprays may be expressed as percent of actual ingredient in the prepared spray in gallons per M (1,000) square feet. Point of runoff, which may appear on a label is generally considered to be 1 gallon per 1,ooo square feet on most indoor surfaces. If dusts are used instead of sprays, express as ounces or pounds of prepared dust per M (1,000) square feet. Treatment of trees is listed by number of trees or is application is by hydraulic sprayer, is expressed as pounds or quarts of concentrate per 100 gallons of diluent - oil or water, whichever is used. If the pesticide for trees or brush is applied by air or mist blower, express as pounds of active ingredient per acre. Fumigants or inside aerosols are expressed as pounds of the fumigant or aerosol per M (1,000) cubic feet. Rodent baits should be listed as ounces or pounds of the prepared bait per bait station. Treatments in water may be expressed in parts per million (ppm) by weight or volume - specify. In spot applications, the rate of application is expressed in pounds or gallons per 1,000 square feet indoors or pounds per acre of active ingredient outdoors applied to the spot area treated.

APPLICATION - (Block 5)

Indicate as specifically as possible the method (i.e., aerial, ground, etc.) of application and the type of equipment such as helicopter, hand compression sprayer, mist-dust blower, hydraulic sprayer, injector, etc.

APPLICATION - (Block 6)

a) Acres or Other Unit to be Treated. State in terms of acres, unless otherwise indicated. Some projects may require repeat applications. Report only the units to be treated for the first application.
b) Number of Applications - For projects that require repeat applications to the same area, indicate their estimated number and their timing.
c) Number of Sites - If the reported figures are a consolidation from several locations, indicate the number of locations.
d) Specific Descriptions of Sites - Indicate the type of area and pertinent portion of the area to be treated; such as ditchbank, rangeland, powerline right-of-way, tree nursery, etc. Specify if pesticide is to be applied in or around water and whether it will be applied directly to water or to the shore. Where applicable, indicate the slope of the treated area. For aquatic use, indicate water quality (hardness and pH) if available or applicable.

APPLICATION (Block 7)

a) Month(s) of Year - State month(s) of year.
b) State(s) - Indicate State and other designation that identifies the area geographically.

SENSITIVE AREAS (Block 8)

a) Areas to be Avoided - Identify sensitive areas to be avoided. Indicate if the area is subject to inadvertent treatment as a result of drift. Describe fully in "remarks" (Block 9) what protective measures are to be taken.
b) Areas to be Treated with Caution - Identify sensitive areas to be treated with special precautions to avoid contamination.

REMARKS (Block 9)

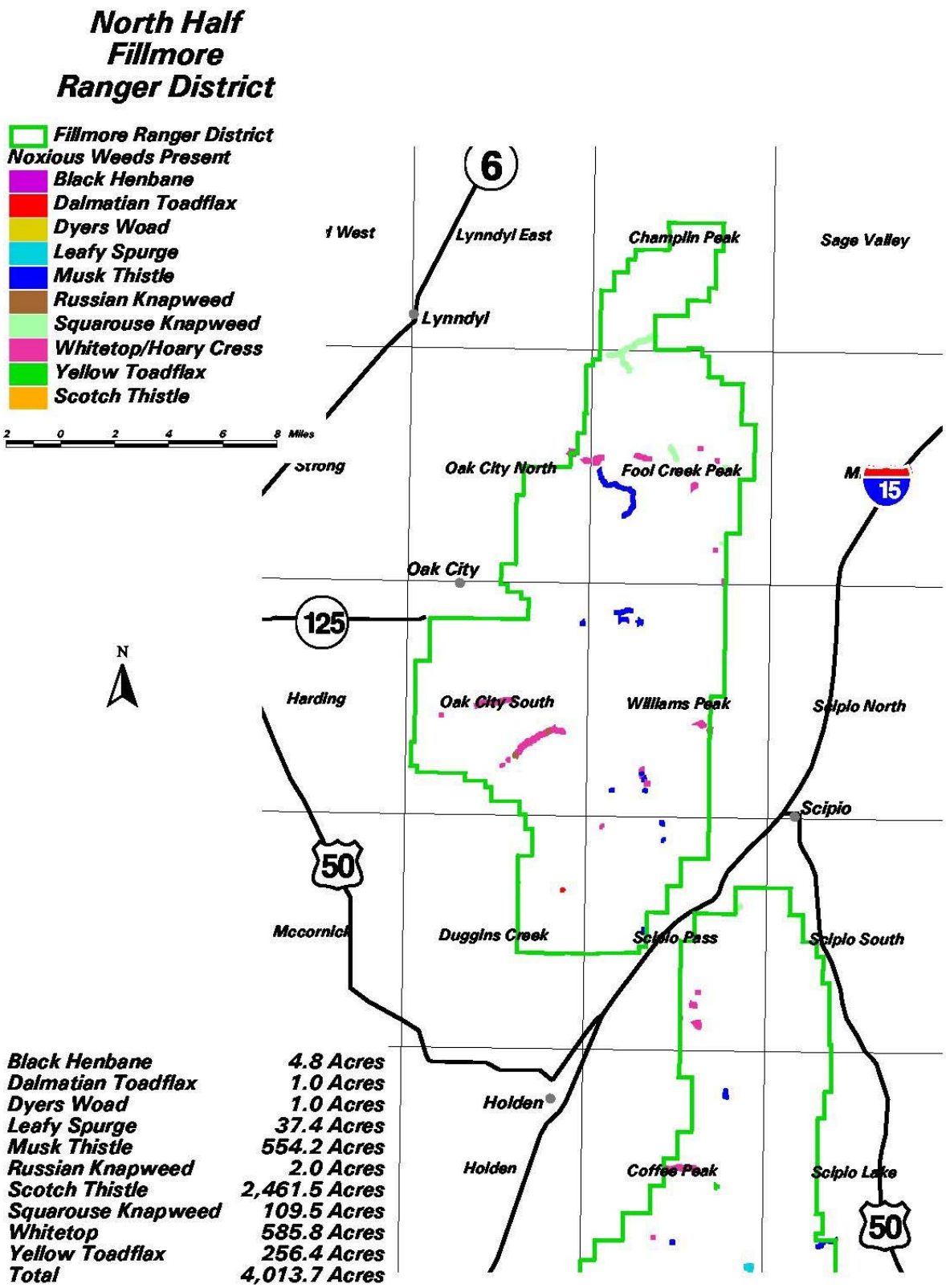
Use this line for information which will be helpful to the field IPMWG in evaluating the project.

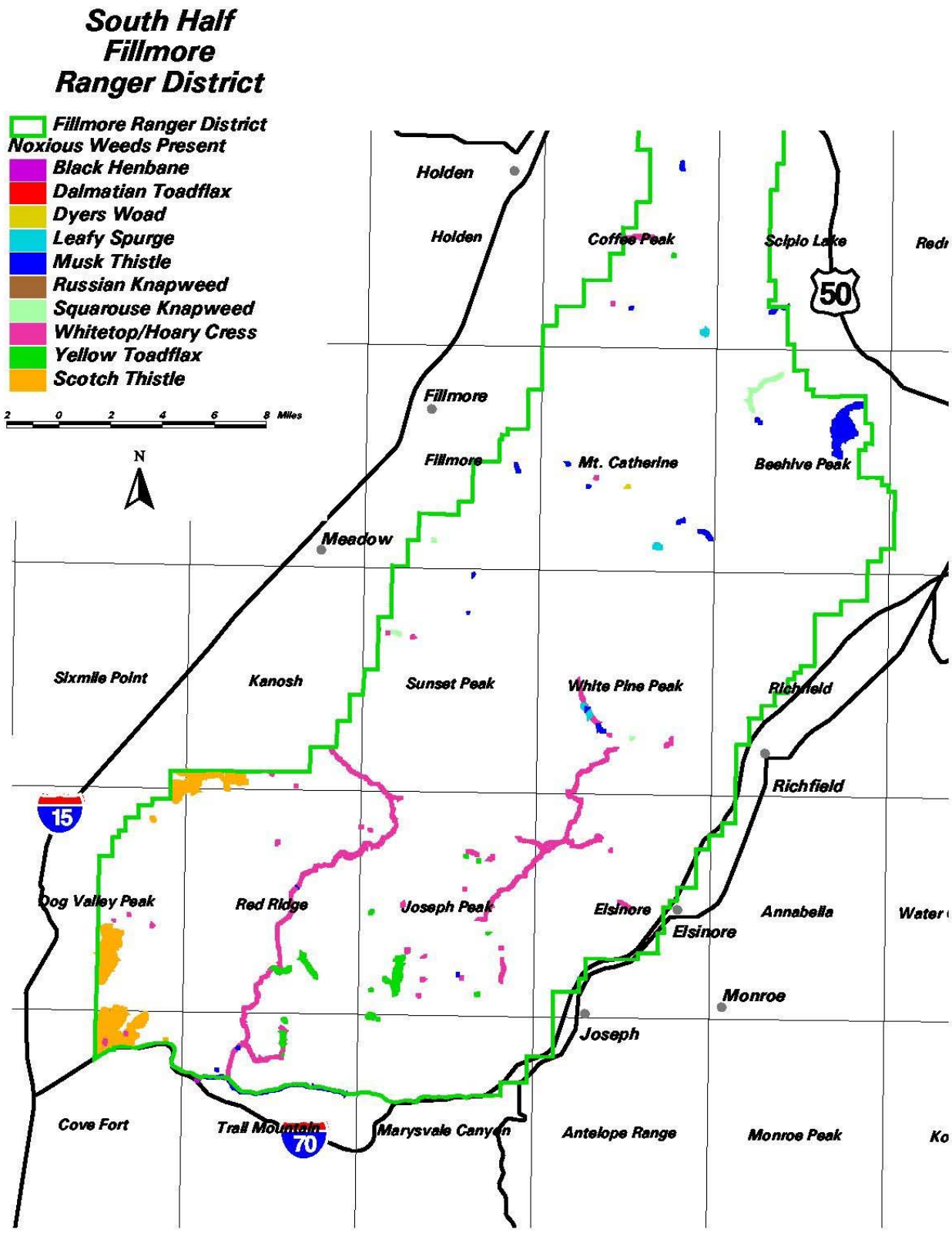
a) Precautions to be Taken - Describe specific precautions be taken to protect sensitive areas; for example, no application within 100 feet of streams.
b) Use of Trained / Certified Personnel - Provide information on the status of training and/or certification of personnel doing the actual work and of those supervising. Has project been reviewed by a field biologist, agronomist, entomologist, or other appropriate subject matter specialist?
c) State and Local Coordination - Indicate coordination on the project at a State or local level.
d) Other Pesticides Being Applied to Same Site - Indicate what other pesticides are being or will be applied on the same site within the year.
e) Monitoring - Describe any monitoring of the operation be to conducted. Indicate effectiveness of prior projects and mention undersirabel side effects observed.
f) Other - Indicate if the project is to be accomplished by contract.

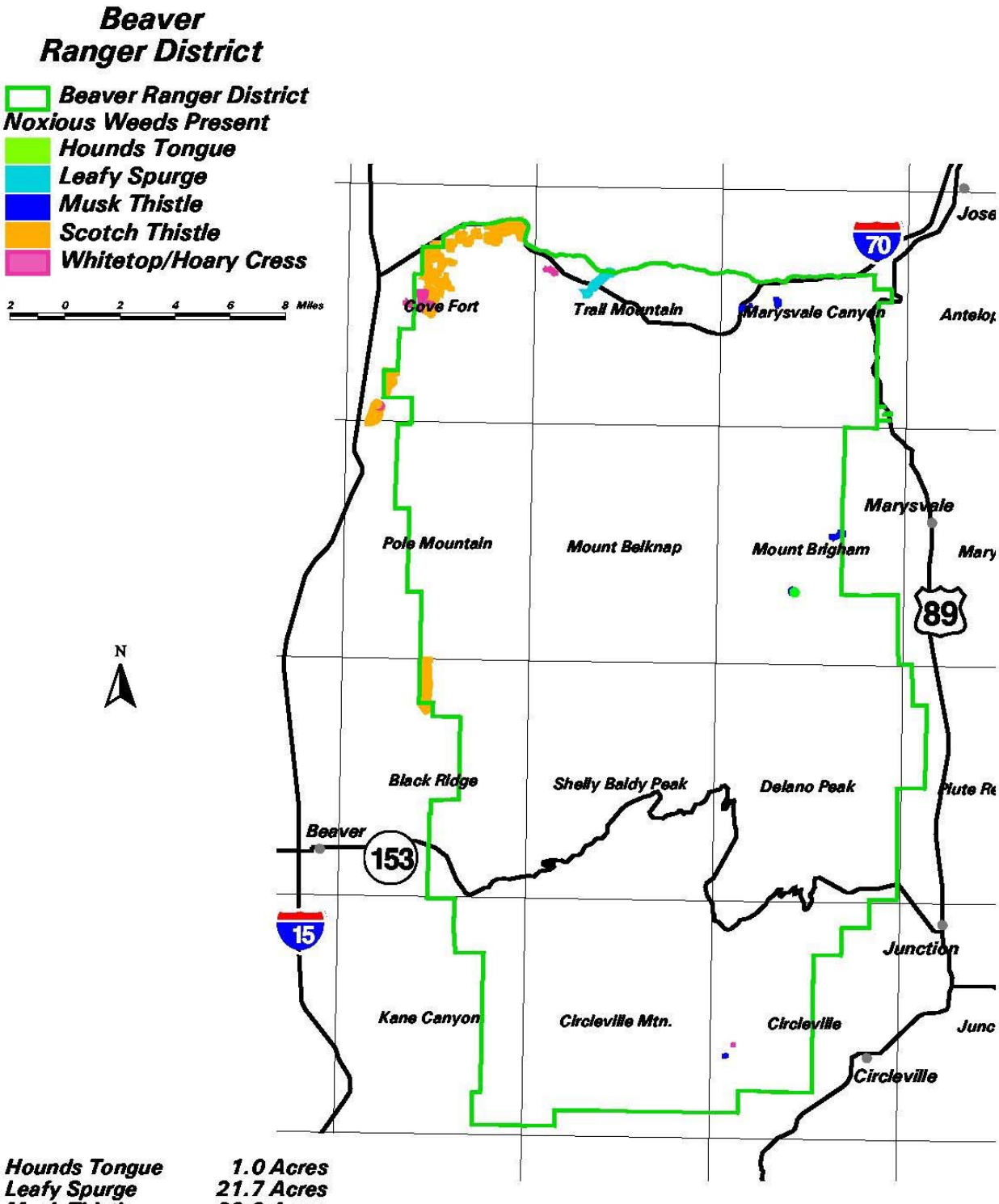
Environmental analyses (EA's and/or EIS's) may be referred for additional information.

APPROVAL (Block 10)

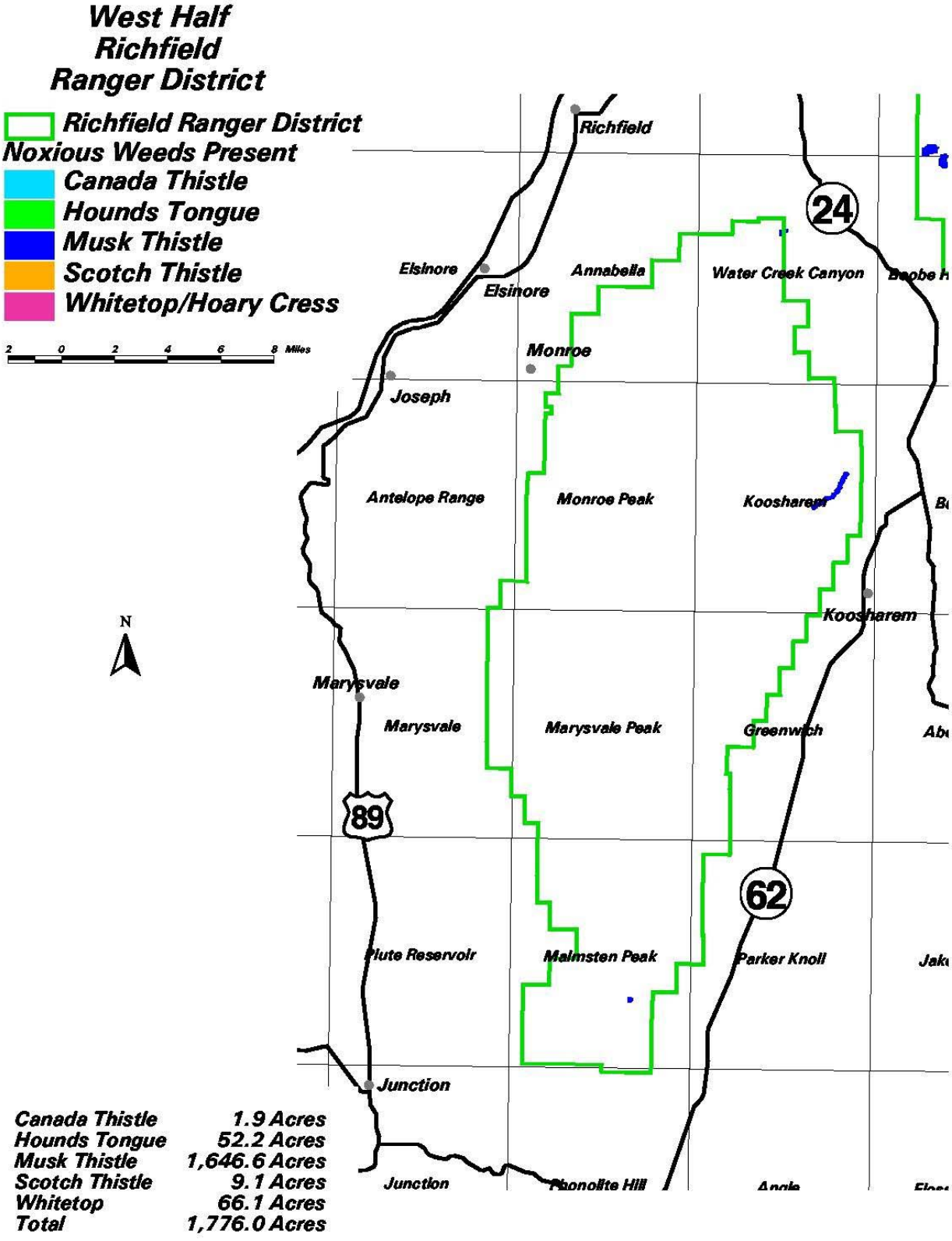
a) Signature of Approving Official
b) Date of Signature

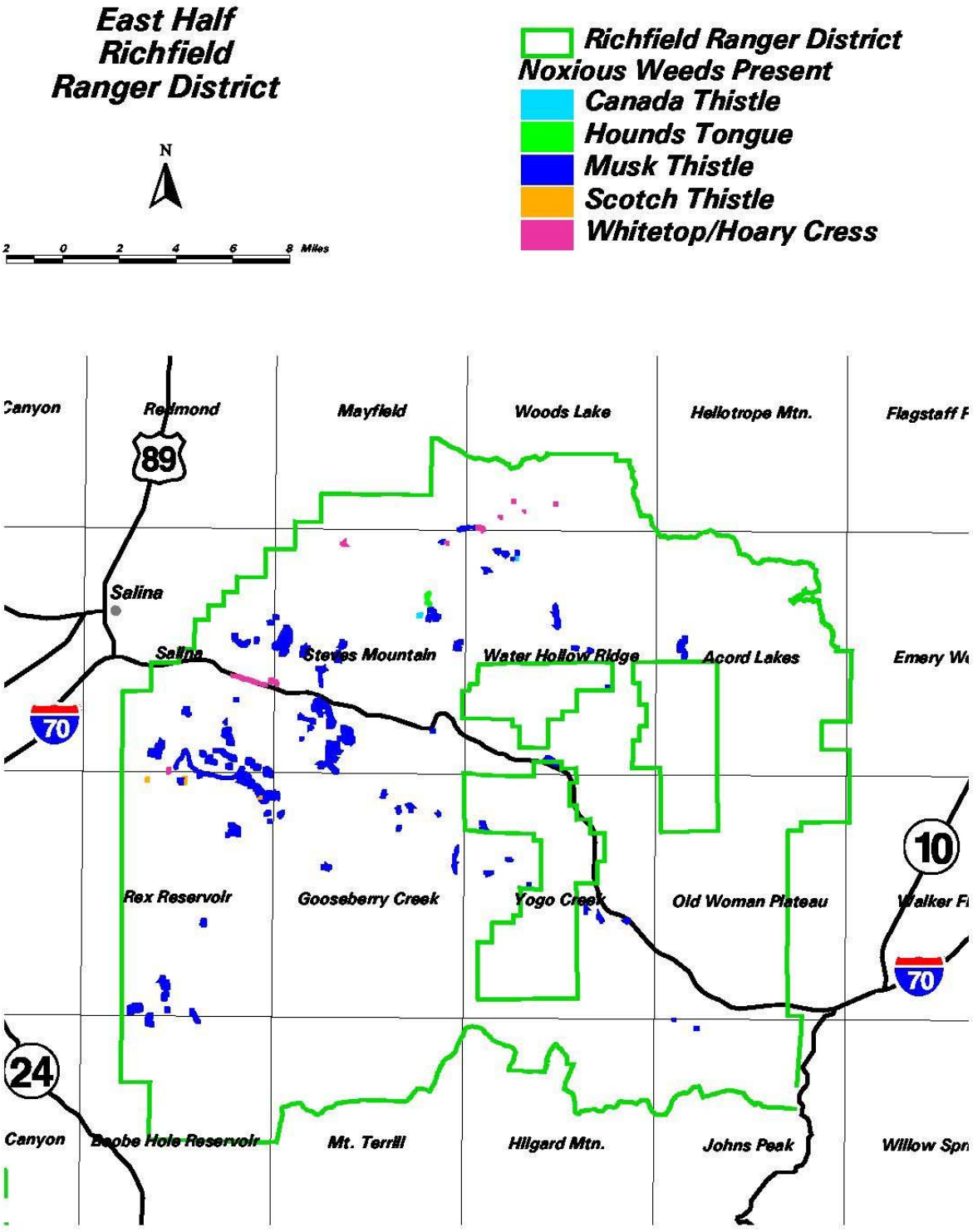

North Half
Fillmore
Ranger District
Fillmore Ranger District
Noxious Weeds Present
Black Henbane
Dalmatian Toadflax
Dyers Woad
Leafy Spurge
Musk Thistle
Russian Knapweed
Squarouse Knapweed
Whitetop/Hoary Cress
Yellow Toadflax
Scotch Thistle
2 0 2 4 6 8 Miles
N
6
1 West
Lynndyl East
Champlin Peak
Sage Valley
Lynndyl
Strong
Oak City North
Fool Creek Peak
15
Oak City
125
Harding
Oak City South
Williams Peak
Scipio North
Scipio
50
Mccornick
Duggins Creek
Scipio Pass
Scipio South
Holden
Holden
Coffee Peak
Scipio Lake
50
Black Henbane 4.8 Acres
Dalmatian Toadflax 1.0 Acres
Dyers Woad 1.0 Acres
Leafy Spurge 37.4 Acres
Musk Thistle 554.2 Acres
Russian Knapweed 2.0 Acres
Scotch Thistle 2,461.5 Acres
Squarouse Knapweed 109.5 Acres
Whitetop 585.8 Acres
Yellow Toadflax 256.4 Acres
Total 4,013.7 Acres

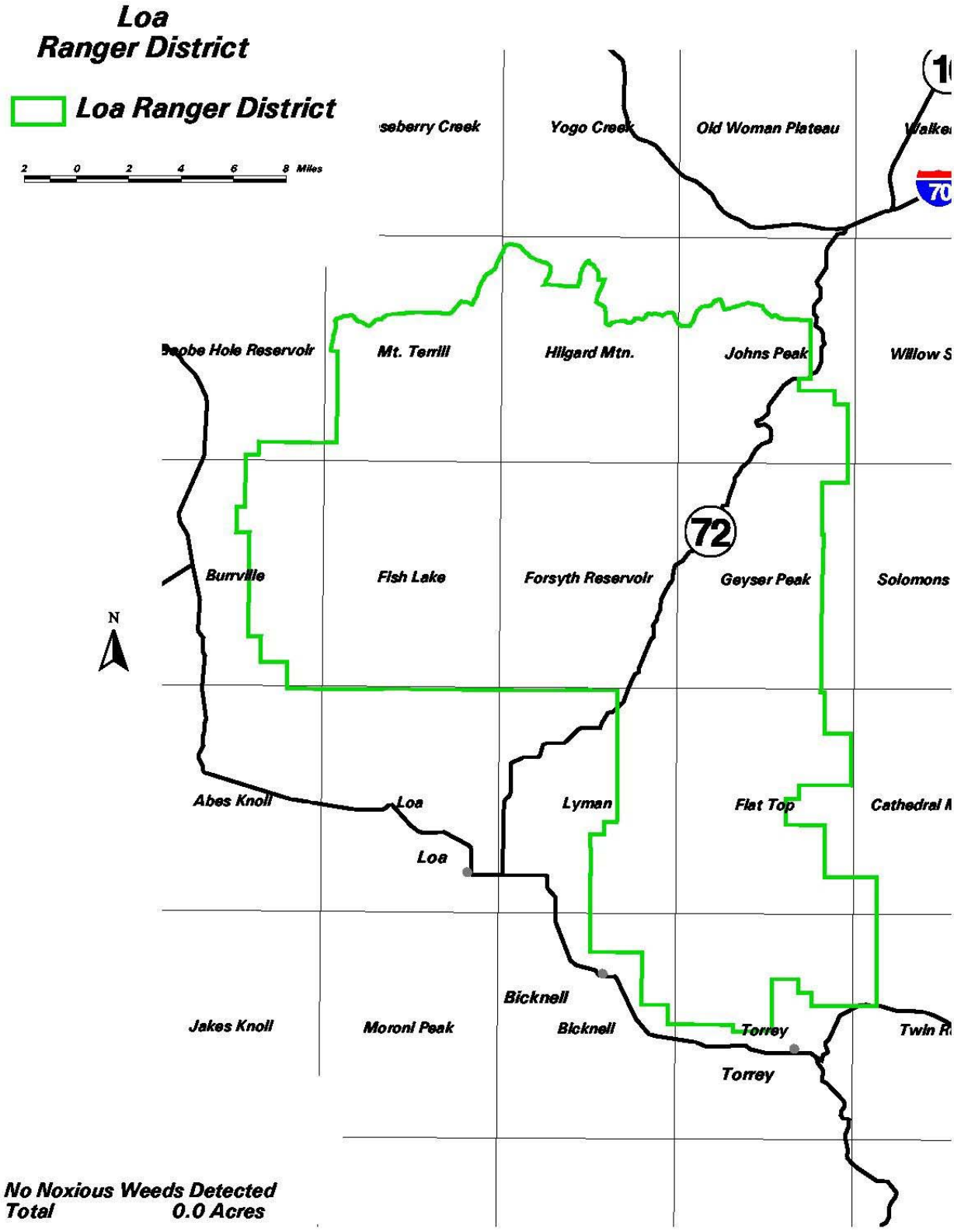

South Half
Fillmore
Ranger District
Fillmore Ranger District
Noxious Weeds Present
Black Henbane
Dalmatian Toadflax
Dyers Woad
Leafy Spurge
Musk Thistle
Russian Knapweed
Squarouse Knapweed
Whitetop/Hoary Cress
Yellow Toadflax
Scotch Thistle
2 0 2 4 6 8 Miles
N
Holden
Holden
Coffee Peak
Scipio Lake
50
Fillmore
Fillmore
Mt. Catherine
Beehive Peak
Meadow
Sixmile Point
Kanosh
Sunset Peak
White Pine Peak
Richfield
Richfield
15
Dog Valley Peak
Red Ridge
Joseph Peak
Elsinore
Annabella
Elsinore
Monroe
Joseph
Cove Fort
Trail Mountain
70
Marysvale Canyon
Antelope Range
Monroe Peak



Hounds Tongue	1.0 Acres
Leafy Spurge	21.7 Acres
Musk Thistle	39.9 Acres
Scotch Thistle	1,657.0 Acres
Whitetop	79.1 Acres
Total	1,798.8 Acres

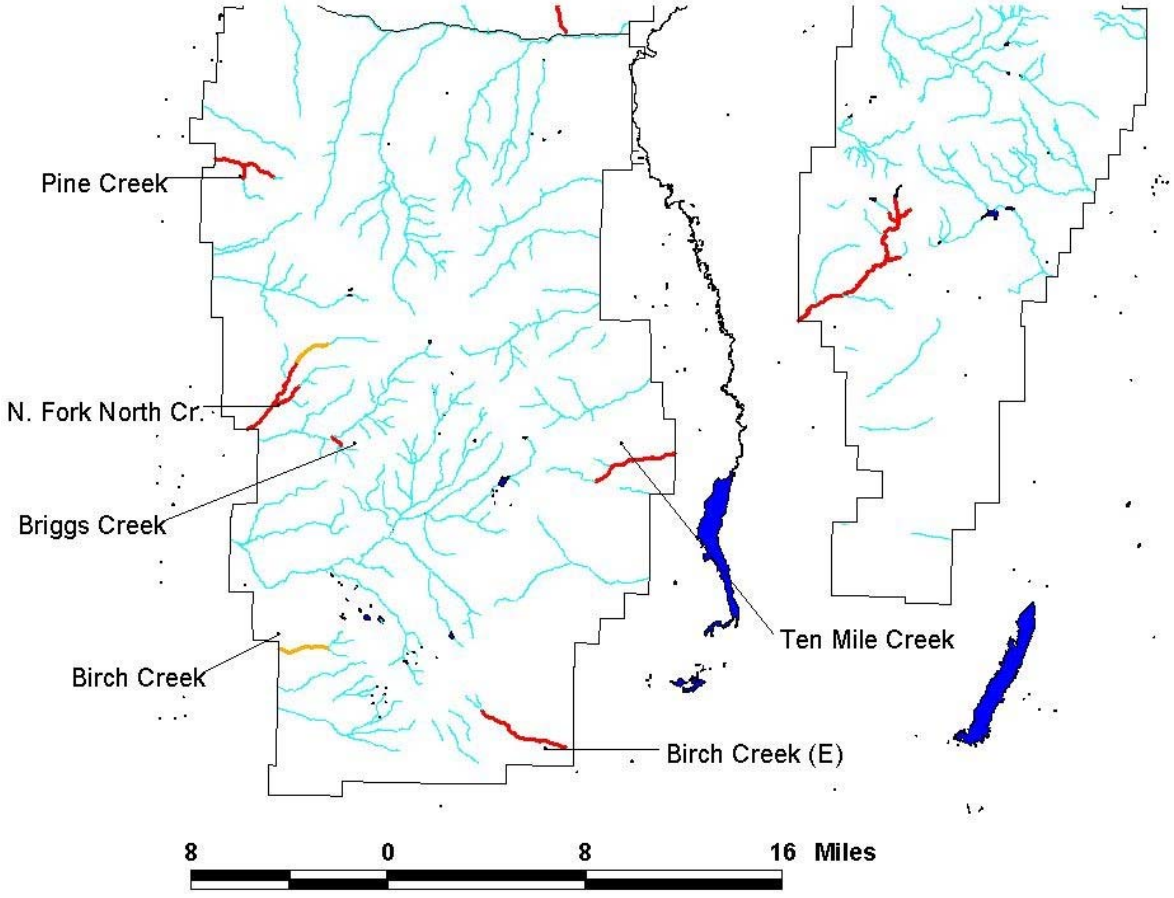

West Half
Richfield
Ranger District
Richfield Ranger District
Noxious Weeds Present
Canada Thistle
Hounds Tongue
Musk Thistle
Scotch Thistle
Whitetop/Hoary Cress
2 0 2 4 6 8 Miles
N
Richfield
Elsinore
Elsinore
Annabella
Water Creek Canyon
Monroe
Joseph
Antelope Range
Monroe Peak
Koosharem
Koosharem
Marysvale
Marysvale
Marysvale Peak
Greenwich
24
89
62
Parker Knoll
Malmsten Peak
Junction
Junction
Canada Thistle 1.9 Acres
Hounds Tongue 52.2 Acres
Musk Thistle 1,646.6 Acres
Scotch Thistle 9.1 Acres
Whitetop 66.1 Acres
Total 1,776.0 Acres


East Half
Richfield
Ranger District
N
2 0 2 4 6 8 Miles
Richfield Ranger District
Noxious Weeds Present
Canada Thistle
Hounds Tongue
Musk Thistle
Scotch Thistle
Whitetop/Hoary Cress
Canyon
Redmond
Mayfield
Woods Lake
Heliotrope Mtn.
Flagstaff P
89
Salina
Salina
Stevens Mountain
Water Hollow Ridge
Acord Lakes
Emery W
70
10
Rex Reservoir
Gooseberry Creek
Yogo Creek
Old Woman Plateau
Walker Fl
70
24
Canyon
Beebe Hole Reservoir
Mt. Terrill
Hilgard Mtn.
Johns Peak
Willow Spr


Loa
Ranger District
Loa Ranger District
2 0 2 4 6 8 Miles
seberry Creek
Yogo Creek
Old Woman Plateau
Beebe Hole Reservoir
Mt. Terrill
Hilgard Mtn.
Johns Peak
Willow S
72
Burrville
Fish Lake
Forsyth Reservoir
Geyser Peak
Solomons
N
Abes Knoll
Loa
Loa
Lyman
Flat Top
Cathedral
Bicknell
Jakes Knoll
Moroni Peak
Bicknell
Torrey
Torrey
Twin R
No Noxious Weeds Detected
Total 0.0 Acres

APPENDIX I
MAPS

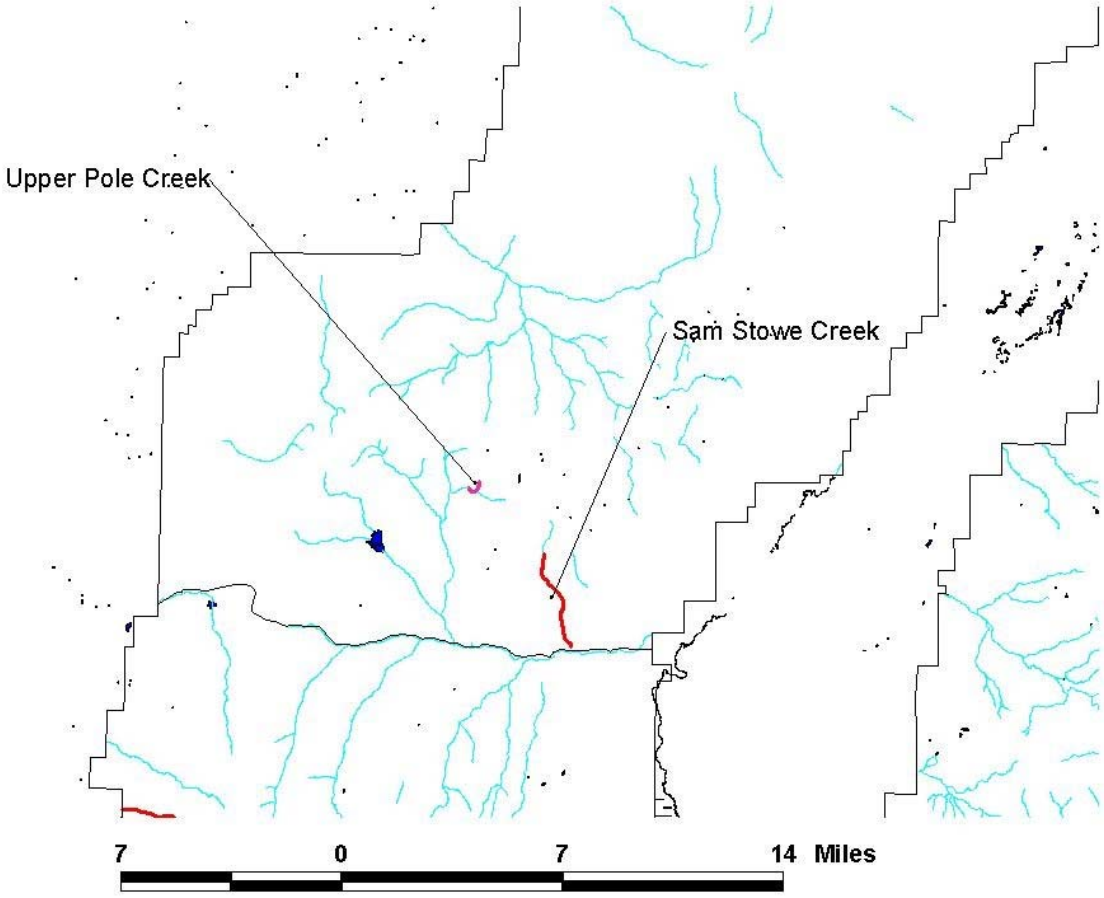
Fishlake N.F. Cutthroat Streams
Beaver R.D.



Admin_bdry_fl
Cutthroat.shp
bonneville-reintroduced
bonneville-potential
bonneville-remnant
colorado-reintroduced
no known native cutthroat
Waterbody

N
W E
S

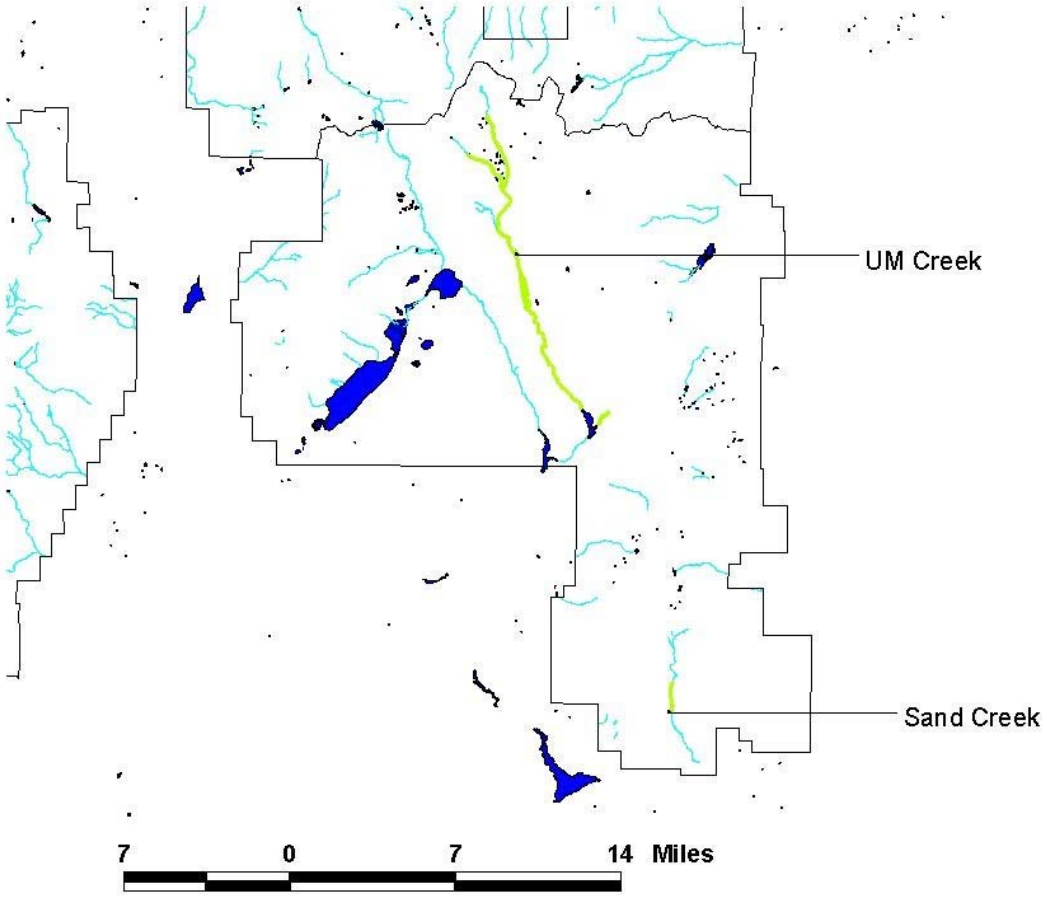
Fishlake N.F. Cutthroat Streams
Fillmore R.D.



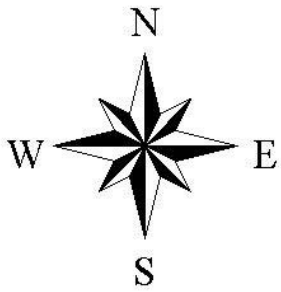
Admin_bdry_fl
Cutthroat.shp
bonneville-reintroduced
bonneville-potential
bonneville-remnant
colorado-reintroduced
no known native cutthroat
Waterbody

N
W
E
S

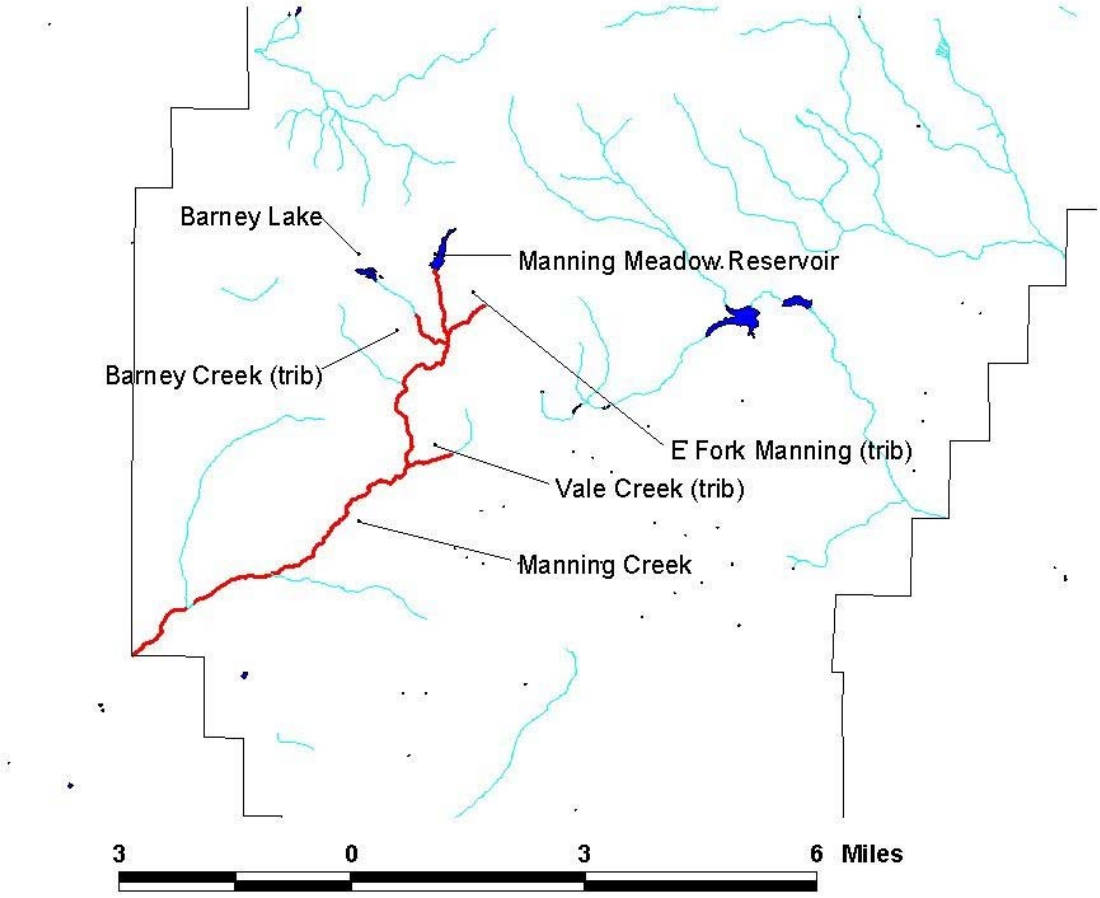
Fishlake N.F. Cutthroat Streams
Loa R.D.



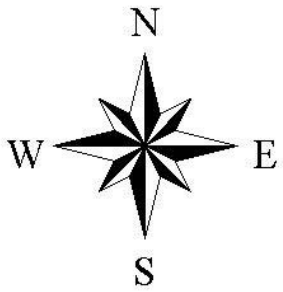
Admin_bdry_fl
Cutthroat.shp
bonneville-reintroduced
bonneville-potential
bonneville-remnant
colorado-reintroduced
no known native cutthroat
Waterbody



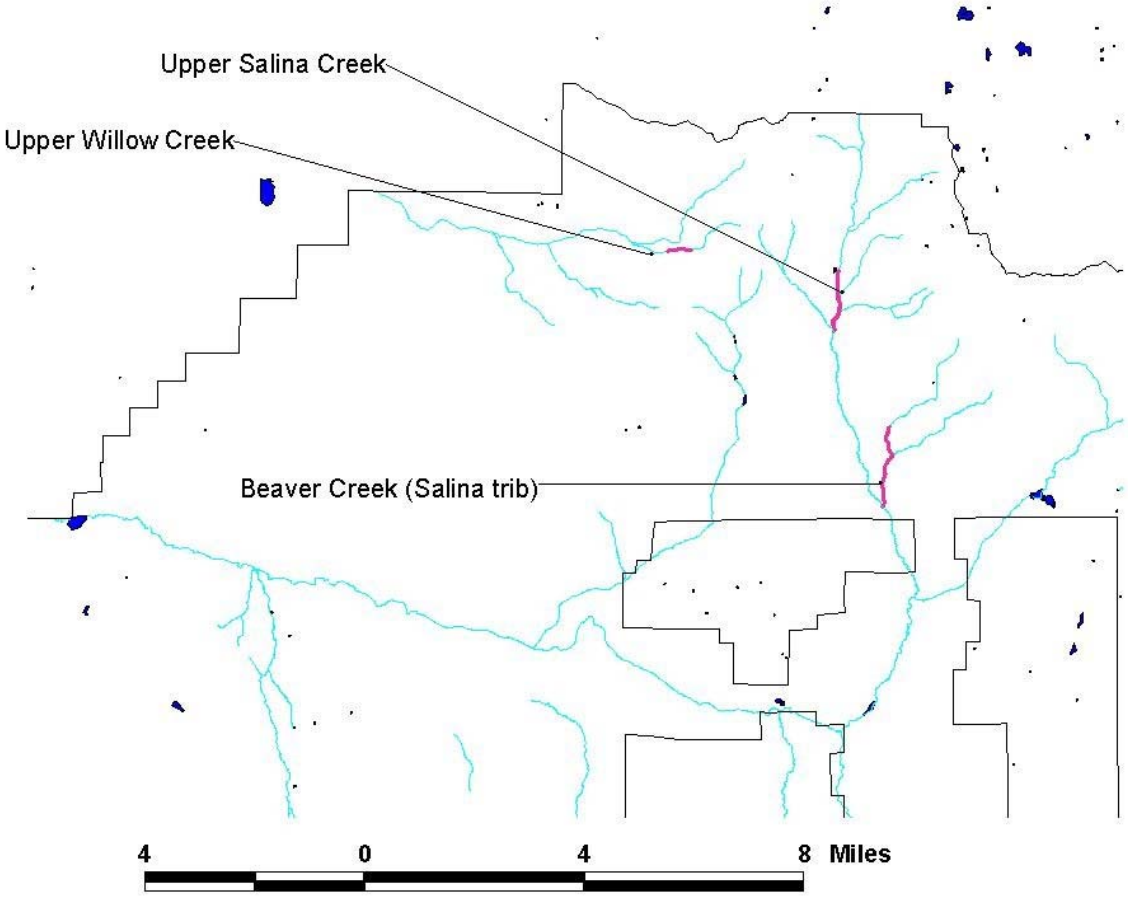
Fishlake N.F. Cutthroat Streams
Richfield R.D. - Monroe Mt.



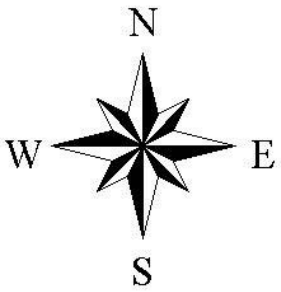
Admin_bdry_fl
Cutthroat.shp
bonneville-reintroduced
bonneville-potential
bonneville-remnant
colorado-reintroduced
no known native cutthroat
Waterbody



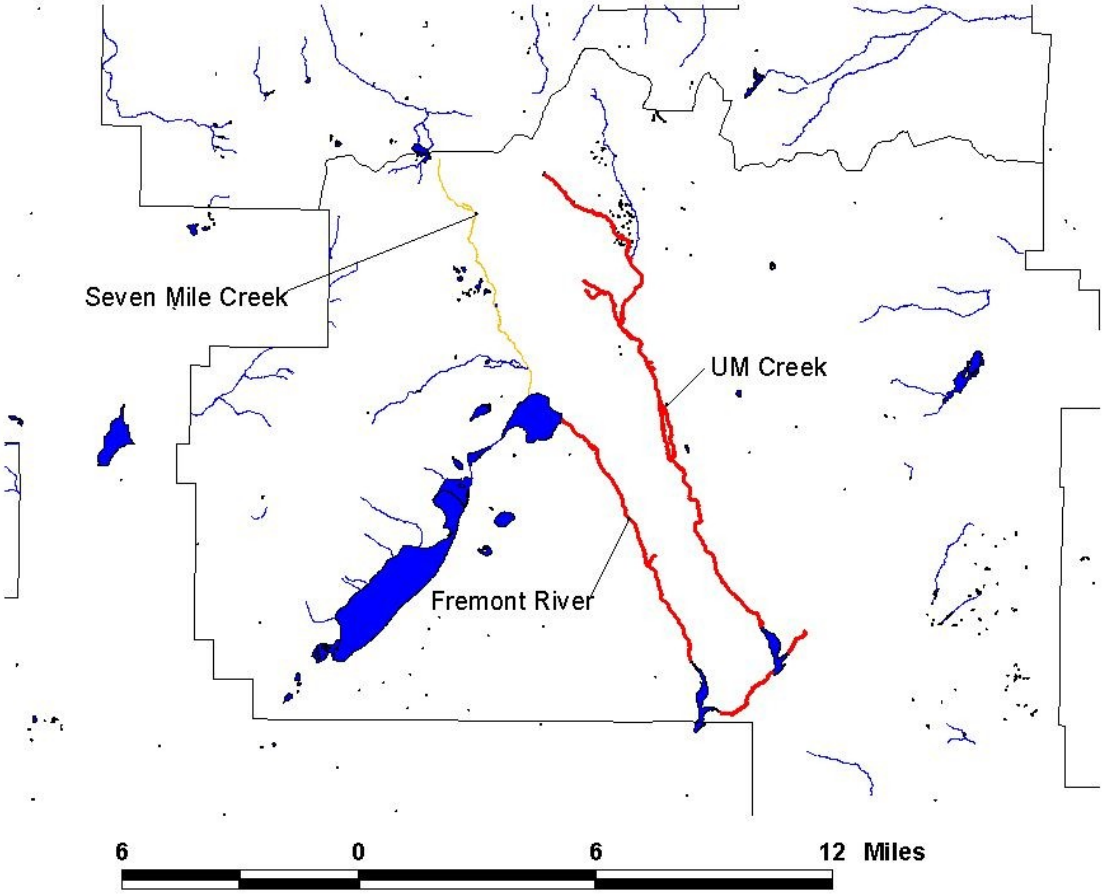
Fishlake N.F. Cutthroat Streams
Richfield R.D. - North



Admin_bdry_fl
Cutthroat.shp
bonneville-reintroduced
bonneville-potential
bonneville-remnant
colorado-reintroduced
no known native cutthroat
Waterbody



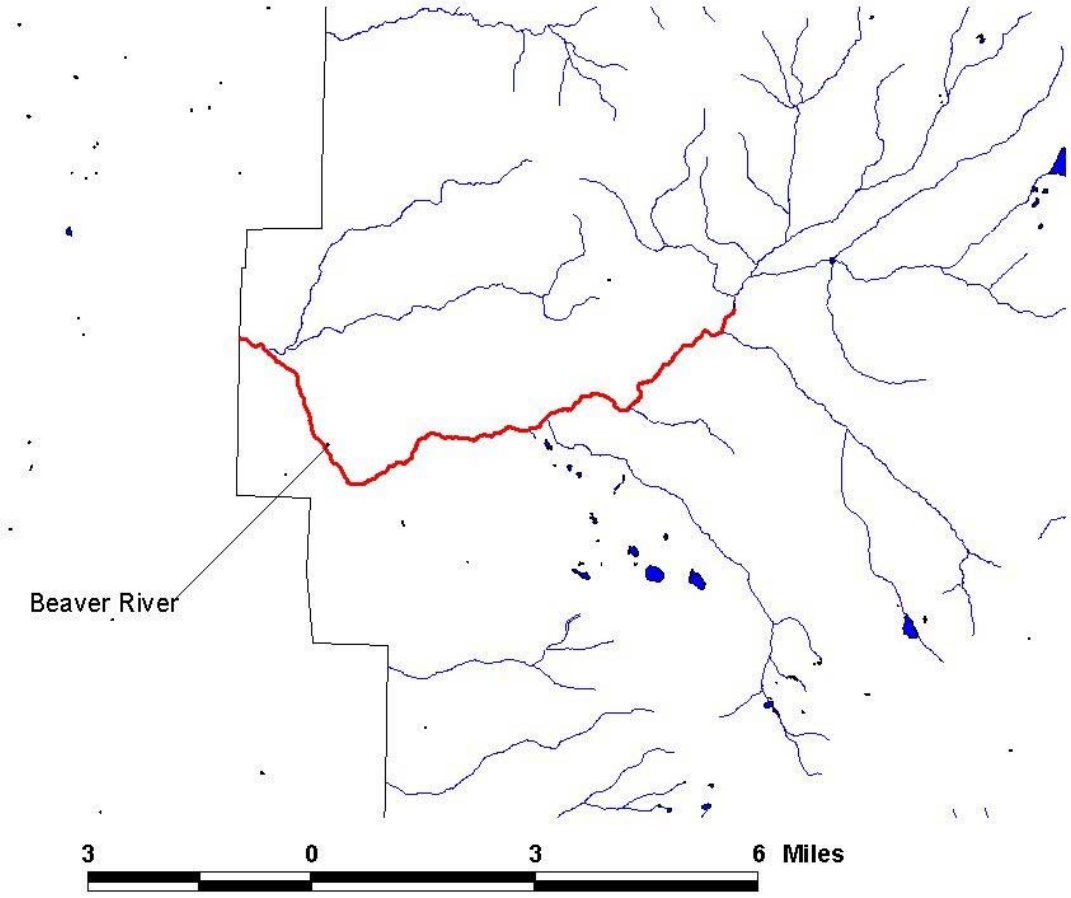
Fishlake N.F. Whirling Disease Areas



Whirling.shp
not known to be infected
potentially infected
yes-known infected
Admin_bdry_fl
Waterbody

N
W
E
S

Fishlake N.F. Whirling Disease Areas

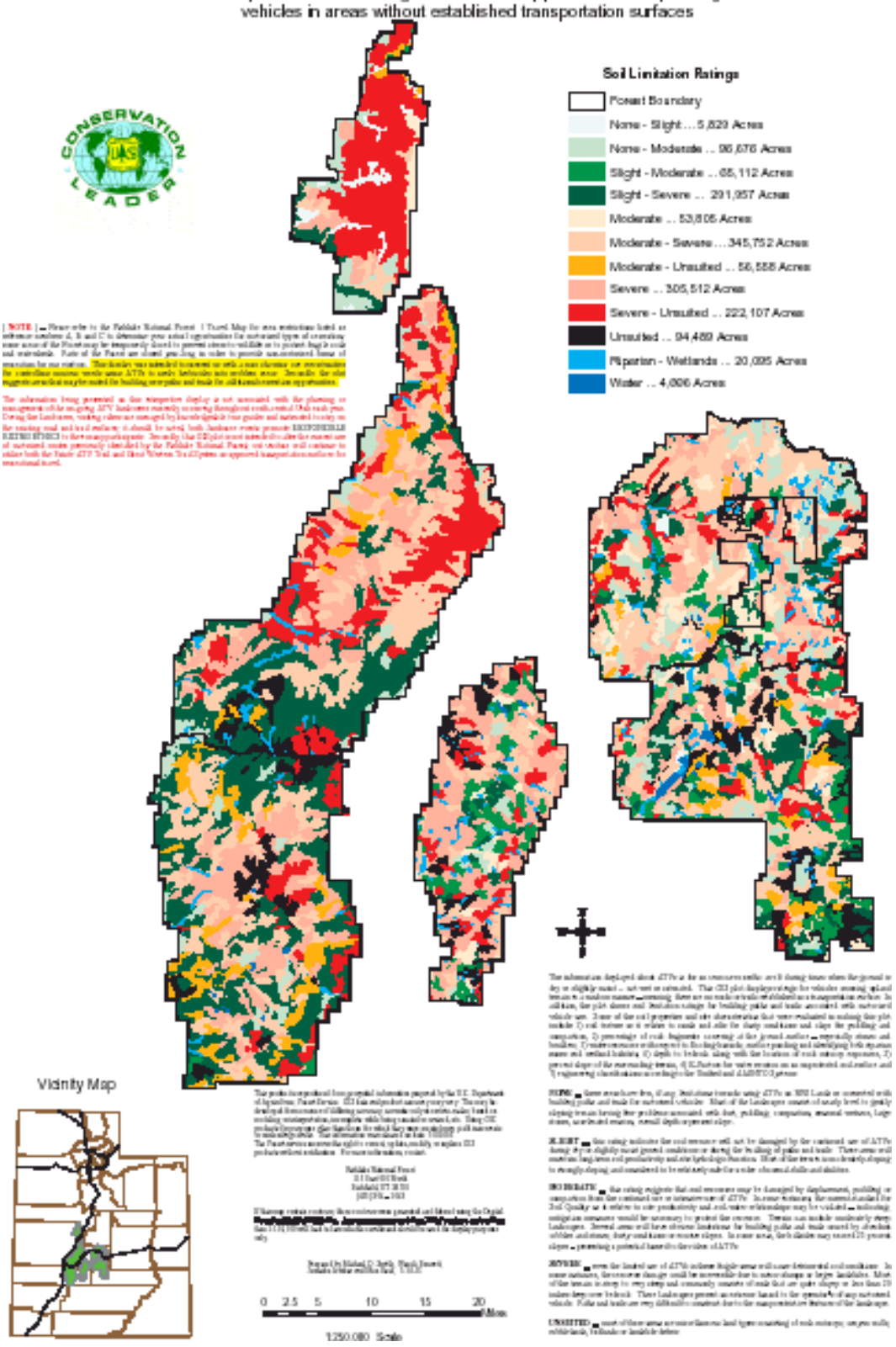


Whirling.shp
not known to be infected
potentially infected
yes-known infected
Admin_bdry_fl
Waterbody

N
W
E
S

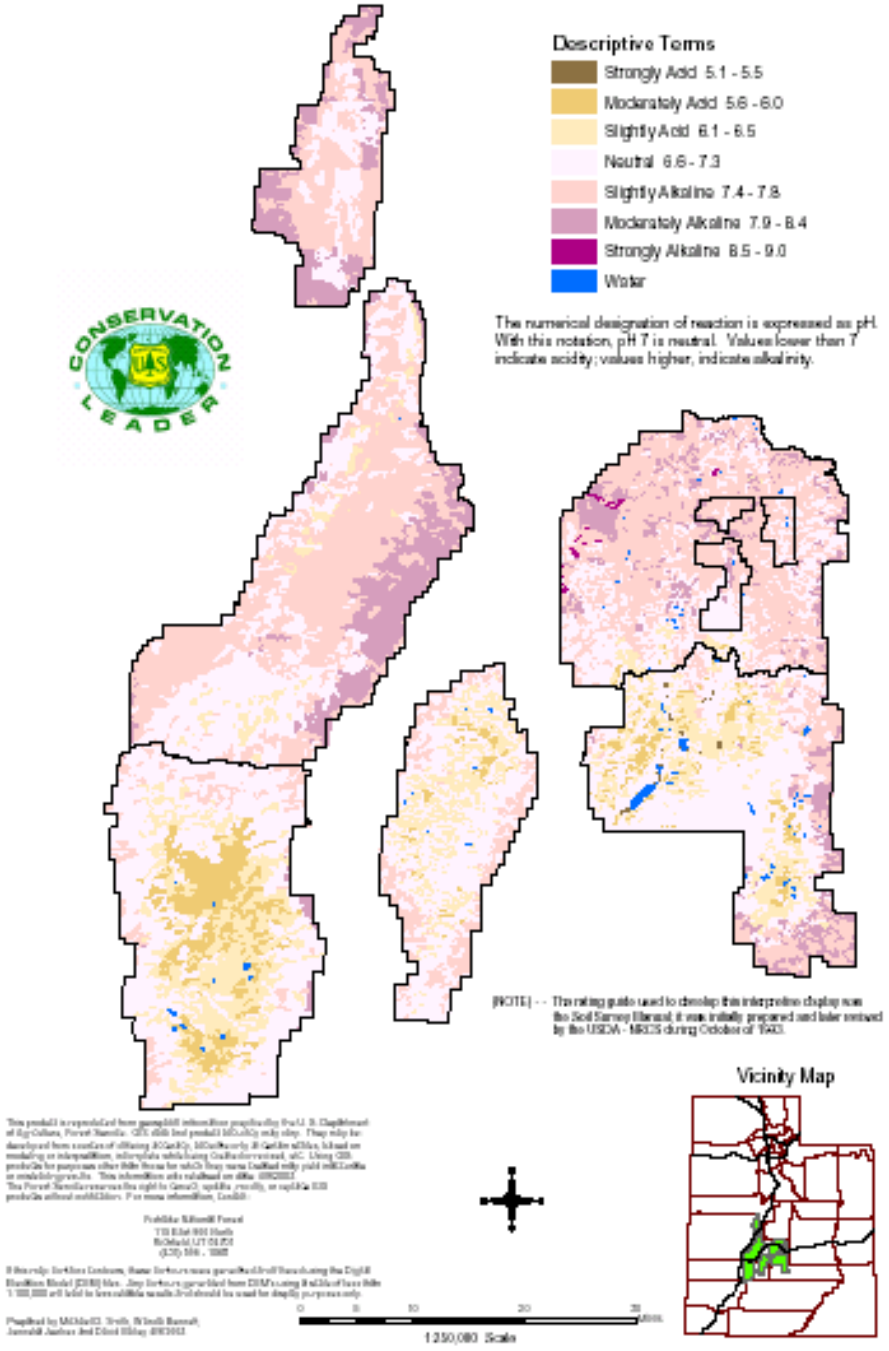
Fishlake National Forest

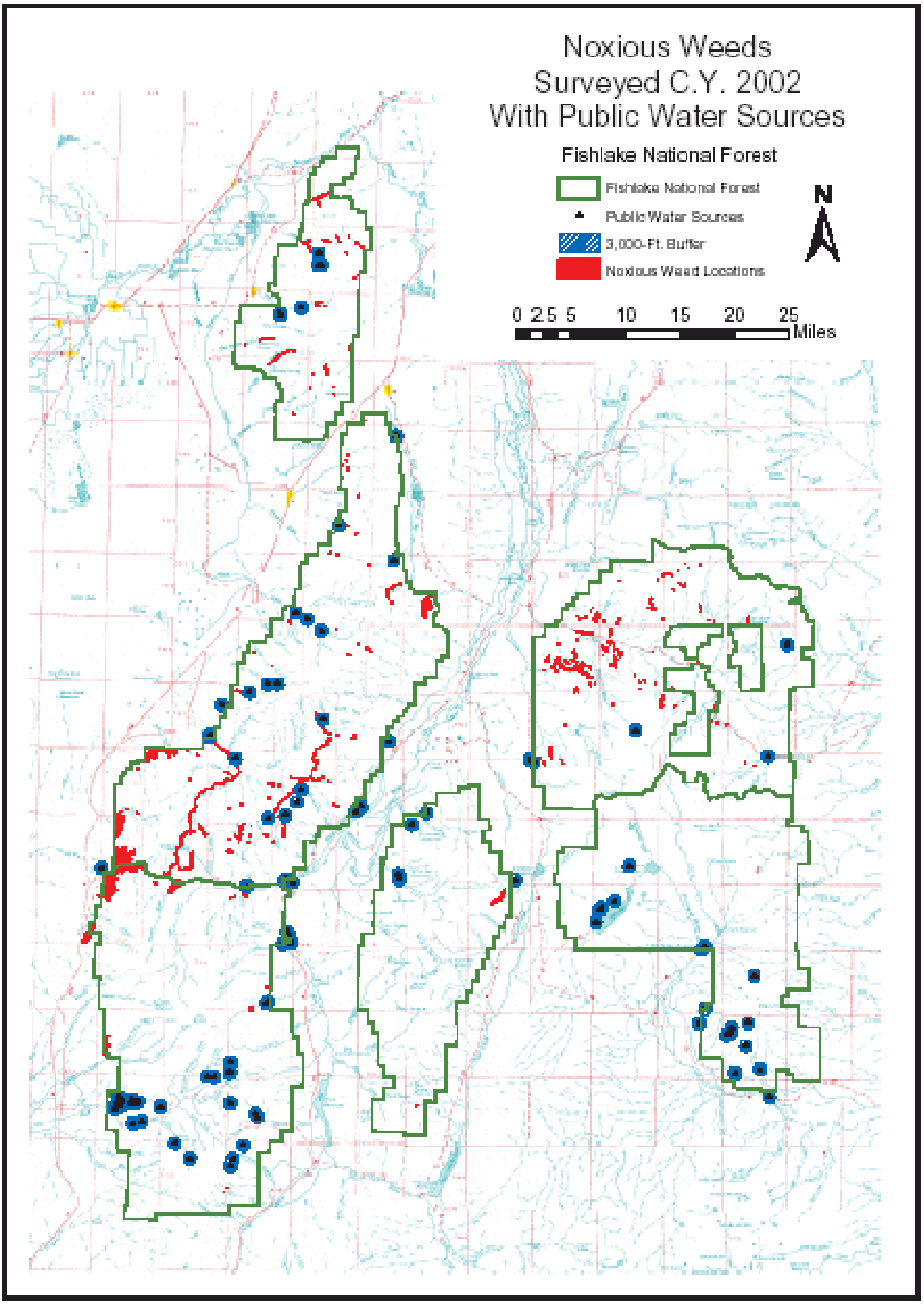
ATVs - Interpretations for building new trails and opportunities for operating vehicles in areas without established transportation surfaces



Fishlake National Forest

Soil Reaction - Surface Horizons




Noxious Weeds
Surveyed C.Y. 2002
With Public Water Sources
Fishlake National Forest
Fishlake National Forest
Public Water Sources
3,000-Ft. Buffer
Noxious Weed Locations
N
0 2.5 5 10 15 20 25
Miles

APPENDIX J
RESPONSES TO 30-DAY NOTICE & COMMENT