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Riparian Reference Areas in Idaho: a Catalog of Plant Associations and Conservation Sites

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Abstract

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Idaho land managers and regulators need knowledge on riparian reference sites. Reference sites are ecological controls that can be used to set meaningful management and regulatory goals. Since 1984, the Idaho Conservation Data Center, Boise, ID, has compiled information in a series of interrelated databases on the distribution and condition of riparian, wetland, and terrestrial plant associations in high quality reference sites in Idaho. This report summarizes association-specific and reference area-specific information from our databases and presents a standardized classification of Idaho riparian and wetland plant associations. Each plant association entry includes the current global and state conservation rank, and the plant association's occurrence in reference areas (if any). This is followed by a summary of each reference area, arranged by ecoregional Province and Section. Summary information includes location, management responsibility, site description, and a list of all riparian and wetland associations that occur in the area.

Keywords: classification, land management, wetland, terrestrial, reference sites

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Front Cover: Top photo—Putney Meadows, Fremont County, ID, Targhee National Forest. Bottom photo—Trail Creek, Blaine County, ID, Sawtooth National Forest. Photography by Mabel Jankovsky-Jones.

Riparian Reference Areas in Idaho: a Catalog of Plant Associations and Conservation Sites

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Introduction

Since the early 1900's, scientists and land managers have recognized the need to establish ecological reference areas where natural conditions are maintained insofar as possible. In 1926, Victor Shelford, working through the Ecological Society of America, produced the first catalog of ecological reference sites or natural areas in the United States (Shelford 1926). Throughout the later half of this century, the need to inventory and protect remnants of the natural landscape as ecological baselines has been called for in many disciplines, including forest management (Buckman and Quintus 1972; Shanklin 1951), rangeland management (Allen 1986; Anderson 1966; Bock et al. 1993; Laycock 1975;), environmental monitoring (Franklin et al. 1972; Moir 1972), biodiversity conservation (Cain 1968; Noss and Cooperrider 1994), hydrology and aquatic ecology (Leopold 1962; Rabe and Savage 1979), and for conducting basic ecological research in undisturbed systems (Bormann 1966; Hinds 1979; Moeur 1992; Norris 1968). More recently, the role and need for ecological reference areas has been heightened with the advent of ecosystem management (Andrews 1994; Rust 1998; Ryan et al. 1994).

The Federal Committee on Ecological Reserves (1977) lists two primary purposes for developing a comprehensive, representative system of reference areas: (1) "to preserve a representative array of all significant natural ecosystems and their inherent processes as baseline areas" and (2) "to obtain through scientific education and research, information about natural system components, inherent processes, and comparisons with representative manipulated systems." The need for reference areas is fundamental to land management planning, where implemention of plans requires monitoring and evaluation of the effects of management strategies (Burns 1984; Norse et al. 1986). Natural areas also contribute to the land management planning process by providing models of benchmark landscape features and habitat conditions (Andrews 1994; Ryan et al. 1994).

For riparian and wetland ecosystems, reference areas have been used in preparing plant association descriptions, setting meaningful management and regulatory goals, and evaluating the effectiveness of Best Management Practices. Reference areas play a particularly important role in understanding the dynamics of riparian and wetland restoration or recovery by providing baselines for assessments of functional and structural characteristics of mature, relatively undisturbed systems (Brinson and Rheinhardt 1996; Dobkin et al. 1998; Race and Fonseca 1996).

Since 1984, the Idaho Department of Fish and Game's Conservation Data Center (CDC) has maintained databases on the distribution and status of natural plant associations in Idaho, as well as conservation sites of high ecological quality that may be used as reference areas. In this report we present a catalog of reference areas for riparian and wetland associations generated from our information management system, the Biological and Conservation Data System.

Biological and Conservation Data System

The Ecological Society of America was involved early in the history of natural area establishment. In 1917 the Society formed the Committee for the Preservation of Natural Conditions for Ecological Study. After functioning to promote natural areas for scientific purposes for two and a half decades, the Society disbanded the committee. In 1946 a group of interested ecologists formed an independent group called the Ecologists' Union. The group was shortly reorganized and named The Nature Conservancy (McIntosh 1985).

One major success of the Conservancy in the ensuing years has been development of State and Provincial

natural heritage inventory programs. This network of Natural Heritage Programs, or Conservation Data Centers as they are sometimes called, maintains a permanent and dynamic atlas and data bank on the distribution, abundance, and conservation status of all the elements of natural biological and ecological diversity; sites where these elements occur; and sources of additional information and documentation. The natural heritage inventory system includes a computerized database known as the Biological and Conservation Data System (BCD), map files, literary reference files, and standardized field methods (The Nature Conservancy 1982).

While a range of different information systems has been developed for reference areas, the natural heritage inventory system has been particularly successful because (1) it is based on common units of comparison, *elements* of biological diversity (individual plant and animal species and terrestrial and aquatic communities), and *element occurrences* are the focus of inventory and analysis; (2) information is efficiently compartmentalized; and (3) standardization in inventory methods is based on multi-institutional cooperation (The Nature Conservancy 1982, The Nature Conservancy et al. 1996). The BCD is the only data system with site specific information on occurrences within ecological reference areas (Rust 1998).

To compile information for this riparian reference area catalog, we used four files from the BCD that apply to the elements, in this case riparian and wetland plant associations, and to conservation sites, in this case riparian reference areas. The four files are described below.

Plant Association Elements

Element Tracking (ET)—This file contains information that identifies the plant association elements within Idaho and tracks the classification and conservation status of each element at the global, national, and State levels. The concept of an element is fundamental to Natural Heritage Program methods and to the inventory of biological diversity. An element is a unit of natural biological diversity. Fine "filters" of diversity include plant and animal species. Plant communities can be thought of as representing a "coarse filter" for natural diversity (Noss and Cooperrider 1994). By identifying and preserving the best examples of all terrestrial and aquatic plant associations, a significant portion of the biological diversity of a given area can be preserved. The use of terrestrial, aquatic, and subterranean communities as a "coarse filter" helps ensure that the Heritage/CDC Network is inventorying the complete spectrum of biological diversity, not just those species whose priority conservation status has been documented. Protecting the best examples of all communities also ensures better conservation of ecological processes and the biotic interactions that are necessary to sustain biological diversity.

Source Abstract (SA)—This file is a comprehensive bibliographic database on rare species and ecosystems in Idaho. In addition to the database record, the CDC maintains manual files containing all of the references cited. Source Abstracts are linked electronically to related files such as Element Tracking.

Element Occurrence Record (EOR)—Each record in this file represents a distinct plant association element occurrence (EO) at a specific geographic location. Each occurrence is coded, ranked, and described. Information on the ecology, location, protection, ownership, and references related to research and documentation of the occurrence are included. The integration of the plant association element occurrence records with rare species occurrence data enhances abilities to participate in environmental review, preserve selection and design, and conservation planning.

Conservation Sites

Site Basic Record (SBR)—The file contains scientific and ecological information on conservation sites. Conservation sites are defined as units of the landscape that are of scientific and ecological interest. Each record in the SBR file describes a conservation site, its location, size, design considerations, biological significance, protection and stewardship concerns, and the element occurrences present.

Using This Catalog

Riparian and Wetland Plant Associations

This table provides a comprehensive list of wetland and riparian plant associations known to occur in Idaho. The plant associations are listed alphabetically and followed by conservation rank, the principle authoritative reference, and a list of the reference areas in which the association occurs.

Plant Association Name—The scientific and common name for wetland and riparian plant associations is given. The nomenclature for the scientific names for plant associations follows Hitchcock and Cronquist (1973), with the following exceptions:

- *Salix* follows Brunsfeld and Johnson (1985), with the exception of *Salix amygdaloides*, and *Salix lasiolepis*, which follow Hitchcock and Cronquist (1973).
- *Carex utriculata* as treated by Reznicek (1987).
- *Artemisia* follows Cronquist et al. (1994).

Conservation Rank—Conservation rank indicates the relative rarity of plant associations based on the total number of occurrences and the area occupied by occurrences globally (G) and Statewide (S). Secondarily, condition, trend, and threats are factored into the rank. Ranks are on a scale from 1 to 5 with a rank of 1 indicating the community is critically imperiled to a rank of 5 indicating the community is relatively secure (Master 1991).

Principal Reference—The reference listed for each plant association is considered the principle authority for Idaho. Only one reference is cited here for ease of reporting. We commonly have additional sources in our database and this information may be requested from the CDC.

Reference Areas—Reference areas or conservation sites containing the plant associations are listed in the final column of the table. The absence of an entry in this cell indicates a gap in the reference area system.

Reference Area Summaries

The SBR database was used to generate a report for each of the reference areas listed in the community table. The information is reported in English measurements, and scientific names are not italicized for ease of reporting from the database. The report includes a description of the site, general location, and a listing of the riparian and wetland community types occurring at the site. Only a portion of the information from SBR is reported here from the site database, and additional information and updated information are available from the CDC.

Request for More Information

The CDC is interested in obtaining updated information on any of the conservation sites listed here or others that we may not be aware of. While all high quality plant association occurrences are of interest, of particular interest are sites supporting plant associations that are poorly represented in reference areas. Protocols for submitting this information may be obtained by contacting the compilers of this report at:

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600 South Walnut, P.O. Box 25
Boise, ID 83707

Phone: (208) 334-3402
Fax: (208) 334-2114
Email: mjankovs@idfg.state.id.us
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Riparian and Wetland Plant Associations

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Abies grandis/Senecio triangularis (grand fir/arrowleaf groundsel)	G3/S3	Cooper et al. 1991	Warm Springs Creek Upper Newsome Creek
Abies grandis/Taxus brevifolia/Asarum caudatum (grand fir/Pacific yew/wild ginger)	G2/S2	Crawford and Johnson 1985	Upper Newsome Creek Warm Springs Creek No Business Creek
Abies lasiocarpa/Actaea rubra (subalpine fir/baneberry)	G4?/S2	Steele et al. 1983	
Abies lasiocarpa/Alnus sinuata (subalpine fir/Sitka alder)	G4/S3	Steele et al. 1981	
Abies lasiocarpa/Calamagrostis canadensis (subalpine fir/bluejoint reedgrass)	G5/S3	Steele et al. 1981	Salmon Mountain Needles
Abies lasiocarpa/Calamagrostis canadensis, Ledum glandulosum phase (subalpine fir/bluejoint reedgrass, Labrador-tea phase)	G4/S3	Steele et al. 1981	Phoebe Meadows Trail Creek, Lemhi County Pony Meadows Bruin Mountain Bear Valley Creek Back Creek Belvidere Creek Lava Butte Sneakfoot Meadows Soldier Lakes Chilcoot Peak Iron Bog Cache Creek Lakes Mystery Lake Frog Meadows Allan Mountain Dome Lake Moose Meadow Creek Square Mountain Creek Patrick Butte
Abies lasiocarpa/Caltha biflora (subalpine fir/white marshmarigold)	G3?/S3	Steele et al. 1981	Moose Meadow Creek Back Creek Lava Butte Chilcoot Peak

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Abies lasiocarpa/Oplopanax horridum (subalpine fir/devils club)	G2/SP	Pfister et al. 1977	
Abies lasiocarpa/Streptopus amplexifolius (subalpine fir/twisted-stalk)	G4?/S4	Steele et al. 1981	Moose Meadow Creek Back Creek Bear Valley Creek Fenn Mountain Chilcoot Peak Trail Creek, Lemhi County Canyon Creek Needles Willow Creek Headwaters
Acer negundo/Cornus stolonifera (box-elder/red-osier dogwood)	G3?/S1	Padgett et al. 1989	
Acer negundo/Equisetum arvense (box-elder/common horsetail)	G2?/SP	Padgett et al. 1989	
Acer negundo/Osmorhiza chilensis (box-elder/mountain sweet-root)	G2?/S1	Moseley 1985	
Agropyron smithii (western wheatgrass)	G3G5Q/S1	French and Mitchell 1983	Hideaway Islands Stapp-Soldier Creek Big Lost River Sinks Allison Creek Island
Agrostis exarata-Agrostis scabra (spike bentgrass-tickle-grass)	G2/S2	Tuhy 1981	
Alnus incana (mountain alder)	G?Q/S3	Hansen et al. 1995	
Alnus incana-Betula occidentalis/Salix exigua (mountain alder-water birch/coyote willow)	G3/S3	Miller 1976	
Alnus incana/Athyrium filix femina (mountain alder/lady fern)	G3/S2	Kovalchik 1993	Three Ponds Upper Priest River Chateau Falls Dutch Creek

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Alnus incana/Carex utriculata (mountain alder/bladder sedge)	G3/S2	Kovalchik 1993	Potholes Kaniksu Marsh Chase Lake Perkins Lake Lamb Creek Meadows Armstrong Meadows Bismark Meadows Blue Lake Gamlin Lake Upper Priest River
Alnus incana/Cornus stolonifera (mountain alder/red-osier dogwood)	G3Q/S3	Tuhy and Jensen 1982	Canyon Creek, Madison County Travertine Park Horse Creek Captain John Creek Hixon Sharptail Burns Canyon
Alnus incana/Equisetum arvense (mountain alder/field horsetail)	G3?/S3	Kovalchik 1993	
Alnus incana/Lysichitum americanum (mountain alder/skunk cabbage)	G3/S3	Kovalchik 1993	Potholes Blue Lake Freeman Lake
Alnus incana/Mesic forb (mountain alder/mesic forb)	G3G4Q/S1	Padgett et al. 1989	Willow Creek, Camas County Upper Priest River Stapp-Soldier Creek Trail Creek, Blaine County Iron Bog
Alnus incana/Mesic graminoid (mountain alder/mesic graminoid)	G2G3Q/S5	Padgett et al. 1989	Pack River
Alnus incana/Ribes hudsonianum (mountain alder/northern black current)	G3/S3	Youngblood et al. 1985	Burns Canyon
Alnus incana/Spiraea douglasii (mountain alder/pink spiraea)	G3/S3	Kovalchik 1987	Upper Priest Lake Fen Upper Priest River
Alnus rhombifolia (white alder)	G2Q/S?	Daubenmire 1970	
Alnus rhombifolia-Abies grandis (white alder-grand fir)	G2?/S2	Miller 1976	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Alnus rhombifolia/Amelanchier alnifolia (white alder/western serviceberry)	G3/S3	Miller 1976	
Alnus rhombifolia/Betula occidentalis (white alder/water birch)	G1/S1	Miller 1976	Garden Creek Captain John Creek
Alnus rhombifolia/Celtis reticulata (white alder/hackberry)	G2/S2	Miller 1976	
Alnus rhombifolia/Cornus stolonifera (white alder/red-osier dogwood)	GU/SU	Moseley 1998	Hixon Sharptail
Alnus rhombifolia/Philadelphus lewisii (white alder/syringa)	G1/S1	Miller 1976	Garden Creek Summer Creek
Alnus rhombifolia/Prunus virginiana (white alder/chokecherry)	G2/S2	Miller 1976	
Alnus rhombifolia/Rhus glabra (white alder/smooth sumac)	G?/S2	Miller 1976	
Alnus rhombifolia/Rosa woodsii (white alder/wood's rose)	G1/S1	Miller 1976	
Alnus rhombifolia/Sambucus cerulea (white alder/blue elderberry)	G2?/S2	Miller 1976	
Alnus rubra/Adiantum pedatum (red alder/maidenhair fern)	G1/S1	Steele 1971	
Alnus sinuata (Sitka alder cover type)	G2Q/S?	Daubenmire and Daubenmire 1968	Bruin Mountain Steep Lakes Elk Creek Belvidere Creek Pony Creek Patrick Butte Needles
Alnus sinuata/Athyrium filix femina (Sitka alder/subarctic lady fern)	G3G4/SP	Kovalchik 1993	
Alnus sinuata/Mesic forb (Sitka alder/mesic forb)	G3G4/SP	Kovalchik 1993	
Alnus sinuata/Montia cordifolia (Sitka alder/miner's lettuce)	GU/S3	Cooper et al. 1991	Upper Newsome Creek

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Arnica longifolia (seep spring aster)	GU/SU	Jankovsky-Jones [In preparation]	Trail Creek, Lemhi County
Artemisia cana/Deschampsia cespitosa (silver sagebrush/tufted hairgrass)	G2G3/S3	Padgett et al. 1989	Toms Creek/Buffalo River Wetlands
Artemisia cana/Dry graminoid (silver sagebrush/dry graminoid)		Manning and Padgett 1995	Pleasant Valley Table
Artemisia cana/Festuca idahoensis (silver sagebrush/Idaho fescue)	G3/S2	Hironaka et al. 1983	Hill City Marsh
Artemisia cana/Muhlenbergia richardsonis (silver sagebrush/mat muhly)	G3/S2	Hironaka et al. 1983	YP Lake Bed
Artemisia ludoviciana (prairie sage)	G3/S2	Lichthardt 1992	Lower and Middle Cottonwood Islands 45 Ranch
Artemisia papposa (Owyhee sagebrush)	G1/S1	Moseley 1998	Pleasant Valley Table
Artemisia tridentata tridentata/Elymus cinereus (basin big sagebrush/Great Basin wildrye)	G2/S1	Hironaka et al. 1983	West Fork Mink Creek East Fork Salmon River Bench Willow Creek, Camas County Trail Creek, Blaine County Silver Creek 45 Ranch
Artemisia tridentata vaseyana/Elymus cinereus (mountain big sagebrush/Great Basin wildrye)	G4?/S2	Hironaka et al. 1983	
Aster integrifolius/Festuca idahoensis (thick-stemmed aster/Idaho fescue)	G?/S3	Tuhy and Jensen 1982	
Betula glandulosa-Lonicera caerulea/Senecio pseudaureus (bog birch-bluefly honeysuckle/streambank butterweed)	GQ/S3	Tuhy 1981	
Betula glandulosa/Carex lasiocarpa (bog birch/slender sedge)	G4/S2	Bursik and Moseley 1995	Chase Lake Lee Lake
Betula glandulosa/Carex simulata (bog birch/short-beaked sedge)	G2/S2	Moseley et al. 1991	Woods Creek Fen Crow Creek/Julies Fence Russian John Exclosure

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Betula glandulosa/Carex utriculata (bog birch/bladder sedge)	G4?/S3	Hansen et al. 1995	Kaniksu Marsh Lamb Creek Meadows Bismark Meadows Trail Creek, Blaine County Goat Creek Iron Bog
Betula occidentalis (water birch cover type)	G3Q/S2	Hansen et al. 1995	Formation Springs
Betula occidentalis/Celtis reticulata (water birch/hackberry)	G?/S2	Miller 1976	
Betula occidentalis/Cornus stolonifera (water birch/red-osier dogwood)	G2G3/S2	Padgett et al. 1989	Allison Creek Island Portneuf South Fork of the Snake River-Irwin to Heise Henry Stampede Park Big Elk Creek Tex Creek
Betula occidentalis/Crataegus douglasii (water birch/black hawthorn)	G2/S1	Moseley 1986	
Betula occidentalis/Mesic forb (water birch/mesic forb)	G3/S1	Padgett et al. 1989	Silver Creek Goodrich Creek Jump Creek Canyon East Fork Salmon River Bench West Fork Mink Creek Badger Creek
Betula occidentalis/Philadelphus lewisii (water birch/syringa)	G2/S2	Moseley 1987a	Jump Creek Canyon
Betula occidentalis/Potentilla fruticosa (water birch/shrubby cinquefoil)	G2/S1	Jankovsky-Jones [In preparation]	
Betula occidentalis/Prunus virginiana (water birch/common chokecherry)	G?/S2	Huschle 1975	
Betula occidentalis/Purshia tridentata/Stipa comata (water birch/antelope bitterbrush/needle-and-threadgrass)	G1/S1?	Moseley 1987b	Formation Springs
Betula papyrifera/Aralia nudicaulis (paper birch/wild sarsaparilla)	G?/SP	Kovalchik 1993	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Calamagrostis canadensis (bluejoint reedgrass)	G4Q/S4	Padgett et al. 1989	Sneakfoot Meadows Fish Lake Willow Creek Headwaters Moose Meadow Creek Square Mountain Creek Upper Hemlock Creek
Caltha leptosepala (elkslip marshmarigold)	G4/S4	Padgett et al. 1989	Trinity Mountain
Camassia cusickii herbaceous vegetation (Cusick's camas)	G3/S1	Johnson and Simon 1987	Summer Creek
Camassia quamash (common camas)	G?/S3	Daubenmire 1970	
Carex aperta (Columbian sedge)	G2?/SP	Boggs et al. 1990	
Carex aquatilis (water sedge)	G5/S4	Youngblood et al. 1985	Elk Valley Thurmon Creek Sneakfoot Meadows Bog Creek Fen Packer Meadows Fenn Mountain Theriault Lake Stamp Meadows Big Springs-Henrys Fork Confluence Wyoming Creek Toms Creek/Buffalo River Wetlands Hotel Creek Bear Lake Blackfoot River Crow Creek/Julies Fence Trail Creek, Lemhi County Lower Little Wood River Upper Hemlock Creek Goat Creek West Fork Pahsimeroi River Headwaters Chilly Slough

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Carex buxbaumii (Buxbaum's sedge)	G3/S1	Padgett et al. 1989	Lamb Creek Meadows Armstrong Meadows Bismark Meadows Woods Creek Fen Robinson Lake, Yellowstone National Park Big Springs-Henrys Fork Confluence Lucky Dog Creek Silver Creek Goat Creek
Carex cusickii (Cusick's sedge)	GQ/S3	Bursik and Moseley 1995	Bonner Lake Packer Meadows Perkins Lake Chipmunk Potholes Kaniksu Marsh Lamb Creek Meadows Armstrong Meadows Bismark Meadows Blue Lake
Carex lanuginosa (woolly sedge)	G3?/S2	Padgett et al. 1989	Lamb Creek Meadows Warm River Dams Lucky Dog Creek Toms Creek/Buffalo River Wetlands Hotel Creek Crow Creek/Julies Fence Stump Creek Exclosure Willow Creek, Camas County Stapp-Soldier Creek Lower Little Wood River Silver Creek

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Carex lasiocarpa (slender sedge)	G4/S2	Padgett et al. 1989	Chase Lake Bog Creek Fen Robinson Lake Bonner Lake Sinclair Lake Dawson Lake Perkins Lake Three Ponds Chipmunk Potholes Kaniksu Marsh Lamb Creek Meadows Bottle Lake Beaver Lake North Hager Lake Fen Armstrong Meadows Bismark Meadows Bear Creek Fen Blue Lake Mcarthur Lake Gamlin Lake Lost Lake Dubius Creek Fen Shepherd Lake Kelso Lake Hauser Lake Fen Rose Lake Hidden Lake Thompson Lake Robinson Lake, Yellowstone National Park Warm River Fen Moss Spring Beaver Ponds Grays Lake
Carex limosa (mud sedge)	G3/S1	Padgett et al. 1989	Lee Lake Sinclair Lake Packer Meadows Hager Lake Fen Dubius Creek Fen Robinson Lake, Yellowstone National Park
Carex livida (pale sedge)	GQ/S2	Bursik and Moseley 1995	
Carex microptera (small wing sedge)	G4/S3	Youngblood et al. 1985	Willow Creek, Camas County

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Carex nebraskensis (Nebraska sedge)	G4/S3	Youngblood et al. 1985	Warm River Fen East Shore Henrys Lake Big Springs-Henrys Fork Confluence Warm River Dams Fox Creek/Foster Slough Putney Meadows Grays Lake Stump Creek Exclosure Henry Stampede Park Travertine Park Summit Creek Tex Creek Russian John Exclosure Silver Creek Hill City Marsh Chilly Slough Sterling
Carex nigricans (black alpine sedge)	G4/S4	Cooper et al. 1997	Rhodes Peak Square Mountain Creek
Carex nigricans-Agrostis humilis (black alpine sedge-alpine bentgrass)	G4?/S3	Lewis and Riegelhuth 1964	
Carex nova (black sedge)	GU/SU	Jankovsky-Jones [In preparation]	Meadow Canyon
Carex praegracilis (clustered field sedge)	G2G3Q/S2	Moseley et al. 1991	Elk Valley Big Springs-Henrys Fork Confluence Crow Creek/Julies Fence Lower Little Wood River Hill City Marsh Sterling
Carex saxatilis-Eriophorum gracile (russet sedge-slender cotton-grass)	G2?/S2		
Carex scirpoidea pseudoscirpoidea (single-spike sedge)	G3?/S3	Douglas and Bliss 1977	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Carex scopulorum (Holm's Rocky Mountain sedge)	G5/S3	Kovalchik 1993	Bog Creek Fen Grass Creek Meadows Cow Creek Meadows Smith Creek Square Mountain Creek Grave Peak
Carex sheldonii (Sheldon's sedge)		Crowe and Clausnitzer 1997	The Tules
Carex simulata (short-beaked sedge)	G4/S2	Youngblood et al. 1985	Bonner Lake East Shore Henrys Lake Woods Creek Fen Warm River Fen Moss Spring Beaver Ponds Big Springs-Henrys Fork Confluence Toms Creek/Buffalo River Wetlands Elk Valley Blackfoot River Crow Creek/Julies Fence Soda Springs Natural Scenic Area Grays Lake Thomas Fork Valley Trail Creek, Blaine County Silver Creek Hill City Marsh Birch Creek Fen Summit Creek Chilly Slough
Carex subnigricans (nearlyblack sedge)	GU/SU	Jankovsky-Jones [In preparation]	Merriam Lake Basin

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Carex utriculata (bladder sedge)	G5/S4	Tuhy and Jensen 1982	Elk Valley Hatchery Butte Thurmon Creek Sneakfoot Meadows Fish Lake Pole Creek Exclosure Lee Lake Bog Creek Fen Bonner Lake Packer Meadows Grass Creek Meadows Cow Creek Meadows Upper Priest Lake Fen Chipmunk Potholes Lamb Creek Meadows Armstrong Meadows Bismark Meadows Bear Creek Fen Blue Lake Mcarthur Lake Gamlin Lake Dubius Creek Fen Shepherd Lake Kelso Lake Hauser Lake Fen Rose Lake Hidden Lake Thompson Lake Moose Meadow Creek Robinson Lake, Yellowstone National Park East Shore Henrys Lake Theriault Lake Blue Spring Creek Woods Creek Fen Warm River Fen Warm River Dams Fox Creek/Foster Slough Putney Meadows Moss Spring Beaver Ponds Ashton Marsh Trail Creek, Teton County Lucky Dog Creek Big Springs-henrys Fork Confluence Wyoming Creek Toms Creek/Buffalo River Wetlands

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Carex vesicaria (inflated sedge)	GU/S3	Hansen et al. 1995	Stamp Meadows Upper Priest River
Chrysopsis villosa (hairy goldenaster)	GQ/S3	Lichthardt 1992	Lower and Middle Cottonwood Islands
Chrysopsis villosa/Sporobolos cryptandrus (hairy goldenaster/sand dropseed)	G?/S3	Huschle 1975	
Cornus stolonifera (red-osier dogwood)	G4Q/S3	Hansen et al. 1995	Upper Priest River Canyon Creek, Madison County Preuss Creek Headwaters Big Elk Creek Horse Creek Camas Creek Tex Creek Hideaway Islands Clark Fork Delta Cottonwood Creek Triplet Butte Little Jacks Creek Gibson Jack Creek
Cornus stolonifera/Galium triflorum (red-osier dogwood/sweetscented bedstraw)	G3/S2	Youngblood et al. 1985	Burton Canyon
Cornus stolonifera/Heracleum lanatum (red-osier dogwood/cow parsnip)	G3/S2	Youngblood et al. 1985	Burns Canyon
Crataegus douglasii/Heracleum lanatum (black hawthorn/cow parsnip)	G2/S1	Daubenmire 1970	Horseshoe Creek Burns Canyon
Crataegus douglasii/Heracleum lanatum, Populus tremuloides phase (black hawthorn/cow parsnip, quaking aspen phase)	G3/S3	Daubenmire 1970	
Crataegus douglasii/Montia perfoliata (Douglas hawthorne/miners lettuce)	G?/S1	Asherin and Orme 1978	
Crataegus douglasii/Rosa woodsii (black hawthorn/wood's rose)	G2?/S1	Kovalchik 1987	Teton Creek Mitigation Site Hixon Sharptail
Crataegus douglasii/Symphoricarpos albus (black hawthorn/common snowberry)	G2/S1	Daubenmire 1970	Rocky Comfort Flat
Crataegus douglasii/Symphoricarpos albus, Populus tremuloides phase (black hawthorn/common snowberry, quaking aspen phase)	G3/S3	Daubenmire 1970	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Danthonia californica (California oatgrass)		Moseley 1998	Pleasant Valley Table
Deschampsia cespitosa (tufted hairgrass)	G4?/S3	Tuhy and Jensen 1982	Smiley Mountain East Shore Henrys Lake Blue Spring Creek Woods Creek Fen Putney Meadows Stamp Meadows Lucky Dog Creek Big Springs-Henrys Fork Confluence Wyoming Creek Toms Creek/Buffalo River Wetlands Elk Valley Blackfoot River Soda Springs Natural Scenic Area Grays Lake Henry Stampede Park Travertine Park Thomas Fork Valley Russian John Exclosure Silver Creek Hill City Marsh Goat Creek Birch Creek Fen Chilly Slough
Deschampsia cespitosa-Danthonia intermedia-Calamagrostis canadensis (tufted hairgrass-timber oatgrass-bluejoint reedgrass)	GQ/S?	Bursik and Moseley 1995	Grass Creek Meadows Cow Creek Meadows
Deschampsia cespitosa/Caltha leptosepala (tufted hairgrass/elkslip marshmarigold)	G4/S2	Cooper et al. 1997	Merriam Lake Basin West Fork Pahsimeroi River Headwaters
Deschampsia cespitosa/Potentilla diversifolia (tufted hairgrass/diverse-leaved cinquefoil)	G5/SP	Caicco 1983	
Distichlis stricta (interior saltgrass)	G5/S4	Daubenmire 1970	Bear Lake Oxford Slough Henry Stampede Park Thomas Fork Valley Hill City Marsh Sterling
Distichlis stricta-Scirpus nevadensis (interior saltgrass-Nevada bulrush)	G4/SP	Copeland 1979	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Dulichium arundinaceum (three way sedge)	G3?/S2	Bursik and Moseley 1995	Perkins Lake Hager Lake Fen Robinson Lake, Yellowstone National Park
Elaeagnus commutata (American silverberry)	G2/S2	Jankovsky-Jones 1997b	South Fork of the Snake River-Irwin to Heise
Eleocharis acicularis (needle spike-rush)	G4?/S3	Lewis and Riegelhuth 1964	Putney Meadows Stamp Meadows Blackfoot River Grays Lake Soda Springs Natural Scenic Area
Eleocharis palustris (creeping spike-rush)	G5/S3	Tuhy and Jensen 1982	Bonner Lake Blue Spring Creek Warm River Dams Putney Meadows Moss Spring Beaver Ponds Ashton Marsh Stamp Meadows Canyon Creek, Madison County Big Springs-Henrys Fork Confluence Toms Creek/Buffalo River Wetlands Hotel Creek Fish Creek Springs Bear Lake Blackfoot River Grays Lake Henry Stampede Park Travertine Park Camas Creek Thomas Fork Valley South Fork of the Snake River-Irwin to Heise Tex Creek Moose Meadow Creek Clark Fork Delta Hill City Marsh Allison Creek Island
Eleocharis palustris vernal pool (creeping spike-rush-(poverty weed))	GU/SU	Moseley 1998	YP Lake Bed Big Lost River Sinks
Eleocharis pauciflora-Carex aquatilis, Carex livida phase (few-flowered spike rush-water sedge, pale sedge phase)	GQ/S2	Mattson 1984	Robinson Lake, Yellowstone National Park

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Eleocharis pauciflorus (creeping spike-rush)	G4/S1	Padgett et al. 1989	Moose Meadow Creek Birch Creek Fen Summit Creek
Eleocharis rostellata (wandering spikerush)	G2/S2	Moseley 1995	Woods Creek Fen Soda Springs Natural Scenic Area Henry Stampede Park Silver Creek
Elymus cinereus (Great Basin wildrye)	G2G3Q/S3	Day and Wright 1985	Canyon Creek, Madison County Bear Lake Formation Springs Travertine Park Stapp-Soldier Creek Hill City Marsh East Fork Salmon River Bench
Elymus cinereus-Distichlis stricta (Great Basin wildrye-interior saltgrass)	G1/SH	Daubenmire 1970	
Equisetum fluviatile (water horsetail)	G4/S3	Hansen et al. 1995	
Eriophorum polystachion (many-spiked cotton-grass)	G3?/S3	Kovalchik 1993	Bog Creek Fen Packer Meadows Smith Creek
Festuca idahoensis-Deschampsia cespitosa (Idaho fescue-tufted hairgrass)	G3/S2	Mueggler and Stewart 1980	
Glyceria borealis (northern mannagrass)	G4/S1	Jankovsky-Jones 1996	Dubius Creek Fen Blue Spring Creek Putney Meadows Moss Spring Beaver Ponds Toms Creek/Buffalo River Wetlands
Hordeum jubatum (foxtail barley)	G4/S5	Hall and Hansen 1997	Thomas Fork Valley

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Juncus balticus (Baltic rush)	G5/S4	Tuhy and Jensen 1982	Fox Creek/Foster Slough Lucky Dog Creek Big Springs-Henrys Fork Confluence Elk Valley Bear Lake Crow Creek/Julies Fence Oxford Slough Soda Springs Natural Scenic Area Grays Lake Henry Stampede Park Travertine Park Willow Creek, Camas County Summit Creek Tex Creek Stapp-Soldier Creek Lower Little Wood River Russian John Exclosure Silver Creek Hill City Marsh Birch Creek Fen Rock Creek Cirque Merriam Lake Basin West Fork Pahsimeroi River Headwaters Chilly Slough Sterling
Juncus drummondii-Carex spp. (Drummond's rush-sedge spp.)	G4/S4	Lewis and Riegelhuth 1964	
Juncus effusus (common rush)	GU/SU	Jankovsky-Jones 1997a	
Juniperus scopulorum/Cornus stolonifera (Rocky Mountain juniper/red-osier dogwood)	G4/S3	Hansen et al. 1995	Canyon Creek, Madison County Badger Creek
Juniperus scopulorum/Mesic forb (Rocky Mountain juniper/mesic forb)	GU/SU	Moseley 1998	Triplet Butte
Kalmia microphylla/Carex scopulorum (alpine laurel/Holm's Rocky Mountain sedge)	G3G4/S1	Hansen et al. 1995	
Lepidium davisii (Davis' peppergrass)	G1?/S1	Doremus and Debolt 1987	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Mertensia ciliata (broad-leaf bluebell)	G3/S3	Padgett et al. 1989	
Muhlenbergia richardsonis (mat muhly)	GU/SU	Jankovsky-Jones 1997b	Grays Lake Thomas Fork Valley Birch Creek Fen Summit Creek Chilly Slough
Nuphar polysepalum (pond lily)	G5/S4	Kovalchik 1993	Chase Lake Lee Lake Robinson Lake Dawson Lake Chipmunk Potholes Hager Lake Fen Blue Lake Mcarthur Lake Gamlin Lake Lost Lake Dubius Creek Fen Shepherd Lake Kelso Lake Hauser Lake Fen Rose Lake Hidden Lake Thompson Lake Robinson Lake, Yellowstone National Park Warm River Fen Putney Meadows Lucky Dog Creek Wyoming Creek Toms Creek/Buffalo River Wetlands Grays Lake
Ombrotrophic bog (ombrotrophic bog)	G5/S1	Bursik and Moseley 1995	Chase Lake

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Paludified forest (paludified forest)	G5/S1	Bursik and Moseley 1995	Chase Lake Lee Lake Packer Meadows Upper Priest Lake Fen Kaniksu Marsh Potholes Armstrong Meadows Bismark Meadows Bear Creek Fen
Phalaris arundinacea (reed canarygrass)	G4/S5	Hall and Hansen 1997	Spion Kop Bear Creek Fen Blue Lake Mcarthur Lake Dubius Creek Fen Hauser Lake Fen Ashton Marsh Bear Lake Oxford Slough Soda Springs Natural Scenic Area Pack River Clark Fork Delta Lower Little Wood River Silver Creek
Philadelphus lewisii (syringa)	G2Q/S1	Moseley 1987b	Jump Creek Canyon
Phragmites australis (common reed)	G3G4/S4	Hall and Hansen 1997	Bear Lake
Phragmites communis/Rhus radicans (common reed/poison oak)	G?/S3	Huschle 1975	
Picea engelmannii/Calamagrostis canadensis (Engelmann spruce/bluejoint reedgrass)	G4/S4	Youngblood et al. 1985	Horse Creek
Picea engelmannii/Caltha leptosepala (Engelmann spruce/elkslip marshmarigold)	G3?/SP	Steele et al. 1983	
Picea engelmannii/Carex disperma (Engelmann spruce/soft-leaved sedge)	G2/S2	Steele et al. 1981	Bear Valley Creek Kenney Creek
Picea engelmannii/Carex prionophylla (Engelmann spruce/saw-leaved sedge)	G3/SP	Kovalchik 1993	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Picea engelmannii/Cornus stolonifera (Engelmann spruce/red-osier dogwood)	G3/S2	Youngblood et al. 1985	Game Creek
Picea engelmannii/Equisetum arvense (Engelmann spruce/common horsetail)	G4/S2	Steele et al. 1981	Ponderosa Peninsula Horseshoe Creek Moss Spring Beaver Ponds Willow Creek Headwaters Preuss Creek Headwaters Game Creek
Picea engelmannii/Galium triflorum (Engelmann spruce/sweetscented bedstraw)	G4/S3	Steele et al. 1981	Dome Lake
Picea glauca/Carex disperma (white spruce/softleaf sedge)	G1/S1	Jankovsky-Jones 1996	East Shore Henrys Lake
Picea glauca/Carex utriculata (white spruce/bladder sedge)	G1/S1	Jensen 1990	East Shore Henrys Lake
Picea glauca/Equisetum arvense (white spruce/common horsetail)	G4/S1	Jensen 1990	East Shore Henrys Lake
Pinus contorta/Calamagrostis canadensis (lodgepole pine/bluejoint reedgrass)	G5Q/S5	Mutz and Queiroz 1983	Warm River Dams Iron Bog Wyoming Creek
Pinus contorta/Vaccinium occidentale (lodgepole pine/blue huckleberry)	G4/S2	Tuhy and Jensen 1982	Sawtooth Valley Peatlands Sneakfoot Meadows Crooked Creek Goat Creek
Pinus flexilis/Potentilla fruticosa/Distichlis stricta (limber pine/shrubby cinquefoil/akali saltgrass)	G1/S1Q	Jankovsky-Jones [In preparation]	
Pinus ponderosa/Crataegus douglasii (ponderosa pine/black hawthorn)	G1/S1	Kauffman et al. 1985	
Poa juncifolia (alkali bluegrass)	GU/SU	Jankovsky-Jones [In preparation]	Birch Creek Fen Summit Creek Chilly Slough
Polygonum amphibium (water ladysthumb)	G3Q/S4	Hall and Hansen 1997	Ashton Marsh Hill City Marsh

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Poor fen (poor fen)	G4/S1	Bursik and Moseley 1995	Chase Lake Lee Lake Packer Meadows Bog Creek Fen Grass Creek Meadows Cow Creek Meadows Perkins Lake Upper Priest Lake Fen Smith Creek Kaniksu Marsh Bottle Lake Potholes Hager Lake Fen Armstrong Meadows Bear Creek Fen Rose Lake Hidden Lake Thompson Lake
Populus angustifolia/Acer grandidentatum (narrow-leaf cottonwood/canyon maple)	G2G3/S1	Padgett et al. 1989	
Populus angustifolia/Betula occidentalis (narrow-leaf cottonwood/water birch)	G1G3/S1	Padgett et al. 1989	Badger Creek Portneuf
Populus angustifolia/Chrysopsis villosa (narrow-leaf cottonwood/hairy goldenaster)	G3/S2	Merigliano 1996	South Fork of the Snake River-Irwin to Heise
Populus angustifolia/Cornus stolonifera (narrowleaf cottonwood/red-osier dogwood)	G4/S1	Youngblood et al. 1985	South Fork of the Snake River-Irwin to Heise Big Elk Creek
Populus angustifolia/Elaeagnus commutata (narrow-leaf cottonwood/American silverberry)	G2/S2	Merigliano 1996	South Fork of the Snake River-Irwin to Heise
Populus angustifolia/Rhus trilobata (narrow-leaf cottonwood/skunkbush sumac)	G2G3/S2	Padgett et al. 1989	
Populus tremuloides/Calamagrostis canadensis (quaking aspen/bluejoint reedgrass)	G3/S4	Hansen et al. 1995	
Populus tremuloides/Cornus stolonifera (quaking aspen/red-osier dogwood)	G4/S4	Hall and Hansen 1997	Silver Creek Portneuf
Populus trichocarpa/Alnus incana (black cottonwood/mountain alder)	G3/S3	Kovalchik 1993	Upper Priest River

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Populus trichocarpa/Cicuta douglasii (black cottonwood/western water-hemlock)	G1/S1	Daubenmire 1970	
Populus trichocarpa/Cornus stolonifera (black cottonwood/red-osier dogwood)	G3?/S3	Hall and Hansen 1997	Spion Kop Hideaway Islands Clark Fork Delta Mahoney Flat Stapp-Soldier Creek East Fork Salmon River Bench
Populus trichocarpa/Crataegus douglasii (black cottonwood/black hawthorn)	G1/S1	Kauffman et al. 1985	
Populus trichocarpa/Festuca idahoensis (black cottonwood/Idaho fescue)	G?/S1	Lichthardt 1992	Lower and Middle Cottonwood Islands
Populus trichocarpa/Recent alluvial bar (black cottonwood/recent alluvial bar)	G?/SP	Hansen et al. 1995	Hideaway Islands Mahoney Flat
Populus trichocarpa/Rhamnus alnifolia (black cottonwood/alder buckthorn)	G?/SP	Moseley and Bursik 1994	
Populus trichocarpa/Rosa woodsii (black cottonwood/Wood's rose)	GQ/S1	Chadde et al. 1988	
Populus trichocarpa/Salix exigua (black cottonwood/coyote willow)	G1/SP	Manning and Padgett 1995	
Populus trichocarpa/Salix lasiandra (black cottonwood/Pacific willow)	G3/S1	Crowe and Clausnitzer 1997	Goodrich Creek
Populus trichocarpa/Salix lutea (black cottonwood/yellow willow)	G?/S2	Manning and Padgett 1995	Stapp-Soldier Creek
Populus trichocarpa/Symphoricarpos albus (black cottonwood/common snowberry)	G3/S2	Moseley and Bursik 1994	Hideaway Islands Goodrich Creek
Potentilla fruticosa/Danthonia intermedia (shrubby cinquefoil/timber oatgrass)	G?/S3	Tuhy and Jensen 1982	Pole Creek Exclosure

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Potentilla fruticosa/Deschampsia cespitosa (shrubby cinquefoil/tufted hairgrass)	G4/S3	Youngblood et al. 1985	Woods Creek Fen Soda Springs Natural Scenic Area Henry Stampede Park Travertine Park Silver Creek Goat Creek Birch Creek Fen Summit Creek West Fork Pahsimeroi River Headwaters
Potentilla fruticosa/Dry alkaline graminoid (shrubby cinquefoil/dry alkaline graminoid)	GU/SU	Jankovsky-Jones [In preparation]	Summit Creek
Potentilla fruticosa/Festuca idahoensis (shrubby cinquefoil/Idaho fescue)	G3/S1	Youngblood et al. 1985	
Prunus virginiana (common chokecherry)	G4Q/S3	Hansen et al. 1995	Formation Springs Cottonwood Creek
Prunus virginiana/Elymus glaucus (common chokecherry/blue wildrye)	GU/SU	Moseley 1998	Little Jacks Creek
Pseudotsuga menziesii/Cornus stolonifera (Douglas fir/red-osier dogwood)	G4/S4	Hall and Hansen 1997	West Fork Mink Creek
Pseudotsuga menziesii/Mesic forb (Douglas fir/mesic forb)	G?/S3	Miller 1976	
Rhamnus alnifolia (alder buckthorn)	G3/S3	Youngblood et al. 1985	
Rhus trilobata-Salix exigua (smooth sumac-coyote willow)	G2Q/SP		
Rosa woodsii (Wood's rose)	G5/S4	Hansen et al. 1995	
Salix amygdaloides (peachleaf willow)	G3/S2	Hall and Hansen 1997	
Salix amygdaloides-Salix exigua-Salix lasiandra (peachleaf willow-coyote willow-shining willow)	G1Q/SP		
Salix arctica/Carex subnigricans (Arctic willow/nearlyblack sedge)	GU/SU	Jankovsky-Jones [In preparation]	Rock Creek Cirque

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Salix bebbiana (Bebb willow)	G?/S?	Hansen et al. 1995	Grays Lake Clark Fork Delta Upper Priest River
Salix bebbiana/Mesic graminoid (Bebb willow/mesic graminoid)	G3?/S5	Padgett et al. 1989	Pack River
Salix boothii/Calamagrostis canadensis (Booth willow/bluejoint reedgrass)	G3G4Q/S3	Youngblood et al. 1985	Horse Creek
Salix boothii/Carex aquatilis (Booth willow/water sedge)	G3/S3?	Padgett et al. 1989	
Salix boothii/Carex nebraskensis (Booth willow/Nebraska sedge)	G4G5/S3?	Youngblood et al. 1985	
Salix boothii/Carex utriculata (Booth willow/bladder sedge)	G4/S4	Mutz and Queiroz 1983	Trail Creek, Blaine County Pole Creek Exclosure Horseshoe Creek Blue Spring Creek Warm River Fen Trail Creek, Teton County Willow Creek Headwaters Preuss Creek Headwaters Blackfoot River Crow Creek/Julies Fence Travertine Park Silver Creek Summit Creek West Fork Mink Creek Jimmy Smith Lake
Salix boothii/Equisetum arvense (Booth willow/common horsetail)	G3/S2	Youngblood et al. 1985	Horseshoe Creek Fish Creek Springs Willow Creek Headwaters Preuss Creek Headwaters
Salix boothii/Mesic forb (Booth willow/mesic forb)	G3/S3?	Padgett et al. 1989	Preuss Creek Headwaters Trail Creek, Blaine County

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Salix boothii/Mesic graminoid (Booth willow/mesic graminoid)	G3?/S3?	Padgett et al. 1989	Blue Spring Creek Putney Meadows Preuss Creek Headwaters Stump Creek Exclosure Travertine Park Willow Creek, Camas County Tex Creek Trail Creek, Blaine County
Salix boothii/Mitella pentandra (Booth willow/five-stamen bishop's-cap)	G2G3/SP	Mutz and Graham 1982	
Salix boothii/Poa palustris (Booth willow/fowl bluegrass)	G1Q/S5	Youngblood et al. 1985	
Salix boothii/Smilacina stellata (Booth willow/starry Solomon-plume)	G3Q/S2	Youngblood et al. 1985	Willow Creek, Camas County
Salix brachycarpa/Carex elynoides (short fruit willow/blackroot sedge)	GU/SU	Jankovsky-Jones [In preparation]	West Fork Pahsimeroi River Headwaters
Salix candida/Carex utriculata (hoary willow/bladder sedge)	G3/S1	Hansen et al. 1995	
Salix commutata/Carex scopulorum (undergreen willow/Holm's Rocky Mountain sedge)	G3/S3	Tuhy and Jensen 1982	
Salix drummondiana (Drummond's willow)	G3Q/S3	Hansen et al. 1995	
Salix drummondiana/Calamagrostis canadensis (Drummond's willow/bluejoint reedgrass)	G2/S2	Tuhy and Jensen 1982	
Salix drummondiana/Carex utriculata (Drummond's willow/bladder sedge)	G3/S3	Hall and Hansen 1997	Moss Spring Beaver Ponds Hotel Creek Fish Creek Springs
Salix eastwoodiae/Carex aquatilis (Eastwood willow/water sedge)	G2/S2	Mutz and Queiroz 1983	
Salix eastwoodiae/Carex scopulorum (Eastwood willow/Holm's Rocky Mountain sedge)	G2/S2	Mutz and Queiroz 1983	
Salix eastwoodiae/Carex utriculata (Eastwood willow/bladder sedge)	G2/S2	Mutz and Queiroz 1983	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Salix exigua/Artemisia ludoviciana (coyote willow/prairie sage)	G?/S2	Huschle 1975	
Salix exigua/Barren (coyote willow/barren)	G3?/S4	Padgett et al. 1989	Teton Creek Mitigation Site Canyon Creek, Madison County Henry Stampede Park Travertine Park Lower and Middle Cottonwood Islands Camas Creek Hideaway Islands Trail Creek, Blaine County TNC Tract-Snake River Birds of Prey
Salix exigua/Carex spp. (coyote willow/sedge spp.)	G?/S3	Huschle 1975	
Salix exigua/Equisetum arvense (coyote willow/common horsetail)	G3/S2	Youngblood et al. 1985	
Salix exigua/Mesic forb (coyote willow/mesic forb)	G2?/S2?	Padgett et al. 1989	Big Elk Creek Tex Creek Burns Canyon
Salix exigua/Mesic graminoid (coyote willow/mesic graminoid)	G3Q/S3?	Padgett et al. 1989	Preuss Creek Headwaters Bear Lake Henry Stampede Park Willow Creek, Camas County Clark Fork Delta Mahoney Flat Triplet Butte The Tules
Salix exigua/Rosa woodsii (coyote willow/Wood's rose)	GU/SU	Manning and Padgett 1995	Lower Little Wood River
Salix geyeriana/Calamagrostis canadensis (Geyer willow/bluejoint reedgrass)	G5/S4	Tuhy and Jensen 1982	Wyoming Creek Iron Bog
Salix geyeriana/Carex aquatilis (Geyer willow/water sedge)	G3?/S3?	Padgett et al. 1989	Wyoming Creek Blackfoot River

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Salix geyeriana/Carex utriculata (Geyer willow/bladder sedge)	G5/S4	Youngblood et al. 1985	Teton Creek/Bates Bridge Woods Creek Fen Fox Creek/Foster Slough Stamp Meadows Big Springs-Henrys Fork Confluence Wyoming Creek
Salix geyeriana/Deschampsia cespitosa (Geyer willow/tufted hairgrass)	G4/S3?	Padgett et al. 1989	Woods Creek Fen
Salix geyeriana/Geum macrophyllum (Geyer willow/large-leaved avens)	GQ/S3	Tuhy 1981	
Salix geyeriana/Mesic forb (Geyer willow/mesic forb)	G3/S3	Youngblood et al. 1985	Trail Creek, Teton County
Salix geyeriana/Mesic graminoid (Geyer willow/mesic graminoid)	G2G3Q/S5	Padgett et al. 1989	East Shore Henrys Lake Fox Creek/Foster Slough Toms Creek/Buffalo River Wetlands Crow Creek/Julies Fence Grays Lake Negro Creek Exclosure
Salix geyeriana/Poa palustris (Geyer willow/fowl bluegrass)	G2?/S5	Youngblood et al. 1985	Stamp Meadows
Salix lasiandra/Bench (whiplash willow/bench)	G?/S3	Manning and Padgett 1995	
Salix lasiandra/Cornus stolonifera (whiplash willow/red-osier dogwood)	GQ/S1	Wellner and Tisdale 1985	Travertine Park Mahoney Flat Pleasant Valley Table
Salix lasiandra/Mesic forb (whiplash willow/mesic forb)	G?/SP	Manning and Padgett 1995	
Salix lasiandra/Rosa woodsii (whiplash willow/Wood's rose)	G3/S3	Evenden 1989	
Salix lasiolepis (arroyo willow)	GU/SU	Moseley 1998	Little Jacks Creek Jump Creek Canyon Hixon Sharptail
Salix lasiolepis/Barren (arroyo willow/barren)	G2?/S1	Padgett et al. 1989	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Salix lutea (yellow willow)	G?/S3	Youngblood et al. 1985	
Salix lutea/Bench (yellow willow/bench)	G?/SP	Manning and Padgett 1995	
Salix lutea/Carex utriculata (yellow willow/bladder sedge)	G4/S4	Hansen et al. 1995	Mahoney Flat
Salix lutea/Mesic forb (yellow willow/mesic forb)	G?/SP	Manning and Padgett 1995	
Salix lutea/Rosa woodsii (yellow willow/Wood's rose)	G3/S3	Manning and Padgett 1995	
Salix planifolia (planeleaf willow)	G4/S4	Youngblood et al. 1985	
Salix planifolia monica/Carex aquatilis-Carex utriculata (planeleaf willow/water sedge-bladder sedge)	G3Q/S3	Mutz and Queiroz 1983	East Shore Henrys Lake Trail Creek, Lemhi County
Salix planifolia monica/Carex scopulorum (planeleaf willow/Holm's Rocky Mountain sedge)	G4/SP		
Salix planifolia/Carex aquatilis (planeleaf willow/water sedge)	G5/S4	Padgett et al. 1989	West Fork Pahsimeroi River Headwaters
Salix wolfii/Calamagrostis canadensis (wolf's willow/bluejoint reedgrass)	G3/S3	Youngblood et al. 1985	
Salix wolfii/Carex aquatilis (wolf's willow/water sedge)	G4/S4	Youngblood et al. 1985	Big Springs-Henrys Fork Confluence Elk Valley Blackfoot River
Salix wolfii/Carex microptera (wolf's willow/small wing sedge)	G3/S3	Tuhy and Jensen 1982	
Salix wolfii/Carex nebraskensis (wolf's willow/Nebraska sedge)	G3/S3	Youngblood et al. 1985	
Salix wolfii/Carex utriculata (wolf's willow/bladder sedge)	G4/S4	Youngblood et al. 1985	Pole Creek Exclosure East Shore Henrys Lake
Salix wolfii/Deschampsia cespitosa (wolf's willow/tufted hairgrass)	G3/S2	Youngblood et al. 1985	Russian John Exclosure

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Salix wolfii/Fragaria virginiana (wolf's willow/blueleaf strawberry)	G4?/S3	Mattson 1984	
Salix wolfii/Mesic forb (wolf's willow/mesic forb)	G3/S2	Mutz and Queiroz 1983	
Salix wolfii/Poa palustris (wolf's willow/fowl bluegrass)	G4/S5	Youngblood et al. 1985	
Salix wolfii/Swertia perennis-Pedicularis groenlandica (wolf's willow/swertia-elephant's head lousewort)	G2/S2	Tuhy and Jensen 1982	
Sarcobatus vermiculatus/Distichlis stricta (greasewood/interior saltgrass)	G4/S1	Daubenmire 1970	TNC Tract-Snake River Birds of Prey Bear Lake Oxford Slough
Sarcobatus vermiculatus/Elymus cinereus (greasewood/Great Basin wildrye)	G3/S2	Mueggler and Stewart 1980	Birch Creek Fen Summit Creek Chilly Slough
Scirpus acutus (hardstem bulrush)	G5/S4	Hansen et al. 1995	Elk Valley Oxford Slough The Tules Robinson Lake Bonner Lake Gamlin Lake Lost Lake Shepherd Lake Kelso Lake Hauser Lake Fen Ashton Marsh Lucky Dog Creek Thomas Fork Valley Toms Creek/Buffalo River Wetlands Bear Lake Grays Lake Soda Springs Natural Scenic Area Henry Stampede Park TNC Tract-Snake River Birds of Prey Sterling
Scirpus americanus (threesquare bulrush)	G1Q/S1	Hansen et al. 1995	
Scirpus cespitosus-Carex livida (tufted bulrush-pale sedge)	G1/S1	Tuhy 1981	Sawtooth Valley Peatlands

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Scirpus maritimus (akali bulrush)	G4/S3	Hansen et al. 1995	Bear Lake Oxford Slough
Scirpus microcarpus (small-fruit bulrush)	GU/SU	Crowe and Clausnitzer 1997	Clark Fork Delta
Scirpus pallidus (pale bulrush)	GU/SU	Moseley 1998	Hixon Sharptail
Scirpus pungens (sharp bulrush)	G?/S3?	Hall and Hansen 1997	45 Ranch
Scirpus validus (softstem bulrush)	G4/S2	Kovalchik 1993	Elk Valley Bonner Lake Bear Lake South Fork of the Snake River-Irwin to Heise Lower Little Wood River Silver Creek Chilly Slough
Spartina gracilis (akali cordgrass)	GU/SU	Jankovsky-Jones 1997b	Oxford Slough Soda Springs Natural Scenic Area Grays Lake Silver Creek Chilly Slough

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Spiraea douglasii (pink spiraea)	G5/S4	Hansen et al. 1995	Upper Priest River Chase Lake Lee Lake Sinclair Lake Perkins Lake Upper Priest Lake Fen Chipmunk Potholes Lamb Creek Meadows Hager Lake Fen Armstrong Meadows Bismark Meadows Bear Creek Fen Blue Lake Mcarthur Lake Gamlin Lake Lost Lake Dubius Creek Fen Shepherd Lake Kelso Lake Hauser Lake Fen Rose Lake Hidden Lake Thompson Lake Pack River
Thuja plicata/Adiantum pedatum (western redcedar/maidenhair fern)	G2?/S2	Cooper et al. 1991	O'Hara Creek Aquarius Chateau Falls Dutch Creek Four-bit Creek O'Hara Creek
Thuja plicata/Athyrium filix femina (western redcedar/lady fern)	G3G4/S3	Cooper et al. 1991	Morris Creek Old Growth Cedar Grove Montford Creek Hobo Cedar Grove Three Ponds Aquarius Canyon Creek Tepee Creek Upper Fishhook

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Thuja plicata/Clintonia uniflora (western redcedar/clintonia)	G4/S5	Cooper et al. 1991	O'Hara Creek Aquarius Lochsa Settler's Grove Of Ancient Cedars Upper Fishhook O'Hara Creek
Thuja plicata/Gymnocarpium dryopteris (western redcedar/oak fern)	G3/S2	Cooper et al. 1991	Four-bit Creek Morris Creek Old Growth Cedar Grove Upper Fishhook
Thuja plicata/Lysichitum americanum (western redcedar/skunk cabbage)	G4Q/S2	Franklin 1966	Potholes Aquarius
Thuja plicata/Oplopanax horridum (western redcedar/devil's club)	G3/S3	Cooper et al. 1991	Canyon Creek Hunt Girl Creek Tepee Creek Aquarius Upper Priest River Potholes Settler's Grove Of Ancient Cedars Binarch Creek Upper Shoshone Creek Montford Creek Upper Priest River
Tsuga heterophylla/Gymnocarpium dryopteris (western hemlock/oakfern)	G3G4/S3	Cooper et al. 1991	Canyon Creek Hunt Girl Creek Montford Creek Upper Shoshone Creek Upper Priest River Upper Priest River
Tsuga mertensiana/Streptopus amplexifolius (mountain hemlock/twisted-stalk)	G2/S2	Cooper et al. 1991	

Plant Association	Conservation Rank	Principal Reference	Reference Areas
Typha latifolia (common cattail)	G5/S4	Padgett et al. 1989	Bonner Lake Dawson Lake Perkins Lake Lamb Creek Meadows Bear Creek Fen Blue Lake Mcarthur Lake Gamlin Lake Lost Lake Dubius Creek Fen Shepherd Lake Kelso Lake Hauser Lake Fen Rose Lake Hidden Lake Thompson Lake East Shore Henrys Lake Warm River Fen Ashton Marsh Toms Creek/Buffalo River Wetlands Bear Lake Oxford Slough Soda Springs Natural Scenic Area Grays Lake Henry Stampede Park Thomas Fork Valley South Fork of the Snake River-Irwin to Heise Tex Creek Pack River Freeman Lake Clark Fork Delta Silver Creek Hill City Marsh Chilly Slough Sterling
Veratrum californicum (California false-hellebore)	G4/S3	Youngblood et al. 1985	Stapp-Soldier Creek

REFERENCE AREA SUMMARIES

BEAR LAKE SECTION (342E)

BEAR LAKE **CDC Site # 365**

County: Bear Lake
Location: Bear Lake is seven miles southeast of Montpelier, Idaho. The north and west refuge boundaries are accessible by county roads via the airport road, the south boundary from the North Shore Bear Lake Road, and the east side via Merkley. Within the refuge, roads originate at the north end and run along levees.

Size (acres): 18,000 **Elevation Range (feet):** 5,923 - 5,930
Site Description: Bear Lake is primarily a bulrush/cattail/open-water marsh. Emergent communities, dominated by Scirpus acutus and S. validus form dense swards with pockets of the Typha latifolia community type. The Juncus balticus community type occupies somewhat drier sites. Large open-water areas have islands occupied by bulrushes. Portions of the open-water areas drawdown and can be characterized as barren mud flats with a number of species from the Chenopod family. Portions of the mud flats support the Distichlis stricta alkali meadow community. Other minor community types include Elymus cinereus in alkali flats; Eleocharis palustris and Carex aquatilis in shallow water marshes; and Salix exigua/Poa pratensis, Phalaris arundinacea, and Phragmites australis along levees and roads. The ecotone to the uplands, as well as hummocks within the marsh, are occupied by the Sarcobatus vermiculatus/Distichlis spicata var. stricta community type. Uplands are dominated by the shrubs Artemisia tridentata and Sarcobatus vermiculatus along with Agropyron spicatum and A. smithii.

Wetland and Riparian Plant Associations and Size (in acres):

Salix exigua/Mesic graminoid	10
Sarcobatus vermiculatus/Distichlis stricta	10
Phalaris arundinacea	5
Phragmites australis	5
Elymus cinereus	10
Distichlis stricta	10
Carex aquatilis	10
Eleocharis palustris	15
Juncus balticus	20
Scirpus acutus	8000
Scirpus maritimus	10
Typha latifolia	2000
Scirpus validus	500

Land Manager: United States Fish and Wildlife Service
Designation: Wildlife Refuge / Management Area

ALLAN MOUNTAIN — CDC Site # 686

County: Lemhi
Location: Allan Mountain Research Natural Area (RNA) is located in the Bitterroot Mountains near the Idaho/Montana border, approximately 16 miles north of North Fork, Idaho.

Size (acres): 1,650 **Elevation Range (feet):** 6,450 - 9,154
Site Description: Allan Mountain RNA is located at the southeastern border of the northern Idaho-northwestern Montana province that is under a strong maritime climatic influence. While the vegetation of the area is typical of high-elevation, maritime-influenced vegetation, it is at the border of this influence. The RNA contains stands of Larix lyallii, with trees in a range of age classes. Subalpine larch is relatively rare in the inland United States and at Allan Mountain the species is at the southeastern limit of its range. Xerophyllum tenax is also near the southeastern limit of its range at Allan Mountain. Extensive stands of beargrass are found in the area, mainly as an understory in the Abies lasiocarpa/X. tenax habitat type. The area also contains good stands of Pinus albicaulis and areas of high-elevation grasslands. Aquatic features of the area include a small lake, several small ponds, meandering to steep gradient streams, and wet meadows. Lateral and terminal moraines provide excellent examples of mountain glaciation. Near alpine conditions exist on Allan Mountain at 9,154 feet, supporting a number of interesting plant species.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	5

Land Manager: USDA Forest Service
Designation: Research Natural Area

ALLISON CREEK ISLAND — CDC Site # 13

County: Lemhi
Location: Allison Creek Island is located approximately 32 miles upstream of Salmon, Idaho on the Salmon River. The island is just downstream of the Allison Creek/Salmon River confluence and river mile 296. Access to the island is by floating via raft or canoe, though some gravel deposits may be wadeable in the fall.

Size (acres): 12 **Elevation Range (feet):** 4,520 - 4,525
Site Description: Allison Creek Island is located along the Salmon River in a wide valley bottom. The island is entirely of recent alluvium and there is little relief. Soils on the island consist of a gravelly sandy loam. The soils are shallow and well drained with a high water table. The primary feature of the area is the presence of riparian vegetation that appears to be undisturbed by grazing or fire. The island is dominated by Betula occidentalis and Cornus sericea with occasional Alnus incana and Juniperus scopulorum and small localized patches of Salix exigua. Eleocharis palustris dominates sandy channel bars and overflow channels. Other mesic species, including Typha latifolia and Scirpus acutus, are present in the Eleocharis palustris stands. The highest areas of the island support stands of Agropyron smithii. Cobble bars are also present near the overflow channel and as bars along the banks of the island.

Wetland and Riparian Plant Associations and Size (in acres):

Betula occidentalis/Cornus stolonifera	10
Agropyron smithii	1
Eleocharis palustris	1

Land Manager: Bureau of Land Management or Idaho Department of Lands
Designation: Unprotected

BADGER CREEK **CDC Site # 1276**

County: Butte
Location: Badger Creek is a tributary of the Little Lost River, located 28 miles northwest of Howe, Idaho.

Size (acres): 575 **Elevation Range (feet):** 5,690 - 6,600
Site Description: Badger Creek is a high-gradient perennial stream that is incised into the Badger Creek Bar. The creek occurs in a narrow canyon and drains the west side of Diamond Peak in the Lemhi Range. The channel trends southwest into the Little Lost River. The riparian corridor is dominated by Betula occidentalis with occasional Populus angustifolia and Juniperus scopulorum stands. A unique feature of Badger Creek is the presence of Pinus flexilis. This conifer usually occurs at timberline. While limber pine is known to occasionally occur in association with subirrigated spring systems in Idaho, the Badger Creek location is one of the few known sites with several limber pine trees occurring along a low elevation riparian corridor.

Wetland and Riparian Plant Associations and Size (in acres):

Populus angustifolia/Betula occidentalis	10
Juniperus scopulorum/Cornus stolonifera	10
Betula occidentalis/Mesic forb	60

Land Manager: Bureau of Land Management
Designation: Unprotected

BEAR VALLEY CREEK **CDC Site # 27**

County: Lemhi
Location: Bear Valley Creek is located in the northern part of the Lemhi Mountains approximately 12.5 miles southwest of Lemhi, Idaho.

Size (acres): 2,530 **Elevation Range (feet):** 6,800 - 10,116
Site Description: Bear Valley Creek RNA extends from 6,800 feet at the east boundary to 10,116 feet at the southwest tip. Due in part to the large elevational range, the area contains a wide variety of forest and grassland conditions typical of this part of the Lemhi Mountains. It contains sagebrush-grass vegetation in places on lower south-facing slopes to mostly forest vegetation of Pseudotsuga menziesii, Abies lasiocarpa, and Pinus albicaulis types with increasing elevation. Several rare forest habitat types occur along the creek including Picea engelmannii/Carex disperma and Abies lasiocarpa/Vaccinium scoparium. The area also contains alpine meadows and a Artemisia tridentata ssp. vaseyana/Festuca idahoensis. Several species are at or near their southern limit here, including Rubus parviflorus, Linnaea borealis, and Menziesia ferruginea. In addition, the RNA contains an area of land slippage and snowslide erosion, common to steep topography and deep snows.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	8
Abies lasiocarpa/Streptopus amplexifolius	60
Picea engelmannii/Carex disperma	33

Land Manager: USDA Forest Service
Designation: Research Natural Area

BIRCH CREEK FEN **CDC Site # 36**

County: Lemhi and Clark

Location: Birch Creek Fen is located at the headwaters of Birch Creek in the Birch Creek Valley, approximately four miles north of Lone Pine along State Route 28.

Size (acres): 1,419 **Elevation Range (feet):** 6,378 - 6,600

Site Description: Birch Creek is located in eastern Idaho between the Lemhi Range to the west and the Beaverhead Mountains of Montana to the east. Birch Creek is fed by approximately 52 springs that emanate in the valley bottom. Birch Creek Fen is the result of the damming action of a basalt ridge, just downstream of the fen, that is oriented perpendicular to the valley. The combination of a very stable raised water table plus alkaline substrates provides habitat for many unique species and plant communities. Alkaline benches support temporarily saturated wetlands that are often dominated by Chrysothamnus nauseosus, and the graminoids Agropyron smithii, Distichlis stricta, and Elymus cinereus. Chrysothamnus covers a large area and may occupy areas that historically supported the Sarcobatus vermiculatus/Elymus cinereus community type. Grasslands are also present on the alkaline benches and are dominated by Poa juncifolia, Spartina gracilis, Muhlenbergia richardsonis, and Distichlis stricta. Adjacent swales and slightly lower microsites support stands of the Potentilla fruticosa/Deschampsia cespitosa and Juncus balticus community types. Aquatic communities are dominated by Mimulus guttatus and Rorippa nasturtium aquaticum at spring heads with Potamogeton vaginatus, Ceratophyllum demersum, and lesser amounts of Ranunculus aquatilis forming thick mats in stream channels. Emergent wetlands occur over small areas within a complex wetland mosaic with Carex simulata and Eleocharis pauciflora as the dominant community types. Carex simulata most frequently occurs adjacent to channels on highly organic soils that are saturated throughout the year. Eleocharis pauciflora communities generally occur on quaky, unstable, marl substrates. Deschampsia cespitosa was likely very widespread at Birch Creek in the past. Currently, however, only small remnant stands remain. Willows occur near the downstream end of Birch Creek Fen and are scattered along certain spring channels within the fen.

Wetland and Riparian Plant Associations and Size (in acres):

Potentilla fruticosa/Deschampsia cespitosa	100
Sarcobatus vermiculatus/Elymus cinereus	50
Deschampsia cespitosa	25
Carex simulata	50
Eleocharis pauciflorus	20
Juncus balticus	200
Muhlenbergia richardsonis	5
Poa juncifolia	100

Land Manager: Bureau of Land Management; USDA Forest Service; The Nature Conservancy; Idaho Department of Fish and Game; Private

Designation: TNC Preserve; Wildlife Refuge / Management Area; Unprotected

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CHILLY SLOUGH **CDC Site # 59**

County: Custer

Location: Chilly Slough is located in the Big Lost River drainage approximately 20 miles north of Mackay on U.S. Hwy 93. The Whiskey Springs pull-off at mile post 126 provides the primary public access to the South Unit. To access the North Unit continue five miles north on Hwy 93 from the Whiskey Springs pull-off to Mile Post 132. Watch for the graveled county road and follow the road west for two miles. Turn left at the first road junction for approximately 1/2 mile and watch for boundary signs. Park on the roadside and walk approximately 1/4 mile east to reach the wetland. Foot travel and/or canoeing is an easy way to explore this area. Boundary fences are present separating private land from BLM and IDFG land.

Size (acres): 4,200 **Elevation Range (feet):** 6,275 - 6,325

Site Description: Chilly Slough is a large, spring-fed, wet meadow-stream complex located in the Thousand Springs Valley, north of the town of Mackay, in Custer County, Idaho. The site is surrounded by the stark, rocky peaks of the Lost River Range and the White Knob Mountains.

Borah Peak, at 12,662 in elevation, is Idaho's highest point and is located just to the east of the high mountain wetland site. Numerous springs join to form Thousand Springs Creek as it flows south from its headwaters to eventually join the Big Lost River. Surface and subsurface waters support a wide zone of water-associated plants. Shallow stagnant water supports Typha latifolia and Scirpus validus. Aquatic species in the slow flowing waters of Chilly Slough include Potamogeton filiformis, Chara sp., and Hippurus montanum. The majority of the marsh is a mosaic of Carex utriculata, Carex aquatilis, and Juncus balticus on a wet-to-dry gradient. A number of alkaline wetlands occur on benches elevated one to five feet above the main marsh. The alkaline communities commonly have hummocky topography and are dominated by the shrub Sarcobatus vermiculatus, and/or the graminoids Elymus cinereus, Poa juncifolia, or Spartina gracilis. Small patches of the Muhlenbergia richardsonis, Carex simulata, and Deschampsia cespitosa communities are also present. The waters, which are clear running and have a constant temperature, are slightly alkali and rich with aquatic macro-invertebrates.

Wetland and Riparian Plant Associations and Size (in acres):

Sarcobatus vermiculatus/Elymus cinereus	200
Carex utriculata	350
Spartina gracilis	5
Deschampsia cespitosa	230
Carex aquatilis	700
Carex nebraskensis	175
Carex simulata	175
Juncus balticus	700
Typha latifolia	175
Scirpus validus	175
Muhlenbergia richardsonis	10
Poa juncifolia	100

Land Manager: Bureau of Land Management; Idaho Department of Fish and Game; Private
Designation: Research Natural Area; Area of Critical Environmental Concern; Wildlife Refuge / Management Area; Unprotected

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HOTEL CREEK **CDC Site # 352**

County: Fremont
Location: From Macks Inn, travel three and a half miles south to Kilgore-Yale Road. Continue west four miles to Mill Creek Campground Road. The site lies between Mill Creek and Jacobs Island Park Ranch roads.

Size (acres): 76 **Elevation Range (feet):** 6,330 - 6,340
Site Description: Hotel Creek is a low-gradient, meandering channel with extensive willow shrublands. Salix drummondiana appears to dominate; however, Salix boothii is locally abundant in patches. The S. boothii patches, occupying drier sites where the channel narrows and the stream is more entrenched, are classified as the Salix boothii/Poa pratensis community type; the understory associates are Poa pratensis, Phleum pratense, Potentilla fruticosa, and Fragaria virginiana. Most of the shrubland is quite wet with rivulets, open water, and a wider channel supporting the Salix drummondiana/Carex utriculata community type. Here the willows are nearly impenetrable, but there are open areas with Carex utriculata and Carex aquatilis community types, as well as open water due to active beaver dams. The northeast end of the site has stagnant, open-water habitat with the Carex utriculata, Carex aquatilis, Carex lanuginosa, and Eleocharis palustris community types.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	11
Carex aquatilis	2
Carex lanuginosa	4
Eleocharis palustris	1.5
Salix drummondiana/Carex utriculata	15

Land Manager: USDA Forest Service; Private
Designation: Unprotected

KENNEY CREEK **CDC Site # 136**

County: Lemhi
Location: Kenney Creek RNA is at the head of the Kenney Creek drainage in the Beaverhead Mountains on the west side of the Continental Divide (the ID/MT border). The area is approximately 19 air miles east-southeast of Salmon, Idaho.

Size (acres): 1,580 **Elevation Range (feet):** 7,480 - 9,604
Site Description: Kenney Creek RNA is located on the crest of the Beaverhead Mountains along the Continental Divide. Elevations in the RNA range from 7,480 to 9,604 feet and features two glaciated basins on Pre-Belt quartzite of the Yellowjacket Formation. A glacial pond occurs in western basin and the eastern basin has a series of small wetlands and wet meadows. Additional aquatic features include gentle to steep gradient streams and seep springs. Upland vegetation in Kenney Creek RNA includes at least four Pinus albicaulis habitat types, a rare Picea engelmannii habitat type, at least four Pseudotsuga menziesii habitat types, and at least two Abies lasiocarpa habitat types. A cover type of Pinus contorta was heavily infested by mountain pine beetle in the late 1930s resulting in heavy mortality.

Wetland and Riparian Plant Associations and Size (in acres):

Picea engelmannii/Carex disperma	250

Land Manager: USDA Forest Service
Designation: Research Natural Area

MEADOW CANYON **CDC Site # 484**

County: Lemhi and Butte
Location: Meadow Canyon RNA is located in the Lemhi Range, extending west from Bell Mountain. The RNA is approximately 79 miles northwest of Idaho Falls, Idaho; 70 miles west of Dubois, Idaho; or 35 miles south of Leadore, Idaho.

Size (acres): 3,880 **Elevation Range (feet):** 7,700 - 11,612
Site Description: Meadow Canyon RNA contains two of the finest alpine tundra areas found in Idaho. One area is on limestone and the other on quartzite, resulting in differences in plant communities. Contact areas between the two substrates are common in the alpine country of the RNA. The elevation in the area ranges from 7,700 feet where the boundary crosses Meadow Canyon to 11,612 feet at the top of Bell Mountain. Several unusual and rare plant species occur here. This is the only known location where the three species of columbine (Aquilegia formosa, A. flavescens, and A. coerulea) found in Idaho occur together. The area includes at least four Pseudotsuga menziesii habitat types. Stands of Pinus flexilis and Picea engelmannii occur in the area, which is unusual because of the rather dry conditions resulting from the limestone substrate and climate. An Engelmann spruce/moss type occurring in the RNA is unusual because of its limited occurrence. The northern bench is covered with a grassland community of Festuca idahoensis and Agropyron spicatum. Near the summit of Bell Mountain are alpine turf communities dominated by Carex elynoides, C. rupestris, Geum rossii, and Salix nivalis.

Wetland and Riparian Plant Associations and Size (in acres):

Carex nova	0.3

Land Manager: USDA Forest Service

Designation: Research Natural Area

MERRIAM LAKE BASIN **CDC Site # 159**

County: Custer
Location: Merriam Lake is located in the Lost River Range in the headwaters of the West Fork Pahsimeroi River, approximately 1 mile south of Borah Peak and approximately 34 air miles southeast of Challis, Idaho.

Size (acres): 740 **Elevation Range (feet):** 9,580 - 12,065
Site Description: Merriam Lake Basin RNA is an outstanding alpine basin of great diversity containing an unusual number of interesting plant species and other features. The area is composed of sedimentary and metamorphic rocks with considerable folding of strata. Some of the rocks present include limestone and dolomite, sandstone, and quartzite. There is ample evidence of alpine glaciation with the upper lake in the basin now occupying a cirque with abundant quarrying, polish, and striations. Elevations in the RNA range from 9,580 feet on the creek just above Merriam Lake, to 12,065 feet on the peak at the southwestern corner of the RNA. The vegetation encompassed in this area is mainly subalpine forests of Picea engelmannii, Abies lasiocarpa, Pinus albicaulis, and some Pinus flexilis, and various moist to dry alpine situations. Lakeshore meadows, braided streams, and alpine wet and dry meadows are present in association with snowmelt fed springs and spring creeks. A single alpine lake at approximately 10,200 feet elevation is present. An unusual situation exists on level limestone bedrock just east of the alpine lake in the basin. Here is an extensive population of Saxifraga oppositifolia with no other plant species present. This particular situation has not been observed anywhere else in Idaho but is apparently typical of some high arctic tundra of the islands north of Hudson Bay, Canada. Several rare plant species are found in the area including Cymopterus ibapensis, Cymopterus douglassii, Erigeron humilis, Gentianella propinqua, Gentianella tenella tenella, Salix farriae and Saxifraga adscendens var. oregonensis.

Wetland and Riparian Plant Associations and Size (in acres):

Juncus balticus	15
Deschampsia cespitosa/Caltha leptosepala	0.1
Carex subnigricans	0.1

Land Manager: USDA Forest Service
Designation: Research Natural Area

ROCK CREEK CIRQUE **CDC Site # 322**

County: Custer
Location: Rock Creek Cirque proposed Special Interest Botanical Area is located below the north face of Borah Peak in the central Lost River Range, approximately 17 miles northwest of Mackay.

Size (acres): 557 **Elevation Range (feet):** 9,400 - 12,662
Site Description: The Rock Creek Cirque consists of a large, glaciated basin at the head of Rock Creek on the west slope of the Lost River Range. The predominant physical feature of the Rock Creek Cirque is the nearly 2,000 foot north-facing headwall. This north face of Borah Peak, the highest point in Idaho, has a large permanent snowfield that feeds several springs at the base of the large talus slopes. Although there are no glacial lakes, it is a relatively moist cirque, as compared with others in the Lost River Range, due to the north-facing orientation and large snowfields. Elevations of the area range from approximately 9,400 feet at timberline, to 12,662 feet on Borah Peak. Much of the basin is comprised of talus and bedrock slopes that are either non- or lightly vegetated. Isolated stands of subalpine fir occur as high as 9,800 feet on ledges away from avalanche and debris flow paths. A majority of the floristic diversity of the cirque is centered around wet areas, such as seeps on cliffs, springs, rivulets, and streams. Wetland vegetation associated with these habitats not only contain the largest number of species, but also four rare

arctic-alpine disjunct species: Erigeron humilis, Parnassia kotzebuei var. kotzebuei, Saxifraga adscendens var. oregonensis, and Saxifraga cernua. A fifth rare species, Cymopterus douglassii, is endemic to the central Lost River and Lemhi ranges. The alpine communities support Salix arctica, S. nivalis, Carex subnigucans, C. elynoides, and Juncus balticus. An east-central Idaho endemic, yellow marsh marigold (Caltha leptosepala var. sulfurea), is locally dominant on lightly vegetated muck around springs.

Wetland and Riparian Plant Associations and Size (in acres):

Juncus balticus	0.1
Salix arctica/Carex subnigricans	1

Land Manager: USDA Forest Service
Designation: Unprotected

SUMMIT CREEK **CDC Site # 266**

County: Custer and Butte
Location: Summit Creek is at the headwaters of the Little Lost River Valley in the valley between the Lost River Range and Lemhi Mountains approximately 40 miles northwest of Howe, Idaho.

Size (acres): 10,000 **Elevation Range (feet):** 6,140 - 6,650
Site Description: Summit Creek is in a high elevation basin in southeastern Idaho tucked between the Lemhi Mountains to the east and the Lost River Range to the west. Summit Creek is a headwater stream of the Little Lost River. The Little Lost River is isolated from other river systems. As it reaches the lava beds near Howe, Idaho, its water disappears into subsurface flows which feed the Snake River aquifer. It is believed that in geologic history the Little Lost River flowed north into the Pahsimeroi and Salmon rivers. An uplift in the Donkey Hills area is believed to have forced the Little Lost River system to drain south, separating it from the Salmon River drainage. This connection would explain the occurrence of an isolated population of bull trout found here. The total length of Summit Creek is approximately 17 miles, beginning in springs in the Donkey Hills and continuing through a broad basin until it joins the Little Lost River. The lowest few miles of Summit Creek are not included in the site. The surrounding landscape is gently sloping valley bottom covered with low shrubs and grasses lying between rugged mountain ranges on each side. The upland community type is a sagebrush grassland with either Artemisia tripartita or Artemisia arbuscula as the overstory dominant. The most prevalent upland grasses are Festuca idahoensis and Agropyron spicatum. Many of the wetland communities are dominated by Juncus balticus, Carex nebraskensis, C. rostrata, Salix boothii, and Betula occidentalis. In addition, large areas on benches adjacent to spring creeks are hummocked and support grasslands tolerant of alkaline conditions with a mix of the following graminoids: Distichlis spicata, Spartina gracilis, Poa juncifolia, Muhlenbergia richardsonis, Carex parryana, and Carex scirpoidea. An overstory dominated by Potentilla fruticosa is sometimes present on the alkaline benches. Many of the known plant species of concern occur in or along the edges this habitat.

Wetland and Riparian Plant Associations and Size (in acres):

Potentilla fruticosa/Deschampsia cespitosa	500
Salix boothii/Carex utriculata	50
Sarcobatus vermiculatus/Elymus cinereus	500
Carex utriculata	1000
Carex nebraskensis	500
Carex simulata	200
Eleocharis pauciflorus	1
Juncus balticus	500
Muhlenbergia richardsonis	5
Poa juncifolia	1000
Potentilla fruticosa/Dry alkaline graminoid	1000

Land Manager: Bureau of Land Management; The Nature Conservancy; Idaho Department of Lands;

Private
Designation: Research Natural Area; Area of Critical Environmental Concern; TNC Preserve

TRAIL CREEK, LEMHI COUNTY **CDC Site # 716**

County: Lemhi
Location: Trail Creek is on the east side of the crest of the Lemhi Range along the upper reaches of Trail Creek, approximately 13 miles west of Lemhi, Idaho.

Size (acres): 236 **Elevation Range (feet):** 8,120 - 9,600
Site Description: Trail Creek is in an area isolated by difficult access, steep terrain, and dense stands of lodgepole pine with extensive downfall in the understory around the perimeter of the area. As a result of this isolation, the area contains undisturbed high elevation riparian, aquatic, and upland types. The Abies lasiocarpa/Calamagrostis canadensis habitat type is present in the riparian zone with two phases: Calamagrostis canadensis phase and Ledum glandulosum phase. Community types in the riparian zone are dominated by Saxifraga arguta, Carex utriculata, C. aquatilis, Calamagrostis canadensis, Salix planifolia, and Arnica longifolia. The area contains a low gradient stream and a moderate gradient stream, plus associated aquatic communities. Two climax subalpine fir habitat types occur as upland communities with understories dominated by Carex geyeri and Vaccinium scoparium. Seral stands of lodgepole pine are also present. A small inclusion of Artemisia tridentata/Festuca idahoensis occurs on the south slope of Peak 8881 along the northern boundary of the area. Agoseris lackschewitzii, a BLM Sensitive plant species, occurs in the Arnica longifolia and sedge-dominated community types.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	Undetermined
Abies lasiocarpa/Streptopus amplexifolius	5
Salix planifolia monica/Carex aquatilis-Carex utri	10
Carex utriculata	2
Carex aquatilis	2
Arnica longifolia	3

Land Manager: Bureau of Land Management
Designation: Research Natural Area

WEST FORK PAHSIMEROI RIVER HEADWATERS CDC Site # 420

County: Custer
Location: West Fork Pahsimeroi River is on the east side of the Lost River Range below Leatherman Pass and Pass Lake. A high quality hiking trail (FS Trail 089) leads from the end of West Fork Pahsimeroi Road for three miles to the site.

Size (acres): 391 **Elevation Range (feet):** 9,200 - 10,200
Site Description: The West Fork Pahsimeroi River Headwaters are in a cirque basin with three major meadows at different levels. The gently sloping meadows are fed by melting snow, groundwater, and springs emanating from talus and moraines. High ridges and peaks (12,000' plus) surround the cirque on the east, south, and west. Xeric grasslands and Pinus flexilis/P. albicaulis woodlands surround the meadows. Meadows are dominated by the low willows Salix brachycarpa, S. farriae, and S. planifolia, and the graminoids Juncus balticus, Deschampsia cespitosa, Carex aquatilis, C. utriculata, and C. elynoides.

Wetland and Riparian Plant Associations and Size (in acres):

Potentilla fruticosa/Deschampsia cespitosa	10
Salix planifolia/Carex aquatilis	0.1
Carex aquatilis	2
Juncus balticus	2
Deschampsia cespitosa/Caltha leptosepala	0.1

Land Manager: USDA Forest Service
Designation: Unprotected

WILLOW CREEK HEADWATERS **CDC Site # 356**

County: Fremont
Location: approximately three and a half miles south of Macks Inn on Hwy 20, turn west on Kilgore-Yale Road. Travel approximately 11.5 miles to the road at Willow Creek (USFS Road 046). Take this road northward; the site lies to the west of the road and northward beyond the ridge separating Willow and Meyers creeks.

Size (acres): 286 **Elevation Range (feet):** 6,635 - 6,900
Site Description: Willow Creek includes high-to-low gradient reaches of Willow and Meyers Creeks. Upper reaches of both streams are fairly straight, high-gradient reaches with conifer/mesic forb communities on the first surface. Channel overflow and avulsion are evident. Wetter microsites support the Picea engelmannii/Equisetum arvense community type. Downstream, Meyers and Willow creek valleys join creating an extensive shrubland. Former beaver ponds are filled in with sediments, and the Salix boothii/Carex utriculata community type is dominant with lesser amounts of the Salix geyeriana/Equisetum arvense community. Pockets of pure Calamagrostis canadensis are locally dominant. Uplands are forested with Picea engelmannii and some Abies lasiocarpa. Forest openings have forbs, such as Geranium richardsonii, Lupinus sp., Melica spectabilis, and Carex sp.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Streptopus amplexifolius	14
Picea engelmannii/Equisetum arvense	29
Salix boothii/Carex utriculata	114
Salix boothii/Equisetum arvense	57
Calamagrostis canadensis	10
Carex utriculata	29

Land Manager: USDA Forest Service
Designation: Unprotected

AQUARIUS — CDC Site # 18

County: Clearwater
Location: Aquarius RNA is located along the North Fork Clearwater River at the upper end of Dworshak Reservoir. The RNA is accessible by sedan during the summer months from U.S. Route 12 at Greer. Go eastward and then northward on State Route 11 for 43 miles to Headquarters. Continue north from Headquarters on the Beaver Creek Road (FS road 247) for approximately 23 miles to where it intersects the North Fork Clearwater River at the mouth of Beaver Creek. The RNA lies downriver (west) of this point.

Size (acres): 3,900 **Elevation Range (feet):** 1,600 - 3,995
Site Description: Aquarius RNA is in a low elevation canyon characterized by relatively warm temperatures and high precipitation. This combination of climatic factors, which is rather unusual in the Northern Rocky Mountains, is responsible for the extraordinary assemblage of disjunct and endemic plant and animal taxa and unique vegetation types found in the area. Prior to construction of the Dworshak Reservoir, many of these rare species and communities occurred extensively in the lower portions of the North Fork Clearwater River canyon. Aquarius RNA encompasses a cross-section of the canyon above the reservoir and protects the best remaining example of this special ecosystem. The RNA includes almost two miles of the North Fork Clearwater River, the last free-flowing, unroaded stretch from its mouth almost to the headwaters. Several aquatic types are found in the area, including first to fifth order streams, rivers, and waterfalls. Elevations in the area range from ,1600 feet at the normal pool elevation of Dworshak Reservoir, to 3,995 feet on the summit of Thompson Point. The area contains the best remaining Alnus rubra habitats, including the largest stand east of the Cascade-Sierra axis. A high diversity of ferns is present, including approximately half of the species native to Idaho. The Thuja plicata/Adiantum pedatum habitat type occurs in well-developed stands in the RNA. This association normally occurs in small patches. The best remaining example of river terrace habitats for the rare Thuja plicata/Dryopteris spp. association in the world also occurs here. Other unique features of the area include the presence of the Coeur d'Alene salamander (Plethodon idahoensis), an endemic amphibian; rare and endemic terrestrial invertebrates; uncommon aquatic insects; a rare saprophytic moss not previously reported from Idaho; and two species of lichens that show coastal affinities. A total of 11 rare vascular plant species occur within the RNA, including Carex hendersonii, Cypripedium fasciculatum, Trientalis latifolia, and Cardamine constancei.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Adiantum pedatum	1310
Thuja plicata/Athyrium filix femina	69
Thuja plicata/Clintonia uniflora	404
Thuja plicata/Lysichitum americanum	11
Thuja plicata/Oplopanax horridum	48

Land Manager: USDA Forest Service
Designation: Research Natural Area

BULL RUN CREEK — CDC Site # 46

County: Clearwater
Location: Bull Run Creek is located approximately one mile upstream from the confluence of Bull Run Creek with Elk Creek, a tributary to Dworshak Reservoir on the North Fork Clearwater River in northern Idaho. Bull Run Creek is 54 road miles east of Moscow, Idaho.

Size (acres): 373 **Elevation Range (feet):** 2,190 - 2,940

Site Description: Bull Run Creek is located on Tick Ridge, a plateau-like ridge, and includes the steep stream breaklands to the east, south, and west. Elevations in the site vary from 2,190 feet at the point where Bull Run Creek flows from the site to 2,940 feet on Tick Ridge at the northern boundary and on a knoll in the south-central part of the area. The site contains a range of plant communities growing on soils derived from basalt, with additions of loess and volcanic ash. The site is the only RNA in the Northern Region containing Thuja plicata plant associations on basalt. The area is excellent for studying the effects of soil characteristics and topographic influences on the occurrence of mid- and late-seral plant communities. Although precipitation is adequate to grow mesic plant species such as Thuja plicata, thin soils and severe aspects reduce the vegetation potential in parts of the site to Abies grandis, Pseudotsuga menziesii, and grassland habitat types. Bull Run Creek is located on the upper fringe of an area of moderate temperatures and high precipitation that once supported many coastal disjunct species. Much of the suitable country for these species was destroyed by the creation of Dworshak Reservoir. The site contains several coastal disjunct species including Adiantum pedatum, Dodecatheon dentatum, Symphoricarpos mollis var. hesperius, and Veratrum californicum var. caudatum. Bull Run Creek is a moderately steep gradient stream with many rapids and riffle pools. Two permanent ponds are located in the southeastern corner of the site.

Wetland and Riparian Plant Associations and Size (in acres):
Undetermined

Land Manager: USDA Forest Service
Designation: Research Natural Area

CHATEAU FALLS **CDC Site # 299**

County: Clearwater
Location: Chateau Falls RNA is located approximately 38 miles northeast of Pierce, Idaho. The RNA is along the North Fork Clearwater River, approximately six miles north-northwest (downstream) of Bungalow Ranger Station.

Size (acres): 200 **Elevation Range (feet):** 2,200 - 3,880
Site Description: Chateau Falls RNA is located in steep mountainous country underlain by granitic rock. Elevations in the RNA range from 2,200 feet to 3,880 feet. The area contains ravines, cliffs, and rock formations which are difficult to traverse. The primary features of the RNA are waterfalls on Chateau Creek, which runs through the area. Open grasslands and shrublands occur on southwest-facing slopes. The higher portions of these slopes are occupied by mixed, rather open stands primarily of Pseudotsuga menziesii with some Pinus ponderosa. The north and northwest-facing slopes of the area support dense stands dominated by Pseudotsuga menziesii, but in places Abies grandis dominates. The forests in the RNA burned in the catastrophic wildfire of 1919 and possibly again in 1929 or 1931. The area contains important winter habitat for deer and elk due to its low elevation and southern exposures.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Adiantum pedatum	5
Alnus incana/Athyrium filix femina	0.1

Land Manager: USDA Forest Service
Designation: Research Natural Area

FOUR-BIT CREEK **CDC Site # 98**

County: Idaho
Location: Four-bit Creek RNA is located in the upper Lolo Creek basin in the Clearwater Mountains of northern Idaho. The RNA is approximately 32 miles east of Kamiah, Idaho.

Size (acres): 392 **Elevation Range (feet):** 3,540 - 4,240

Site Description: Four-bit Creek RNA is representative of the most productive forest land in the Northern Rocky Mountains. The RNA contains Thuja plicata habitat types occupied by mixed species in an advanced stage of succession but not yet climax except for limited areas. Tree species present include Pinus monticola, occasional Pinus ponderosa, Abies grandis, Thuja plicata, Larix occidentalis, Pseudotsga menziesii, Picea engelmannii, and Abies lasiocarpa. Elevations in the RNA range from 3,540 feet on Eldorado Creek at the northwestern corner of the RNA to 4,240 feet at the southeastern corner of the RNA. The Lewis and Clark National Historic Trail and the Lolo Trail traverse near the northern side of Eldorado Creek, which is the northern boundary of the RNA.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Adiantum pedatum	55
Thuja plicata/Gymnocarpium dryopteris	15

Land Manager: USDA Forest Service
Designation: Research Natural Area

HIDDEN LAKE **CDC Site # 301**

County: Kootenai
Location: From Coeur d'Alene, IdahoD travel east on Interstate 90 and cross 4th of July Summit. Several miles past the summit take the Rose Lake exit (Hwy 3). Travel south on Hwy 3 approximately eight miles to Killarney Lake Road. Take this road to the west to the Killarney Lake boat launch. Access to Hidden Lake is through a series of channels that must be navigated by canoe. Hidden Lake is approximately two miles southwest of Killarney Lake.

Size (acres): 395 **Elevation Range (feet):** 2,110 - 2,400

Site Description: Three high-priority Panhandle peatlands are found in the Lower Coeur d'Alene River drainage: Rose Lake, Hidden Lake, and Thompson Lake. All are similar with extensive floating and fixed mats along the lake margins covered by a mosaic of: 1) Sphagnum-dominated poor fens with signicant amounts of Vaccinium macrocarpon, 2) Sphagnum spp./Carex lasiocarpa/Spiraea douglasii-dominated intermediate fen, 3) rich fen-dominated by Typha latifolia Carex spp., Potentilla palustris, Eleocharis palustris, and Equisetum fluviatile, and 4) rich and intermediate fen shrub carrs characterized by Spiraea douglasii, Alnus sp., Salix geyeriana, Pinus contorta, and Betula occidentalis with ahd without Sphagnum spp.-covered substrate. All of these fen communities grade freely into one another and support many species, including Carex lasiocarpa, C. muricata, C. utriculata, C. canescens, Dulichium arundinaceum, Drosera rotundifolia, Impatiens aurella, Sagitaria latifolia, Agrostis scabra, Sphagnum subsecundum, S. centrale, S. teres, S. angustifolium, Calliergon stramineum, and Aulocomnium palustre. The poor fen community on the south side of Hidden Lake is unique in that it is dominated by Vaccinium macrocarpon (cranberry), which was apparently introduced in the 1930s by the landowner. An extensive wild rice (Zizania palustris)-dominated emergent marsh is found in the area between Killarney Lake and Hidden Lake. Shallow littoral aquatic communities in the lake are dominated by Nuphar polysepalum, Brasenia schreberi, Ceratophyllum demersum, Equisetum fluviatile, Myriophyllum sibericum, Potamogeton natans, and Elodea canadensis. Deeper littoral zones (1.5-2.0 meters) are dominated by Potamogeton amplifolius, Elodea canadensis, and Myriophyllum sibericum.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	20
Carex utriculata	20
Carex lasiocarpa	20
Nuphar polysepalum	28
Typha latifolia	40
Poor fen	20

Land Manager: Idaho Department of Fish and Game; Private
Designation: Wildlife Refuge / Management Area; Unprotected

HOBO CEDAR GROVE **CDC Site # 492**

County: Shoshone
Location: The Hobo Cedar Grove Botanical Area is located on the West Fork Hobo Creek, in the Marble Creek drainage of the St. Joe National Forest, approximately 42 miles southeast of St. Maries, Idaho, or approximately 12 miles northeast of Clarkia, Idaho.

Size (acres): 240 **Elevation Range (feet):** 3,920 - 4,520
Site Description: Hobo Cedar Grove Botanical Area contains a grove of old-growth Thuja plicata in pristine condition. Individual trees reach up to five to eight feet dbh. Minor amounts of Abies grandis, Pinus monticola, and Tsuga heterophylla also occur in the grove. Elevations in the area range from 3,920 feet where the West Fork Hobo Creek leaves the area to approximately 4,520 feet.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Athyrium filix femina	Undetermined

Land Manager: USDA Forest Service
Designation: Special Interest Area; National Natural Landmark

MONTFORD CREEK **CDC Site # 161**

County: Kootenai
Location: Montford Creek RNA is located in the North Fork Coeur d'Alene River drainage in the Idaho Panhandle, approximately 20 road miles east of Coeur d'Alene at the confluence of Montford Creek with Deception Creek.

Size (acres): 292 **Elevation Range (feet):** 3,050 - 4,400
Site Description: Montford Creek RNA is a typical small drainage on the Coeur d'Alene National Forest. The RNA contains Montford Creek, a small, perennial, riffle-pool, spring-fed stream. Ridges, V-shaped valleys, and steep-to-moderate mountain slopes characterize the topography of the area. Elevations in the RNA range from 3,050 feet at Deception Creek to 4,400 feet in the southwest corner of the RNA. The area is underlain by Precambrian sediments. All of Montford Creek RNA is forested with old-growth stands made up of relatively pure stands or various mixtures of Tsuga heterophylla, Abies grandis, Pinus monticola, Larix occidentalis, Pseudotsuga menziesii, an occasional Picea engelmannii, and Abies lasiocarpa. Western hemlock is potentially the climax tree species over almost all of the RNA. At least five habitat types and additional phases within these types are represented. Understory shrub, forb, grass-like, and grass vegetation is rich and diverse. The RNA was originally established for its climax western white pine stands. During the 1970s there occurred a very heavy mortality of the species due to infestation by the mountain pine beetle (Dendroctonus ponderosae) and white pine blister rust (Cronartium ribicola). Today very little western white pine remains.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Athyrium filix femina	1
Thuja plicata/Oplopanax horridum	40
Tsuga heterophylla/Gymnocarpium dryopteris	60

Land Manager: USDA Forest Service
Designation: Research Natural Area

MORRIS CREEK OLD GROWTH CEDAR GROVE CDC Site # 332

County: Clearwater
Location: Morris Creek Old Growth Cedar Grove is located along Morris Creek, a tributary to Elk Creek in the North Fork Clearwater River drainage, roughly 11 miles north-northwest of the town of Elk River, Idaho.

Size (acres): 33 **Elevation Range (feet):** 4,100 - 4,360
Site Description: Morris Creek Old Growth Cedar Grove occurs on mostly gentle, north facing slopes on a low ridge above the headwaters of Morris Creek, and extends over the ridge to a westerly aspect. Site consists of uniformly old growth cedar occurring in Thuja plicata/Gymnocarpium dryopteris, T. plicata/Athyrium filix-femina, and T. plicata/Asarum caudatum habitat types, with several Alnus sinuata inclusions. The understory is dominated by Athyrium filix-femina, Menziesia ferruginea, and Taxus brevifolia. Regeneration is sparse. Cedar trees are generally 4-6' dbh with a few trees up to 10-12' dbh. The surrounding country was cut over in the first half of this century, prior to being turned over to the Forest Service. The old growth western red cedar stand was not logged then due to its low value at the time. Many larger cedars show signs of past fire; evidence of earlier seral trees are all but gone (a few snags remain). There is also some blowdown.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Athyrium filix femina	16
Thuja plicata/Gymnocarpium dryopteris	16

Land Manager: USDA Forest Service
Designation: Special Interest Area

RHODES PEAK CDC Site # 330

County: Clearwater
Location: Rhodes Peak is located in the Bitterroot Mountains of eastern north Idaho, approximately 2 miles south of the Idaho/Montana border and approximately 12 air miles north-northwest of Powell Ranger Station on the Lochsa River.

Size (acres): 310 **Elevation Range (feet):** 6,440 - 7,930
Site Description: Rhodes Peak is near the crest of the Bitterroot Range and encompasses high elevation habitats around the summit of Rhodes Peak, one of the highest summits in northern Idaho. Elevations range from 6,440 at the northern boundary to 7,930 feet on Rhodes Peak. A small cirque basin northeast of the peak supports subalpine turf communities of Carex scopulorum, Carex nigricans, Phyllodoce empetriformis, and Juncus parryi. Stunted, open subalpine forests dominated by Pinus albicaulis and Abies lasiocarpa extend nearly to the summit on the west face of Rhodes Peak. Much of the area in and around the site burned one or more times in the first half of this century.

Wetland and Riparian Plant Associations and Size (in acres):

Carex nigricans	10
Carex scopulorum	5

Land Manager: USDA Forest Service
Designation: Unprotected

ROSE LAKE CDC Site # 56

County: Kootenai
Location: From Coeur d'Alene, Idaho travel east on Interstate 90, cross 4th of July Summit.

Several miles past the summit take the Rose Lake exit (Hwy 3). Travel south on Hwy 3 approximately three miles to the Rose Lake Sportsman's Access (boat launch) on the east side of Rose Lake. From the boat launch you can access the fen communities to the south, along the east side of the lake, by foot. Access to fen communities on the south and west sides of the lake and to most of the aquatic communities is by boat.

Size (acres): 1,535 **Elevation Range (feet):** 2,122 - 2,280

Site Description: Three high-priority Panhandle peatlands are found in the Coeur d'Alene River drainage: Rose Lake, Hidden Lake, and Thompson Lake. All are similar with extensive floating and fixed mats along the lake margins covered by a mosaic of: 1) Sphagnum-dominated poor fens (the least extensive community), 2) Sphagnum spp./Carex lasiocarpa/Spiraea douglasii-dominated intermediate fen, 3) rich fen dominated by Typha latifolia, Carex lasiocarpa, Carex utriculata, Potentilla palustris, and Eleocharis palustris, and 4) rich and intermediate fen shrub carrs and shrub swamps supporting Spiraea douglasii, Alnus sp., Salix geyeriana, S. bebbiana, S, lutea, Pinus contorta, and Betula occidentalis with and without Sphagnum spp.-covered substrate. Characteristic species include Carex lasiocarpa, C. muricata, C. utriculata, C. canescens, Dulichium arundinaceum, Drosera rotundifolia, Impatiens aurella, Agrostis scabra, Sphagnum subsecundum, S. centrale, S. teres, S. angustifolium, Calliergon stramineum, and Aulocomnium palustre are found in all of the communities. Abundant marsh vegetation dominated by Sparganium emersum, Carex vesicaria, and Phalaris arundinacea are found on the northern margins of Rose Lake and around much of Porters Lake, to the west of Rose Lake, which is part of the Rose Lake wetland complex. Shallow littoral aquatic communities in the lake are dominated by Nuphar polysepalum, Brasenia schreberi, Ceratophyllum demersum, Myriophyllum sibericum, Potamogeton natans, P. robbinsii, and Elodea canadensis. Deeper littoral and limnetic zones (1.5-3.0 meters) are dominated by Potamogeton amplifolius, P. praelongus, Elodea canadensis, and Myriophyllum sibericum.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	20
Carex utriculata	20
Carex lasiocarpa	10
Nuphar polysepalum	40
Typha latifolia	20
Poor fen	3

Land Manager: USDA Forest Service; Idaho Department of Fish and Game; Private
Designation: Unprotected

SETTLER'S GROVE OF ANCIENT CEDARS **CDC Site # 461**

County: Shoshone
Location: The Settler's Grove of Ancient Cedars Botanical Area is located at the confluence of Cottonwood Creek and the West Fork Eagle Creek in the Coeur d'Alene River drainage, near the Idaho/Montana border. The grove is accessible via FS Road 805, approximately five miles northeast of Eagle and approximately nine miles northeast of Pritchard, Idaho.

Size (acres): 184 **Elevation Range (feet):** 3,280 - 4,500

Site Description: Settler's Grove of Ancient Cedars Botanical Area is dominated by old-growth Thuja plicata trees, some of which are up to 30 feet in circumference. Pinus monticola, Picea engelmannii, Abies grandis, and Tsuga heterophylla are associated with the cedars; the understory consists of Acer glabrum, Pteridium aquilinum, Oplopanax horridum, and Asarum caudatum. Elevations in the area range from approximately 3,280 feet to approximately 4,500 feet on the slope west of the creek.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Clintonia uniflora	Undetermined
Thuja plicata/Oplopanax horridum	Undetermined

Land Manager: USDA Forest Service
Designation: Special Interest Area

SPION KOP **CDC Site # 227**

County: Shoshone
Location: Spion Kop is located along the Coeur d'Alene River, approximately 46 miles northeast of the Kingston Interchange on U.S. Interstate 90, or approximately 21 miles northwest of Prichard.

Size (acres): 465 **Elevation Range (feet):** 2,755 - 3,490
Site Description: Spion Kop Research Natural Area is located on the floodplain of the Coeur d'Alene River and contains a section of the river that is undisturbed by man. Channels of the river and Tepee Creek, a large tributary, have changed over the years due to flooding, resulting in a number of dry channels and sloughs. Some of the sloughs, supplied with water from small side streams, have been dammed by beavers, resulting in ponds and small marshes. Elevations in the area range from 2755 feet to 3490 feet. The RNA contains stands and scattered individual trees of Populus trichocarpa. Various age classes for the black cottonwood are present, including a former record specimen for the state with a d.b.h. of 60.5 inches and height of 150 feet. The area was severly burned in the Independence Creek Fire of 1931, although most of the valley bottom escaped due to moist conditions. Stands of mixed coniferous species on the slopes adjacent to the valley bottom originated after the 1931 fire. The slopes are primarily potential Tsuga heterophylla climax; Pinus monticola, Larix occidentalis, Pseudotsuga menziesii, Pinus contorta, planted Pinus ponderosa, Abies grandis, Tsuga heterophylla, Thuja plicata, Abies lasiocarpa, and Picea engelmannii occur in various mixtures. Western white pine planted in the mid-1930's once dominated many of the slopes, but white pine blister rust (Cronartium ribicola) has decimated the trees with the result that other native species that seeded in naturally dominate the stands.

Wetland and Riparian Plant Associations and Size (in acres):

Populus trichocarpa/Cornus stolonifera	85
Phalaris arundinacea	15

Land Manager: USDA Forest Service; Private
Designation: Research Natural Area

STEEP LAKES **CDC Site # 237**

County: Clearwater
Location: Steep Lakes RNA is located in the Bitterroot Mountains on the Idaho/Montana border, approximately 120 miles northeast of Orofino, Idaho, or 40 miles south of Superior, Montana.

Size (acres): 784 **Elevation Range (feet):** 5,750 - 7,290
Site Description: Steep Lakes RNA is a high elevation, alpine glaciated, mountainous benchmark site of Precambrian Belt quartzite and argillite rocks located on the backbone of the Bitterroot Mountains. Elevations in the RNA vary from 5,750 feet at the point where the stream from South Basin leaves the RNA to 7,290 feet on the Idaho/Montana border at the head of Steep Lakes Basin. The RNA contains two drainage basins: Steep Lakes Basin and South Basin. The basins have different fire histories. Steep Lakes Basin was burned in 1910 resulting in a sparse tree cover. South Basin did not burn in 1910 and is covered with older stands of greater density. Steep Lakes Basin contains two subalpine lakes, Lower Steep Lake and Upper Steep Lake, which have nearly identical chemical and physical conditions. Both lakes have high alkalinity levels for northern Idaho. A freshwater shrimp (Gammarus lacustris) is abundant in Upper Steep Lake, but is nearly absent in the lower lake. California golden trout (Salmo aguabonito) were planted in Lower Steep Lake in 1962 and have been successful since. Upper Steep Lake has no fish. This situation provides an opportunity to study effects of predation on the composition and density of invertebrate

populations in the two lakes. The RNA contains four Abies lasiocarpa habitat types and three Tsuga mertensiana habitat types, plus Alnus sinuata communities.

Wetland and Riparian Plant Associations and Size (in acres):

Alnus sinuata	30

Land Manager: USDA Forest Service
Designation: Research Natural Area

THERIAULT LAKE **CDC Site # 250**

County: Shoshone
Location: Theriault Lake RNA is located in the St. Joe River drainage of northern Idaho, at the headwaters of a tributary to Marble Creek. The RNA lies in the cirque basin on the north side of Marble Mountain.

Size (acres): 120 **Elevation Range (feet):** 5,700 - 6,500
Site Description: Theriault Lake RNA consists of a small lake surrounded by Tsuga mertensiana forests within four habitat types. Old growth forests in the RNA are predominantly mountain hemlock, but also contain Abies lasiocarpa and Picea engelmannii. Adjacent to the lake are two meadows, one at the inlet of the lake and the other at the oulet, each dominated by a different species of Carex. Elevations in the RNA range from 5,700 feet where the boundary crosses the stream draining Theriault Lake to 6,500 feet on the northwestern high point on Marble Mountain.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	1.5
Carex aquatilis	1.5

Land Manager: USDA Forest Service
Designation: Research Natural Area

THOMPSON LAKE **CDC Site # 317**

County: Kootenai
Location: From Harrison, Idaho travel north on U.S. Hwy 97 one mile. Just after crossing the Coeur d'Alene River take a right on the Blue Lake Road. Follow the road approximately three miles to Thompson Lake, which will be on the north side of the road. It can be accessed via boat by landing at the Coeur d'Alene River boat launch adjacent to the lake. A navigable channel will take you from the boat launch into Thompson Lake.

Size (acres): 665 **Elevation Range (feet):** 2,080 - 2,160
Site Description: Three high-priority Panhandle peatlands are found in the Lower Coeur d'Alene River drainage: Rose Lake, Hidden Lake, and Thompson Lake. All are similar with extensive floating and fixed mats along the lake margins covered by a mosaic of: 1) Sphagnum-dominated poor fens (the least extensive community), 2) Sphagnum spp./Carex lasiocarpa/Spiraea douglasii dominated intermediate fen, 3) rich fen dominated by Typha latifolia Carex utriculata, Potentilla palustris, Eleocharis palustris, and Equisetum fluviatile, and 4) rich and intermediate fen shrub carrs characterized by Spiraea douglasii, with scattered Alnus sp., Salix geyeriana, Pinus contorta, P. monticola, Betula occidentalis with and without Sphagnum spp. (mostly S. centrale)-covered substrate. All of these fen communities grade freely into one another as well and many species, including Carex lasiocarpa, C. muricata, C. utriculata, C. canescens, Dulichium arundinaceum, Drosera rotundifolia, Impatiens aurella, Agrostis scabra, Sphagnum subsecundum, S. centrale, S. teres, S. angustifolium, Calliergon stramineum, and Aulocomnium palustre are found in all of the communities. Extensive marsh communities are also found on the margins of Thompson Lake. These marsh habitats are dominated by Sparganium eurycarpum, Sagittaria latifolia, Carex

vesicaria, Equisetum fluviatile, Eleocharis palustris, Scirpus acutus, Glyceria borealis, Bidens cernua, and Polygonum hydropiperoides. Two rare species, Epilobium palustre (swamp willow-weed) and Ludwigia polycarpa (many-fruit false loosestrife), are found in the fen and marsh habitats at Thompson Lake. Shallow littoral aquatic communities in the lake are dominated by Nuphar polysepalum, Brasenia schreberi, Ceratophyllum demersum, Myriophyllum sibericum, Potamogeton natans, P. epihydrus, Ranunculus aquatilis, and Elodea canadensis. Deeper littoral and limnetic zones (1.5-2.5 meters) are dominated by Potamogeton amplifolius, P. zosteriformis, P. richardsonis, Elodea canadensis, Myriophyllum sibericum, and the rare Vallisneria americana (water celery).

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	30
Carex utriculata	10
Carex lasiocarpa	10
Nuphar polysepalum	10
Typha latifolia	10
Poor fen	10

Land Manager: USDA Forest Service; Bureau of Land Management; Private
Designation: Unprotected

UPPER FISHHOOK **CDC Site # 441**

County: Shoshone
Location: Upper Fishhook Research Natural Area is located at the head of the East Fork Fishhook Creek in the St. Joe River drainage. The RNA is at the base of Roundtop Mountain on the northwest side, approximately 15 miles south of Avery, Idaho.

Size (acres): 320 **Elevation Range (feet):** 4,280 - 4,880
Site Description: Upper Fishhook RNA is located in the upper basin of the East Fork Fishhook Creek. The area occurs on granitics of the Idaho Batholith and is characterized by broken, rolling topography, rushing streams, beaver ponds, and fens. Elevations in the RNA range from 4,280 feet on the northern boundary where the East Fork Fishhook Creek leaves the RNA to 4,880 feet on the southern boundary. The RNA contains one of the few remaining areas of climax Thuja plicata in the St. Joe River drainage. The cedars are greater than 200 years old, averaging four feet dbh, with several trees greater than seven feet dbh. Mature Pinus monticola, Larix occidentalis, Pseudotsuga menziesii, and Abies grandis occur with Thuja plicata toward the south edge of the area. The western white pine have a high incidence of heart rot and white pine blister rust (Cronartium ribicola).

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Athyrium filix femina	36.7
Thuja plicata/Clintonia uniflora	210
Thuja plicata/Gymnocarpium dryopteris	36.7

Land Manager: USDA Forest Service
Designation: Research Natural Area

UPPER HEMLOCK CREEK PRNA **CDC Site # 247**

County: Idaho
Location: Upper Hemlock Creek is located in the vicinity of Lean to Ridge, Clearwater National Forest, Idaho County, Idaho.

Size (acres): 1,945 **Elevation Range (feet):** 4,440 - 5,492
Site Description: Upper Hemlock Creek is a baseline site that represents mid-sized montane streams of moderate gradient. The site also provides a suitable reference to compare with aquatic areas

affected during 1995 landslides occurring on other parts of the Clearwater National Forest. Features of Upper Hemlock Creek potential RNA include Upper Hemlock Creek (third order stream), a number of first and second order streams, and a short stretch of a fourth-order stream. Landforms within the site include floodplains and recent terraces, moderate relief rolling uplands and stringer meadows. Forest community types present are Tsuga mertensiana/Streptopus amplexifolius-Menziesia ferruginea, T. mertensia/M. ferruginea-Xerophyllum tenax, Abies lasiocarpa/M. ferruginea, Abies lasiocarpa/Clintonia uniflora-X. tenax; non-forested types are Calamagrostis canadensis and Carex aquatilis. There is a high percentage of macroinvertebrates within Hemlock and Zoe creeks, which is indicative of high biological diversity. Two uncommon caddisflies occur in the streams. The drainage supports several special status fish species as well.

Wetland and Riparian Plant Associations and Size (in acres):

Calamagrostis canadensis	Undetermined
Carex aquatilis	Undetermined

Land Manager: USDA Forest Service
Designation: Research Natural Area

UPPER SHOSHONE CREEK **CDC Site # 265**

County: Shoshone
Location: Upper Shoshone Creek RNA is located on the Idaho/Montana border, north and west of Ulm Peak, and approximately 45.5 road miles northeast of U.S. Interstate 90 at Kingston, Idaho.

Size (acres): 1,407 **Elevation Range (feet):** 3,618 - 6,444
Site Description: Upper Shoshone Creek RNA encompasses an undisturbed watershed in the upper Shoshone Creek drainage on the crest of the Bitterroot Range. The RNA contains a diversity of aquatic features including a moderate to steep gradient stream with a waterfall and cold springs. Elevations range from 3,618 feet where the creek exits the RNA to 6,444 feet on Ulm Peak. Both Tsuga heterophylla and Tsuga mertensiana habitat types occur in the area, including old-growth stands of each. Two undescribed western hemlock dominated communities occur on wet sites: Tsuga heterophylla/Oplopanax horridum and Tsuga heterophylla/Athyrium filix-femina. The RNA contains two undescribed Taxus brevifolia phases of dryer western hemlock types on lower north slopes and two Abies lasiocarpa habitat types. Also included is a subalpine bald dominated by Festuca viridula, Carex geyeri, and Agropyron spicatum.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Oplopanax horridum	56
Tsuga heterophylla/Gymnocarpium dryopteris	56

Land Manager: USDA Forest Service
Designation: Research Natural Area

GARDEN CREEK **CDC Site # 3**

County: Nez Perce
Location: The property lies 27 miles south of Lewiston and is reached via a series of paved and unpaved county roads, or by jetboat up the Snake River. It is located directly across the Snake River from the Oregon/Washington border approximately six miles upstream from the confluence of the Grande Ronde.

Size (acres): 10,000 **Elevation Range (feet):** 900 - 5,200
Site Description: The tract is a 7,683-acre area in the Snake River Canyon of north central Idaho. The topography is rugged; elevation ranges from 900 feet on the Snake River to 5,200 feet at the top of Craig Mountain, a vertical span of 4,300 feet. The property encompasses most of the Corral Creek and China Garden Creek drainages and includes a mosaic of grasslands, shrublands, conifer forests and riparian forests.

Wetland and Riparian Plant Associations and Size (in acres):

Alnus rhombifolia/Betula occidentalis	6.6
Alnus rhombifolia/Philadelphus lewisii	Undetermined

Land Manager: The Nature Conservancy
Designation: TNC Preserve

GOODRICH CREEK **CDC Site # 107**

County: Adams
Location: Goodrich Creek RNA is approximately nine air miles northeast of Cambridge, Idaho. From Cambridge, take the Goodrich Road (which begins on U.S. Hwy 95 approximately one mile east of Cambridge) for several miles to Goodrich (townsite). Proceed along Goodrich Creek Road for approximately two and a half miles and park where the road crosses the creek. The RNA extends north and east from this point.

Size (acres): 440 **Elevation Range (feet):** 3,120 - 3,867
Site Description: Goodrich Creek supports riparian woodlands, a steep hillside of Purshia tridentata/Agropyron spicatum habitat type, and a ridgeline with a mosaic of Eriogonum scablands and tall shrub types. The RNA burned in August 1986 and is being monitored for success of artificial and natural vegetation regeneration. There was high mortality of the bitterbrush and it is regenerating poorly. There is, however, a good cover of bluebunch wheatgrass and little evidence of serious weed invasions. The riparian zone is dominated by black cottonwood and water birch communities that were nearly completely burned in 1986. All woody riparian species appeared to be regenerating well during visits to the site in late 1986, 1990, and 1997.

Wetland and Riparian Plant Associations and Size (in acres):

Populus trichocarpa/Symphoricarpos albus	4
Betula occidentalis/Mesic forb	2
Populus trichocarpa/Salix lasiandra	5

Land Manager: Bureau of Land Management
Designation: Research Natural Area

HIXON SHARPTAIL **CDC Site # 123**

County: Washington
Location: The Hixon Sharptail area is approximately 15 miles north of Weiser, Idaho. It can be

reached from U.S. Hwy 95 by heading north on the Upper Mann Creek Road for approximately six miles. This road bisects the site. Southeastern portions of the site can be reached via the Deer Creek road, a spur off the Mann Creek Road, and proceeding along a series of unpaved and four-wheel drive roads. The Fairchild Reservoir area can be accessed via a 4-wheel drive road that leads off the Mann Creek Road directly to the reservoir.

Size (acres): 27,740 **Elevation Range (feet):** 3,100 - 5,400
Site Description: The Hixon Sharptail area is dominated by sagebrush-steppe vegetation, although scabland, mountain shrub, and grassland habitats are also common. Forest habitats occur on northerly aspects at higher elevations, and riparian vegetation is associated with most watercourses. The area is characterized by rolling, broken terrain dissected by several minor to larger-sized drainages such as Mann, Sage, and Keithly creeks. Steep topography is associated with slopes descending the broad ridges to the drainage bottoms.

Wetland and Riparian Plant Associations and Size (in acres):

Crataegus douglasii/Rosa woodsii	1
Alnus incana/Cornus stolonifera	35
Salix lasiolepis	17
Scirpus pallidus	0.2
Alnus rhombifolia/Cornus stolonifera	20

Land Manager: Bureau of Land Management; The Nature Conservancy
Designation: Area of Critical Environmental Concern; Research Natural Area; TNC Preserve

LITTLE GRANITE CREEK **CDC Site # 144**

County: Idaho
Location: Little Granite Creek is located in Hells Canyon Wilderness, extending west from He Devil to the Snake River Canyon. The area is 16 miles southwest of Riggins. Access to the area involves driving from Cambridge, Idaho to the boat launch just below Hells Canyon Dam. A jet boat is taken approximately eight miles down the Snake River to the mouth of Granite Creek. At extreme high water the Wild Sheep Rapid might not be runnable with a jet boat. In this case, access is via a trail, the trailhead for which is just above the Wild Sheep Rapid on the Idaho side of the river. From there it is a short, 1.5 mile hike to the mouth of Granite Creek.

Size (acres): 5,700 **Elevation Range (feet):** 1,400 - 7,993
Site Description: Little Granite Creek contains the Little Granite Creek drainage and part of lower Granite Creek. The area spans elevations from 9,393 feet at He Devil Peak in the Seven Devils Mountains to 1,400 feet along the Snake River Canyon. The high elevations were subjected to alpine glaciation that resulted in a number of cirque lakes, ponds, and high elevation wet meadows. Canyon grassland communities of the area are dominated by Festuca idahoensis and Agropyron spicatum. Unique riparian communities occur in the area as stringers along Little Granite and Granite creeks. They are dominated by Pinus ponderosa and/or Alnus rhombifolia. Numerous small inclusions of interesting shrub communities, generally occurring on rocky substrates, also occur within the boundary. These include communities dominated by Cercocarpus ledifolius, Glossopetalon nevadense, Rhus glabra, Celtis reticulata, and Symphoricarpos albus. Part of the area burned in July 1986. Riparian communities along Granite Creek and grasslands to the west were not burned. Observations made of the fire effects in the following October revealed that there was a low mortality of bunchgrasses and many of the shrubs and grasses were already resprouting vigorously. Previous to the fire, substantial amounts of young ponderosa pine were invading the grassland communities along the grassland - forest ecotone. The wildfire resulted in nearly 100 percent mortality on these invading pines, and nearly 100 percent survival of the large, mature individuals at the forest edge, thereby maintaining a more natural boundary between the two biomes.

Wetland and Riparian Plant Associations and Size (in acres):
Undetermined

Land Manager: Hells Canyon National Recreation Area
Designation: Unprotected

PONY CREEK **CDC Site # 191**

County: Adams
Location: The Pony Creek drainage is located on the east side of Pollock Mountain in the Seven Devils Mountains. The general area is between the Rapid and Little Salmon rivers in west-central Idaho roughly 16 air miles south of Riggins. From U.S. Route 95 turn west on FS Road 074. Follow this road roughly seven miles just past the crossing of Boulder Creek to the trailhead for FS Trail 181 (near Smoky Forest Camp) which heads north and into the Pony Creek drainage after approximately two miles.

Size (acres): 1,900 **Elevation Range (feet):** 3,640 - 8,048
Site Description: The Pony Creek drainage represents a transitional area between the vegetation of northern Idaho, having strong coastal affinities, and the dryer interior vegetation of southern Idaho. It encompasses a great diversity of habitat types because of an elevational range of 4,408 feet and topographical variations. Elevations range from 8,048 feet at the top of Pollock Mountain to 3,640 feet along lower Pony Creek. The area contains streams of low to steep gradient; however, most streams are of steep gradient. Plant communities occur on granitic substrates of the eastern slope of the Seven Devils Mountains. Forested communities are within the ponderosa pine, Douglas-fir, grand fir, subalpine fir, and Pinus albicaulis series. Sagebrush-grassland communities also occur in the area. Puzzling halimolobos (Halimolobos perplexa var. perplexa), a sensitive species, is known from the area as well.

Wetland and Riparian Plant Associations and Size (in acres):

Alnus sinuata	160

Land Manager: USDA Forest Service
Designation: Research Natural Area

ROCKY COMFORT FLAT **CDC Site # 202**

County: Adams
Location: Rocky Comfort Flat RNA is located approximately 21.5 air miles northwest of New Meadows on a plateau above the confluence of the Crooked River and Bear Creek. These two streams are tributaries of the Wildhorse River which drains into the Snake River below Brownlee Reservoir.

Size (acres): 996 **Elevation Range (feet):** 3,350 - 4,515
Site Description: Rocky Comfort Flat RNA is a plateau-like peninsula surrounded on all but the eastern side by the canyons of Bear Creek and the Crooked River, upstream from their confluence. The plateau is gently undulating and breaks abruptly to steep-sided canyon walls that drop approximately 1,000 feet to the valley bottoms. Sharp relief in the area is responsible for a diversity of habitats and a diverse assemblage of plant associations. South- and west-facing canyonsides are predominantly Agropyron spicatum/Poa secunda interspersed with talus and communities dominated by Cercocarpus ledifolius on cliffs and ledges. North-facing slopes are forested and climax to Pseudotsuga menziesii. The plateau is comprised of a mosaic of associations, whose distribution appears to correspond to soil depth and, to a lesser extent, topographic position and aspect. Artemisia tridentata ssp. vaseyiana is climax on the deepest soils, with Artemisia rigida on shallow soils. Areas influenced by ephemeral seeps are dominated by the rare Allium tolmiei and Camassia sp. Shallow draws draining the north side of the plateau contain stands climax to

Pseudotsuga menziesii and Pinus ponderosa. Additionally, another sensitive plant, Eatonella nivea, is present in the RNA.

Wetland and Riparian Plant Associations and Size (in acres):

Crataegus douglasii/Symphoricarpos albus	5.7

Land Manager: USDA Forest Service
Designation: Research Natural Area

SUMMER CREEK **CDC Site # 214**

County: Adams
Location: Summer Creek is located on the eastern break of Hells Canyon above Oxbow Reservoir, northwest of the Cuddy Mountains, approximately four air miles south-southeast of Oxbow Dam on the Snake River.

Size (acres): 480 **Elevation Range (feet):** 4,600 - 5,257
Site Description: Summer Peak site is on the breaklands of Hells Canyon above Oxbow Reservoir. Elevations range from 5,257 feet at the top of Sheep Peak down to 2,600 feet where Summer Creek leaves the western end of the area. Vegetation on the steep slopes includes Artemisia rigida/Poa secunda, Pseudotsuga menziesii/Physocarpus malvaceus, P. menziesii/Calamagrostis rubescens, Cercocarpus ledifolius, Glossopetalon nevadense/Agropyron spicatum, Purshia tridentata/A. spicatum, and A. spicatum-P. secunda. In addition, a small population of the rare plant Camassia cusickii occupies sloping seeps on the slopes adjacent to Summer Creek. The Alnus rhombifolia/Philadelphus lewisii community type occupies the narrow riparian zone.

Wetland and Riparian Plant Associations and Size (in acres):

Alnus rhombifolia/Philadelphus lewisii	Undetermined
Camassia cusickii	0.1

Land Manager: USDA Forest Service; Bureau of Land Managment
Designation: Unprotected

BELVIDERE CREEK **CDC Site # 679**

County: Valley
Location: Belvidere Creek is located in the Salmon River Mountains. The site lies between Coin and Goat mountains and encompasses almost the whole Belvidere Creek drainage, a tributary to Big Creek. The area is approximately four and a half miles southwest of Big Creek Ranger Station.

Size (acres): 2,914 **Elevation Range (feet):** 6,200 - 9,273
Site Description: Belvidere Creek RNA encompasses an entire watershed that was glacially sculptured during the Pleistocene. A complex system of tributaries make up the headwaters of Belvidere Creek, including nine cirque and paternoster (chain of lakes) lakes. The tributaries coalesce as they enter the straight, U-shaped lower valley. A majority of the vegetation in the area consists of Abies lasiocarpa habitat types. The understory consists mostly of shrubs, including Vaccinium scoparium, V. globulare, and Menziesia ferruginea, although Xerophyllum tenax is also prominent. A small area of Artemisia tridentata ssp. vaseyana/Festuca idahoensis habitat type occurs in the lower valley below an avalanche chute. Pinus albicaulus-Abies lasiocarpa habitat types and open scree slopes occur on the upper elevation ridges.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	254
Alnus sinuata	1

Land Manager: USDA Forest Service
Designation: Research Natural Area

CACHE CREEK LAKES **CDC Site # 486**

County: Lemhi
Location: Cache Creek Lakes RNA is located on the north side of Sleeping Deer Mountain in the Salmon River Mountains, approximately 42 miles northwest of Challis, Idaho.

Size (acres): 795 **Elevation Range (feet):** 7,500 - 9,881
Site Description: Cache Creek Lakes RNA encompasses a high-elevation cirque in the Salmon River Mountains, containing a diversity of aquatic and terrestrial habitats on volcanic substrate. Elevations in the RNA range from approximately 7,500 feet where the boundary crosses Cache Creek to 9,881 feet on the peak of Sleeping Deer Mountain. Aquatic habitats include several lakes and ponds and low-to-steep-gradient streams. These aquatic communities are bordered by several wetland associations. Much of the upland is dominated by Abies lasiocarpa and Pinus albicaulis forests, although cliffs, talus and rock outcrops cover large areas, especially around the summit of Sleeping Deer Mountain. The area also contains habitat for bighorn sheep (Ovis canadensis).

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	83

Land Manager: USDA Forest Service
Designation: Research Natural Area

EAST FORK SALMON RIVER BENCH **CDC Site # 85**

County: Custer
Location: The East Fork Salmon River Bench is located along the northeast side of the East Fork Salmon River, approximately 0.5-1 mile upstream (southeast) of the confluence with the Salmon River.

Size (acres): 80 **Elevation Range (feet):** 5,360 - 5,920

Site Description: The East Fork Salmon River Bench is located just upstream of the confluence of the East Fork with the Salmon River. The combination of steep cliffs, talus slopes, and the river have resulted in the isolation and preservation of uplands on the bench and the riparian corridors. The upland portion of the terrace consists mostly of the Artemisia tridentata ssp. wyomingensis/Agropyron spicatum association, as is some of the adjacent canyon side. This association occurs on coarse substrates. A small area of A. tridentata ssp. wyomingensis/Carex filifolia occurs on sandy loam substrates. A similar area of A. tridentata ssp. wyomingensis/Sitanion hystrix occurs in a depositional area higher in clay. Talus and cliff bands occupy most of the canyon side. The East Fork Salmon River is a high gradient reach with riparian vegetation limited to small terraces in the narrow canyon. Communities dominated by Populus trichocarpa or mixed shrubs including Betula occidentalis, Alnus incana, and Cornus sericea occur adjacent to the river and are flooded annually. Floodwaters do not inundate the entire terrace; the outer edge, near the upland ecotone, is dominated by basin wildrye Elymus cinereus and Artemisia tridentata.

Wetland and Riparian Plant Associations and Size (in acres):

Populus trichocarpa/Cornus stolonifera	0.5
Artemisia tridentata ssp. tridentata/Elymus cinereus	0.3
Betula occidentalis/Mesic forb	1
Elymus cinereus	0.2

Land Manager: Bureau of Land Management
Designation: Research Natural Area

IRON BOG **CDC Site # 475**

County: Custer
Location: Iron Bog RNA is located in the southeastern extent of the Pioneer Mountains near the Custer County/Butte County boundary. The RNA is approximately 40 road miles west of Arco, Idaho; 40 miles southwest of Mackay, Idaho; or approximately 14 miles southwest of Grouse, Idaho.

Size (acres): 434 **Elevation Range (feet):** 7,000 - 8,600

Site Description: Iron Bog is a sphagnum bog located within a relatively dry sagebrush-steppe ecosystem. The bog is located in a relatively flat valley bottom with steep slopes above. Elevations in the RNA range from 7,000 feet along Iron Bog Creek at the southeastern corner of the site to 8,600 feet on the ridge at the western corner. The hummocks in the bog support a variety of plants including Carex utriculata, C. aquatilis, Kalmia polifolia, Ledum glandulosum, and Vaccinium occidentale. Betula glandulosa dominates a large segment of the site with smaller scattered stands of the willows Salix boothii and S. geyeriana and Alnus incana. Pinus contorta occurs at the edge of the bog and along Iron Bog Creek where sphagnum and other moss species substrate is deeper. Lodgepole pine is also scattered throughout the bog within stands of bog birch. A band of Abies lasiocarpa borders the bog on the southwest side. The northeast-facing slope above the bog is a mosaic of Pseudotsuga menziesii and sagebrush/grass communities, with the sagebrush/grass communities occupying the lower slopes. Subalpine vegetation occurs on the ridgetops. Artemisia nova/Festuca idahoensis communities occur on the shallow soils of the upper ridgetops, along with scattered Pinus flexilis. The uppermost slopes support subalpine fir and quaking aspen Populus tremuloides communities.

Wetland and Riparian Plant Associations and Size (in acres):

Pinus contorta/Calamagrostis canadensis	1
Abies lasiocarpa/Calamagrostis canadensis	22
Betula glandulosa/Carex utriculata	28
Alnus incana/Mesic forb	0.5
Salix geyeriana/Calamagrostis canadensis	2

Land Manager: USDA Forest Service
Designation: Research Natural Area

JIMMY SMITH LAKE **CDC Site # 383**

County: Custer
Location: From Challis, travel approximately 22 miles south on U.S. Hwy 93 to the confluence of the Salmon and East Fork Salmon River. Travel 13 miles on the East Fork Salmon River road to Big Lake Creek Road. Continue northwest of Big Lake Creek Road to the road end. Jimmy Smith Lake is accessed via trail and is approximately one mile from the trailhead. The trail continues around the north side of the lake.

Size (acres): 138 **Elevation Range (feet):** 6,400 - 6,405
Site Description: Jimmy Smith Lake is a natural lake at the confluence of Jimmy Smith, Corral, and Big Lake Creeks. The lake was created by a natural landslide on Big Lake Creek. Wetland vegetation around the steep-sided lake is poorly developed except at the bays created by feeder creeks. The bays support dense bands of Salix boothii (Booth's willow) and S. geyeriana (Geyer's willow) which extends from valley wall to valley wall. The lake fringe is a near monoculture of Carex utriculata (beaked sedge). Wetlands are best developed on the Big Lake Creek bay.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Carex utriculata	10
Carex utriculata	5

Land Manager: Burea of Land Managment; Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area; Unprotected

RUSSIAN JOHN EXCLOSURE **CDC Site # 242**

County: Blaine
Location: Russian John Exclosure is approximately 17 miles northwest of Ketchum. From Ketchum travel north on U.S. Route 93 to Russian John Guard Station. Site is accessible by foot from the Guard Station.

Size (acres): 20 **Elevation Range (feet):** 6,837 - 6,840
Site Description: Russian John is a 20 acre wetland on a thermally-influenced spring fed bench above the Upper Big Wood River. The site consists of a meadow dominated by a mosaic of Carex nebraskensis, Juncus balticus, and Deschampsia cespitosa and a low shrubland dominated by Salix wolfii and Betula glandulosa.

Wetland and Riparian Plant Associations and Size (in acres):

Salix wolfii/Deschampsia cespitosa	1
Deschampsia cespitosa	3
Carex nebraskensis	6
Juncus balticus	6
Betula glandulosa/Carex simulata	1

Land Manager: USDA Forest Service
Designation: Unprotected

SMILEY MOUNTAIN **CDC Site # 346**

County: Custer
Location: Smiley Mountain RNA is located at the southeastern end of the Pioneer Mountains, approximately 27 air miles east of Ketchum, Idaho, and roughly 25 air miles west-northwest of Arco, Idaho.

Size (acres): 3,080 **Elevation Range (feet):** 9,440 - 11,508

Site Description: Smiley Mountain RNA is located in the southeastern extremity of the Pioneer Mountains. The area occurs on two main rock substrates - Challis volcanics and granitics - and has experienced mountain glaciation resulting in sharp and broad ridges, cliffs, ledges, talus slopes, rock glaciers, and cirque basins. Elevations in the site range from 9,440 feet in the southeastern corner of the RNA, where the boundary crosses the Middle Fork Bear Creek, to 11,508 feet on the summit of Smiley Mountain. The broad ridge crests in the RNA provide for excellent development of alpine vegetation including turfs, fellfields, grasslands, hydric habitats, and talus slopes. Subalpine stands of Pinus albicaulis occur in cirque basins. Protected slopes contain a mixture of Pinus albicaulis, Picea engelmannii, and Abies lasiocarpa. Openings are mainly Artemisia tridentata ssp. vaseyana with Festuca idahoensis. Some slopes are covered with a mixture of shrubs including species of Salix, Juniperus communis, Phyllodoce empetriformis, Potentilla fruticosa, Ribes spp., Shepherdia canadensis, and Symphoricarpos oreophilus. Lower alpine levels and the alpine and subalpine cirque basins are drained by a number of streams which meander through wet meadows of Salix planifolia, Deschampsia cespitosa, Carex utriculata, and Carex aquatilis. Small lakes also occur in the cirque basins and the lower country is dotted with ponds, most of which are surrounded by wet meadows or riparian vegetation.

Wetland and Riparian Plant Associations and Size (in acres):

Deschampsia cespitosa	50

Land Manager: USDA Forest Service
Designation: Research Natural Area

TRAIL CREEK, BLAINE COUNTY **CDC Site # 225**

County: Blaine
Location: Trail Creek is a south-trending tributary of the Big Wood River. The site is approximately six miles northeast of Sun Valley, Idaho. From Sun Valley travel north on Route 75 approximately six miles to a parking area. The site is accessible by foot from the parking area.

Size (acres): 155 **Elevation Range (feet):** 6,360 - 6,400

Site Description: Trail Creek is within a moderately wide valley bottom with undulating topography. The site includes a series of spring fed wetlands and a one mile reach of Trail Creek. A large shrubland dominated by Salix boothii and Salix geyeriana with lesser amounts of Betula glandulosa and Salix commutata is associated with the spring system and active beaver ponds within the system. Openings in the shrubland are dominated by Carex utriculata, Juncus balticus, and Carex simulata on a wet to dry gradient. Alnus incana with a mesic forb understory and Salix exigua occur along Trail Creek. The south end of the site, near the confluence with an unnamed tributary, is an unconsolidated gravel bottom with scattered willows.

Wetland and Riparian Plant Associations and Size (in acres):

Artemisia tridentata tridentata/Elymus cinereus	10
Betula glandulosa/Carex utriculata	5
Alnus incana/Mesic forb	5
Salix boothii/Carex utriculata	30
Salix boothii/Mesic forb	10
Salix boothii/Mesic graminoid	10
Salix exigua/Barren	3
Carex utriculata	10
Carex simulata	7

Land Manager: USDA Forest Service
Designation: Unprotected

WILLOW CREEK, CAMAS COUNTY **CDC Site # 171**

County: Camas
Location: Willow Creek is approximately 13 miles northeast of Fairfield, Idaho. From Fairfield, travel on Soldier Mountain Road north for two miles to Baseline Road. Travel east on Baseline Road approximately 11 miles to Willow Creek Road. Travel six and a half miles north on Willow Creek Road to Forest boundary. Site includes a two mile inholding along Willow Creek.

Size (acres): 232 **Elevation Range (feet):** 5,400 - 5,580
Site Description: The site includes an approximate two mile reach of Willow Creek. Willow Creek is a moderate gradient, sinuous stream which trends to the south. Vegetation includes uplands, shrubby riparian zones, and wetland meadows. Uplands are dominated by Artemisia tridentata. Some pastured areas are present with a mix of seeded species that include Bromus inermis, Poa pratensis, and P. compressa. The riparian corridor is somewhat narrow due to the entrenched channel, with Salix and Alnus types bordering the channel and occurring on channel bars. Salix also occurs on tributaries flowing into Willow Creek. Populus tremuloides occurs occasionally on higher gradient reaches with an understory dominated by Rosa woodsii. Wet meadows occur in swales associated with seeps and/or old meander channels. These are best developed on the west side of the creek and are dominated by Carex and Juncus community types.

Wetland and Riparian Plant Associations and Size (in acres):

Artemisia tridentata ssp. tridentata/Elymus cinereus	10
Alnus incana/Mesic forb	12
Salix boothii/Mesic graminoid	12
Salix boothii/Smilacina stellata	12
Salix exigua/Mesic graminoid	2.5
Carex microptera	2.5
Carex lanuginosa	7
Juncus balticus	2.5

Land Manager: Private
Designation: Conservation Easement

BEAVER LAKE NORTH **CDC Site # 320**

County: Boundary
Location: Beaver Lake is located along the west slope of the Cabinet Mountains, approxiamtely 3.5 miles south of Naples and approximately 12 miles south of Bonners Ferry, Idaho. It lies approximately 100 feet above the valley floor of the Purcell Trench and is accessed via some forest service roads, which eventually lead to Dyree Creek. It's a short hike up the drainage to the lake.

Size (acres): 28 **Elevation Range (feet):** 3,680 - 4,020
Site Description: Beaver Lake (North) is a small pond that sits nearly on the crest of a west-east trending ridge. The pond was formed by continental ice that flowed down the Purcell Trench during the Pliestocene, scouring adjacent mountain slopes. The pond is the headwaters of Dyree Creek, a small creek flowing SE from the pond, eventually to the Pack River. Most of the shoreline is steep and has little littoral zone or wetland vegetation. The eastern shore, however, has a narrow zone of Carex flava along the edge of the lake and several floating sphagnum mats, some of which contain Lycopodium inundatum. Carex lasiocarpa, Drosera rotundifolia, and Potentilla palustris are common on the sphagnum substrate of the mats.

Wetland and Riparian Plant Associations and Size (in acres):

Carex lasiocarpa	Undetermined

Land Manager: Idaho Department of Lands
Designation: Unprotected

BONNER LAKE **CDC Site # 251**

County: Boundary
Location: From Moyie Springs, Idaho, travel three miles east on U.S. Hwy 2 to FS Road 72, take it to the north and follow it approximately four miles to FS Road 72D (which heads south). Take 72D approximately two miles where it more or less ends at the Idaho Fish and Game public boat launch on the north end of Bonner Lake.

Size (acres): 260 **Elevation Range (feet):** 2,489 - 2,600
Site Description: Bonner Lake is very unique among Panhandle peatlands. It is an alkaline lake with a flocculent, marly bottom and a nearly 100 percent cover of Chara sp. The Chara grows to depths of more than 5 meters thanks to the amazing clarity of the water. The lake margins support stands of several vascular aquatics, including Typha latifolia, Scirpus validus, Scirpus acutus, Eleocharis palustris, Juncus sp., Juncus alpinus, Nuphar variegatum, Polygonum amphibium, and Potamogeton gramineus. Sedge-dominated rich fen communities occur on the north and south ends of the lake. The rich fens are characterized by Carex lasiocarpa, C. simulata, C. utriculata, C. cusickii, Calamagrostis stricta, Potentilla palustris, Lycopus uniflorus, Scirpus microcarpus, S. americanus, Bidens cernua, Phalaris arundinacea, Lysimachia thyrsiflora, and the rare species: Aster junciformis, Carex buxbaumii, C. flava, and Cicuta bulbifera. The peat depth in this rich fen is unknown. The narrow wetland margins on the east and west sides of Bonner Lake are shrub dominated. Characteristic species include the rare Betula pumila as well as Salix bebbiana, Alnus incana, Cornus stolonifera, and very scattered plants of Salix candida. S. candida has also been found in the meadows just north of (upstream from) Bonner Lake.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	7
Carex lasiocarpa	7
Carex simulata	7
Eleocharis palustris	7

Scirpus acutus	5
Typha latifolia	11
Scirpus validus	5
Carex cusickii	10

Land Manager: Idaho Department of Lands
Designation: Unprotected

CLARK FORK DELTA **CDC Site # 370**

County: Bonner
Location: The Clark Fork Delta is south of Clark Fork, Idaho and extends from near the stateline to the mouth of Lake Pend Oreille. The island system is best accessed by boat from boat ramps at the north end of the delta or at Clarks Fork. The southern portion of the site can be accessed by vehicle and foot by driving south of Clark Fork across the river and traveling on the road that parallels the Burlington Northern Railroad.

Size (acres): 6744 **Elevation Range (feet):** 2080 - 2300
Site Description: The Clark Fork Delta enters Lake Pend Oreille in a valley at the south end of the Cabinet Mountains and the north end of the Coeur d'Alene Mountains. The islands are vegetated by forests, shrublands, and grasslands. Forests include both upland and riparian types. Islands with raised topography support upland forests with mature Thuja plicata and Abies grandis. Low lying islands are vegetated with a mosaic of Populus trichocarpa, Cornus sericea, Salix bebbiana, Salix exigua, Symphoricarpos albus, and Phalaris arundinacea. Broad meadows occupy the former floodplain of the Clark Fork River at the south end of the site. Wetter portions of the meadows which have not been successfully drained are dominated by Typha latifolia, Eleocharis palustris, and Scirpus species. Phalaris arundinacea is a major dominant in meadows where water levels have been manipulated.

Wetland and Riparian Plant Associations and Size (in acres):

Populus trichocarpa/Cornus stolonifera	500
Cornus stolonifera	30
Salix bebbiana	30
Salix exigua/Mesic graminoid	30
Phalaris arundinacea	1000
Eleocharis palustris	300
Typha latifolia	200
Scirpus microcarpus	50

Land Manager: Idaho Department of Fish and Game; Private
Designation: Wildlife Management Area; Unprotected

DAWSON LAKE **CDC Site # 10**

County: Boundary
Location: Dawson Lake is located approximately 3.5 miles north and slightly west of Moyie Springs, Idaho in the Kootenai River Valley and is the headwaters of Fry Creek. From Moyie Springs drive west on U.S. Hwy 2 two miles to FS Road 229. Go north on FS Road 229 approximately three miles and see Dawson Lake on your left. Boat launches are present on the south and east sides of the lake.

Size (acres): 155 **Elevation Range (feet):** 2,959 - 3,040
Site Description: Dawson Lake is approximately 1.5 miles long (north to south) and approximately 0.25 miles wide for most of its length. A simple earth dam was constructed within the last several decades on the south end to enhance the size of the lake and may have replaced beaver dams that historically formed the lake. The lake supports an array of aquatic macrophytes in the extensive vegetated littoral and limnetic zones, including Nuphar polysepalum, N. variegatum, Potamogeton

amplifolius, P. praelongus, P. natans, P. berchtoldii, Elodea canadensis, Myriophyllum sibericum, Lemna minor, Ceratophyllum demersum, Spirodela polyrhiza, and Utricularia vulgaris. Scattered floating mats are on the west and north ends of the lake. Most are 10 square meters or less in size. They appear to have formed on partially submerged logs as has been observed at earlier stages in Robinson Lake and Huff Lake. Rich fen vegetation dominates the mats. A mat of an unidentified brown moss covers the ground layer. Vascular plants including Carex diandra, C. lasiocarpa, C. canescens, Lysimachia thyrsiflora, Dulichium arundinaceum, Spiraea douglasii, Menyanthes trifoliata, Bidens cernua, Lycopus uniflorus, Potentilla palustris, Alnus incana, and Typha latifolia dominate the herb and shrub layers. One rare species, Cicuta bulbifera (bulb-bearing waterhemlock), is found on the mat. Standing dead trees on the south and west sides of the lake in 0.5 meters of water attests to relatively recent water level fluctuations or relatively recent human damming.

Wetland and Riparian Plant Associations and Size (in acres):

Carex lasiocarpa	16
Nuphar polysepalum	8
Typha latifolia	8

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

HIDEAWAY ISLANDS **CDC Site # 1593**

County: Boundary
Location: Hideaway Islands are located on the Kootenai River between river miles 158 and 159, upstream and east of Bonners Ferry, Idaho and approximately two and a half miles downstream from the mouth of the Moyie River.

Size (acres): 81 **Elevation Range (feet):** 1,760 - 1,780
Site Description: Hideaway Islands are two islands on the Kootenai River upstream of Bonners Ferry. The east island has greater topographic relief and supports mid-seral cottonwood stands with significant amounts of Cornus sericea. The west island is younger and of low relief supporting early-seral cottonwood and willow stands with the exception of a band of 20 to 30 year-old cottonwoods on the south side of the island. Sand and cobble bars on both islands are being pioneered by Salix exigua, Populus spp. (P. trichocarpa, and P. deltoides), Apocynum cannibinum, and Artemisia ludoviciana. A low swale on the west island supports a large sward of Agropyron smithii.

Wetland and Riparian Plant Associations and Size (in acres):

Populus trichocarpa/Cornus stolonifera	13
Populus trichocarpa/Symphoricarpos albus	13
Cornus stolonifera	6
Salix exigua/Barren	6
Agropyron smithii	2
Populus trichocarpa/Recent alluvial bar	6

Land Manager: Bureau of Land Management
Designation: Research Natural Area; Area of Critical Environmental Concern

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HUNT GIRL CREEK **CDC Site # 382**

County: Boundary
Location: Hunt Girl Creek RNA is located approximately 11 air miles southeast of Naples in the Cabinet Mountains of northern Idaho. Access to Hunt Girl Creek RNA from Naples is via U.S. Route 95 north to Blue Lake, Twentymile Creek Road (FS Road 408) east, over Twentymile Pass to Boulder Creek, then Boulder Creek Road (FS Road 427) south to the end of the road. The Boulder Mountain Trail (FS Trail 51) provides access to Divide Lake.

Size (acres): 1,505 **Elevation Range (feet):** 3,900 - 6,298
Site Description: Hunt Girl Creek RNA encompasses the upper portion of the Hunt Girl Creek drainage in the Cabinet Mountains, extending from elevations below 4,000 feet to nearly 6,300 feet on Boulder Mountain. The bedrock underlying the area consists of Precambrian metasedimentary and intrusive igneous rocks, and granitics of the Kaniksu Batholith. Geologic features include a narrow gorge carved out of sediments and landforms resulting from alpine and continental glaciations. Most of the slopes above 4,500 feet are covered with vegetation that is, or potentially will be, dominated by Abies lasiocarpa. Tsuga heterophylla and Thuja plicata forests occur at the lowest elevations within the RNA. Divide Lake, located near the southwestern boundary, is a system of wetland sites. The wet sedge meadows, peat, and streams increase the area's diversity and wildlife habitat.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Oplopanax horridum	22.5
Tsuga heterophylla/Gymnocarpium dryopteris	22.5

Land Manager: USDA Forest Service
Designation: Research Natural Area

PERKINS LAKE **CDC Site # 7**

County: Boundary
Location: From Moyie Springs, Idaho travel three miles east on U.S. Hwy 2 to FS Road 72; take it to the north and follow the signs to Perkins Lake (ca. 6 miles from Hwy 2).

Size (acres): 445 **Elevation Range (feet):** 2,632 - 3,040
Site Description: Perkins Lake contains a diversity of peatland (fen) communities along the northeastern shore (east of the boat landing) and on the western shore. Extensive floating mats ring the lake margins and fixed mats extend into the fen area west of the lake. More than half of the lake is vegetated littoral and limnetic zones. The floating mats on the northeastern side of the lake are very unstable and are dominated by Betula pumila, Alnus incana, and Spiraea douglasii. The understories are covered by Carex lasiocarpa, Calamagrostis canadensis, and various Sphagnum and brown mosses. Access to this area for viewing is provided by the angler's access dock which was constructed through the mat in the late 1980s. Most of this mat area is floating. The lake margins are dominated by Typha latifolia and various sedges, including C. lasiocarpa, C. cusickii, and Dulichuim arundinaceum. Shrub carr also covers much of the fen west of the lake. It is interspersed with Carex/Sphagnum-dominated intermediate and poor fen communities, which extend at least 1/4 mile from the lake margin to the west.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	25
Alnus incana/Carex utriculata	25
Carex lasiocarpa	60
Dulichium arundinaceum	1
Typha latifolia	25
Carex cusickii	10
Poor fen	10

Land Manager: USDA Forest Service; The Nature Conservancy; Private
Designation: TNC Preserve; Unprotected

ROBINSON LAKE **CDC Site # 1**

County: Boundary
Location: Robinson Lake is located two miles south of the Canadian border just southeast of Eastport, Idaho in the Moyie River Valley of the Purcell Mountains. It is accessible from the

southwest at the Robinson Lake Campground (USFS), just north of Hwy 95, or from the northeast at the USFS maintained boat launch.

Size (acres): 135 **Elevation Range (feet):** 2,642 - 2,760
Site Description: Robinson Lake is in the pioneering stages of peatland development. The eastern lobe of the lake appears to be growing through a lake-fill sequence with an accumulating island of lake sediment building up in the middle (now dominated by yellow water lilies, Nuphar polysepalum, and some patches of hard stem bulrush, Scirpus acutus) of the basin with slightly deeper moat areas adjacent to uplands. The western lobe of the lake contains numerous small floating pioneer mat communities on floating and partially emergent logs. This site offers a glimpse at the initial stages of two different types of peatland formation. The small mats contain several of the most prominent of the peatland-dominating sedges in the region: Carex lasiocarpa, C. canescens, C. diandra, and C. muricata; two rare species: Cicuta bulbifera and Hypericum majus; and a host of other species, including Drosera rotundifolia that are restricted to peatland habitats in northern Idaho.

Wetland and Riparian Plant Associations and Size (in acres):

Carex lasiocarpa	5
Scirpus acutus	15
Nuphar polysepalum	10

Land Manager: USDA Forest Service; Private
Designation: Unprotected

SINCLAIR LAKE **CDC Site # 8**

County: Boundary
Location: Sinclair Lake is located approximately one and a half miles due south of Good Grief, Idaho, and approximately five miles south of Eastport, Idaho, on the Canadian border. Take road 2517 south off of U.S. Hwy 95 at Good Grief, and look for the Sportsman's Access sign at the lake. The lake is next to the Spokane International Railroad. Sinclair Lake is in the Moyie River Valley which cuts through the Purcell Mountain Range of extreme northeastern, Idaho.

Size (acres): 20 **Elevation Range (feet):** 2,523 - 2,540
Site Description: Floating mats supporting intermediate fen communities occur immediately around Sinclair Lake. The mat community is dominated by Sphagnum angustifolium, S. subsecundum, Carex lasiocarpa, C. muricata, C. limosa, Potentilla palustris, Drosera anglica, D. rotundifolia, and Lycopus uniflorus. A Carex lasiocarpa rich fen extends over several acres west of the lake and is ringed by a Spiraea douglasii shrub carr. Littoral zones of the lake are characterized by Nuphar variegatum, Brasenia schreberi, Potamogeton gramineus, Dulichium arundinaceum, Carex lasiocarpa, and scattered plants of the rare Scirpus subterminalis. The Spokane International Railroad bed partially filled in the eastern side of the lake. A fishing dock is on the north side of the lake near the parking area.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	2
Carex lasiocarpa	4
Carex limosa	5

Land Manager: USDA Forest Service; Spokane International Railroad
Designation: Unprotected

BACK CREEK **CDC Site # 494**

County: Valley
Location: Back Creek RNA is located approximately ten miles south of Warm Lake along the South Fork Salmon River.

Size (acres): 1,367 **Elevation Range (feet):** 6,200 - 8,922
Site Description: Back Creek RNA encompasses the entire watershed of a tributary to the South Fork Salmon River. Elevations in the RNA range from approximately 6,200 feet at the juncture of the South Fork Salmon River with the northern boundary of the RNA, to 8,922 feet at a peak along the drainage divide forming the northern boundary. The RNA contains a diversity of Abies lasiocarpa habitat types ranging from wet to dry site types. Wetland complexes, including graminoid meadows, sphagnum fen, and wet-site forest, are interspersed among the Abies lasiocarpa types. The upper slopes on the south side of the drainage support Abies lasiocarpa and Picea engelmannii. Pseudotsuga menziesii and Pinus contorta dominate the drier, south-facing aspects on the north side of the drainage. Shrub glades of Alnus sinuata and Ledum glandulosum are interspersed among the forest types. The rare Pinus contorta/Festuca idahoensis habitat type occurs on gently sloping river benchland. The second and third order streams in the RNA support a diverse assemblage of aquatic flora and fauna. The South Fork Salmon River, approximately one mile of which flows through the RNA, is considered critical habitat for the spring and summer runs of chinook salmon (Oncorhynchus tschawytscha). The upper South Fork and its tributaries provide spawning habitat for bull trout (Salvelinus confluentus) as well.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Caltha biflora	50
Abies lasiocarpa/Calamagrostis canadensis	13
Abies lasiocarpa/Streptopus amplexifolius	40

Land Manager: USDA Forest Service
Designation: Research Natural Area

BRUIN MOUNTAIN **CDC Site # 683**

County: Idaho and Valley
Location: Bruin Mountain RNA is located in the western part of the Salmon River Mountains, at the head of Little French Creek, approximately 21 miles north of McCall, Idaho.

Size (acres): 680 **Elevation Range (feet):** 6,350 - 8,690
Site Description: Bruin Mountain is located in rugged, rocky, mountainous country shaped by alpine glaciation and marked by raw granitic rock. One of the outstanding features of the site is a hanging valley which was apparently formed by a small glacier that occupied the valley and fed into a larger alpine glacier that occupied the Little French Creek valley. The area contains mature Abies lasiocarpa-Engelmann spruce stands representing at least seven habitat types. Near-alpine plant communities occur on south and north peaks of Bruin Mountain. The upper slopes of these peaks are sparsely forested by Pinus albicaulis and Abies lasiocarpa. Avalanche paths vegetated with shrubs are common on the slopes of these mountains. The area contains low- to moderate-gradient streams. A small stream flowing through the hanging valley supports a rare aquatic insect, Psychoglypha mono. A rare plant species, Tobias's saxifrage (Saxifraga bryophora var. tobiasiae), has also been collected from the RNA. Wildfires burned over a portion of the RNA in 1995.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	15
Alnus sinuata	120

Land Manager: USDA Forest Service
Designation: Research Natural Area

CHILCOOT PEAK **CDC Site # 497**

County: Valley
Location: Chilcoot Peak RNA is located in the Salmon River Mountains, on the divide between the Middle Fork and South Fork Salmon River drainages, approximately 54 miles northeast of Cascade, Idaho.

Size (acres): 1,294 **Elevation Range (feet):** 7,250 - 8,998
Site Description: Chilcoot Peak RNA encompasses three subalpine, glaciated basins and intervening ridge line habitats. Elevations in the RNA range from 7,250 feet at a point along an unnamed creek in the northwestern portion of the RNA, to 8,998 feet on the summit of Chilcoot Peak. The basins contain an unusually diverse assemblage of wetland and aquatic plant associations. Aquatic types include a lake, raised ponds with sphagnum, and low- to steep-gradient streams. The raised ponds are dominated by Nuphar polysepalum. Wetland associations are dominated by coniferous tree, shrub, and graminoid species, often occurring on sphagnum. Picea engelmannii occurs as small islands on the sphagnum mats, with Ledum glandulosum and Vaccinium occidentale in the understory. Shrub communities include those dominated by Alnus sinuata and Salix commutata. Graminoid associations include Carex aquatilis, Carex rostrata, and Eleocharis pauciflora. Dry Abies lasiocarpa and Pinus albicaulis associations dominate the uplands, with inclusions of cliff, talus, and rock outcrop habitats around Chilcoot Peak.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Caltha biflora	10
Abies lasiocarpa/Calamagrostis canadensis	20
Abies lasiocarpa/Streptopus amplexifolius	33

Land Manager: USDA Forest Service
Designation: Research Natural Area

CROOKED CREEK **CDC Site # 148**

County: Custer
Location: The site is located northwest of Stanley, Idaho, on the northeast slope of the Sawtooth Mountains. The conservation easement encompasses the lower portion of Crooked Creek, near its confluence with Valley Creek.

Size (acres): 12 **Elevation Range (feet):** 6,350 - 6,400
Site Description: The Crooked Creek site consists of a flat, high elevation, wet meadow situated at the base of the Sawtooth Mountains in Custer County, Idaho. Crooked Creek, a small meandering, freestone stream, bisects the meadow. Two special status plant communities, Pinus contorta/Vaccinium occidentalis, and a sphagnum bog (currently referred to as valley peatland floating mat), occur along Crooked Creek and on the wet portions of the south end of the site. Much of the remaining acreage in the site is mesic meadow that has been grazed in the past. There is some sign of old fencing present on the south end of the site, and a number of drainage ditches were constructed on the site ten to 15 years ago.

Wetland and Riparian Plant Associations and Size (in acres):

Pinus contorta/Vaccinium occidentale	3

Land Manager: The Nature Conservancy
Designation: Conservation Easement

DOME LAKE **CDC Site # 688**

County: Lemhi
Location: Dome Lake RNA lies at the northern end of the Bighorn Crags in the Salmon River Mountains, approximately three miles south of the Salmon River, at a point approximately 17 miles southwest of Shoup

Size (acres): 1,700 **Elevation Range (feet):** 4,700 - 9,316
Site Description: Dome Lake RNA contains the entire upper portion of the Lake Creek watershed. Aproximately 4,616 feet of vertical relief occurs in the area, representing an excellent cross section of upper elevation aquatic and terrestrial ecosystems of the Salmon River Canyon. Aquatic features include several steep-gradient streams of varying sizes and Dome Lake, a moraine-dammed lake relatively low in the drainage. Most of the area is dominated by coniferous forest habitat types, largely in the Pseudotsuga menziesii and Abies lasiocarpa series, although Pinus albicaulis stands occur on the upper ridges. Cliff, talus, and rock outcrop habitats occur in the RNA, largely at the upper elevations below the summit of Dome Mountain, elevation 9,316 feet. Forests at the middle elevations in the RNA burned in the 1986 Dome 2 fire. There was high mortality of the tree canopy, but the understory responded to the fire with vigor. A population of the rare plant, Sedum borschii, occurs near the summit of Dome Mountain.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	30
Picea engelmannii/Galium triflorum	30

Land Manager: USDA Forest Service
Designation: Research Natural Area

DUTCH CREEK **CDC Site # 305**

County: Idaho
Location: Dutch Creek RNA is located on the south side of the Lochsa River, approximately 56 miles northeast of Kooskia, Idaho.

Size (acres): 303 **Elevation Range (feet):** 2,300 - 3,532
Site Description: Dutch Creek RNA is in rugged mountainous country where the forests burned in 1910, reburned in the Bald Mountain fire of 1929, and possibly again in the Pete King Fire of 1934. Elevations in the area range from 2,300 feet along the Lochsa River in the western corner of the RNA to 3,32 feet on the peak at the eastern tip of the RNA. Distinguishing features of the RNA include 50-year-old stands of northwest Betula papyrifera var. subcordata, a long-term seral species favored in establishment by multiple catastrophic burns which limit seed source of conifers. Also included are small areas of primarily Abies grandis and associated Pseudotsuga menziesii of approximately 40 to 50 years of age, often with an understory of Thuja plicata. Some areas are occupied primarily by shrub species such as Ceanothus and Holodiscus. Dutch Creek, which drains several square miles of steep country, bisects the RNA.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Adiantum pedatum	30
Alnus incana/Athyrium filix femina	0.5

Land Manager: USDA Forest Service
Designation: Research Natural Area

ELK CREEK **CDC Site # 87**

County: Idaho

Location: Elk Creek RNA is located along the north side of the Salmon River, between Sheep Creek and Bull Creek.

Size (acres): 7,000 **Elevation Range (feet):** 2,000 - 8,371
Site Description: Elk Creek RNA is a relatively large watershed that drains south into the Salmon River. This area encompasses a large amount of topographic diversity, and hence, has high ecological diversity. It spans several thousand feet of elevation; this is reflected in the plant associations present. Elevations in the RNA range from 2,000 feet at the high water mark of the Salmon River at the southwestern corner of the RNA to 8,371 feet on Quartzite Butte. At the highest elevations of rock and scree, Pinus albicaulis and Abies lasiocarpa associations are present. Mid-elevation slopes within the site provide a high diversity of Abies grandis and Pseudotsuga menziesii plant associations. The lowest elevations, which are largely canyon breakland, provide representation of grassland, Cercocarpus ledifolius, Glossopetalon nevadense and Pinus ponderosa communities. Two subalpine lakes, Quartzite Lake and Hurst Lake, occur in the RNA on either side of Quartzite Ridge. Douglasia idahoensis, a Forest Service Sensitive species and Category 2 candidate, occurs in the RNA on Quartzite Butte and Quartzite Ridge. Portions of the RNA have burned in several fires, most recently in 1992. A large area of the RNA burned in 1919.

Wetland and Riparian Plant Associations and Size (in acres):

Alnus sinuata	1

Land Manager: USDA Forest Service
Designation: Research Natural Area

FENN MOUNTAIN **CDC Site # 344**

County: Idaho
Location: Fenn Mountain proposed RNA is located in The Crags in the Selway-Bitterroot Wilderness. The area is roughly 36 air miles east of Kooskia.

Size (acres): 600 **Elevation Range (feet):** 6,210 - 8,021
Site Description: Fenn Mountain proposed RNA occupies a subalpine cirque basin which contains two lakes, Florence Lake and Hjort Lake. The RNA boundary is defined by the Fenn Mountain ridge to the east and an unnamed ridge to the west and south. Elevations in the area range from 6,210 feet to 8,021 feet. Vegetation consists of small forest stands interspersed with shrub fields and herbaceous communities. Rock cliffs and talus slopes are common and predominate upper elevations. Fish occur in the lakes and attract a small amount of recreational use. Forest habitat types in the RNA are in the Abies lasiocarpa series. Shrub communities are dominated by Salix commutata and Alnus sinuata. A small area is dominated by Salix glauca. Sizable portions of rocky side slopes are dominated by Polygonum phytolaccifolium with other moist site forbs such as Boykinia major and Senecio triangularis. Wetlands adjacent to the lakes contain Carex aquatilis and Carex illota.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Streptopus amplexifolius	17
Carex aquatilis	7

Land Manager: USDA Forest Service
Designation: Proposed Research Natural Area

FISH LAKE **CDC Site # 424**

County: Idaho
Location: Fish Lake RNA is located at the head of Lake Creek in the Salmon River drainage in north central Idaho. The RNA is located approximately five miles due east of Buffalo Hump in the

Gospel Hump Wilderness.

Size (acres): 754 **Elevation Range (feet):** 5,605 - 6,400
Site Description: Fish Lake RNA is a steep-walled glacial trough containing a 29 acre productive lake and wet meadows vegetated primarily by Calamagrostis canadensis and Carex rostrata. Elevations in the RNA range from 5,605 feet where Lake Creek flows from the RNA to the 6,400 foot contour lines east and west of Fish Lake. The RNA contains several habitat types including Abies lasiocarpa/Xerophyllum tenax, which occupies the greatest area, and the Abies lasiocarpa/Calamagrostis canadensis and Abies lasiocarpa/Streptopus amplexifolius habitat types of the moist spruce bottoms. Fish Lake is one of only two lakes in the Buffalo Hump region that is naturally stocked. The lake contains Oncorhynchus mykiss and Salvelinus fontinalis.

Wetland and Riparian Plant Associations and Size (in acres):

Calamagrostis canadensis	7.5
Carex utriculata	7.5

Land Manager: USDA Forest Service
Designation: Research Natural Area

FROG MEADOWS **CDC Site # 342**

County: Lemhi
Location: Frog Meadows RNA is located in the Yellowjacket Mountains, approximately one air mile northeast of Yellowjacket Lake. The area is approximately 32 air miles west of Salmon, Idaho.

Size (acres): 330 **Elevation Range (feet):** 7,220 - 7,985
Site Description: Frog Meadows RNA occurs in a rolling, high elevation basin at the head of Yellowjacket Creek. Elevations in the RNA range from 7,200 feet at the northeast corner of the area on Yellowjacket Creek to 7,985 feet on the knoll in the southeastern part of the RNA. The primary features of the area are the aquatic and wetland communities. Numerous springs and streams flowing through the wet meadows contain very soft water with a circumneutral pH. The streams are generally slow-flowing with many deep pools. The dominant plant species of the area are Pinus contorta, Vaccinium scoparium, and Carex geyeri. Species diversity is relatively low due to high elevations, cold temperatures, and the granitic substrate.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	16

Land Manager: USDA Forest Service
Designation: Research Natural Area

GOAT CREEK **CDC Site # 252**

County: Custer
Location: The site is located southwest of Stanley and encompasses a tributary valley of Sawtooth Valley, at the foot of the Sawtooth Mountains. The site may be accessed by trail from Iron Creek Road (FS Road 619).

Size (acres): 804 **Elevation Range (feet):** 6,740 - 7,400
Site Description: Goat Creek is located on the northeast toe slope of the Sawtooth Mountains. The site is representative of low gradient glaciofluvial environments characteristic of glaciated mountains of the Idaho Batholith ecoregional section. The site provides a relatively rare, pristine example of a naturally levied stream. Forested plant associations range from Pseudotsuga menziesii/Calamagrostis rubescens on relatively warm, dry ridgespur habitats to Abies lasiocarpa/Vaccinium caespitosum on cool, moist valley bottom habitats. A moderately-sized wet

sedge meadow occurs in the valley bottom in association with low gradient meanders of Goat Creek. A mosaic of sedge-dominated plant associations is present. Riparian shrub communities occur in small, patchy stands adjacent to Goat Creek. A beaver-maintained wetland system occurs within the upper portion of the valley. Evidence of elk use abounds throughout the area.

Wetland and Riparian Plant Associations and Size (in acres):

Pinus contorta/Vaccinium occidentale	23
Betula glandulosa/Carex utriculata	5
Potentilla fruticosa/Deschampsia cespitosa	4
Carex utriculata	12
Deschampsia cespitosa	5
Carex aquatilis	8
Carex buxbaumii	20

Land Manager: USDA Forest Service
Designation: Proposed Research Natural Area

GRAVE PEAK **CDC Site # 315**

County: Idaho
Location: Grave Peak RNA lies on the northern boundary of the Selway-Bitterroot Wilderness in the Clearwater Mountains of northern Idaho. The RNA is approximately 8.5 air miles south of Powell Ranger Station, which is located on the Lochsa River.

Size (acres): 360 **Elevation Range (feet):** 6,850 - 8,282
Site Description: Grave Peak RNA is a glacier-carved, fire-scarred, very rocky, subalpine cirque basin. Elevations in the RNA range from 6,850 feet where the north fork of Swamp Creek flows from the RNA to 8,282 feet on Grave Peak. Five small lakes are found in the area with sedge meadows above two of the lakes. These meadows occupy narrow bands largely constrained by the bedrock and steep terrain. Two streams of gentle-to-steep gradient converge into one stream before leaving the area. The most striking feature of the RNA is the barren, granitic rock. Bedrock and talus, ranging in size from cobbles to blocks the size of a house, dictate the location of forest stands. Vegetation of the area consists of typical northern Idaho subalpine vegetation, especially Abies lasiocarpa, Pinus albicaulis, Larix lyallii, Picea engelmannii, Erythronium grandiflorum, and Phyllodoce empetriformis. The forests are in early stages of succession. The trees range in size from sapling to pole, having generated following the 1919 fire.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	0.5
Carex scopulorum	2

Land Manager: USDA Forest Service
Designation: Research Natural Area

LAVA BUTTE **CDC Site # 594**

County: Idaho
Location: Lava Butte RNA lies in the western Salmon River Mountains, south of Hershey Point and approximately 25 air miles north of McCall, Idaho.

Size (acres): 370 **Elevation Range (feet):** 7,420 - 8,328
Site Description: The Lava Butte RNA encompasses a subalpine glacial basin/ridgeline system. In extensive wet sedge meadow vegetation Carex aquatilis is abundant, with scattered patches of Calamagrostis canadensis and Salix spp. A series of small, raised ponds occur in the wetland near the northern headwall. Lava Butte Lakes occur in the southern basins. The area offers an exceptional opportunity to study the influence of parent material on plant distribution as the contact

between granite and basalt formations occurs on Lava Butte. Abies lasiocarpa and Pinus albicaulis habitat types and dry grass meadow vegetation occur in upslope positions.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Caltha biflora	5
Abies lasiocarpa/Calamagrostis canadensis	5

Land Manager: USDA Forest Service
Designation: Research Natural Area

LOCHSA **CDC Site # 348**

County: Idaho
Location: The Lochsa RNA is located along the Lochsa River in north-central Idaho, upstream (northeast) of Lowell, Idaho. The southern boundary of the RNA is approximately seven miles northeast of Lowell via U.S. Route 12.

Size (acres): 1,490 **Elevation Range (feet):** 1,600 - 3,680
Site Description: The Lochsa RNA borders the Lochsa River in steep, mountainous country dissected by a number of streams. Elevations in the RNA range from 1600 feet along the Lochsa River to 3680 feet. Much of the area was burned by the Pete King fire of 1934. While the climax dominant of the RNA is mainly Thuja plicata, repeated burning has resulted in plant communities in several stages of secondary succession. Pseudotsuga menziesii stands occupy the greatest area; stands of Abies grandis and Thuja plicata are less common. The area provides a unique center of unusual plant species, both disjunct and endemic. Cornus nuttallii is a characteristic species and is found throughout the RNA. approximately 14 other species that are rarely found inland also occur in this area.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Clintonia uniflora	920

Land Manager: USDA Forest Service
Designation: Research Natural Area

MOOSE MEADOW CREEK **CDC Site # 425**

County: Idaho
Location: Moose Meadow Creek RNA is located along upper Big Creek in the Salmon River drainage in north-central Idaho, approximately two to three miiles east of the eastern boundary of the Gospel Hump Wilderness. The RNA is 9 air miles southwest of Red River Ranger Station, 13 air miles south-southwest of Elk City, Idaho, and 36 air miles southeast of Grangeville, Idaho.

Size (acres): 1,015 **Elevation Range (feet):** 6,400 - 7,425
Site Description: Moose Meadow Creek RNA contains Moose Meadow Creek, a moderate gradient stream fed by a number of small side streams, and associated wet meadows and sphagnum bogs. Elevations in the RNA vary from 6,400 feet at the mouth of the creek to 7,425 feet at the high point on the southern ridge. The area contains mature forests of Pinus contorta, Abies lasiocarpa, and Picea engelmannii. The mountain pine beetle (Dendroctonus ponderosae) has caused high mortality of Pinus contorta in the RNA. The RNA supports five Abies lasiocarpa habitat types, ranging from the moist Abies lasiocarpa/Caltha biflora and Abies lasiocarpa/Calamagrostis canadensis to Abies lasiocarpa/Xerophyllum tenax found on the most xeric slopes.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Caltha biflora	200
Abies lasiocarpa/Calamagrostis canadensis	15
Abies lasiocarpa/Streptopus amplexifolius	1

Calamagrostis canadensis	30
Carex utriculata	30
Eleocharis palustris	2
Eleocharis pauciflorus	5

Land Manager: USDA Forest Service
Designation: Research Natural Area

MYSTERY LAKE **CDC Site # 487**

County: Lemhi
Location: Mystery Lake is located in the Salmon River Mountains, at the head of the Loon Creek drainage, approximately 28 air miles west of Challis, Idaho.

Size (acres): 517 **Elevation Range (feet):** 8,560 - 10,329
Site Description: Mystery Lake RNA encompasses a glaciated basin at the head of Mystery Creek. The basin includes several lakes varying greatly in both size and productivity. Elevations range from 8,560 feet where Mystery Creek leaves the RNA to 10,329 feet on the summit of The General. The area is geologically complex, being underlain by Idaho Batholith granitics and close to the contact with the Custer Graben. Numerous volcanic dikes of tertiary age have cut the granitic bedrock. A large rock glacier occurs below the headwall of The General and is moving into Mystery Lake. The site lies in the relatively arid, central portion of the Salmon River Mountains. As a result, the Abies lasiocarpa and Pinus albicaulis communities in the area represent the xeric end of their respective habitat type series. Considerable cliff and talus habitat occurs at upper elevations in the area. Above the Abies lasiocarpa and Pinus albicaulis krummholz at upper timberline on The General, there is a small alpine zone dominated by plants adapted to talus and scree.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	30

Land Manager: USDA Forest Service
Designation: Research Natural Area

NEEDLES **CDC Site # 493**

County: Valley
Location: Needles RNA is located in the North Fork Payette River drainage at the headwaters of an unnamed tributary to the North Fork Gold Fork River. The site is approximately 34 miles northeast of Cascade, Idaho.

Size (acres): 985 **Elevation Range (feet):** 6,750 - 8,880
Site Description: Needles RNA encompasses the headwaters of a perennial tributary to the North Fork Gold Fork River and includes a high-elevation glacial cirque occurring on granitic rocks of the Idaho Batholith. The watershed is surrounded on three sides by ridges of bare rock topped in places by granite monoliths, some of which are up to 50 feet tall. The RNA derives its name from a summit in the southwest corner which is topped by such monoliths. Elevations in the RNA range from approximately 6,750 feet in the stream bottom at the lower RNA boundary, to 8,880 feet on a peak on the east side of the upper cirque basin. A large portion of the area is exposed granite bedrock supporting little vegetative cover. The RNA supports at least nine Abies lasiocarpa habitat types. Slopes surrounding the basin are dominated by exposed granite with very open stands and stringers of Picea engelmannii, Abies lasiocarpa, and Pinus albicaulis. The Pseudotsuga menziesii/Carex geyeri habitat type occurs on dry sites at the lowest elevations. Small inclusions of Alnus sinuata glades occur on forested slopes. The upper basin is fed by numerous springs, resulting in extensive sedge meadows surrounding a shallow lake. Most of the area within the RNA

burned in the 1989 Needles Complex fires but nothing is known of the extent of the damage within the RNA.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	109
Abies lasiocarpa/Streptopus amplexifolius	109
Alnus sinuata	Undetermined

Land Manager: USDA Forest Service
Designation: Research Natural Area

NO BUSINESS CREEK **CDC Site # 169**

County: Idaho
Location: No Business Creek RNA is located in west-central Idaho in the lower Salmon River drainage, approximately nine miles east of Slate Creek Ranger Station via FS Road 354 up Slate Creek.

Size (acres): 1,360 **Elevation Range (feet):** 2,520 - 7,200
Site Description: No Business Creek RNA is steep, forested, mountainous terrain in the lower Salmon River drainage. Elevations in the RNA range from 2,520 feet on Slate Creek at the northwestern corner of the RNA to 7,200 feet near Slate Point. The geology of the area is complex. The lower part is limestone and the upper portion granitics. Part of the limestone portion is subject to slumping. No Business Creek has the highest water pH of all the RNAs in Idaho. The area contains a number of interesting species, including Adiantum pedatum, Taxus brevifolia, and Alnus rhombifolia. The frog, Ascaphus truei, is present within the area. A great number of plant associations are present in the RNA. Mature Abies grandis stands growing in a variety of habitat types occupy much of the area. Associations of Abies lasiocarpa, Pseudotsuga menziesii, Pinus ponderosa, and Cercocarpus ledifolius are also present.

Wetland and Riparian Plant Associations and Size (in acres):

Abies grandis/Taxus brevifolia/Asarum caudatum	50

Land Manager: USDA Forest Service
Designation: Research Natural Area

O'HARA CREEK **CDC Site # 175**

County: Idaho
Location: O'Hara Creek RNA is located in the Selway River drainage, approximately 12 miles northwest of Elk City, Idaho.

Size (acres): 7,000 **Elevation Range (feet):** 2,080 - 6,815
Site Description: O'Hara Creek RNA contains a large undisturbed stream system which includes cascades and waterfalls, beaver colonies and dams, and wet streamside meadows. Elevations in the RNA range from approximately 2,080 feet at the northern boundary where O'Hara Creek exits the RNA, to 6,815 feet on the peak of Iron Mountain. A wide range of habitat types are present in the RNA. Thuja plicata is found associated with tall fern species on the lower alluvial terraces and sheltered slopes. Pseudotsuga menziesii/Physocarpus malvaceus is found on dry, rocky south slopes. Intermediate areas support several moist Abies grandis plant associations. Higher elevations support Abies lasiocarpa and subalpine parkland associations. A variety of successional stages resulting from past wildfires also occur in the RNA. The main O'Hara Creek is an anadromous fish stream. The area contains both disjunct Pacific coastal vegetation and endemic species of limited distribution.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Adiantum pedatum	903
Thuja plicata/Clintonia uniflora	903

Land Manager: USDA Forest Service
Designation: Research Natural Area

PATRICK BUTTE **CDC Site # 684**

County: Idaho
Location: Patrick Butte is located in the western Salmon River Mountains approximately eight and a half air miles southeast of Riggins, Idaho.

Size (acres): 804 **Elevation Range (feet):** 5,490 - 8,841
Site Description: Patrick Butte is a high granitic peak and glacial cirque basins in the western Salmon River Mountains. Elevations range from 8,841 feet at the summit of Patrick Butte to 5,490 feet along Patrick Creek on the eastern boundary of the site. Goat Lake, a three-acre lake that supports Salvelius fontinalis, lies in the northwest-facing cirque basin southwest of Patrick Butte. The area is primarily forested by Pinus albicaulis and Abies lasiocarpa. The slopes of Patrick Butte support an extensive stand of pygmy Pinus albicaulis. The area also features streams ranging from gentle and meandering to steep, a small pond, several wet meadows, and exposures of granitic bedrock, boulders, and talus slopes.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	7
Alnus sinuata	25

Land Manager: USDA Forest Service
Designation: Proposed Research Natural Area

PHOEBE MEADOWS **CDC Site # 184**

County: Valley
Location: Phoebe Meadows is located in the western Salmon River Mountains, at the head of Phoebe Creek, south of Indian Ridge, between the South Fork Salmon River and East Fork South Fork Salmon River. The area is approximately 22 air miles east of McCall, Idaho.

Size (acres): 1,256.50 **Elevation Range (feet):** 6,100 - 7,400
Site Description: Phoebe Meadows is located in a granitic, montane basin that forms the headwaters of Phoebe Creek, a tributary of the South Fork Salmon River. The fluvial basin is formed from granitic bedrock and dissected by a network of streams that feed an unusually extensive system of wet meadows on the floor of the basin. This extensive wetland system includes a small pond, Carex spp., Eriorphorum polystachion, Sphagnum mat and riparian shrub communities. Upland areas within the basin support examples, in various successional stages, of Pseudotsuga menziesii and Abies grandis series habitat types, an unusual Pinus contorta habitat type, and a particularly diverse representation of at least eight Abies lasiocarpa habitat types. Mid-seral forest stands in the Pseudotsuga menziesii series are dominated by large Pinus ponderosa.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	5

Land Manager: USDA Forest Service
Designation: Research Natural Area

POLE CREEK EXCLOSURE **CDC Site # 485**

County: Blaine
Location: Pole Creek Exclosure is located near Pole Creek Guard Station on the eastern edge of the Sawtooth Valley at the foot of the Boulder Mountains, approximately 27 miles southeast of Stanley, Idaho.

Size (acres): 32 **Elevation Range (feet):** 7,320 - 7,360
Site Description: Pole Creek Exclosure occurs in the center of the wide valley bottom of Pole Creek along the east side of the Sawtooth Valley. Pole Creek has cut a shallow, relatively wide floodplain through undulating, well-drained glacial deposits. Elevations in the area vary little, from 7,320 to 7,360 feet. Vegetation of the area is comprised of Artemixia tredentata ssp. vaseyana habitat types on xeric upland sites, a Abies lasiocarpa habitat type on mesic upland sites, and Pinus contorta, willow- and sedge-dominated communities on saturated substrates along Pole Creek.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Carex utriculata	1.8
Salix wolfii/Carex utriculata	1.8
Carex utriculata	1.8
Potentilla fruticosa/Danthonia intermedia	1.8

Land Manager: Sawtooth National Recreation Area
Designation: Research Natural Area

PONDEROSA PENINSULA **CDC Site # 715**

County: Valley
Location: The Ponderosa Peninsula site is located within Ponderosa State Park on Payette Lake, northeast of McCall, Idaho.

Size (acres): 290 **Elevation Range (feet):** 4,986 - 5,280
Site Description: The site encompasses the central portion of a large peninsula which extends north into Payette Lake. The natural area extends from the shoreline of Payette Lake (4986 feet elevation) to the top of a knoll (5,280 feet). A lake, two small ponds, and an associated wetland system are present. The site provides representation of a diverse range of forested plant associations.

Wetland and Riparian Plant Associations and Size (in acres):

Picea engelmannii/Equisetum arvense	Undetermined

Land Manager: Idaho Department of Parks and Recreation
Designation: Natural Area

PONY MEADOWS **CDC Site # 595**

County: Idaho and Valley
Location: Pony Meadows RNA is located in the Salmon River Mountains approximately 61 miles northeast of McCall and approximately 11 miles south of Warren, Idaho.

Size (acres): 1,460 **Elevation Range (feet):** 6,550 - 8,376
Site Description: Pony Meadows RNA encompasses wet meadows, streams, and a pond at the headwaters of Pony Creek; a cirque basin containing a shallow lake and a spruce bog at the head of Steamboat Creek; and adjacent burned and unburned forested and rocky slopes. The area includes stands of old growth Engelmann spruce, Abies lasiocarpa, Pseudotsuga menziesii, Pinus contorta, and Pinus albicaulis. Young stands of Pinus contorta, Engelmann spruce, and Abies

lasiocarpa are also present. A portion of the RNA burned in 1947 and is now in early seral vegetation. The area also contains granite boulder fields and rock cliffs with vegetation typical of these habitats.

Wetland and Riparian Plant Associations and Size (in acres):
Abies lasiocarpa/Calamagrostis canadensis 1

Land Manager: USDA Forest Service
Designation: Research Natural Area

SALMON MOUNTAIN **CDC Site # 476**

County: Idaho
Location: Salmon Mountain RNA is located on the divide between the upper Selway River drainage and the Salmon River drainage in east-central Idaho, within the Frank Church-River of No Return Wilderness.

Size (acres): 1,923 **Elevation Range (feet):** 6,360 - 8,800
Site Description: Salmon Mountain RNA is high-elevation, mountainous terrain supporting forests dominated by Larix lyallii, Pinus albicaulis, and Abies lasiocarpa. Elevations in the RNA range from 6,360 feet along Three Lakes Creek to 8,800 feet on the RNA boundary just below Salmon Mountain lookout. The forests occur as "ribbon forests" - elongated, narrow strips of timber perpendicular to the prevailing wind. Interspersed within the timbered areas are narrow bands of mesic subalpine meadows called "snow glades." The meadows are dominated by Festuca viridula, Carex geyeri, Luzula hitchcockii, Juncus parryi, Phlox pulvinata, Pedicularis contorta, and Antennaria spp. The RNA also contains intermittent and permanent streams, cold springs, low production lakes, and lakes without fish.

Wetland and Riparian Plant Associations and Size (in acres):
Abies lasiocarpa/Calamagrostis canadensis 33

Land Manager: USDA Forest Service
Designation: Research Natural Area

SAWTOOTH VALLEY PEATLANDS **CDC Site # 495**

County: Custer
Location: The Sawtooth Valley Peatland sites are located in the upper Sawtooth Valley, on the eastern slope of the Sawtooth Mountains, south of Stanley, Idaho.

Size (acres): 296 **Elevation Range (feet):** 6,640 - 6,840
Site Description: The Sawtooth Valley Peatlands site is comprised of three peatlands that lie at the east base of the Sawtooth Range, in the Sawtooth Valley of central Idaho. The three peatlands are relatively small, ranging in size from 34 to 80 ha, and lie in close proximity to one another at the western edge of the Sawtooth Valley. They are similar in that the organic substrates are greater than 12 inches thick, yet each is different from the others, and together they encompass much of the range of diversity of peatland habitats in the Sawtooth Valley. All three fens have high community diversity and a mosaic of communities. Mays Creek Fen has excellent and extensive examples of Scirpus caespitosus-Carex livida (a rare plant association) and smaller stands of the Carex buxbaumii association. Other associations include Pinus contorta/Vaccinium occidentale, Carex rostrata and Eleocharis pauciflora. The Huckleberry Creek Fen contains excellent examples of the rare Scirpus caespitosus-Carex livida and Carex buxbaumii associations. The unique feature of Huckleberry Creek Fen is that the Scirpus caespitosus-Carex livida and Eleocharis pauciflora associations occur on steeper slopes and have deeper peat deposits than at Mays Creek. At the Bull Moose Fen an extensive, continuous area containing a mosaic of Scirpus caespitosus and

Eleocharis pauciflora on moderate slopes is present. A unique feature of the Bull Moose Fen is a peat terrace that occurs along the southern boundary. The terrace is 20-30 feet higher than the adjacent part of the fen and contains the source of several spring-fed rivulets that cascade down the face.

Wetland and Riparian Plant Associations and Size (in acres):

Pinus contorta/Vaccinium occidentale	20
Scirpus cespitosus-Carex livida	25

Land Manager: Sawtooth National Recreation Area
Designation: Research Natural Area

SNEAKFOOT MEADOWS **CDC Site # 222**

County: Idaho
Location: Sneakfoot Meadows RNA is located approximately four air miles southeast of Powell, in the Bitterroot Mountains of northeastern Idaho. The RNA is accessible in the summertime from U.S. Route 12 near Powell Ranger Station.

Size (acres): 1,965 **Elevation Range (feet):** 5,890 - 6,616
Site Description: Sneakfoot Meadow RNA encompasses a portion of the relatively gently rolling, glaciated upland in the Elk Summit region of the Bitterroot Mountains. Elevations in the area range from 5,890 feet where the creek leaves the RNA at the southeastern boundary to 6,616 feet along the ridge on the northern boundary of the RNA. The RNA contains an extensive and diverse graminoid and forested wetland complex, including sphagnum bogs. Three Abies lasiocarpa habitat types are present in the RNA, with stands in various stages of secondary succession. Other features of the RNA include a low-gradient, meandering stream and an entire headwaters-basin surrounding Sneakfoot Meadows at the head of an unnamed tributary of Colt Creek. Sneakfoot Meadows is heavily used by elk and moose throughout the year.

Wetland and Riparian Plant Associations and Size (in acres):

Pinus contorta/Vaccinium occidentale	104
Abies lasiocarpa/Calamagrostis canadensis	104
Calamagrostis canadensis	104
Carex utriculata	104
Carex aquatilis	104

Land Manager: USDA Forest Service
Designation: Research Natural Area

SOLDIER LAKES **CDC Site # 335**

County: Custer
Location: Soldier Lakes RNA is located 25 air miles northwest of Stanley, Idaho, at the head of Soldier Creek, a tributary to the Middle Fork Salmon River. Access to Soldier Lakes RNA is from State Route 21, 18 miles (29 km) northwest of Stanley, Idaho.

Size (acres): 175 **Elevation Range (feet):** 7,900 - 9,147
Site Description: Soldier Lakes RNA contains two ponds and two lakes connected by moderate to steep gradient streams in high elevation cirque basins of granitic rock. One lake supports brook trout; the other does not support fish. The cirque basins in which the lakes are located are sparsely forested with mature Abies lasiocarpa, Pinus contorta, Picea engelmannii, and Pinus monticola. A considerable portion of these basins consists of rocky, treeless headwalls and talus slopes. Elevations in the RNA range from 7,900 feet along the northern boundary to 9,147 feet at the highest point on the ridge above the upper basin.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	2

Land Manager: USDA Forest Service
Designation: Research Natural Area

SQUARE MOUNTAIN CREEK **CDC Site # 230**

County: Idaho
Location: Square Mountain Creek RNA is located in the center of the Gospel-Hump Wilderness, in the South Fork Clearwater River drainage of north-central Idaho. The area is 51 road miles south-southeast of Grangeville, Idaho. The RNA is accessible by road only in the snow-free season.

Size (acres): 709 **Elevation Range (feet):** 6,635 - 8,000
Site Description: Square Mountain Creek RNA is a glaciated cirque basin containing a number of aquatic features including a lake, a stream that drains the lake, meadows, and wet meadows. Elevations in the area range from 6,635 feet where Square Mountain Creek leaves the RNA to 8,000 feet on Square Mountain. The area has a complex geology. It occurs on the contact line between sedimentary Belt quartzite rocks and the igneous, granitic rocks of the Idaho Batholith. Much of the RNA is exposed rock in the form of cliffs and talus slopes on bedrock. The entire area burned in 1919 and partially burned again in 1933. Tree cover is minimal over much of the RNA as a result of the lack of adequate soil development and fire. Pinus albicaulis-Abies lasiocarpa habitat types occur within the RNA, along with at least six Abies lasiocarpa types. Douglasia idahoensis, a category 2 candidate and Forest Service Sensitive species, is found on Square Mountain along the southwest boundary of the area.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Calamagrostis canadensis	50
Calamagrostis canadensis	20
Carex nigricans	2
Carex scopulorum	5

Land Manager: USDA Forest Service
Designation: Research Natural Area

STAPP-SOLDIER CREEK **CDC Site # 234**

County: Camas
Location: The site is within the Stapp-Soldier Creek Preserve, located approximately ten road miles north of Fairfield.

Size (acres): 94 **Elevation Range (feet):** 5,510 - 6,200
Site Description: Soldier Creek is a south-trending drainage in a moderately-wide valley bottom. The site includes an approximately 0.5 mile reach of Soldier Creek and its tributary Free Gold Creek. Soldier Creek is characterized by a mosaic of Populus trichocarpa, Alnus incana, and Salix spp. tree and shrub dominated communities. Small openings are dominated by mesic graminoids and forbs (Carex lanuginosa, Calamagrostis canadensis, Muhlenbergia montana, Alopecurus aequilis, Glyceria elata, Heracleum lanatum, Scirpus microcarpus and others). The openings are a product of past beaver activity and typically occur on failed or abandoned dams. The terrace above Soldier Creek is dominated by Agropyron smithii and Elymus cinereus. Disturbance species are also widespread in the riparian area. The adjacent meadows have been plowed and seeded to wheatgrass. The north-facing hillside is in pristine condition. Two plant associations dominate: Artemisia tridentata/Agropyron spicatum and Festuca idahoensis/Agropyron smithii. Small stands of Prunus virginiana, Acer glabrum, and Populus tremuloides are also present. The Wood River sculpin is also found within the preserve boundary.

Wetland and Riparian Plant Associations and Size (in acres):

Populus trichocarpa/Cornus stolonifera	10
Alnus incana/Mesic forb	5
Elymus cinereus	5
Agropyron smithii	2
Carex lanuginosa	1
Juncus balticus	3
Populus trichocarpa/Salix lutea	5
Veratrum californicum	1

Land Manager: The Nature Conservancy
Designation: TNC Preserve

TRINITY MOUNTAIN **CDC Site # 312**

County: Elmore
Location: Trinity Mountain RNA is located in the Trinity Mountains, approximately 8 air miles west of Featherville and approximately 38 air miles east of Boise, Idaho.

Size (acres): 204 **Elevation Range (feet):** 8,130 - 9,451
Site Description: Trinity Mountain RNA encompasses one of a complex series of cirques on the north side of Trinity Mountain. Trinity Mountain is one of the highest peaks in the Boise Mountains, and occurs on granitics of the Idaho batholith. The vegetation is characterized by mostly open, high elevation forests, including Abies lasiocarpa and Pinus albicaulis habitat types, with small inclusions of Artemisia tridentata ssp. vaseyana on the upland and several graminoid, forb, and shrub wetland communities in the drainage bottoms. Fiddle Lake is within the natural area.

Wetland and Riparian Plant Associations and Size (in acres):

Caltha leptosepala	10

Land Manager: USDA Forest Service
Designation: Research Natural Area

UPPER NEWSOME CREEK **CDC Site # 263**

County: Idaho
Location: Upper Newsome Creek RNA is located in the South Fork Clearwater River drainage, on the south slope of the divide between the South Fork Clearwater and Selway River drainages. The RNA is approximately 18 miles south of Lowell, Idaho.

Size (acres): 1,201 **Elevation Range (feet):** 4,430 - 5,720
Site Description: Upper Newsome Creek RNA is located at the head of Newsome Creek, a tributary of the South Fork Clearwater River. The RNA is comprised of a complex series of short, dentritically arranged drainages, converging within the area to form the headwaters of Newsome Creek. Elevations in the area range from 4,430 feet where Newsome Creek leaves the RNA to 5,720 feet at the northwest corner of the RNA. Vegetation in the area is comprised mostly of old growth Abies grandis forest with a dense understory of Taxus brevifolia. Forest stands are primarily Abies grandis/Asarum caudatum habitat type, with three phases represented. This habitat type is interrupted occasionally by Alnus sinuata communities on slopes and Abies grandis/Senecio triangularis along drainage bottoms. Two USFS Region 1 Sensitive plant species, Mertensia bella and Synthyris platycarpa, have been collected in the RNA.

Wetland and Riparian Plant Associations and Size (in acres):

Abies grandis/Senecio triangularis	20
Abies grandis/Taxus brevifolia/Asarum caudatum	387
Alnus sinuata/Montia cordifolia	20

Land Manager: USDA Forest Service
Designation: Research Natural Area

WARM SPRINGS CREEK **CDC Site # 271**

County: Idaho
Location: Warm Springs Creek RNA is located in the Selway River drainage, at the eastern edge of the Nez Perce National Forest near the Selway-Bitterroot Wilderness boundary, approximately 40 road miles northeast of Red River Ranger Station or approximately 116 road miles east of Grangeville, Idaho. The RNA is approximately two miles west of Parachute Ridge and is at the southern end of Patrol Ridge.

Size (acres): 530 **Elevation Range (feet):** 3,910 - 5,320
Site Description: Warm Springs Creek RNA is mountainous country containing two thermal springs and a number of Pseudotsuga menziesii, Abies grandis, and Thuja plicata habitat types. Elevations in the RNA range from approximately 3,910 feet where Running Creek flows from the RNA at the mouth of Patrol Creek to approximately 5,320 feet at the northern point of the RNA. The RNA is located at the southern limit of the occurrence of Thuja plicata and eastern limit of Larix occidentalis in Idaho. Larix occidentalis has not been observed in the RNA, but occurs nearby and may be found within the boundaries. The upper spring is undisturbed. The RNA also contains some old growth Pinus ponderosa trees, a result of past fires in the area.

Wetland and Riparian Plant Associations and Size (in acres):

Abies grandis/Senecio triangularis	25
Abies grandis/Taxus brevifolia/Asarum caudatum	75

Land Manager: USDA Forest Service
Designation: Research Natural Area

FORMATION SPRINGS **CDC Site # 97**

County: Caribou
Location: From Soda Springs, proceed east and north on State Hwy 34 for approxiamstely three miles. Turn east on the Trail Canyon Road to the preserve entrance.

Size (acres): 192 **Elevation Range (feet):** 6,070 - 6,130
Site Description: Formation Springs emanates from the base of the Aspen Range and flows across the valley floor for approximately one mile, where it then sinks into the porous substrate. Water from the spring originates from deep sources and is supersaturated with calcium carbonate. As the creek flows along the surface, large amounts of calcium carbonate precipitate out of solution, forming extensive travertine deposits. Damming action resulting from these deposits is responsible for continuous changes in the direction of water flow. This process, occurring over thousands of years, has formed a number of interesting features, including a cave, travertine barrens, active (wet) and inactive (dry) rimmed pools, and a unique aquatic ecosystem. The main spring channel is vegetated by a band of the Betula occidentalis. Patches of the Prunus virginiana and Populus tremuloides with an understory of Berberis repens are also present. Betula occidentalis also occurs on drier hummocks, with Purshia tridentata, Amelanchier alnifolia, and Berberis repens. Drier sites are occupied by the Purshia tridentata/Poa nevadensis and Artemisia tripartita/Elymus cinereus; the Elymus cinereus community occurs in swales. Extensive travertine barrens are present with little vegetation.

Wetland and Riparian Plant Associations and Size (in acres):

Betula occidentalis	7
Betula occidentalis/Purshia tridentata/Stipa comata	15
Prunus virginiana	1.5
Elymus cinereus	7

Land Manager: Bureau of Land Management
Designation: Research Natural Area; Area of Critical Environmental Concern; TNC Preserve

HENRY STAMPEDE PARK **CDC Site # 450**

County: Caribou
Location: The site is located on the eastern shore of Blackfoot Reservoir. From Henry, travel 0.5 mile northwest to the marina. Access the site by walking west of the marina 0.25 mile.

Size (acres): 225 **Elevation Range (feet):** 6,120 - 6,180
Site Description: Henry Stampede Park is largely a calcareous wetland on the east shore of Blackfoot Reservoir near the mouth of the Little Blackfoot River. A number of graminoid and low shrub communities occur throughout the fen. Shallow-water marsh associations include Scirpus acutus and Typha latifolia, and occur in ponds and along the shore of Blackfoot Reservoir. The northern shoreline of the reservoir is vegetated with Salix exigua. Drawdown areas around ponds and spring channels near Warm Spring have Juncus balticus, Potentilla anserina, Ranunculus aquatilis, Myriophyllum sp., Distichlis spicata, and Salix exigua sprouts. This area has been heavily trampled by cows and has poor water quality. Tall shrub associations are present at the base of high point 6,344 with Salix lutea and Betula occidentalis communities and patches of Juniperus scopulorum, Salix geyeriana, Salix bebbiana, and Potentilla fruticosa present. Travertine accumulations occur throughout the site. These are most extensive near the southern site boundary.

Wetland and Riparian Plant Associations and Size (in acres):

Potentilla fruticosa/Deschampsia cespitosa	45

Betula occidentalis/Cornus stolonifera	11
Salix exigua/Barren	7
Salix exigua/Mesic graminoid	15
Deschampsia cespitosa	23
Distichlis stricta	7
Carex nebraskensis	11
Eleocharis palustris	7
Juncus balticus	23
Scirpus acutus	23
Typha latifolia	11
Eleocharis rostellata	7

Land Manager: Bureau Of Indian Affairs
Designation: Unprotected

NEGRO CREEK EXCLOSURE **CDC Site # 194**

County: Caribou
Location: The site is located approximately 29 miles by road north-northwest of Soda Springs along the Blackfoot River; approximately 5 miles below Blackfoot Reservoir.

Size (acres): 4 **Elevation Range (feet):** 5920
Site Description: The site is a small exclosure constructed in 1990 in an area that had been heavily grazed in the past. This history is expressed by the low abundance of Festuca idahoensis in the understory of Artemisia tripartita stands and the dominance of Poa pratensis in the understory of willow stands. Approximately three quarters of the area is a relatively dry terrace (Artemisia tripartita-dominated) while the remainder is dominated by Salix boothii and a small amount of Salix geyeriana.

Wetland and Riparian Plant Associations and Size (in acres):

Salix geyeriana/Mesic graminoid	1

Land Manager: Bureau of Land Management
Designation: Unprotected

SODA SPRINGS NATURAL SCENIC AREA **CDC Site # 416**

County: Caribou
Location: Soda Springs Natural Scenic Area is located west of downtown Soda Springs and east of the Soda Springs Golf Course, between Alexander Reservoir and the Union Pacific Railroad tracks.

Size (acres): 152 **Elevation Range (feet):** 5,700 - 5,790
Site Description: The Soda Springs Natural Scenic Area is a mosaic of wetland and upland plant associations. Phreatophytic woodlands are dominated by Pinus flexilis and Juniperus scopulorum. Wetlands are influenced by subsurface water flows, springs, and spring channels, and consist of a repeating mosaic of several plant associations. Deschampsia cespitosa and Potentilla fruticosa/Deschampsia cespitosa occur with the largest aerial extant.

Wetland and Riparian Plant Associations and Size (in acres):

Potentilla fruticosa/Deschampsia cespitosa	30
Phalaris arundinacea	7.5
Carex utriculata	7.5
Spartina gracilis	7.5
Deschampsia cespitosa	30
Carex simulata	4.5
Eleocharis acicularis	1.5
Juncus balticus	7.5
Scirpus acutus	7.5
Typha latifolia	1.5

Land Manager: Idaho Department of Transportation
Designation: Natural Area

TRAVERTINE PARK **CDC Site # 255**

County: Caribou
Location: Travertine Park is approximately 29 miles north-northwest of Soda Springs., The site is east of Fort Hall Indian Reservation and west of Blackfoot Reservoir, along both the north and south sides of the Blackfoot River.

Size (acres): 835 **Elevation Range (feet):** 6,000 - 6,350
Site Description: The riparian vegetation along this reach of the Blackfoot River consists primarily of a narrow band of deciduous shrubs (both dense clusters and widely scattered individuals). The river has a moderate-gradient boulder channel with little floodplain development. Springs emerge on uplands on the north side of the RNA, and a small shrubland is present along with the Deschampsia cespitosa community. The low shrub association Potentilla fruticosa/Fescue idahoensis and the Elymus cinereus community occur in the draw leading to the river. Gently sloping uplands are dominated by Artemisia tripartata with lesser amounts of Artemisia tridentata ssp. vaseyana. Prunus virginiana is present on stabilized talus slopes in the canyon.

Wetland and Riparian Plant Associations and Size (in acres):

Potentilla fruticosa/Deschampsia cespitosa	5
Alnus incana/Cornus stolonifera	1
Salix boothii/Carex utriculata	1
Salix boothii/Mesic graminoid	1
Salix exigua/Barren	1
Elymus cinereus	1
Carex utriculata	2
Deschampsia cespitosa	2
Carex nebraskensis	2
Eleocharis palustris	1
Juncus balticus	1
Salix lasiandra/Cornus stolonifera	2

Land Manager: Bureau of Land Management
Designation: Research Natural Area; Area of Critical Environmental Concern

TEX CREEK **CDC Site # 249**

County: Bonneville
Location: Tex Creek is located northeast of Idaho Falls and south of Ririe in Bonneville County, Idaho. The west side of the site surrounds the upper end of Ririe Reservoir; the east side borders the Caribou National Forest. The southern portions of the site encompasses portions of the Grays Lake Outlet Valley. A network of roadways leads visitors to all portion of the site.

Size (acres): 28,750 **Elevation Range (feet):** 5,119 - 7,287
Site Description: High upland desert dominates the western portion of Tex Creek. Upland plant associations are dominated primarily by Artemisia tridenata ssp. vaseyana. A series of lava rock-rimmed canyons winds through the region. On the eastern portion of the area, elevations climb to 7,300 feet, and shrub-dominated vegetation merges with managed fields and forested plant associations. Pseudotsuga menziesii and Populus tremuloides define the landscape, providing food and cover for numerous wildlife species. Riparian areas are largely dominated by Salix exigua with lesser amounts of Salix boothii, Salix geyeriana, Salix lutea, Salix lasiandra and Salix bebbiana. Significant amounts of Betula occidentalis are present along Tex Creek with an understory dominated by Cornus sericea. Cornus sericea occasionally forms its own community on high

gradient narrow valley bottom reaches. An approximate 0.25 mile reach with a narrow band of cottonwoods is present on Pipe Creek. Emergent vegetation is present on recent bars and best developed on Indian Fork and Meadow Creek where it occurs in association with natural (beaver) and human enhanced ponds. Common emergent species include Eleocharis palustris, Carex utriculata, Carex nebraskensis, Juncus balticus, Agrostis stolonifera, and Typha latifolia.

Wetland and Riparian Plant Associations and Size (in acres):

Betula occidentalis/Cornus stolonifera	150
Cornus stolonifera	150
Salix boothii/Mesic graminoid	150
Salix exigua/Mesic forb	150
Carex utriculata	20
Carex nebraskensis	20
Eleocharis palustris	20
Juncus balticus	20
Typha latifolia	50

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

ARMSTRONG MEADOWS — CDC Site # 287

County: Bonner
Location: Armstrong Meadows is located north of Priest Lake.

Size (acres): 120 **Elevation Range (feet):** 2,480 - 2,680
Site Description: Armstrong Meadows encompasses rich fen communities dominated by Spiraea douglasii, Alnus incana, Calamagrostis canadensis, Carex utriculata, Carex vesicaria, Carex aquatilis, and other sedges. Intermediate and poor fen communities are found in the southwestern lobe of the meadows and are dominated by Sphagnum centrale, Sphagnum teres, Aulacomnium palustre, Carex lasiocarpa, Carex cusickii, Eriophorum chamissonis, Eriophorum gracile, Menyanthes trifoliata, Spiraea douglasii, Betula glandulosa, and Salix pedicellaris. A rich fen dominated by Carex lasiocarpa, Carex buxbaumii, and Carex cusickii is present on the south end of Armstrong Meadows. In areas of paludified forest, located south of the intermediate and poor fen, the root boles of Thuja plicata, Tsuga heterophylla, and Pinus monticola are covered by hummocks of Sphagnum centrale. Between these raised sphagnum hummocks are pools of standing water with Scirpus microcarpus, Equisetum sylvaticum, Equisetum fluviatile, Calamagrostis canadensis, Senecio triangularis, Glyceria grandis, Carex brunnescens, and Carex leptalea. Vaccinium globulare, Linnaea borealis, Cornus canadensis, Rubus pedatus, and Aralia nudicaulis are common on the hummocks. Most of the margins of the meadow are dominated by shrub carr rich fen characterized by Spiraea douglasii, Alnus incana, and other shrubs. A spring stream emerges somewhere in the eastern part of Armstrong Meadows and runs through the northeastern portion of the meadow.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	5
Alnus incana/Carex utriculata	5
Carex utriculata	10
Carex buxbaumii	3
Carex lasiocarpa	8
Paludified forest	9
Carex cusickii	3
Poor fen	3

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

BEAR CREEK FEN — CDC Site # 288

County: Bonner
Location: From Coolin, Idaho travel north up the East Shore Road approximately 13 miles to the bridge over Bear Creek. From the bridge, walk downstream to the fen communities.

Size (acres): 425 **Elevation Range (feet):** 2,438 - 2,600
Site Description: Bear Creek Fen has formed along the low-gradient stretch of Bear Creek near the mouth of Priest Lake. Along the margins of Priest Lake is a stand of Typha latifolia and Carex lasiocarpa, which gives way to a rich fen characterized by Carex utriculata, Carex lasiocarpa, and Dulichium arundinaceum. These high-quality fen communities, however, occur in a relatively narrow band. Approximately 33 feet inland they are replaced by a dense monoculture of Phalaris arundinacea. Along the margins of Bear Creek, near the mouth is a shrub carr dominated by Salix spp., Spiraea douglasii with Carex utriculata, Carex vesicaria, and Phalaris arundinacea in the understory. The flow of Bear Creek becomes almost imperceptible near the mouth. The very sluggish margins support Hippurus montanus and Challitriche sp. High quality peatlands are located upstream from the mouth of Bear Creek. This area supports the full range of peatland communities: poor fen, intermediate fen, rich fen, shrub carr, and paludified forest. Several rare plant populations

are located in these habitats, including the only population of Maianthemum dilitatum known to occur in Idaho.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	100
Phalaris arundinacea	20
Carex utriculata	20
Carex lasiocarpa	20
Typha latifolia	20
Paludified forest	70
Poor fen	1

Land Manager: Idaho Department of Lands
Designation: State Endowment Lands

BINARCH CREEK **CDC Site # 35**

County: Bonner
Location: Binarch Creek RNA is located in the upper portion of the Binarch Creek drainage on the Priest Lake Ranger District, approximately 30 miles north-northwest of Priest River, Idaho.

Size (acres): 660 **Elevation Range (feet):** 2,660 - 3,200
Site Description: Binarch Creek RNA consists of a low gradient stream with beaver dams and ponds, inhabited by a very pure strain of westslope cutthroat trout, and adjacent steep forested slopes containing habitat types dominated by Abies grandis, Thuja plicata, Pseudotsuga menziesii, and Tsuga heterophylla. The stream valley is 50 to 400 feet wide and is floored by glaciofluvial outwash gravels. The adjacent slopes are partially underlain by granites and partly by Belt metasediments. The stream and ponds harbor an unusually high diversity of aquatic invertebrates and plants. Once a predominantly Pinus monticola drainage, infestation by the white pine blister rust and mountain pine beetle has decimated the species.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Oplopanax horridum	10

Land Manager: USDA Forest Service
Designation: Research Natural Area

BISMARK MEADOWS **CDC Site # 291**

County: Bonner
Location: Bismark Meadows is located west of the central portion of Priest Lake, Bonner County, Idaho.

Size (acres): 1,275 **Elevation Range (feet):** 2,600 - 2,720
Site Description: Bismark Meadows contains a unique mosaic of fen plant communities along the low-gradient meandering Reeder Creek. The most extensive community within the mosaic is a shrub carr dominated variously by Spiraea douglasii, Alnus incana, Betula glandulosa, Salix geyeriana, and Salix bebbiana. Interspersed among the shrub carr habitats are sedge-dominated rich fens.

Wetland and Riparian Plant Associations and Size (in acres):

Betula glandulosa/Carex utriculata	100
Spiraea douglasii	70
Alnus incana/Carex utriculata	100
Carex utriculata	300
Carex buxbaumii	100
Carex lasiocarpa	200
Paludified forest	14
Carex cusickii	20

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

BLUE LAKE **CDC Site # 292**

County: Bonner
Location: Blue Lake is located approximately eight air miles northeast of Priest River, Idaho.

Size (acres): 810 **Elevation Range (feet):** 2,238 - 2,600
Site Description: Blue Lake is a glacial kettle drainage lake nearly 100 acres in size. The Blue Creek inlet is on the east side and the outlet is on the west side of the lake. Much of the lake consists of vegetated littoral zones. Deep littoral zones are dominated by the submerged aquatic macrophytes Potamogeton praelongus, Potamogeton amplifolius, and Myriophyllum sibericum. Shallow littoral zones are dominated by Brasenia schreberi, Nuphar polysepalum, Utricularia vulgaris, Potamogeton berchtoldii, Elodea canadensis, and Ceratophyllum demersum. The north and west sides of the lake are encroached on by diverse floating mats, dominated by shrub carr and graminoid rich fens that intermix with each other freely. Characteristic species include Spiraea douglasii, Salix geyeriana, S. sitchensis, S. bebbiana, Alnus incana, Betula glandulosa, Typha latifolia, Carex utriculata, C. cusickii, Potentilla palustris, Juncus effusus, Phalaris arundinacea, Carex lasiocarpa, Dulichium arundinaceum, and Eleocharis palustris.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	20
Alnus incana/Carex utriculata	30
Phalaris arundinacea	70
Carex utriculata	20
Carex lasiocarpa	30
Nuphar polysepalum	7
Typha latifolia	60
Alnus incana/Lysichitum americanum	25
Carex cusickii	5

Land Manager: Idaho Department of Lands
Designation: State Endowment Lands

BOG CREEK FEN **CDC Site # 6**

County: Boundary
Location: Bog Creek is in the extreme northernmost portion of the U.S. Selkirk Mountains. It flows into Canada where it feeds Blue Joe Creek, and ultimately the Kootenai River. It can be accessed from either the Priest Lake side of the Selkirks or from the Kootenai River side.

Size (acres): 400 **Elevation Range (feet):** 4,200 - 4,520
Site Description: Bog Creek is a slow-moving, low gradient, meandering stream. Fen communities have formed along the stream scattered between forest stands dominated by Abies lasiocarpa, Picea engelmannii, and Pinus contorta. High quality Thuja plicata and Tsuga heterophylla plant associations are also present. The site is one of the few subalpine peatlands in which Carex lasiocarpa occurs as an important constituent. This species is typically restricted to valley peatlands. Carex utriculata, Carex aquatilis, Carex scopulorum, Carex lasiocarpa, and Eriophorum polystachion are the prominent sedges. Scattered patches of Sphagnum mosses also occur in the portions of the fen.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	Undetermined
Carex aquatilis	Undetermined
Carex lasiocarpa	Undetermined

Carex scopulorum	Undetermined
Eriophorum polystachion	Undetermined
Poor fen	Undetermined

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

BOTTLE LAKE **CDC Site # 40**

County: Bonner
Location: Bottle Lake RNA lies along the west side of Priest Lake in northern Idaho, northwest of Bottle Bay, approximately 47 miles north of Priest River or approximately 11 miles north-northeast of Nordman, Idaho. Access to Bottle Lake RNA is by paved road from Nordman.

Size (acres): 260 **Elevation Range (feet):** 2,800 - 3,368
Site Description: Bottle Lake RNA consists of Bottle Lake, a 15-acre sphagnum fen and lake, and adjacent slopes. Elevations in the RNA range from 2,800 feet where Bottle Creek leaves the area to 3,368 feet on the high knoll west of Bottle Lake. The primary feature of the RNA is the sphagnum fen. The open water of Bottle Lake presently covers two acres. This open water zone is surrounded by a thick border of sphagnum moss and associated macrophytes which ranges between 15-65 feet in width. Beyond this mat is a swampy border occupied by standing and down snags of trees and various aquatic flora. A one acre meadow on the northwest side of the lake is a wet muskeg bog during prolonged wet weather. The surrounding area is heavily forested with old-growth Thuja plicata, Tsuga heterophylla, and Pinus monticola. Abies grandis and Pseudotsuga menziesii also occur in the overstory.

Wetland and Riparian Plant Associations and Size (in acres):

Carex lasiocarpa	16
Poor fen	Undetermined

Land Manager: USDA Forest Service
Designation: Research Natural Area

CANYON CREEK **CDC Site # 54**

County: Bonner
Location: Canyon Creek RNA is located in the southeastern corner of the Priest River Experimental Forest in the vicinity of Gisborne Mountain, in the Priest River drainage of the Idaho Panhandle.

Size (acres): 977 **Elevation Range (feet):** 4,150 - 5,970
Site Description: Canyon Creek RNA lies at the southern end of the Selkirk Mountains. Elevations in the RNA range from 4,150 feet at the point where Canyon Creek flows out of the tract to 5,970 feet on the ridge at the extreme southeast corner near the location of the old Experimental Forest lookout. Most of the RNA is forested with late seral stands of Tsuga heterophylla, Thuja plicata, and Abies lasiocarpa plant associations. approximately 30 acres on the southern slope are an upper-slope "bald" grassland dominated by Festuca viridula and patches of Xerophyllum tenax. Huge rockslides occur throughout the RNA. A cold spring on the west slope of the RNA is the origin of Benton Creek. Canyon Creek originates from several springs within the RNA and flows northward.

Wetland and Riparian Plant Associations and Size (in acres):

Abies lasiocarpa/Streptopus amplexifolius	20
Thuja plicata/Athyrium filix femina	10
Thuja plicata/Oplopanax horridum	10
Tsuga heterophylla/Gymnocarpium dryopteris	40

Land Manager: USDA Forest Service
Designation: Research Natural Area

CHASE LAKE **CDC Site # 285**

County: Bonner
Location: Chase Lake is located two miles southeast of Coolin, Idaho, which is on the southeast end of Priest Lake. It can be accessed by following the East Side Road south of Coolin to the short access road to the Idaho Department of Fish and Game boat launch on the west side of the lake.

Size (acres): 835 **Elevation Range (feet):** 2,438 - 2,600
Site Description: Chase Lake is a shallow lake with extensive vegetated littoral and limnetic zones. The deeper limnetic zones are dominated by deepwater pondweeds, including Potamogeton amplifolius, Potamogeton praegracilis, and Potamogeton richardsonii. Shallower littoral zones are dominated by Brasenia schreberi, Nymphaea odorata, Potamogeton natans, and Nuphar polysepalum. One rare aquatic species, Scirpus subterminalis, is found in shallow littoral habitats. Chase Lake also contains the most extensive peatlands in the state.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	28
Alnus incana/Carex utriculata	30
Carex lasiocarpa	30
Nuphar polysepalum	80
Ombrotrophic bog	0.1
Paludified forest	20
Betula glandulosa/Carex lasiocarpa	10
Poor fen	1

Land Manager: Idaho Department of Lands
Designation: State Endowment Lands

CHIPMUNK POTHOLES **CDC Site # 284**

County: Bonner
Location: Chipmunk Potholes is located on the east side of the Priest River, two miles south of the Dickensheet Junction.

Size (acres): 77 **Elevation Range (feet):** 2,320 - 2,400
Site Description: Chipmunk Potholes is in an oxbow just north of Chipmunk Rapids on the Priest River. The potholes area is doughnut-shaped with an island of upland forest in the middle. The pond is approximately one acre in size and is mostly littoral with scattered patches of Nuphar polysepalum. The pond is surrounded by floating Sphagnum mats dominated by an intermediate fen community. Epilobium palustre is found scattered throughout the floating mat. An extensive Spiraea douglasii shrub carr surrounds the floating mats. The rare plant species, Trientalis arctica, Carex paupercula, and Dryopteris cristata, occur within this habitat. Small pools containing Glyceria borealis, Utricularia minor, Ranunculus gmelinii, and Potamogeton gramineus are found in beaver channels between the S. douglasii hummocks.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	11
Carex utriculata	5
Carex lasiocarpa	5
Nuphar polysepalum	2
Carex cusickii	2

Land Manager: Idaho Department of Lands
Designation: State Endowment Lands

COW CREEK MEADOWS **CDC Site # 102**

County: Boundary
Location: Cow Creek Meadows is located along Cow Creek, which is in the extreme northern portion of the Selkirk Mountains within Idaho. Cow Creek is a tributary of Smith Creek, which is a direct tributary of the Kootenai River.

Size (acres): 690 **Elevation Range (feet):** 4,200 - 4,400
Site Description: Cow Creek Meadows contains scattered open sphagnum-rich and sphagnum-poor fen habitats over a three mile stretch along the upper reaches of Cow Cr. Bursik (1993) described four wetland plant communities at Cow Creek Meadows: 1) Sphagnum-dominated intermediate fen which contains the rare plant species known from the site (Carex buxbaumii, Carex paupercula, Carex leptalea, Carex flava, Lycopodiella inundata, Trientalis arctica, and Scirpus hudsonianus), 2) Carex scopulorum fen, 3) Carex vesicaria/Carex utriculata fen, and 4) Deschampsia cespitosa/Danthonia intermedia/Calamagrostis canadensis moist meadows. Pinus contorta-, Abies lasiocarpa- and Picea engelmannii-dominated moist to wet forest stands occur between the fen communities. Much of the upper portion of the drainage was burned in the 1967 Trapper Peak fire. Much of the area was salvage logged following the fire.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	Undetermined
Carex scopulorum	Undetermined
Deschampsia cespitosa-Danthonia intermedia -Calamagrostis canadensis	Undetermined
Poor fen	Undetermined

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

DUBIUS CREEK FEN **CDC Site # 293**

County: Bonner
Location: Dubius Creek Fen is located approximately 17 miles north of Priest River, Idaho and 5 miles south of the Dickensheet Junction just east of Hwy 57.

Size (acres): 565 **Elevation Range (feet):** 2,430 - 2,700
Site Description: Dubius Creek Fen contains a diverse mosaic of peatland plant associations. The western portion of the site is dominated by shrub carr communities adjacent to uplands. Characteristic species in the shrub carr include Spiraea douglasii, Betula glandulosa, Salix geyeriana, Salix pedicellaris, Salix bebbiana, Rhamnus alnifolia, and Alnus incana. Intermediate fen occurs in the wetter portions of western lobe. Two rare plant species, Epilobium palustre and Salix pedicellaris, are common in this habitat. Rich fen dominated by Carex lasiocarpa, Carex chordorrhiza (a rare species), Carex utriculata, and Potentilla palustris is present on the northern lobe of the wetland complex. In this portion of the wetland Scheuchzeria palustris (a rare podgrass) is found in scattered patches of intermediate fen habitats.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	80
Phalaris arundinacea	30
Carex utriculata	30
Glyceria borealis	5
Carex lasiocarpa	20
Carex limosa	2
Nuphar polysepalum	20
Typha latifolia	30

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

FREEMAN LAKE **CDC Site # 185**

County: Bonner
Location: Freeman Lake is approximately three miles north of Oldtown, Idaho.

Size (acres): 40 **Elevation Range (feet):** 2,460 - 2,462
Site Description: Freeman Lake is a 40 acre kettle lake north of Oldtown, Idaho. The deep littoral and shallow limnetic zones of the lake support aquatic communities dominated by Potamogeton amplifolius and Brasenia shreberi. Typha latifolia forms a fringe of vegetation around the lake which grades into shrublands dominated by Spiraea douglasii and Alnus incana.

Wetland and Riparian Plant Associations and Size (in acres):

Typha latifolia	9
Alnus incana/Lysichitum americanum	3

Land Manager: Idaho Department of Fish and Game; Private
Designation: Wildlife Refuge / Management Area; Unprotected

GAMLIN LAKE **CDC Site # 294**

County: Bonner
Location: Gamlin Lake is located on the northeastern point of the Pend Orielle peninsula south and east of Lake Pend Orielle. The lake name is frequently labeled incorrectly, as Gamble Lake, on maps of the area. A boat is necessary to access most of the floating rich fen mats.

Size (acres): 465 **Elevation Range (feet):** 2,079 - 2,280
Site Description: Gamlin Lake is a 200-acre seepage lake with no apparent inlet or outlet. It is an eutrophic lake with extensive vegetated littoral and limnetic zones. The deep littoral and limnetic zones are dominated by Potamogeton amplifolius, Potamogeton praelongus, and Elodea canadensis. Shallow littoral zones are covered by patches of Brasenia schreberi, Nuphar polysepalum, Nymphaea odorata, Potamogeton natans, Potamogeton gramineus, Potamogeton robbinsii, Utricularia vulgaris, and the rare Scirpus subterminalis. The lake margins support extensive floating mats dominated by a rich fen community including Typha latifolia, Scirpus acutus, Carex lasiocarpa, Agrostis scabra, Dulichium arundinaceum, Potentilla palustris, and Lycopus uniflorus. Calliergonella cuspidata, a brown moss, forms a thick mat over many of the floating mats and a few patches of Sphagnum teres are also located on the mats. Two rare species are present on the floating mats: Cicuta bulbifera and Hypericum majus. Surrounding the floating mats are rich fens on fixed substrate dominated by Carex utriculata, Carex stipata, Potentilla palustris, Scirpus microcarpus, Scirpus cyperinus, Scutellaria galericulata, and Lycopus uniflorus. A few scattered shrub carr habitats dominated by Spiraea douglasii, Alnus incana, Salix geyeriana, and Salix bebbiana are located on the fixed mats around the lake.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	3
Alnus incana/Carex utriculata	8
Carex utriculata	60
Carex lasiocarpa	30
Scirpus acutus	10
Nuphar polysepalum	20
Typha latifolia	10

Land Manager: Bureau of Land Management; The Nature Conservancy
Designation: Proposed Area of Critical Environmental Concern; TNC Preserve

GRASS CREEK MEADOWS **CDC Site # 131**

County: Boundary
Location: Grass Creek Meadows is located along Grass Creek, which is in the extreme northern portion of the Selkirk Mountains of Idaho.

Size (acres): 730 **Elevation Range (feet):** 4,200 - 4,600
Site Description: Grass Creek contains open sphagnum-rich and sphagnum-poor fen habitats scattered along its upper reach. All the communities described in Bursik (1993) for Cow Creek and Smith Creek RNA peatland communities occur along Grass Creek. The Sphagnum-dominated fens contain the rare species known from the site (Carex paupercula, Trientalis arctica, and Scirpus hudsonianus). Other communities include: 1) Carex scopulorum fen, 2) Carex vesicaria/Carex utriculata fen, and 3) Deschampsia cespitosa/Danthonia intermedia/Calamagrostis canadensis moist meadows.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	Undetermined
Carex scopulorum	Undetermined
Deschampsia cespitosa-Danthonia intermedia -Calamagrostis canadensis	Undetermined
Poor fen	Undetermined

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

HAGER LAKE FEN **CDC Site # 297**

County: Bonner
Location: Hager Lake Fen is located west of Priest Lake and south of Nordman, Idaho.

Size (acres): 135 **Elevation Range (feet):** 2,600 - 2,680
Site Description: Hager Lake is a two-hectare pond located in the Priest River Valley, Bonner County, Idaho. It is a seepage pond with no apparent inlet or outlet. The basin of Hager Lake is enclosed and underlain by ice-contact fluvial gravels. The depression likely formed as a result of an ice block melting near the terminus of the glacier that occupied this portion of the Priest River Valley, a depression commonly referred to as a "glacial kettle" (Mack et al. 1978). The origin of the basin dates between 11,500 and 12,000 years before the present based on the presence of Glacier Peak tephra near the base of peat cores extracted in 1992 (Bursik et al. 1994). Several distinct plant communities are found at Hager Lake Fen. The most extensive is a shrub carr dominated by a dense stand of Spiraea douglasii. This shrub carr covers most of the fen north of Hager Lake, except for the northeastern corner, which was cleared and reditched in 1988. This area was harvested for hay in 1994. The Spiraea douglasii shrub carr also occurs in a band around Hager Lake. Pinus contorta and Pinus monticola trees are scattered throughout the shrub carr. The middle of the fen basin north of Hager Lake is covered by a rich fen codominated by Carex lasiocarpa and Spiraea douglasii. An extensive floating mat encroaches on the south side of the lake. The floating mat is covered by a poor fen community dominated by Sphagnum angustifolium, Sphagnum subsecundum, and Sphagnum centrale. Common vascular species include Vaccinium oxycoccos (a rare species), Scheuchzeria palustris (a rare podgrass), Carex limosa, Kalmia microphylla, and Lycopus uniflorus. Between the floating mat and the shrub carr to the south is a fixed mat zone. The fixed mat also occurs around the east, west, and north lake margins. The fixed mat is characterized by intermeidate fen vegetation codominated by Sphagnum subsecundum, Carex lasiocarpa, and Dulichium arundinaceum. Two rare species are found in this community: Lycopodiella inundata and Hypericum majus. A narrow, shallow littoral zone is found on the east, west, and north lake margins. It is characterized by Nuphar polysepalum, Brasenia schreberi,

Potamogeton natans, Scirpus acutus, and the rare Scirpus subterminalis.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	10
Carex lasiocarpa	10
Carex limosa	2
Dulichium arundinaceum	1
Nuphar polysepalum	3
Poor fen	1

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

HAUSER LAKE FEN **CDC Site # 298**

County: Kootenai
Location: Hauser Lake Fen is located along the southern and southwestern shores of Hauser Lake. Hauser Lake is less than one mile from the Idaho/Washington border.

Size (acres): 325 **Elevation Range (feet):** 2,185 - 2,280
Site Description: Hauser Lake is a drainage lake that receives water from several small, apparently ephemeral streams from the northwest and the northeast. Hauser Creek is dammed at the outlet to maintain high water level. It flows out into the Rathdrum Prairie to the south where it is channelized and highly modified as it flows through the farmfields toward the Spokane River. An extensive fen community formed in the shallow bay/seepy inlet on the southwestern end of the lake. This fen contains extensive intermediate and rich fen communities. Aquatic communities prevail in a small pond near the road and in ditches along the road. The margins of Hauser Lake are covered with a dense shrub carr dominated almost exclusively by Spiraea douglasii. Toward the lake the fen becomes strictly rich fen dominated by monocultural stands of Carex utriculata, Phalaris arundinacea, Typha latifolia, and Scirpus acutus with some Spiraea douglasii shrub carrs scattered about.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	Undetermined
Phalaris arundinacea	Undetermined
Carex utriculata	Undetermined
Carex lasiocarpa	Undetermined
Scirpus acutus	Undetermined
Nuphar polysepalum	Undetermined
Typha latifolia	Undetermined

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

KANIKSU MARSH **CDC Site # 134**

County: Bonner
Location: Kaniksu Marsh RNA is located on the west side of the lower Priest River in the Idaho Panhandle.

Size (acres): 195 **Elevation Range (feet):** 2,420 - 2,525
Site Description: Kaniksu Marsh RNA consists of an undisturbed, 90-acre, crescent-shaped marsh and wet meadow, and adjacent forested slopes. Elevations in the RNA are low, ranging from 2,420 feet to 2,525 feet. Open water, less than six feet deep, with submergent aquatic plants surrounds an "island" of emergent vegetation at the lower end of the marsh. The central portion of the marsh ranges from shallow water to saturated soil with sedges and rushes interspersed with beaver ponds. This habitat grades into Picea-Tsuga bog and Sphagnum bog to progressively drier sites with

margins of Betula glandulosa and Alnus and a forest setting at the upper end. The old-growth and second-growth forests are composed of Pinus ponderosa, Pinus monticola, Larix occidentalis, Abies grandis, Pseudotsuga menziesii, Tsuga heterophylla, Thuja plicata, Picea engelmannii, and Pinus contorta. A number of rare plants are associated with the wetlands in the RNA, including Eriophorum viridicarinatum, Gaultheria hispidula, Lycopodium inundatum, Trientalis arctica, and Vaccinium oxycoccus.

Wetland and Riparian Plant Associations and Size (in acres):

Betula glandulosa/Carex utriculata	67
Alnus incana/Carex utriculata	5
Carex lasiocarpa	13
Paludified forest	2
Carex cusickii	2
Poor fen	2

Land Manager: USDA Forest Service
Designation: Research Natural Area

KELSO LAKE **CDC Site # 304**

County: Bonner
Location: Kelso Lake is located approximately 20 miles north of Coeur d'Alene, Idaho and 4 miles directly north of Athol, Idaho.

Size (acres): 295 **Elevation Range (feet):** 2,145 - 2,400
Site Description: The site encompasses Kelso, Round, and Granite lakes. Kelso Lake is a 150-acre drainage lake with an apparent inlet coming from Beaver Lake, two miles to the north and from Hoodoo Creek, which flows to the northwest from the meadow to the west of Kelso Lake. The outelt is to the east through Round Lake and Granite Lake. Round Lake is approximately 20 acres in size and Granite Lake covers approximately 60 acres. All three lakes are eutrophic with extensive vegetated littoral and limnetic zones.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	5
Carex utriculata	30
Carex lasiocarpa	20
Scirpus acutus	5
Nuphar polysepalum	5
Typha latifolia	10

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

LAMB CREEK MEADOWS **CDC Site # 286**

County: Bonner
Location: Lamb Creek Meadows is located approximately one mile north of the Priest Lake School and golf course, and is just north of the junction of FS Road 302 with State Hwy 57.

Size (acres): 905 **Elevation Range (feet):** 2,553 - 3,100
Site Description: The south end of Lanb Creek Meadows is covered by a sedge-dominated rich fen. The perimeter of the fen is ditched. The margins of the ditch are covered by a dense monoculture of Spiraea douglasii. Several slightly raised areas are found within the fen otherwise dominated by sedges. The raised areas are covered with shrub carr. The northwestern portion of the site is successfully ditched and is seasonally cut for hay. Trientalis arctica, Carex buxbaumii, Hypericum majus, and Epilobium palustre are rare plants found in this area. A series of beaver ponds form the headwaters of Reynolds Creek, which enters Priest Lake on the south side of Kalispell Bay. The

ponds are shallow and well vegetated.

Wetland and Riparian Plant Associations and Size (in acres):

Betula glandulosa/Carex utriculata	40
Spiraea douglasii	40
Alnus incana/Carex utriculata	30
Carex utriculata	60
Carex buxbaumii	20
Carex lanuginosa	40
Carex lasiocarpa	40
Typha latifolia	50
Carex cusickii	20

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

LEE LAKE **CDC Site # 307**

County: Bonner
Location: Lee Lake is located one and a half miles due east of Coolin, Idaho on the southeast end of Priest Lake.

Size (acres): 135 **Elevation Range (feet):** 2,475 - 2,485
Site Description: Floating mats ring the margins of Lee Lake on most sides. The mat communities range from intermediate to poor fen communities that are Sphagnum spp. and Carex-dominated. Much of the lake is shallow and littoral. Stands of Potamogeton amplifolius and Nuphar polysepalum are common. On the upland side of the floating mats is an extensive shrub carr (intermediate to rich fen shrub carr). Throughout much of the shrub carr, Betula glandulosa forms a shrub overstory; Kalmia microphylla and Vaccinium oxycoccos form a low-shrub layer beneath, while Sphagnum centrale, Aulocomnium palustre, and other mosses dominate the herb layer. Near the upland margins, Spiraea douglasii increases in prominence (replacing B. glandulosa) and the understory of low shrubs and mosses disappears. North of the lake, a dome of peat is found over the top of a slightly raised morraine that separates Lee Lake from the rest of the Lee Creek wetland basin to the north.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	10
Carex utriculata	40
Carex limosa	2
Nuphar polysepalum	20
Paludified forest	7
Betula glandulosa/Carex lasiocarpa	5
Poor fen	1

Land Manager: Idaho Department of Lands
Designation: State Endowment Lands

LOST LAKE **CDC Site # 308**

County: Bonner
Location: Lost Lake is located two miles due east of Garfield Bay and one mile north of Mineral Point on the south side of the Pend Orielle peninsula, south and west of Lake Pend Orielle.

Size (acres): 55 **Elevation Range (feet):** 2,520 - 2,560
Site Description: Lost Lake is a small seepage lake nearly 30 acres in size, with no apparent inlet or outlet. Beavers have been active at this site in the past, but they were not active in 1994 and much of the lake was dried up during this very dry year. The lake appears to be shallow throughout, entirely lacking a limnetic zone. Marginal floating mat communities are intermediate

fens.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	3
Carex lasiocarpa	5
Scirpus acutus	2
Nuphar polysepalum	2
Typha latifolia	2

Land Manager: USDA Forest Service
Designation: Proposed Special Interest Area

MCARTHUR LAKE **CDC Site # 309**

County: Bonner and Boundary
Location: McArthur Lake is located near the headwaters of the Deep Creek drainage, which is a tributary of the Kootenai River.

Size (acres): 1,230 **Elevation Range (feet):** 2,085 - 2,170
Site Description: McArthur Lake is a drainage lake located near the headwaters of Deep Creek, which flows north through the Purcell Trench south of Bonners Ferry, Idaho, where it ultimately feeds the Kootenai River just west of Bonners Ferry in the Kootenai National Wildlife Refuge. It is a glacial depression in the Purcell Trench that has been enhanced with a dam on the Deep Creek outlet on the northeast side of the lake. Extensive rich fen and shrub carr communities are found around most sides of the lake. Marsh habitats are interspersed with the peatland communities. The lake is very shallow and almost entirely vegetated littoral zone. Rich fen habitats are sedge dominated. Shrub carr habitats are dominated by Spiraea douglasii, Alnus incana, Betula pumila, Rhamnus alnifolia, Salix bebbiana, and other Salix spp. On the south end of the lake, scattered clumps of shrubs are interspersed within the graminoid fen. This fen area, even more so than other areas around the lake, appears to be highly modified hydrologically, and appears to be drying out. The graminoid fen is characterized by a number of typical rich fen species. However, a number of weedy and mesic-indicator species, including Agrostis stolinifera, Phleum pratense, Poa pratensis, Poa palustris, Phalaris arundinacea, Cirsium arvense, Prunella vulgaris, and Agropyron repens, are common to prominent in the area.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	230
Phalaris arundinacea	100
Carex utriculata	200
Carex lasiocarpa	20
Nuphar polysepalum	20
Typha latifolia	100

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

PACK RIVER **CDC Site # 205**

County: Bonner
Location: The site is located near the outlet of the Pack River which enters the northernmost point of Lake Pend Oreille.

Size (acres): 497 **Elevation Range (feet):** 2,060 - 2,080
Site Description: The Pack River delta includes a highly sinuous reach of the Pack River as it flows into Lake Pend Oreille. The site has open water areas created by abandoned meanders with margins dominated by Typha latifolia. Phalaris arundinaceae is abundant on the floodplain. Salix bebbiana and Salix commutata are the dominant shrubs with patches of Alnus incana and scattered Populus

trichocarpa present.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	30
Alnus incana/Mesic graminoid	20
Salix bebbiana/Mesic graminoid	60
Phalaris arundinacea	91
Typha latifolia	40

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

PACKER MEADOWS **CDC Site # 268**

County: Bonner
Location: The site is located on the west side of Priest Lake, near Nordman, Idaho.

Size (acres): 520 **Elevation Range (feet):** 3,680 - 3,640
Site Description: Packer Meadows contains a unique mosaic of fen communities along the low-gradient meandering stretch of Packer Creek. Within the mosaic are patterned areas on slight slopes toward the creek with string-flark topography. The raised strings run perpendicular to the slope and are intermediate fen communities dominated with Sphagnum spp., Betula glandulosa, Carex utriculata, and Salix pedicellaris. The shallowly inundated flarks are dominated by Carex utriculata, Carex cusickii, Carex leptalea, and Carex aquatilis. Other, small areas of nearly level substrate are poor fen dominated by Sphagnum spp., Carex limosa, Drosera rotundifolia, Eriophorum polystachion and other poor fen species. Sedge-dominated rich fen occurs over a majority of Packer Meadows. These areas appear more mesic with shallower, firmer peat. They are dominated by Calamagrostis canadensis, Carex utriculata, Senecio triangularis, Carex aquatilis, and Carex scopulorum. Periodic beaver activity in Packer Creek on the south end of Packer Meadows leads to the formation of a several-acre shallow lake.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	30
Carex aquatilis	30
Carex limosa	30
Paludified forest	17
Eriophorum polystachion	3
Carex cusickii	10
Poor fen	1

Land Manager: USDA Forest Service
Designation: Unprotected

POTHOLES **CDC Site # 192**

County: Bonner
Location: Potholes RNA is located on the north side of Kalispell Creek near the Idaho/Washington border, approximately 38 miles north-northwest of Priest River, Idaho.

Size (acres): 274 **Elevation Range (feet):** 2,750 - 3,150
Site Description: Potholes RNA is an example of a diverse aquatic-wetland area, resulting from Pleistocene glaciation, surrounded by forests of Tsuga heterophylla and associates. The area contains a large cold spring. Spring ponds drain into a stream which supplies water for wet meadows, a fen, and several beaver ponds. In places, low dams have been built by beaver, and elsewhere Sphagnum moss and sedges have formed dams. The ponds are drained by three streams. Two of these unite on a lower bench of Alnus sp. meadows, marshes, and a Sphagnum fen. The streams have reaches of gentle gradient, and the two that break over the bench and tumble to

Kalispell Creek become steep gradient streams. A number of rare and interesting plant species are found in the area including Gaultheria hispidula, Vaccinium oxycoccos, Epilobium palustre, Trientalis arctica, Salix pedicellaris, Carex leptalea, and C. paupercula. A rare plant community also occurs in the RNA: Thuja plicata/Lysichitum americanum habitat type. Additionally Thuja plicata is present with an understory dominated by common horsetail.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Lysichitum americanum	50
Thuja plicata/Oplopanax horridum	10
Alnus incana/Carex utriculata	20
Alnus incana/Lysichitum americanum	15
Paludified forest	5
Poor fen	10

Land Manager: USDA Forest Service
Designation: Research Natural Area

SHEPHERD LAKE **CDC Site # 313**

County: Bonner
Location: Shepherd Lake is located on the Pend Oreille peninsula south and west of Lake Pend Oreille; approximately six miles due south of Sandpoint, Idaho.

Size (acres): 355 **Elevation Range (feet):** 2,280 - 2,400
Site Description: Shepherd Lake is a 150-acre seepage lake with no apparent inlet or outlet. It is a eutrophic lake with extensive vegetated littoral and limnetic zones. The deep littoral and limnetic zones are dominated by Potamogeton amplifolius, P. richardsonii, P. robbinsii, Myriophyllum sibericum, and Elodea canadensis. Shallow littoral zones are covered by patches of Brasenia schreberi, Nuphar polysepalum, Potamogeton natans, P. epihydrus, P. robbinsii, Utricularia vulgaris, Ceratophyllum demersum, and the rare Scirpus subterminalis. The lake margins support extensive floating mats dominated by a rich fen community including Typha latifolia, Scirpus acutus, Carex lasiocarpa, Agrostis scabra, Dulichium arundinaceum, Potentilla palustris, and Lycopus uniflorus. Calliergonella cuspidata, a brown moss, forms a thick mat over some of the floating mats. No Sphagnum was seen on the rich fens at Shepherd Lake. Two rare species were found scattered throughout the floating mats: Cicuta bulbifera and Hypericum majus. Surrounding the floating mats are rich fens on fixed substrate dominated by Carex utriculata, C. stipata, Potentilla palustris, Scirpus microcarpus, Scirpus cyperinus, Scutellaria galericulata, and Lycopus uniflorus. A few scattered shrub carr habitats dominated by Spiraea douglasii, Salix geyeriana, and S. bebbiana are found on the fixed mats around the lake.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	3
Carex utriculata	5
Carex lasiocarpa	5
Scirpus acutus	20
Nuphar polysepalum	20
Typha latifolia	20

Land Manager: Idaho Department of Fish and Game; Private
Designation: Wildlife Refuge / Management Area; Unprotected

SMITH CREEK **CDC Site # 219**

County: Boundary
Location: Smith Creek RNA is located along the crest of the Selkirk Mountains in the Idaho Panhandle, 23 miles northwest of Bonners Ferry, Idaho.

Size (acres): 1,340 **Elevation Range (feet):** 4,700 - 6,742
Site Description: Smith Creek RNA is located along the crest of the Selkirk Mountains on the West Fork of the West Fork Smith Creek. The topography of the RNA is the result of Pleistocene glaciation. An outstanding example of divide crossing by glacial ice occurs in the RNA, as evidenced by the glacial trough that runs across the Selkirk Crest in an east-west direction. The main features of the area are the outstanding wetland communities of the valley bottom, including undisturbed Sphagnum fen and associated ponds, and other wetland areas dominated by Carex spp., Eriophorum polystachion, Picea engelmannii, and Abies lasiocarpa. The vegetation of the area consists largely of Abies lasiocarpa series forest associations. Of special interest is the Abies lasiocarpa/Rhododendron albiflorum community type. Unusual aquatic species occur in the area, including the algae Ulothrix zonata, which occurs in unusually high densities in the streams of the RNA, and an uncommon Diptera, and Palpomyia sp.

Wetland and Riparian Plant Associations and Size (in acres):

Carex scopulorum	27
Eriophorum polystachion	27
Poor fen	5

Land Manager: USDA Forest Service
Designation: Research Natural Area

TEPEE CREEK **CDC Site # 349**

County: Bonner
Location: Tepee Creek RNA is located approximately 0.25 mile west of Priest Lake on the northwest side of the lake, approximately 11 miles north-northeast of Nordman, Idaho; approximately 18 miles north-northwest of Coolin, Idaho; or 41 miles north of Priest River, Idaho.

Size (acres): 746 **Elevation Range (feet):** 2,450 - 3,200
Site Description: Tepee Creek RNA contains the Tepee Creek drainage, consisting of a rather flat valley, a few short tributary gulches, and low, rounded ridges. The RNA is a virtual island of climax forest within an otherwise largely cutover area of extremely productive forests. The soil is a deep, sandy loam, overlying schistose rocks of the Idaho Batholith. The area was subjected to continental glaciation. The RNA was established in 1935 for its stands of 300-year-old Pinus monticola, Thuja plicata, and Tsuga heterophylla. Since that time white pine blister rust, mountain pine beetle, and windthrow have taken a heavy toll on the western white pine. The RNA supports one rare wetland plant, Rubus spectabilis.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Athyrium filix femina	181
Thuja plicata/Oplopanax horridum	181

Land Manager: USDA Forest Service
Designation: Research Natural Area

THREE PONDS **CDC Site # 253**

County: Boundary
Location: Three Ponds RNA is located on the western edge of the Purcell Trench near Bonners Ferry, Idaho. The RNA is four and a half air miles southwest of the Bonners Ferry Ranger Station, which is on U.S. Route 95.

Size (acres): 240 **Elevation Range (feet):** 3,340 - 3,905
Site Description: Three Ponds RNA is a small, heavily-glaciated basin containing three small, productive lakes or ponds. Each pond is shallow, between three to five acres in size, without fish,

and with the pond level controlled by beavers. Middle Pond has a central mat dominated by Carex lasiocarpa and Sphagnum spp. approximately one acre in area. approximately a third of the RNA is mature forest which originated approximately 1850, and approximately two-thirds is a mixture of older trees and young stands that originated following a 1929 fire. Much of the 1929 burn was severe and has restocked to cover types of either Pseudotsuga menziesii or Pinus contorta. Tree cover in parts of the RNA is low, with shrub species common. The RNA contains Pseudotsuga menziesii, Abies grandis, Thuja plicata, and Tsuga heterophylla habitat types. An excellent stand of Betula papyrifera occurs on the northern side of East Pond. A sharp, deep valley near the western boundary of the RNA marks a fault line. A small stream in this valley is bordered by Alnus sinuata and Athyrium filix-femina.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Athyrium filix femina	2
Carex lasiocarpa	5
Alnus incana/Athyrium filix femina	5

Land Manager: USDA Forest Service
Designation: Research Natural Area

UPPER PRIEST LAKE FEN **CDC Site # 30**

County: Boundary
Location: Located approximately 21 miles north of Coolin, Idaho along the eastern shore of Upper Priest Lake.

Size (acres): 165 **Elevation Range (feet):** 2,438 - 3,160
Site Description: Upper Priest Lake Fen contains a short spring stream that emerges within the fen and runs for a short distance. It feeds a small, shallow pond whose origin could relate to past beaver activity. Portions of the peatland communities are intermediate sedge/sphagnum fen dominated by Carex lasiocarpa, C. diandra, C. utriculata and various Sphagnum spp. A unique poor/intermediate fen shrub carr dominates much of the non-treed peatland. This community is dominated by very tall Betula pumila, Spiraea douglasii, Salix pedicellaris, Kalmia microphylla, and Vaccinium oxycoccos over a nearly continuous mat of Sphagnum. Paludified forest areas with Abies lasiocarpa, Tsuga heterophylla, Thuja plicata, Picea engelmannii, and Abies grandis surround the open fen. The understory is characterized by Sphagnum angustifolium. S. teres, S. centrale, S. magellanicum, and S. rubellum and the vascular spp. Carex brunnescens, Scirpus microcarpus, Athyrium felix-femina, Linnaea borealis, Vaccinium globulare, Calamagrosits canadensis, Cornus canadensis, and others. Stringer marshy meadows extend from Upper Priest Lake Fen all the way to the southeast edge of Upper Priest Lake. The banks of Upper Priest Lake have a mix of shrub species including Alnus incana, Rhamnus alnifolia, Spiraea douglasii, Salix bebbiana, and Cornus sericea.

Wetland and Riparian Plant Associations and Size (in acres):

Spiraea douglasii	10
Alnus incana/Spiraea douglasii	10
Carex utriculata	10
Paludified forest	20
Poor fen	1

Land Manager: USDA Forest Service; Idaho Department of Lands
Designation: Unprotected

UPPER PRIEST RIVER **CDC Site # 264**

County: Bonner
Location: Upper Priest River is located at the northwest end of Upper Priest Lake, near the

confluence of the Hughes Fork and Upper Priest River, in the Idaho Panhandle. The site is approximately 13 air miles north of Nordman, Idaho.

Size (acres): 1,325 **Elevation Range (feet):** 2,460 - 2,600

Site Description: Upper Priest River encompasses the level land of Upper Priest River and the Hughes Fork, to the mouth of Upper Priest Lake. Included are riparian floodplain lands along the two rivers, isolated oxbows in various stages of filling, and a series of old river terraces that become drier with increasing elevation. Vegetation within the site is distributed along the soil moisture gradient. The driest plant associations are Tsuga heterophylla habitat types located on the highest, well drained river terraces. On the lower terraces, where the water table is near the surface, Thuja plicata habitat types occur with an understory flora rich in ferns. A diversity of habitat types occur where surface water is present, ranging in sequence from Thuja plicata /Athyrium filix-femina and Thuja plicata/Oplopanax horridum in drier areas to Alnus incana/Mesic forb to Cornus stolonifera to Salix bebbiana to Spiraea douglasii to Carex vesicaria and finally to open water with Utricularia vulgaris.

Wetland and Riparian Plant Associations and Size (in acres):

Thuja plicata/Oplopanax horridum	254.2
Tsuga heterophylla/Gymnocarpium dryopteris	60.1
Populus trichocarpa/Alnus incana	3.4
Spiraea douglasii	14.2
Alnus incana/Carex utriculata	3.2
Alnus incana/Mesic forb	2
Alnus incana/Spiraea douglasii	39.5
Cornus stolonifera	35.7
Salix bebbiana	2
Carex utriculata	9.4
Alnus incana/Athyrium filix femina	95.1
Carex vesicaria	2

Land Manager: USDA Forest Service; Idaho Department of Lands
Designation: Unprotected

BIG ELK CREEK **CDC Site # 31**

County: Bonneville
Location: From Palisades, travel 11 miles southeast on U. S. Hwy 26 to FS Road 097. Continue west on FS Road 097 along Big Elk Creek to the trailhead. Walk approximately one and a half miles west to the east end of the site.

Size (acres): 823 **Elevation Range (feet):** 5,930 - 9,449
Site Description: Big Elk Creek features forest and shrub types on limestone and includes a 3/4-mile reach of Big Elk Creek, as well as an ephemeral stream draining Needle Peak. The reach of Big Elk Creek is for the most part on a boulder bed and has the Cornus stolonifera community type along its banks. Riparian woodland development occurs on channel bars with smaller particle size and is minimal on high-gradient, entrenched portions of the reach. A range of cottonwood stands is present, from the mature Populus angustifolia/Poa pratensis community type to younger stands of the Populus angustifolia/Cornus stolonifera community type. Ephemeral side channels flowing into the site from the north contain shrub thickets classified as Betula occidentalis/Cornus stolonifera community type with some Populus angustifolia sprouts. Uplands on the south side of Big Elk Creek are primarily dominated by Pseudotsuga menziesii; uplands on the north side are dominated by Artemisia tridentata vaseyana and Cercocarpus ledifolius.

Wetland and Riparian Plant Associations and Size (in acres):

Populus angustifolia/Cornus stolonifera	Undetermined
Betula occidentalis/Cornus stolonifera	Undetermined
Cornus stolonifera	Undetermined
Salix exigua/Mesic forb	Undetermined

Land Manager: USDA Forest Service
Designation: Unprotected

BLACKFOOT RIVER WILDLIFE MANAGEMENT AREA **CDC Site # 2586**

County: Caribou
Location: Blackfoot River Wildlife Management Area (WMA) is 16 air miles northwest of Soda Springs, Idaho.

Size (acres): 2,360 **Elevation Range (feet):** 6,400 - 6,800
Site Description: Blackfoot River WMA is situated in a high valley between the Wooley Range and Grays Range. The WMA includes approximately a 7.5-mile reach of the Blackfoot River and a 0.5-mile reach of Angus Creek. The Blackfoot River is a moderately wide, low-gradient channel meandering through the valley. The floodplain is up to a half a mile wide in places and supports a diverse mosaic of wetland plant communities. Both tall- and low-shrub communities are present. Tall-shrub communities are dominated by Salix boothii or S. geyeriana with native understories of Carex utriculata or C. aquatilis. Poa palustris dominates the understory of portions of the tall shrub carr. The low willow, S. wolfii, is also present with a nearly pure understory of C. aquatilis. Artemisia cana is present on drier benches; associated species are exotics. This type may have been interseeded as were large parts of the drier meadows. A rich mosaic of native graminoid types occurs within the WMA, including expansive Deschampsia cespitosa and C. simulata community types, with pockets of C. utriculata, C. aquatilis, Eleocharis palustris, and Juncus balticus. Several small and large springs emerge within the site. There is a large open-water area on the south end of the site. Additionally, ephemeral potholes with the E. acicularis community type occur on the north side of the Blackfoot River. Upland communities are dominated by Artemisia tridentata/Agropyron spp., Pinus contorta, and Populus tremuloides.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Carex utriculata	50
Salix geyeriana/Carex aquatilis	20
Salix wolfii/Carex aquatilis	10
Carex utriculata	50
Deschampsia cespitosa	200
Carex aquatilis	24
Carex simulata	50
Eleocharis acicularis	1
Eleocharis palustris	10

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

BURNS CANYON **CDC Site # 47**

County: Madison and Teton
Location: Burns Canyon is located in the Big Hole Mountains northeast of the of the Snake River. The area is roughly 15 air miles east of Heise, Idaho.

Size (acres): 490 **Elevation Range (feet):** 5,810 - 7,652
Site Description: Burns Canyon is situated on a steep, mountainous tract of complex sedimentary rock in the Overthrust Belt of Idaho. The area contains a stabilized landslide which probably resulted from an earthquake. A low- to moderate-gradient (300 feet/mile) stream traverses the site for approximately one mile and is mostly narrow and confined by steep canyon slopes. Most (75 percent) of the riparian zone is dominated by the Cornus stolonifera/Heracleum lanatum community type with lesser amounts of the Alnus incana/Cornus stolonifera community. A short stream segment is the Salix exigua/Mesic forb community. A subirrigated terrace approximately 140 feet wide is dominated by a Crataegus douglasii community. South-facing slopes are occupied by Artemisia tridentata ssp. vaseyana/Agropyron spicatum and Cercocarpus ledifolius/Agropyron spicatum habitat types, plus stands of Acer grandidentatum and Populus tremuloides. On north-facing slopes, seral stands of P. tremuloides and Pinus contorta occur on lower slopes, Pseudotsuga menziesii habitat types occur up to mid-elevations, and Abies lasiocarpa types are found on the higher slopes. Open shrubfields of Physocarpus malvaceus, Ceanothus velutinus, and Acer glabrum occur on mid-elevation north-facing slopes. A slump area near the highest ridge supports a forb-grass cover type. The riparian zone and the site are not grazed.

Wetland and Riparian Plant Associations and Size (in acres):

Crataegus douglasii/Heracleum lanatum	5
Alnus incana/Cornus stolonifera	0.3
Alnus incana/Ribes hudsonianum	5
Cornus stolonifera/Heracleum lanatum	8
Salix exigua/Mesic forb	3

Land Manager: USDA Forest Service
Designation: Research Natural Area

BURTON CANYON **CDC Site # 48**

County: Caribou
Location: Burton Canyon is located on the west slope of the Bear River Range, in southeastern Idaho. The site is east of the Gem Valley and approximately two and a half air miles east of the town of Grace, Idaho.

Size (acres): 1,005 **Elevation Range (feet):** 6,020 - 7,855
Site Description: Burton Canyon RNA comprises a small watershed on the west slope of the Bear River Range and contains a diversity of habitat types, largely on a calcareous substrate. The

geology of the area is complex, containing rocks of Cambrian, Tertiary, and Quaternary ages. The vegetation of the area displays an elevational zonation pattern with Artemisia tridentata ssp. vaseyana, Cercocarpus ledifolius, and mixed shrub communities at lower elevations, Populus tremuloides and Pseudotsuga menziesii communities at mid-elevations, and Abies lasiocarpa and Artemisia tridentata ssp. spiciformis types at higher elevations. A Cornus stolonifera/Galium triflorum riparian community occupies the valley bottom in the lower portion of the drainage.

Wetland and Riparian Plant Associations and Size (in acres):

Cornus stolonifera/Galium triflorum	5

Land Manager: USDA Forest Service
Designation: Research Natural Area

CROW CREEK/JULIE'S FENCE **CDC Site # 417**

County: Caribou
Location: From Montpelier, travel east on U.S. Hwy 89 to Crow Creek Road (FS Road 111). Travel north on FS Road 111 for 12 miles (2 miles past junction with FS Road 147) to a lodgepole rail fence labeled "Julie's Fence."

Size (acres): 19 **Elevation Range (feet):** 6,910 - 6,930
Site Description: Julie's Fence is a 0.5 mile fence along the east side of Crow Creek. Fencing continues on the west side of the creek, but does not enclose the entire site. The moderately wide valley bottom is a mosaic of graminoid and shrub communities. The Salix boothii/Carex utriculata community type occurs at the confluence of tributaries and on former beaver dams. Wet sites adjacent to the channel are dominated by a mosaic of Carex types. Drier types include Betula glandulosa/Carex simulata, Salix boothii/Mesic graminoid, and Artemisia tridentata/Stipa comata on a wet to dry gradient.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Carex utriculata	2
Salix geyeriana/Mesic graminoid	4
Carex utriculata	2
Carex aquatilis	2
Carex lanuginosa	2
Carex praegracilis	1
Carex simulata	2
Juncus balticus	1
Betula glandulosa/Carex simulata	2

Land Manager: USDA Forest Service
Designation: Unprotected

ELK VALLEY **CDC Site # 90**

County: Caribou
Location: Elk Valley is located in the Gannett Hills, near the Idaho-Wyoming border, at the head of Spring Creek, approximately 28 miles northeast of Montpelier, Idaho by road.

Size (acres): 280 **Elevation Range (feet):** 7,450 - 7,450
Site Description: Elk Valley consists of a marsh occupying the wide, flat valley floor near the headwaters of Spring Creek in the Gannett Hills. Spring Creek forms the main inlet and outlet stream, supplemented by perennial springs issuing from the base of the west range. The marsh is characterized by emergent vegetation, primarily sedges, and dominated by the Carex aquatilis community type. The Carex utriculata community type is more localized and associated with pools and channels. Other emergent types associated with shallow water portions of the marsh include C.

simulata, Juncus balticus, and C. praegracilis. The Scirpus acutus community type occurs in four deep ponds within the marsh. The Deschampsia cespitosa and Salix wolfii/C. aquatilis community types are associated with perennial springs. Scirpus validus community type is also present. The marsh has a muskeg-like quality resulting from partially decomposed vegetation; this has historically made it difficult to traverse and has kept livestock from encroaching upon the area. The drought of recent years, however, has caused considerable drying of peatland, allowing a level of cattle grazing that is unprecedented in at least 20 years. Adjacent uplands on the east and west are vegetated with sagebrush-grass communities on their lower slopes, changing to Populus tremuloides and Pseudotsuga menziesii forests at higher elevations on the west and southeast slopes.

Wetland and Riparian Plant Associations and Size (in acres):

Salix wolfii/Carex aquatilis	1
Carex utriculata	14
Deschampsia cespitosa	1
Carex aquatilis	112
Carex praegracilis	14
Carex simulata	42
Juncus balticus	28
Scirpus acutus	2
Scirpus validus	20

Land Manager: USDA Forest Service
Designation: Unprotected

GAME CREEK **CDC Site # 101**

County: Teton
Location: Game Creek is located on the Idaho/Wyoming border, approximately three air miles southeast of Victor.

Size (acres): 375 **Elevation Range (feet):** 5,640 - 7,800
Site Description: Game Creek encompasses a cross section of the lower Game Creek Canyon. The steep gradient stream emanating high in the Teton Range in Wyoming plunges through the glaciated canyon. Riparian vegetation consists largely of communities dominated by Picea engelmannii and Cornus stolonifera. The site includes both the north- and south-facing canyon sides. The north-facing slope is dominated mainly by Abies lasiocarpa, while the south slope has a diversity of types including sagebrush-grass, Pseudotsuga menziesii, and Populus tremuloides.

Wetland and Riparian Plant Associations and Size (in acres):

Picea engelmannii/Equisetum arvense	0.75
Picea engelmannii/Cornus stolonifera	30

Land Manager: Bureau of Land Management
Designation: Research Natural Area

GIBSON JACK CREEK **CDC Site # 689**

County: Bannock and Power
Location: Gibson Jack Creek is approximately six miles south of Pocatello, Idaho. The RNA occupies the headwaters of Gibson Jack Creek, a tributary of the Portneuf River.

Size (acres): 2,210 **Elevation Range (feet):** 5,400 - 7,214
Site Description: Gibson Jack Creek contains shrub habitats in unusually fine condition. These include Artemisia tridentata ssp. vaseyana types, a Artemisia nova type, a Juniperus osteosperma type and Prunus virginiana-Amelanchier utahensis communities. The area also contains several forest types, including Acer grandidentatum, Populus tremuloides, Pseudotsuga menziesii, and

Abies lasiocarpa. It includes a small drainage basin complete with streams, beaver dams, and ponds. Cornus stolonifera dominates the riparian zone, with willows, including Salix lasiandra, attaining prominence on the lower 0.25 mile. An unclassified forb-dominated community interrupts the Cornus stolonifera and continues up the northerly fork to the end of permanent water. The mountainous country provides geologic, elevational, slope, and aspect variation. These result in great differences in vegetation. Forests cover most of the north-facing slopes while shrubs and grass dominate on southern slopes. Boundaries between vegetation communities are sharp and easily distinguished. The site is part of a city watershed, and as such, the area has been protected from most uses for over 75 years.

Wetland and Riparian Plant Associations and Size (in acres):

Cornus stolonifera	15

Land Manager: USDA Forest Service
Designation: Research Natural Area

GRAYS LAKE **CDC Site # 110**

County: Bonneville and Caribou
Location: approximately 27 miles north of Soda Springs, Grays Lake extends from U.S. Hwy 34 and the Little Gray Ridge northward to Grays Lake Outlet near Herman, Idaho.

Size (acres): 32,825 **Elevation Range (feet):** 6,384 - 6,920
Site Description: Grays Lake, west of the Caribou Mountains, is situated in the upper Snake River drainage of the Columbia River drainage. All the major drainages in the area flow northwestward into the Snake River. Grays Lake overflows either into the artificial Clarks Cut at the marsh's south end or into the natural Grays Lake Outlet at the north end. The lake includes an extensive freshwater marsh bordered by wet meadows. A large island in the Grays Lake marsh, Bear Island, originates from basalt. Bear Island supports upland plant communities dominated by Populus tremuloides and Artemisia tridentata ssp. vaseyana and a small occurrence of the Artemisia cana/Poa pratensis community type. The shallow-water marsh is dominated by extensive stands of the Scirpus acutus community type with lesser amounts of the Typha latifolia community type. Extensive patches of Carex lasiocarpa, with local dominance by Triglochin maritima, are present in the interior of the Scirpus marsh. The drier marsh perimeter has the Carex utriculata community type. Carex atheroides creates monotypic swards in potholes and is included with the Carex utriculata community type. Ponds with annual drawdown have either the Eleocharis palustris or Eleocharis acicularis community type. The outlet channel supports the Nuphar polysepalum community type. Juncus balticus is present on slightly raised topography and along the ecotone to wet meadow types. Meadow types include the Deschampsia cespitosa, Muhlenbergia richardsonis, Spartina gracilis, Carex simulata, and Carex nebraskensis community types, as well as pasture grasses. Patches of willow, including types dominated by Salix geyeriana and S. bebbiana, are present on raised topography and along channels.

Wetland and Riparian Plant Associations and Size (in acres):

Salix bebbiana	20
Salix geyeriana/Mesic graminoid	20
Carex utriculata	985
Spartina gracilis	40
Deschampsia cespitosa	328
Carex lasiocarpa	400
Carex nebraskensis	328
Carex simulata	328
Eleocharis acicularis	10
Eleocharis palustris	328
Juncus balticus	328
Scirpus acutus	19295
Nuphar polysepalum	20

Typha latifolia	3282
Muhlenbergia richardsonis	40

Land Manager: U.S. Fish and Wildlife Service
Designation: Wildlife Refuge / Management Area

HORSE CREEK **CDC Site # 347**

County: Caribou
Location: Horse Creek is located on the east slope of the Webster Range, near the Idaho/Wyoming border, approximately 16 miles (26 km) northwest of Afton, Wyoming.

Size (acres): 550 **Elevation Range (feet):** 6,680 - 8,275
Site Description: Horse Creek is a typical forested area composed mainly of a number of Abies lasiocarpa habitat types occupied by subclimax mature Pinus contorta stands in the process of relinquishing dominance, via the mountain pine beetle, to A. lasiocarpa. The site also supports scattered stands of Populus tremuloides and Pseudotsuga menziesii. An interesting community type occurs with a P. contorta overstory and a Shepherdia canadensis shrub layer. As the underlying rock of the area is calcareous, the RNA does not contain any perennial streams except Horse Creek, the northern boundary of the site. A substantial cold spring emerges at the slope's base in the northwestern part and contributes the main flow to Horse Creek, a moderate-gradient stream flowing over rocks and boulders. Wider valley bottoms are dominated by Salix spp., and Picea engelmannii and A. lasiocarpa regeneration is occurring in the wider bottoms. Where valleys narrow and the stream gradient increases, narrow bands of the Alnus incana/Cornus stolonifera, Cornus stolonifera, and Picea engelmannii/Calamagrostis canadensis community types occur.

Wetland and Riparian Plant Associations and Size (in acres):

Picea engelmannii/Calamagrostis canadensis	0.75
Alnus incana/Cornus stolonifera	10
Cornus stolonifera	2.5
Salix boothii/Calamagrostis canadensis	7.5

Land Manager: USDA Forest Service
Designation: Research Natural Area

HORSESHOE CREEK **CDC Site # 327**

County: Teton
Location: From Driggs, travel four and a half miles west on substation road. At "T," continue west for two miles, then north for one mile. Turn west and travel half a mile to FS Road 235. Continue southwest approximately two miles to the Forest boundary. Site lies along Horseshoe Creek west of Forest boundary.

Size (acres): 70 **Elevation Range (feet):** 6,280 - 6,600
Site Description: Horseshoe Creek supports an extensive shrub carr in a moderately wide valley bottom. The Salix boothii/Carex utriculata, S. boothii/Equisetum arvense, S. boothii/Poa pratensis, and Crataegus douglasii/Heracleum lanatum community types occur along a wet-to-dry gradient. The area has been previously grazed, and Poa pratensis dominates the understory of more open community types. In the lower reach there were no signs of grazing. Salix geyeriana is present and appears to be more associated with wetter sites supporting the Salix boothii/Carex utriculata community. Where the valley bottom narrows above Idaho Canyon, the streamside vegetation is dominated by the Picea engelmannii/Equisetum arvense community.

Wetland and Riparian Plant Associations and Size (in acres):

Picea engelmannii/Equisetum arvense	3
Crataegus douglasii/Heracleum lanatum	5

Salix boothii/Carex utriculata	16
Salix boothii/Equisetum arvense	41

Land Manager: USDA Forest Service; Private
Designation: Unprotected

OXFORD SLOUGH **CDC Site # 177**

County: Bannock and Franklin
Location: Oxford Slough lies just east and southeast of Oxford. The north end of the site is accessible from the site of Coulam (Siding).

Size (acres): 2,500 **Elevation Range (feet):** 4,741 - 5,000
Site Description: Oxford Slough is a freshwater marsh located on the northern end of the Cache Valley approximately six miles southeast of Red Rock Pass, the division between the Bear River drainage to the south and the Snake River Drainage to the north. Deep- and shallow-water plant community types are present, primarily Typha latifolia and Scirpus acutus. Scirpus maritimus, Juncus balticus, Carex utriculata, and Phalaris arundinacea are minor components of the emergent vegetation types. Alkali flats are dominated by the Spartina gracilis and Distichlis spicata var. stricta community types. Drier hummocks are dominated by the Sarcobatus vermiculatus/Distichlis spicata var. stricta community type with Bromus tectorum locally dominant.

Wetland and Riparian Plant Associations and Size (in acres):

Sarcobatus vermiculatus/Distichlis stricta	18
Phalaris arundinacea	54
Carex utriculata	90
Spartina gracilis	18
Distichlis stricta	18
Juncus balticus	179
Scirpus acutus	537
Scirpus maritimus	18
Typha latifolia	358

Land Manager: U.S. Fish and Wildlife Service; Private
Designation: Wildlife Refuge / Management Area

PORTNEUF WILDLIFE MANAGEMENT AREA **CDC Site # 453**

County: Bannock
Location: Portneuf Wildlife Management Area is along the west slope of the Portneuf Range, approximately 16 miles south of Pocatello, Idaho and 4 miles north of McCammon, Idaho.

Size (acres): 3104 **Elevation Range (feet):** 4,666 - 7,500
Site Description: A description of the riparian attributes of the site follows. Three perennial streams traverse the site: the northernmost is Upper Rock Creek (0.75 mile), central is Crane Creek (2 miles), and the southernmost is Robbers Roost Creek (2 miles). Quinn Creek, on the very southern boundary, is fenced out of the site and is grazed. Three communities occur in the site: Populus angustifolia/Betula occidentalis along lower Robbers Roost Creek; Betula occidentalis/Cornus sericea along upper Robbers Roost and lower Crane Creeks; and Populus tremuloides/Cornus sericea along upper Crane and Upper Rock Creeks. All stands are narrow, occurring in steep-sided valleys. The uplands are dominated by Juniperus scopulorum, Acer grandidentatum, and mountain shrub communities.

Wetland and Riparian Plant Associations and Size (in acres):

Populus tremuloides/Cornus stolonifera	20
Populus angustifolia/Betula occidentalis	15

Land Manager: Idaho Department of Fish and Game; Bureau of Land Management
Designation: Wildlife Refuge / Management Area; Area of Critical Environmental Concern; Research Natural Area

PREUSS CREEK HEADWATERS **CDC Site # 2559**

County: Bear Lake
Location: Preuss Creek is approximately 12 air miles northeast of Montpelier, Idaho.

Size (acres): 96 **Elevation Range (feet):** 7,180 - 9,000
Site Description: Preuss Creek is a southeast-trending drainage in a narrow valley bottom. Riparian vegetation in the headwaters reach is limited to mesic forbs such a Senecio triangularis, Actaea rubra, Saxifraga odontoloma, and Geranium richardsonii, and scattered shrubs including Rubus strigosus, Salix boothii, and Lonicera involucrata. Perched beaver ponds occur on the high-gradient reach, and the Salix boothii/Equisetum arvense community type occurs on benches between ponds. Where the gradient decreases, willow community types occur and are in fair to excellent condition (those in excellent condition are so wet as to preclude grazing). The lower-gradient reaches may represent areas of distant past beaver activity. Downstream the valley again narrows and the gradient increases, and stringer conifer riparian types are present.

Wetland and Riparian Plant Associations and Size (in acres):

Picea engelmannii/Equisetum arvense	1
Cornus stolonifera	3
Salix boothii/Carex utriculata	24
Salix boothii/Equisetum arvense	15
Salix boothii/Mesic forb	10
Salix boothii/Mesic graminoid	19
Salix exigua/Mesic graminoid	1
Carex utriculata	5

Land Manager: USDA Forest Service; Idaho Department of Lands
Designation: Unprotected

SOUTH FORK OF THE SNAKE RIVER-IRWIN TO HEISE CDC Site # 5

County: Bonneville
Location: Site includes the riparian corridor and related features on both sides of the River from approximately river mile 854 to 893, beginning approximately 20 miles northeast of Idaho Falls, Idaho.

Size (acres): 2,070 **Elevation Range (feet):** 5,050 - 5,320
Site Description: The South Fork of the Snake River is located in a deep river canyon. The site is situated in a northwest-trending valley between the Snake River Range to the north and the Caribou Range to the south. The portion of the valley within the site includes a deep canyon and Swan and Conant valleys extending from near Irwin downstream to the Heise Gauge. The site contains a large part of the most extensive cottonwood/willow riparian forest in Idaho and includes the majority of remaining pristine wildlife habitat on the South Fork. It is habitat to a wide array of species with high conservation priority. Communities that occur within the site are Populus angustifolia/Cornus stolonifera, Populus angustifolia/Elaeagnus commutata, Populus angustifolia/Chrysopsis villosa, Populus angustifolia/Poa pratensis, Salix exigua/Poa pratensis, Betula occidentalis/Cornus stolonifera, Elaeagnus commutata, P. tremuloides/Amelanchier alnifolia-Symphoricarpos albus, Artemisia tridentata/Cercocarpus ledifolius, and Pseudotsuga menziesii/Physocarpus malvaceus. Small occurrences of Typha latifolia, Scirpus validus, Eleocharis palustris, and Carex utriculata are

present in backwater sloughs and abandoned channels. The site supports the highest concentration of nesting bald eagles in Idaho and in the Greater Yellowstone Ecosystem, as well as three other endangered bird species and a unique subspecies of cutthroat trout.

Wetland and Riparian Plant Associations and Size (in acres):

Populus angustifolia/Cornus stolonifera	Undetermined
Elaeagnus commutata	Undetermined
Betula occidentalis/Cornus stolonifera	Undetermined
Carex utriculata	Undetermined
Eleocharis palustris	Undetermined
Typha latifolia	Undetermined
Scirpus validus	Undetermined
Populus angustifolia/Chrysopsis villosa	Undetermined
Populus angustifolia/Elaeagnus commutata	Undetermined

Land Manager: Bureau of Land Management; USDA Forest Service; The Nature Conservancy; Private
Designation: TNC Preserve; Area of Critical Environmental Concern; Research Natural Area

STUMP CREEK EXCLOSURE **CDC Site # 637**

County: Caribou
Location: The exclosure is adjacent to the Stump Creek Guard Station on Horse Creek, approximately three air miles west of Auburn, Wyoming, and one and a half miles west of the Idaho/Wyoming border.

Size (acres): 39 **Elevation Range (feet):** 6,180 - 6,360
Site Description: The site consists of an exclosure divided into three sections beginning at Stump Creek Guard Station and extending upstream along Horse Creek for over 0.25 mile. The two downstream exclosures are on the Caribou National Forest and are older than the upstream section, which is on BLM land and was constructed recently. The lower two sections are dominated by Salix boothii and S. geyeriana, with scattered shrubs including Betula glandulosa, Potentilla fruticosa, and Artemisia cana. The understory is dominated by graminoids in most areas, with introduced grasses such as Poa pratensis and Phleum pratense locally abundant. Native Carex spp. and Juncus balticus are often confined to narrow strips along the creek and are rare in the exclosure section adjacent to the Guard Station. The uppermost exclosure section contains a series of old meandering channels and associated cutoff points and supports additional Carex communities. Salix cover is sparse in the upstream exclosure, but appears to be recovering. There is a stark fenceline contrast regarding willow size and density between this upper exclosure and the middle section. Stream bank conditions are mostly good in the lower two sections and are improving in the uppermost (newest) section. All sections within the exclosure are in considerably better condition than upstream areas off site which are accessible to livestock. Salix spp. are rare (poor condition) to absent upstream of the exclosures. Salix spp. occur downstream from the exclosure to the confluence with Stump Creek; this reach has poor bank conditions, greater sedimentation in the channel, and a weedier understory. Artemisia tridentata vaseyana/Festuca idahoensis covers most of the exclosure south of the generally narrow riparian zone, with abundant Potentilla fruticosa along the ecotone.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Mesic graminoid	15
Carex utriculata	15
Carex lanuginosa	15
Carex nebraskensis	15

Land Manager: USDA Forest Service; Bureau of Land Management
Designation: Unprotected

THOMAS FORK VALLEY **CDC Site # 172**

County: Bear Lake

Location: The Thomas Fork Valley is approximately 18 miles east of Montpelier, Idaho along U.S. Hwy 30 near Border Junction, Wyoming. The site lies immediately north of U.S. Hwy 30 as it crosses the Thomas Fork Valley, just upstream of the confluence of the Thomas Fork and Bear River.

Size (acres): 2,110 **Elevation Range (feet):** 6,050 - 6,070

Site Description: The site is largely covered by a mosaic of native graminoid communities that are distributed along micro-hydrological gradients across the lower Thomas Fork Valley. These communities cover nearly approximately square miles. Scirpus acutus, Typha latifolia, Carex utriculata, and Eleocharis palustris communities occur in old stream channels that range from nearly dry soil surface to having two feet of standing water. The remaining communities occur on level alluvial terraces that in August 1996 had dry soil surface. Extensive areas of Deschampsia cespitosa occur on the eastern half of the site. The highest terraces are dominated by an odd mixture of Artemisia arbuscula, A. cana, A. tripartita, and a small amount of A. tridentata occurring on the relatively fine textured alluvium. These small areas do not fit existing classifications. Another odd cover type, also small in area, is dominated by Atriplex nuttallii and Sporobolus airoides. The Thomas Fork meanders at a sluggish rate from N to S through the site. This relatively wide, deep creek has thick beds of Potamogeton in its channel. Bordering the creek are (remnant) stands of mostly Salix exigua and some S. boothii. Portions of the Deschampsia community are hayed and a small area near the SW corner was recently plowed. Some areas have been seeded to Bromus inermis and Alopecurus pratense. Otherwise, much of the site is native and has seen little livestock grazing in the recent past.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	200
Deschampsia cespitosa	200
Distichlis stricta	50
Hordeum jubatum	100
Carex simulata	100
Eleocharis palustris	100
Scirpus acutus	20
Typha latifolia	20
Muhlenbergia richardsonis	5

Land Manager: U.S. Fish and Wildlife Service; Private
Designation: Wildlife Refuge / Management Area

TRAIL CREEK, TETON COUNTY **CDC Site # 339**

County: Teton
Location: From Victor travel approximately four miles southeast on U.S. Hwy 33 to Mike Harris Campground.

Size (acres): 55 **Elevation Range (feet):** 6,500 - 6660

Site Description: The Trail Creek site consists of an extensive, nearly closed-canopy shrub carr. Vegetation includes the Carex utriculata community type and closed shrubs with co-dominance by Salix boothii and Salix geyeriana. Wetter sites within the carr have the Salix boothii/Carex utriculata community type, drier sites the Salix boothii/Poa pratensis community type. Ephemeral rivulets run through the carr, and portions of thick carr are saturated for long periods and have a barren understory. Drier, more open margins may be influenced by grazing; however, the Salix boothii/Mesic forb community type present in parts of the margins is not overly weedy.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Carex utriculata	15
Salix geyeriana/Mesic forb	15
Carex utriculata	10

Land Manager: USDA Forest Service
Designation: Unprotected

WEST FORK MINK CREEK **CDC Site # 276**

County: Bannock
Location: West Fork Mink Creek is located seven miles south of Pocatello, Idaho approximately midway up the West Fork Mink Creek drainage, a tributary of the Portneuf River.

Size (acres): 640 **Elevation Range (feet):** 5,600 - 7,000
Site Description: West Fork Mink Creek site is divided into two units with a buffer strip between the two along the old road/trail that heads up the creek. The two units are quite different and the site features a variety of vegetative cover types including Pseudotsuga menziesii and Populus tremuloides forests on north-facing slopes and sagebrush-grass types on south-facing slopes. The upper slopes of Slate Mountain have a thin soil mantle with many exposed shale outcrops and support a predominantly Artemisia arbuscula nova-Poa secunda association. approximately 10 percent of the upper slopes have a Juniperus osteosperma cover. The lower xeric slopes support the Artemisia tridentata ssp. tridentata/Elymus cinereus association and a variety of shrub species. The western portion of the site is predominantly timbered with Pseudotsuga menziesii and Populus tremuloides, with several small dry meadow-like openings. West Fork Mink Creek is formed by numerous springs which emerge approximately 0.5 mile above the site. Four riparian communities occur along the creek. At least two small stands of Carex amplifolia are present on seeps that emerge at the base of slopes and on stream terraces above high water. A small stand of Salix boothii/Carex utriculata occurs on a seepy bench near the upper boundary of the site. The Pseudotsuga menziesii/Cornus stolonifera community occurs along approximately 0.75 mile of the stream through the upper end of the site and approximately 0.25 mile of a lower tributary stream. Stream gradients are approximately 10 percent through the P. menziesii community. Downstream of where two side tributaries enter West Fork Mink Creek, stream gradient lessens and the Betula occidentalis/Mesic forb community occupies the stream bottom and extends downstream of the site boundary.

Wetland and Riparian Plant Associations and Size (in acres):

Pseudotsuga menziesii/Cornus stolonifera	15
Artemisia tridentata tridentata/Elymus cinereus	40
Betula occidentalis/Mesic forb	3
Salix boothii/Carex utriculata	1

Land Manager: USDA Forest Service
Designation: Research Natural Area

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45 RANCH

CDC Site # 373

County: Owyhee
Location: 45 Ranch is located along the South Fork Owyhee River, just downstream of the South Fork Owyhee River and Little Owyhee River confluence; approximately 54 miles west of the highway on the Duck Valley Indian Reservation.

Size (acres): 240 **Elevation Range (feet):** 4,330 - 4,904
Site Description: The 45 Ranch inholding is a wide spot in the South Fork Owyhee River Canyon surrounded by BLM land. During the summer, the South Fork is a wide, relatively shallow, slow-moving river through this stretch of canyon. It makes a big sweep through the 45 Ranch after exiting through the steep-walled canyon upstream. The valley is approximately 2,500 feet wide and most of the river terrace is cultivated for hay. A narrow riparian zone borders the river and Artemisia tridentata wyomingensis occurs on the slopes. The channel of the Little Owyhee River (which flows only during flood events) has a beaver pond at its mouth and ephemeral wash vegetation above. The beaver pond and the South Fork have extensive aquatic beds in them, mostly Ranunculus aquatilis, Potamogeton pectinatus, P. nodosus, and Sparganium emersum.

Wetland and Riparian Plant Associations and Size (in acres):

Artemisia tridentata tridentata/Elymus cinereus	5
Scirpus pungens	10
Artemisia ludoviciana	5

Land Manager: The Nature Conservancy
Designation: TNC Preserve

CAMAS CREEK

CDC Site # 51

County: Blaine and Camas
Location: Camas Creek lies on the Camas Prairie area north of the Bennett Hills, approximately nine miles west of Fairfield, Idaho.

Size (acres): 100 **Elevation Range (feet):** 4,840 - 4,940
Site Description: Camas Creek represents riparian and aquatic habitats of the Camas Prairie area. The site is primarily a canyon with an incised stream, canyon walls, and riparian vegetation. The principal feature of the area is Camas Creek, which is a fourth order stream with a slight gradient, fed by springs from the side. Beaver activity in the stream has resulted in large pools. The riparian zone is dominated by Salix exigua with lesser amounts of S. lutea and Cornus stolonifera. Eleocharis palustris community type is present, with small amounts of Scirpus americanus occurring on cobble and sand bars. Patches of Equisetum sp. are also present. In addition to aquatic and riparian habitats, several sagebrush types are also present. Upland types are dominated by Artemisia tridentata ssp. vaseyana and A. tridentata ssp. tridentata, with Agropyron spicatum and Festuca idahoensis dominant in the understory. The Artemisia tridentata ssp. vaseyana/Agropyron spicatum habitat type is well developed on the south-facing slope; the Artemisia tridentata ssp. vaseyana/Festuca idahoensis habitat type is best represented on north-facing slopes. The Artemisia tridentata ssp. tridentata/Agropyron spicatum habitat type is found along the bottom of the canyon and contains very large sagebrush.

Wetland and Riparian Plant Associations and Size (in acres):

Cornus stolonifera	2
Salix exigua/Barren	5
Eleocharis palustris	1

Land Manager: Bureau of Land Management; Private
Designation: Unprotected

COTTONWOOD CREEK **CDC Site # 69**

County: Owyhee
Location: Cottonwood Creek is a tributary of Big Jacks Creek and lies approximately 30 miles south-southwest of Bruneau, Idaho.

Size (acres): 346 **Elevation Range (feet):** 4,600 - 5,380
Site Description: Cottonwood Creek consists of a narrow canyon which begins below the falls at the southern end of the RNA and extends downstream for approximately 2+ miles to the confluence of Cottonwood Creek with Big Jacks Creek. Canyon sides are mostly steep-walled with some colluvial slopes covered with Artemisia tridentata ssp. wyomingensis/Festuca idahoensis community type. Cottonwood Creek lies in a narrow canyon bottom and is largely spring-fed, although flash floods do occur. The stream channel is 3-5 feet wide. Redband trout (Onchorhynchus mykiss gairdneri) were present in 1997. Cornus stolonifera thoroughly fills the canyon bottom floodplain in nearly impenetrable thickets. A few small terraces, generally above the floodplain, are occupied by tall, dense stands of Prunus virginiana. The waterfall is approximately 40 feet tall and free falls from a ledge into a plunge pool. Thick riparian vegetation and steep canyon walls prevent livestock from grazing the site. Interesting floating mats of Montia chamissoi occur in small eddies along the channel and indicate stable flows.

Wetland and Riparian Plant Associations and Size (in acres):

Prunus virginiana	15
Cornus stolonifera	40

Land Manager: Bureau of Land Management
Designation: Research Natural Area; Area of Critical Environmental Concern

HILL CITY MARSH **CDC Site # 122**

County: Camas and Elmore
Location: The site is approximately ten miles west-southwest of Fairfield, Idaho on the Camas Prairie.

Size (acres): 4,000 **Elevation Range (feet):** 5,050 - 5,100
Site Description: Hill City Marsh is a nearly flat prairie basin in a high desert valley at the base of the Bennett Hills. Camas Creek forms a channel near the west end of the site, and wet meadows are dominated by Carex nebraskensis, Carex praegracilis, and Juncus balticus. Deschampsia cespitosa and Poa juncifolia are locally dominant. Willows occur irregularly on Camas Creek as they have been eliminated by grazing. Much of the prairie bordering the mid-section of the site has been converted to agriculture land. Downstream, the Camas Creek channel is barely discernible, and water flows over the entire prairie to create a shallow water marsh. The marsh is dominated by Juncus balticus and Eleocharis palustris with lesser amounts of Carex nebraskensis. Areas of slightly raised topography which drawdown early in the growing season have grasslands dominated by Distichlis spicata and Elymus cinereus and shrublands dominated by Artemisia cana. Vernal pools are also present with the annuals Psilocarphus brevissimus, Naverretia breweri, and Polygonum polygaloides. Camas Creek once again forms a channel at the northeast end of the site. Uplands are dominated by Artemisia tridentata, Purshia tridentata, and Chrysothamnus nauseosus.

Wetland and Riparian Plant Associations and Size (in acres):

Artemisia cana/Festuca idahoensis	20
Elymus cinereus	20

Deschampsia cespitosa	30
Distichlis stricta	10
Carex nebraskensis	1000
Carex praegracilis	20
Carex simulata	50
Eleocharis palustris	500
Juncus balticus	1000
Polygonum amphibium	50
Typha latifolia	200

Land Manager: Idaho Department of Fish and Game; Private
Designation: Wildlife Refuge / Management Area

JUMP CREEK CANYON **CDC Site # 132**

County: Owyhee
Location: Jump Creek Canyon lies along the northern slope of the Owyhee Mountains, approximately seven miles southwest of Marsing, Idaho.

Size (acres): 612 **Elevation Range (feet):** 2,600 - 3,905
Site Description: Jump Creek Canyon consists of a steep, narrow canyon with several undisturbed riparian and aquatic communities and an upland sagebrush community occurring in isolated pockets on the otherwise vertical canyonsides. At the uppermost limit of the canyon there is no perennial flow in the creek; however, considerable spring or flash flooding takes place. Riparian vegetation here is sparse, consisting mostly of tall forbs and mesic-site grasses. Ephemeral pools and deep, isolated perennial pools are common. Downstream from this area numerous springs discharge along a quarter-mile stretch of creek. Below the springs, the water flow in Jump Creek is constant to the lower boundary of the site at Jump Creek Falls. A very dense, shrubby community occurs along the stream dominated by Philadelphus lewisii. Lesser amounts of Cornus stolonifera also occur in the stands. Below this area the canyon narrows and the stream flows over a series of cataracts. As the stream widens again, two riparian communities dominated by Betula occidentalis occur: one with a gallery of Betula and a sparse understory of Phildelphus lewisii along the creek, the second community occurs on stream terraces and has a mixed forb understory. Salix lasiolepis occurs as dense stands near the upper limit of permanent water and in the ephemeral section. Stands of Artemisia tridentata ssp. wyomingensis/Agropyron spicatum occur in pockets on the canyon walls. Redband trout occurs in several populations throughout the length of the perennial-flowing creek and in some of the permanent pools upstream.

Wetland and Riparian Plant Associations and Size (in acres):

Betula occidentalis/Mesic forb	10
Philadelphus lewisii	30
Betula occidentalis/Philadelphus lewisii	50
Salix lasiolepis	10

Land Manager: Bureau of Land Management
Designation: Unprotected

LITTLE JACKS CREEK **CDC Site # 145**

County: Owyhee
Location: Little Jacks Creek is approximately 23 miles southwest of Bruneau, Idaho.

Size (acres): 1,921 **Elevation Range (feet):** 4,060 - 5,280
Site Description: The site encompasses part of the Owyhee Plateau and a segment of the very steep, deep Little Jacks Creek canyon, as well as lower Rattlesnake Creek. The site contains undisturbed examples of several major sagebrush-steppe habitat types, the most extensive being: Artemisia arbuscula/Agropyron spicatum, Artemisia arbuscula/Poa secunda, and Artemisia

tridentata spp. wyomingensis/Agropyron spicatum. Extensive stand of dense riparian vegetation dominate the Little Jacks Creek stream bottom, mostly Salix lasiolepis, with some Cornus stolonifera at the upstream end. Stream terraces above the high water are dominated by Prunus virginiana/Elymus glaucus stands. Rattlesnake Creek is an ephemeral drainage. Rhyolite cliff bands, boulderfields and talus occur on the canyon slopes.

Wetland and Riparian Plant Associations and Size (in acres):

Cornus stolonifera	Undetermined
Salix lasiolepis	40
Prunus virginiana/Elymus glaucus	10

Land Manager: Bureau of Land Management
Designation: Research Natural Area

MAHONEY FLAT **CDC Site # 226**

County: Blaine
Location: Mahoney Flat is approximately 23 air miles east of Fairfield, Idaho.

Size (acres): 554 **Elevation Range (feet):** 4,802 - 4,900
Site Description: Mahoney Flat includes a 2.5 mile reach of the Big Wood River just upstream of Magic Reservoir. The broad floodplain is occupied by stands of Populus trichocarpa/Cornus sericea and Salix lasiandra/Cornus sericea. Where the valley narrows well established channel bars have the Salix exigua/Mesic graminoid community type with local dominance by Salix lutea. The stream channel has recently deposited cobble/sand bars and islands with scattered graminoids and some cottonwood and willow establishment.

Wetland and Riparian Plant Associations and Size (in acres):

Populus trichocarpa/Cornus stolonifera	68
Salix exigua/Mesic graminoid	30
Salix lutea/Carex utriculata	30
Populus trichocarpa/Recent alluvial bar	10
Salix lasiandra/Cornus stolonifera	30

Land Manager: Idaho Department of Fish and Game; Idaho Transportation Department; Bureau of Land Management; Private
Designation: Unprotected

PLEASANT VALLEY TABLE **CDC Site # 1594**

County: Owyhee
Location: Pleasant Valley Table lies along the North Fork Owyhee River, between South Mountain and Juniper Mountain, approximately 30 miles southeast of Jordan Valley, Oregon.

Size (acres): 1,467 **Elevation Range (feet):** 5,300 - 5,650
Site Description: Pleasant Valley Table contains communities dominated by Artemisia papposa, A. cana, and A. arbuscula. The patterned ground or "biscuit and swale" topography creates poorly drained areas with thin soil over bedrock (swales) between deep soil mounds (biscuits). The Artemisia papposa community occurs in swales where there is little soil, and water perches on the bedrock in the spring or during the summer rains and drains via ephemeral, low-gradient stream channels across the table. Poa secunda is one of the few species associated with A. papposa in this community. The Artemisia cana/dry graminoid community occurs in areas where a relatively deep, fine-textured soil has been deposited along the stream courses and the water table is high during certain times of the year. Artemisia arbuscula occurs with Festuca idahoensis on mounds where the soil is deep and well-drained. The current site boundaries include a segment of the North Fork Owyhee River adjacent to Pleasant Valley Table and slopes north of the river that are

dominated by Juniperus occidentalis. The juniper stands have not been inventoried in any detail. Salix lasiandra is the dominant species along the river segment, with Salix geyeriana becoming common on the downstream end.

Wetland and Riparian Plant Associations and Size (in acres):

Salix lasiandra/Cornus stolonifera	Undetermined
Artemisia papposa	Undetermined
Danthonia californica	Undetermined
Artemisia cana/Dry graminoid	Undetermined

Land Manager: Bureau of Land Management
Designation: Unprotected

SILVER CREEK **CDC Site # 215**

County: Blaine
Location: Silver Creek is located approximately 30 miles southeast of Sun Valley. Access to the area is by an unnamed county road that crosses State Route 68 two miles south of Gannett.

Size (acres): 15,764 **Elevation Range (feet):** 4,820 - 5,000
Site Description: Silver Creek lies in a broad agricultural valley at the base of the Picabo Hills. The site encompasses the headwaters of Silver Creek, a renowned fly fishing stream containing rainbow trout. Silver Creek is in what was formerly a sagebrush-grass zone. Agricultural use dating back several decades has altered the native vegetation. A large portion of the valley is planted in barley and alfalfa. Artemisia tridentata and Artemisia tripartita dominate several areas of higher gound and adjacent hillsides. Emergent wetlands containing bulrush, cattail, and sedges alternate along stream channels with willows and birch. Potentilla fruticosa shrublands and sedge-dominated grasslands (dominated by Carex simulata, Carex praegricilis, and Carex cusickii) are present in spring fed meadows which have not been converted to agricultural use. Aspen stands are present as swamps on what may formerly have been spring heads. Thickets of wild rose are of occasional occurrence on drier ground on the valley floor. A large wetland complex is present near the confluence of Stalker Creek and Patton Creek. The complex includes open water, emergent wetlands dominated by Scirpus acutus and Typha latifolia, and seeps dominated by Eleocharis rostellata, Spartina gracilis, and Potentilla fruticosa with significant amounts of Poa juncifolia.

Wetland and Riparian Plant Associations and Size (in acres):

Populus tremuloides/Cornus stolonifera	43
Artemisia tridentata ssp. tridentata/Elymus cinereus	10
Potentilla fruticosa/Deschampsia cespitosa	60
Betula occidentalis/Mesic forb	50
Salix boothii/Carex utriculata	50
Phalaris arundinacea	300
Carex utriculata	200
Spartina gracilis	5
Deschampsia cespitosa	50
Carex buxbaumii	30
Carex lanuginosa	10
Carex nebraskensis	200
Carex simulata	30
Juncus balticus	300
Typha latifolia	200
Scirpus validus	200
Eleocharis rostellata	5

Land Manager: The Nature Conservancy; Private
Designation: TNC Preserve

THE TULES **CDC Site # 258**

County: Owyhee
Location: The Tules site lies on the Owyhee Plateau in the southwest corner of Idaho, approximately six miles northwest of Duck Valley Indian Reservation.

Size (acres): 113 **Elevation Range (feet):** 4,700 - 5,100
Site Description: The Tules is an abandoned meander of the Owyhee River in an area where the river is incised approximately 300 feet into the Owyhee Plateau. The area contains a diversity of wetland and upland communities, although the upland communities are limited in extent because of the steep canyon walls. Most of the colluvial cones are dominated by Artemisia tridentata wyomingensis/Festuca idahoensis, although a small, sandy terrace at the north end has a nice stand of A. tridentata tridentata/Stipa comata. Sedimentation into the abandoned meander has resulted in an extensive wetland system. Salix exigua dominates the areas proximate to the river, while Scirpus acutus dominates most of the rest of the meander. Small areas of Carex utriculata and C. sheldonii occur along the western edge.

Wetland and Riparian Plant Associations and Size (in acres):

Salix exigua/Mesic graminoid	14
Carex utriculata	1
Scirpus acutus	17
Carex sheldonii	5

Land Manager: Bureau of Land Management
Designation: Area of Critical Environmental Concern

TNC TRACT-SNAKE RIVER BIRDS OF PREY **CDC Site # 378**

County: Ada
Location: approximately 2.5 miles southeast of Sinker Butte; approximately 0.5 mile north of the mouth of Sinker Creek; on the east side of the Snake River, between river mile 459 and 460.

Size (acres): 70 **Elevation Range (feet):** 2320
Site Description: The TNC Tract is a river terrace adjacent to the dam pool behind Swan Falls Dam in the Snake River canyon. The shoreline is meandering and creates embayments largely dominated by Scirpus acutus. Most of the terrace is habitat for the Sarcobatus vermiculatus/Distichilis stricta community. Extensive stands of Salix exigua/Barren occur along the river edge. Adjacent canyon slopes are dominated by Atriplex confertifolia communities.

Wetland and Riparian Plant Associations and Size (in acres):

Salix exigua/Barren	5
Sarcobatus vermiculatus/Distichlis stricta	30
Scirpus acutus	10

Land Manager: The Nature Conservancy
Designation: TNC Preserve

TRIPLET BUTTE **CDC Site # 256**

County: Owyhee
Location: Triplet Butte lies along the West Fork Bruneau River 1.5 miles north of the Idaho/Nevada border, approximately 45 air miles southeast of Grasmere, Idaho.

Size (acres): 372 **Elevation Range (feet):** 4,660 - 6,013
Site Description: Triplet Butte consists of Triplet Butte and the canyonsides extending from the butte and ridges to the north and south down to the river. The area contains undisturbed examples

of several shrubland types. The Artemisia arbuscula/Agropyron spicatum type is found on the summit plateau. Artemisia arbuscula also occurs on the northeast slope of the butte, but with an understory dominated by Festuca idahoensis. Lower east-facing slopes are occupied by the Artemisia tridentata ssp. wyomingensis/Agropyron spicatum type. Artemisia tridentata ssp. vaseyana/Festuca idahoensis is scattered among pockets of deeper soils on the east- and northeast-facing slopes of the butte. A large stand of Juniperus occidentalis occurs on the east face of the butte and in small areas below the east rim of the butte. A narrow riparian zone occurs along the Bruneau River.

Wetland and Riparian Plant Associations and Size (in acres):

Cornus stolonifera	Undetermined
Salix exigua/Mesic graminoid	5
Juniperus scopulorum/Mesic forb	5

Land Manager: Bureau of Land Management; Idaho Department of Lands
Designation: Research Natural Area; Area of Critical Environmental Concern

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YP LAKE BED **CDC Site # 371**

County: Owyhee
Location: Approximately 5.0 air miles northeast of "45" Ranch, on the YP Desert (Owyhee Plateau); approximately 35 miles west of Riddle, Idaho.

Size (acres): 200 **Elevation Range (feet):** 5,181
Site Description: Large vernal lake on a volcanic plateau. The lake bed is an obvious depression, and surrounded by Artemisia tridentata wyomingensis/Festuca idahoensis community raised roughly 3 to 5 feet above the lake bed. The largest and wetter area is covered with the Eleocharis palustris vernal pool community. The eastern side of the depression is drier and contains the Artemisia cana/Muhlenbergia richardsonis community type. The lake bed was dry and hard (hard enough to drive on) during the July 1997 visit. The lake bed may flood to as much as 0.5 m deep during some springs, at which time a rich avifauna visits the lake during migration. A peregrine falcon was observed at this site during the spring of 1993, hunting the abundant shorebirds.

Wetland and Riparian Plant Associations and Size (in acres):

Artemisia cana/Muhlenbergia richardsonis	37
Eleocharis palustris vernal pool	160

Land Manager: Bureau of Land Management
Designation: Unprotected

CAPTAIN JOHN CREEK — CDC Site # 1274

County: Nez Perce
Location: Captain John Creek is located approximately 16 miles southeast of Lewiston, Idaho.

Size (acres): 1,361 **Elevation Range (feet):** 3,000 - 4,400
Site Description: Captain John Creek is located in the Snake River drainage within the upper reaches of Captain John Creek. The area is very steep and rugged. Basalt rock outcrops and cliffs occur throughout the area. The soils are formed in loess, weathering basalt, and volcanic ash. Grasslands occur primarily on south and west aspects, while timbered areas occur on north and east aspects. Plant communities primarily include Pseudotsuga menziesii, Agropyron spicatum, Festuca idahoensis, and riparian habitats.

Wetland and Riparian Plant Associations and Size (in acres):

Alnus rhombifolia/Betula occidentalis	5
Alnus incana/Cornus stolonifera	5

Land Manager: Bureau of Land Management
Designation: Research Natural Area; Area of Critical Environmental Concern

LOWER AND MIDDLE COTTONWOOD ISLANDS — CDC Site # 1270

County: Nez Perce
Location: Lower and Middle Cottonwood Islands site is located approximately 19 air miles east-northeast of Lewiston, Idaho in the Clearwater River.

Size (acres): 14 **Elevation Range (feet):** 840
Site Description: Lower and Middle Cottonwood Islands consists of two islands in the Clearwater River. Flow in this portion of the river is affected by a single dam on the North Fork of the Clearwater River, 25 miles upstream. The North Fork drains roughly 30 percent of the Clearwater basin upriver of the area. Because most of the flow within the basin is uncontrolled, "normal" spring flooding still occurs to some degree. The islands contain the following plant communities: 1) Salix exigua occurring on the extensive cobble bars that dominate the upstream sides of both islands; this zone experiences the highest frequency and longest duration of flooding resulting in a bare cobble substrate. 2) Chrysopsis villosa - occurring above the Salix zone on cobble bars with sand in the interstices; Lupinus lepidus is co-dominant in the upper half of this zone. 3) Artemisia ludoviciana - occurring only on the middle island, this community is restricted to sand deposits below high water. 4) Populus trichocarpa/Festuca idahoensis - occupying most of the middle island on the highest surface above the water; distinguished by the presence of mature deciduous trees. 5) Pinus ponderosa/Agropyron spicatum - occupying the most elevated surface of either island; the substrate is sandy soil with exposed cobble in some places; pines of sapling to 40 feet tall. The area also provides valuable nesting habitat for geese and ducks and wintering habitat for bald eagles.

Wetland and Riparian Plant Associations and Size (in acres):

Salix exigua/Barren	2
Populus trichocarpa/Festuca idahoensis	4
Chrysopsis villosa	8
Artemisia ludoviciana	0.5

Land Manager: Bureau of Land Management
Designation: Research Natural Area; Area of Critical Environmental Concern

STERLING WILDLIFE MANAGEMENT AREA — CDC Site # 454

County: Bingham
Location: Sterling is located in Bingham County just east of Aberdeen, Idaho along the northwest shore of American Falls Reservoir. The WMA consists of three separate blocks.

Size (acres): 132 **Elevation Range (feet):** 4,370 - 4,385
Site Description: The WMA encompasses a wetland complex bounded by farmland under cultivation or in pasture. These wetlands receive water from natural runoff and springs, as well as from irrigation runoff and canal seepage. The landscape is very gently rolling volcanic plains with little surface water connection between many of the wetland complexes. Approximately 138 acres of wetland and open water habitat exist on the site. Scirpus acutus and Typha latifolia communities comprise most of the wetlands. Small, but significant areas of the Juncus balticus and Distichilis stricta communities also occur in the area. Very small stands of the Carex nebraskensis and C. praegracilis communities occur on the mesic fringes of the wetlands. Of special interest is the occurrence of the Allenrolfea occidentalis community. A rather large, barren area on the Orth Segment (northeast corner of the site) has a salt-encrusted soil surface and very low plant cover. Allenrolfea is one of nine chenopods present and, along with Salicornia rubra, one of the only species with significant cover. The discovery of Allenrolfea occidentalis at Sterling in 1997 was the first in Idaho.

Wetland and Riparian Plant Associations and Size (in acres):

Distichlis stricta	15
Carex nebraskensis	5
Carex praegracilis	1
Juncus balticus	20
Scirpus acutus	1
Typha latifolia	5

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

BIG LOST RIVER SINKS — CDC Site # 375

County: Butte
Location: Located within the INEEL, a restricted access area. The northern edge of the Sinks are located approximately one mile south of U.S. Hwy 22, approximately seven and a half miles east of Howe, Idaho.

Size (acres): 920 **Elevation Range (feet):** 4,790
Site Description: Big Lost River Sinks is an extensive depression feature in an area of generally minor topographic relief supporting a mosaic of graminoid-dominated wetland communities. The two main community types are Eleocharis palustris, best expressed in areas that are wet (standing water, or saturated to super-saturated soils), and the Agropyron smithii community. There are generally sharp demarcations between the wetland and upland vegetation. The adjacent uplands support Artemisia tridentata ssp. wyomingensis vegetation. The main channel of the Big Lost River along with a system of secondary channels course through the Sink.

Wetland and Riparian Plant Associations and Size (in acres):

Agropyron smithii	200
Eleocharis palustris vernal pool	50

Land Manager: Idaho National Engineering and Environmental Laboratory
Designation: Unprotected

CANYON CREEK, MADISON COUNTY **CDC Site # 340**

County: Madison
Location: From Sugar City, travel approximately 16 miles on State Hwy 33 to Pincock Hot Springs Road (Canyon Creek Road). Site begins in canyon approximately 0.75 mile upstream (south) of State Hwy 33.

Size (acres): 66 **Elevation Range (feet):** 5,720 - 5,780
Site Description: The site contains a high-gradient channel with the Salix lasiandra and S. exigua community types occurring in the broader valley at the head of the canyon. Downstream, the canyon narrows and the Cornus sericea/barren community type most commonly lines the channel banks. Patches of the Alnus incana/Cornus sericea and Juniperus scopulorum/C. sericea community types also occur on the mid-canyon reach; Cornus sericea is the most expansive type. At the downstream end of the site, the canyon becomes very steep and consists of shear basalt walls. Vegetation here is dominated by the Cornus sericea community type with a narrow band of Prunus virginiana upslope. Ephemeral side channels have Elymus cinereus and Juniperus scopulorum/Cornus sericea community types; Eleocharis palustris occurs on recently deposited bars. The Artemisia tridentata/Agropyron spicatum community type with abundant Bromus tectorum and scattered Juniperus scopulorum occurs on gently sloping canyon walls. The uplands have been partially converted to agriculture, but historically were likely vegetated with Populus tremuloides and Artemisia tridentata community types.

Wetland and Riparian Plant Associations and Size (in acres):

Juniperus scopulorum/Cornus stolonifera	7
Alnus incana/Cornus stolonifera	6
Cornus stolonifera	20
Salix exigua/Barren	6
Elymus cinereus	3
Eleocharis palustris	1

Land Manager: Bureau of Land Management; Idaho Department of Lands; Private
Designation: Unprotected

FOX CREEK/FOSTER SLOUGH **CDC Site # 125**

County: Teton
Location: From Driggs travel 5.5 miles south on State Hwy 33 to Chapin; then travel west 3.6 miles on Chapin Road. Follow Idaho Department of Fish and Game access signs to the parking area.

Size (acres): **Elevation Range (feet):** 6,000 - 6,010
Site Description: Fox Creek/Foster Slough site is a wetland complex that includes the confluence of Foster Slough and Fox Creek and the confluence of Fox Creek and the Teton River. The wettest sites support the Carex utriculata community type, with Carex nebraskensis along its margins. In drier swales, Carex nebraskensis forms its own community. The Juncus balticus community type is in transitional zones between sedge types and drier meadows. Hummocks are dominated by Poa pratensis and Phleum pratense. Open willow carrs are dominated by the Salix geyeriana/Mesic graminoid community type. Wetter carrs have the Salix geyeriana/Carex utriculata community type, and the willow canopy is nearly closed.

Wetland and Riparian Plant Associations and Size (in acres):

Salix geyeriana/Carex utriculata	Undetermined
Salix geyeriana/Mesic graminoid	Undetermined
Carex utriculata	Undetermined
Carex nebraskensis	Undetermined
Juncus balticus	Undetermined

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

LOWER LITTLE WOOD RIVER **CDC Site # 223**

County: Lincoln
Location: The Lower Little Wood River is south of Carey, Idaho. From Carey travel south on Hwy 93. Preacher Bridge Access Area is approximately 12 miles south of Carey and Bear Track/Williams Access Area is approximately 14 miles south of Carey.

Size (acres): 667 **Elevation Range (feet):** 4,505 - 4,600
Site Description: The Little Wood River creates a shallow canyon in the lava beds south of Carey. Uplands have a significant amount of soil development overlying the lava flows with Artemisia-dominated shrub types. The transition to the riparian zone is sometimes gradual with patches of Elymus cinereus. More often the transition is abrupt and the Little Wood River is confined to a moderately wide channel with riparian vegetation limited to a narrow fringe dominated by graminoid species and occasional shrubs (Betula occidentalis and Salix spp.). Shrub vegetation is best developed at the south end of the site where the channel is less confined. Some vernal pools are present within the site with Artemisia cana and the annuals Psilocarphus brevissimus, Polygonum polygaloides, and Langloisia setosissima.

Wetland and Riparian Plant Associations and Size (in acres):

Phalaris arundinacea	10
Carex utriculata	2
Carex aquatilis	2
Carex lanuginosa	2
Carex praegracilis	2
Juncus balticus	2
Scirpus validus	2
Salix exigua/Rosa woodsii	5

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

TETON CREEK MITIGATION SITE **CDC Site # 1976**

County: Teton
Location: Approximately 2.8 air miles southwest of Driggs, Idaho.

Size (acres): 35 **Elevation Range (feet):** 6,015
Site Description: Site includes an exclosure along Teton Creek which has been heavily grazed in the past. Teton Creek is a highly sinuous, moderately wide, low-gradient stream. Salix spp. including S. exigua ssp. melanopsis, S. boothii, S. geyeriana, and S. lasiandra create a closed canopy with a mesic graminoid understory. Dry benches are composed of mesic graminoids with a significant amount of Cirsium arvense and Smilacina stellata. Ephemeral side channels have Carex utriculata. Patches of Crataegus douglasii/Rosa woodsii are located along the main channel.

Wetland and Riparian Plant Associations and Size (in acres):

Crataegus douglasii/Rosa woodsii	4
Salix exigua/Barren	4

Land Manager: Private
Designation: Private Conservation Lands

TETON CREEK/BATES BRIDGE **CDC Site # 25**

County: Teton
Location: Approximately three and a half air miles southwest of Driggs, Idaho. Bates Bridge is near the confluence of Teton Creek and the Teton River.

Size (acres): 19 **Elevation Range (feet):** 6,000
Site Description: Floodplain of the Teton River with the Salix geyeriana/Carex utriculata community type present.

Wetland and Riparian Plant Associations and Size (in acres):

Salix geyeriana/Carex utriculata	5

Land Manager: Idaho Department of Fish and Game
Designation: Wildlife Refuge / Management Area

WOODS CREEK FEN **CDC Site # 311**

County: Teton
Location: In the Teton Basin along Woods Creek, the site is 1.0 to 2.8 miles due west of the intersection of Bates Road with State Route 33 in downtown Driggs, Idaho.

Size (acres): 1,241 **Elevation Range (feet):** 6,000 - 6,070
Site Description: Woods Creek Fen is a complex mosaic of wetland communities. Community types in saturated areas include Carex buxbaumii, C. simulata, C. utriculata, Eleocharis rostellata, and Betula glandulosa/Carex simulata. The Potentilla fruticosa/Deschampsia cespitosa community type occurs in slightly drier sites. The Salix geyeriana/Deschampsia cespitosa and Salix geyeriana/Carex utriculata community types are present along larger channels. Drier benches support the Poa pratensis community type and patches of Populus tremuloides with an understory dominated by Rosa woodsii and Poa pratensis.

Wetland and Riparian Plant Associations and Size (in acres):

Potentilla fruticosa/Deschampsia cespitosa	248
Salix geyeriana/Carex utriculata	37
Salix geyeriana/Deschampsia cespitosa	62
Carex utriculata	12
Deschampsia cespitosa	12
Carex buxbaumii	12
Carex simulata	12
Betula glandulosa/Carex simulata	600
Eleocharis rostellata	1

Land Manager: Private
Designation: Private Conservation Lands

ASHTON MARSH — CDC Site # 337

County: Fremont
Location: From Ashton, Idaho travel one mile west on Road 1300 north.

Size (acres): 437 **Elevation Range (feet):** 5,200 - 5,223
Site Description: Ashton Marsh is a large, shallow water marsh with open water areas surrounded by dense swards of the Typha latifolia and Scirpus acutus community types. Shallower ponded areas, which appear to draw down annually, have the Eleocharis palustris and Polygonum amphibium community types with Alisma plantago-aquatica locally abundant. The drier marsh margins have the Carex utriculata community type with small patches of Glyceria borealis. Tree-size Salix lasiandra occur in narrow bands in the driest parts of the marsh adjacent to hay meadows.

Wetland and Riparian Plant Associations and Size (in acres):

Phalaris arundinacea	Undetermined
Carex utriculata	Undetermined
Eleocharis palustris	Undetermined
Scirpus acutus	Undetermined
Polygonum amphibium	Undetermined
Typha latifolia	Undetermined

Land Manager: Private
Designation: Conservation Easement

BIG SPRINGS-HENRYS FORK CONFLUENCE — CDC Site # 835

County: Fremont
Location: The site is downstream from the confluence of Henrys Lake outlet and Big Springs outlet in Island Park, Idaho and includes land on both the north and south sides of the Henrys Fork River.

Size (acres): 250 **Elevation Range (feet):** 6,380 - 6,400
Site Description: The area supports an extensive spring fed wetland complex dominated by the Carex utriculata community type. The Carex nebraskensis, Carex aquatilis, Carex praegracilis-Carex aquatilis, Carex simulata, Eleocharis palustris, Juncus balticus, and Deschampsia cespitosa community types are present in lesser amounts. The Salix geyeriana/Carex utriculata community type is present along the Henrys Fork with the Salix wolfii/Carex aquatilis type away from the channel. Pinus contorta with a mesic graminoid understory is present on portions of the complex with slightly raised topography. Cicuta bulbifera population is the only one in southern Idaho, disjunct by over 350 miles from nearest Idaho populations.

Wetland and Riparian Plant Associations and Size (in acres):

Salix geyeriana/Carex utriculata	25
Salix wolfii/Carex aquatilis	5
Carex utriculata	100
Deschampsia cespitosa	12.5
Carex aquatilis	25
Carex buxbaumii	12.5
Carex nebraskensis	12.5
Carex praegracilis	12.5
Carex simulata	7.5
Eleocharis palustris	7.5
Juncus balticus	12.5

Land Manager: USDA Forest Service
Designation: Unprotected

BLUE SPRING CREEK **CDC Site # 328**

County: Fremont
Location: The site is in Island Park, Idaho approximately half mile north of Last Chance.

Size (acres): 298 **Elevation Range (feet):** 6,160 - 6,180
Site Description: Blue Spring Creek is a large, wet meadow complex that includes ponds influenced by beaver activity. A number of graminoid communities with low species diversity are present. Shallow ponds, drying late some years, have the Eleocharis palustris and Carex utriculata community types. Patches of Carex atherodes are also present. The Glyceria borealis community type is an extensive type which occurs on pond margins and is associated with seasonal drawdown. Shrub communities include Salix geyeriana/Carex utriculata and Salix geyeriana/Deschampsia cespitosa.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Carex utriculata	25
Salix boothii/Mesic graminoid	25
Carex utriculata	25
Glyceria borealis	25
Deschampsia cespitosa	25
Eleocharis palustris	25

Land Manager: Idaho Department of Lands
Designation: Unprotected

EAST SHORE HENRYS LAKE **CDC Site # 142**

County: Fremont
Location: From Macks Inn, travel approximately eight miles north to Henrys Lake State Park road. Travel two miles east on State Park road and park at boat ramp. A nature trail along east shore continues for approximately one-fourth mile along the shore. Site extends an additional two and a half miles north along shoreline after the trail ends.

Size (acres): 1,000 **Elevation Range (feet):** 6,472 - 6,528
Site Description: The area supports an extensive wetland complex along the east shore of Henrys Lake. Tall willow communities are dominated by Salix geyeriana with S. boothii and S. planifolia often present along active streams. Low willow communities include those dominated by S. wolfii and S. brachycarpa. The low willow occurrences are spring-fed and often adjacent to the C. simulata community type. A Picea glauca swamp occurs along the northern part of the east shore. Understories are dominated by Carex utriculata at the wettest sites with shaded microsites containing understories dominated by C. disperma or Equisetum arvense.

Wetland and Riparian Plant Associations and Size (in acres):

Picea glauca/Carex disperma	5
Picea glauca/Equisetum arvense	10
Salix geyeriana/Mesic graminoid	100
Salix planifolia monica/Carex aquatilis-Carex utriculata	30
Salix wolfii/Carex utriculata	30
Carex utriculata	200
Deschampsia cespitosa	100
Carex nebraskensis	70
Carex simulata	50
Typha latifolia	50
Picea glauca/Carex utriculata	10

Land Manager: Idaho Department of Parks and Recreation; Idaho Department of Lands; Bureau of Land Management; Private
Designation: Area of Critical Environmental Concern; State Park

FISH CREEK SPRINGS **CDC Site # 353**

County: Fremont
Location: From Warm River in Island Park, Idaho travel approximately five miles northeast on Fish Creek Road (USFS Road 082) to USFS Road 092. Continue east one and a half miles on USFS Road 092 to Section 36. The site lies along Fish Creek and continues upstream to Fish Creek Spring.

Size (acres): 36 **Elevation Range (feet):** 5,780 - 5,980
Site Description: Fish Creek Springs consists of a sequence of active and inactive stringer beaver ponds along Fish Creek and includes Otter and Fish Creek Springs. Salix species (including S. drummondiana, S. geyeriana, and S. bebbiana) occupy old beaver dams and the ecotone to the uplands. Emergent vegetation in ponds includes the Eleocharis palustris and Carex utriculata/community types with patches of Glyceria elata. The shrub carr is dominated by Salix drummondiana and has extensive areas of closed willows with standing water. Drier, more open areas have the Salix drummondiana/Carex utriculata community type, and drawdown areas have the Salix drummondiana/Equisetum arvense community type.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Equisetum arvense	14
Carex utriculata	7
Eleocharis palustris	1
Salix drummondiana/Carex utriculata	4

Land Manager: USDA Forest Service; Idaho Department of Lands
Designation: Unprotected

HATCHERY BUTTE **CDC Site # 709**

County: Fremont
Location: Hatchery Butte is located approximately two and a half miles southwest of Pineview, Idaho.

Size (acres): 73 **Elevation Range (feet):** 6,350 -
Site Description: The site encompasses a volcanic cinder cone. The prominent feature of the site is the lake at the summit of the cone. The lake and associated wetland habitats provide nesting habitat for Cygnus buccinator.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	Undetermined

Land Manager: USDA Forest Service
Designation: Unprotected

LUCKY DOG CREEK **CDC Site # 837**

County: Fremont
Location: approximately 4.2 air miles east-southeast of Macks Inn, Idaho and U.S. Route 20.

Size (acres): 124 **Elevation Range (feet):** 6,390 - 6,410
Site Description: Approximately one-half of this moderately wide, shallow, spring-fed site is covered by open marsh, fen, and Carex-dominated habitats. Community types associated with the wetter sites (creeks, springs, and swales) are Carex lanuginosa, C. utriculata, C. buxbaumii, Nuphar polysepalum, and Scirpus acutus. Meadow areas are dominated by the Deschampsia cespitosa community type; subordinate species within this community type include Agoseris glauca on flats

and Juncus balticus in swales. The riparian area grades into Pinus contorta with a mesic graminoid (Poa palustris, Poa pratensis, Fragaria sp.) understory and ultimately into forested uplands.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	12
Deschampsia cespitosa	74
Carex buxbaumii	3
Carex lanuginosa	6
Juncus balticus	6
Scirpus acutus	1
Nuphar polysepalum	4

Land Manager: USDA Forest Service
Designation: Unprotected

MOSS SPRING BEAVER PONDS **CDC Site # 336**

County: Fremont
Location: From Ashton, Idaho travel six miles east on Warm River Road to Cave Falls Road (USFS Road 582). Continue east on Cave Falls Road approximately 15 miles to Moss Spring. The site lies along Strong Creek, westward half mile downstream of the spring and eastward to one fourth mile upstream of the spring.

Size (acres): 34 **Elevation Range (feet):** 6,140 - 6,240
Site Description: This site along Strong Creek consists of old beaver ponds and meadows in a moderately wide valley bottom. Open-water areas have the Eleocharis palustris community type within the ponds and on pond margins. Meadows have the Glyceria borealis community type in drawdown zones, as well as a mosaic of the Carex utriculata and Carex simulata community types. As the valley narrows, the stringer riparian community Picea engelmannii/Equisetum arvense occurs with patches of Cornus stolonifera and Ribes lacustre. The westernmost ponds just downstream from Moss Spring have a floating mat dominated by the Carex lasiocarpa community type, which also occurs on more stable substrates as a mosaic with the Carex utriculata, Carex simulata, and Salix drummondiana/Carex utriculata community types. Old beaver dams are vegetated with mesic forbs, including Heracleum lanatum, Rudbeckia laciniata, Aconitum columbianum, and Urtica dioica. One of the beaver dams may have been reinforced by humans.

Wetland and Riparian Plant Associations and Size (in acres):

Picea engelmannii/Equisetum arvense	3
Carex utriculata	10
Glyceria borealis	1
Carex lasiocarpa	3
Carex simulata	7
Eleocharis palustris	1.7
Salix drummondiana/Carex utriculata	3

Land Manager: USDA Forest Service
Designation: Unprotected

PUTNEY MEADOWS **CDC Site # 324**

County: Fremont
Location: From Ashton travel six miles east and then north on Warm River Road to Cave Falls Road (USFS Road 582). Continue east on Cave Falls Road approximately 17 miles to Sheep Falls Road (USFS Road 124). Travel two miles south on Sheep Falls Road. Park and walk west one fourth mile to site.

Size (acres): 205 **Elevation Range (feet):** 6,340 - 6,400

Site Description: Putney Meadows is an extensive graminoid-dominated wetland complex. The wettest sites are dominated by the Carex utriculata community type with pockets of Glyceria borealis community type. Ponds are most commonly open water with the emergent Eleocharis palustris community type. The Nuphar polysepalum community type is present in saturated areas with approximately twp feet of standing water. Pond margins in drawn-down areas have the Eleocharis acicularis community type. The wetland ecotone to the uplands includes a narrow band of the Salix boothii/Mesic graminoid community type with Salix geyeriana, S. lasiandra, S. eastwoodiae, S. drummondiana, S. bebbiana, and S. planifolia present. Carex canescens and Equisetum arvense dominate the understory in the willow type. Drier meadow areas have the Deschampsia cespitosa and Carex nebraskensis community types with increasers such as Valeriana edulis, Senecio hydrophilus, and Poa palustris locally dominant.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Mesic graminoid	4
Carex utriculata	21
Glyceria borealis	21
Deschampsia cespitosa	82
Carex nebraskensis	21
Eleocharis acicularis	2
Eleocharis palustris	10
Nuphar polysepalum	41

Land Manager: USDA Forest Service
Designation: Unprotected

ROBINSON LAKE, YELLOWSTONE NATIONAL PARK CDC Site # 836

County: Fremont
Location: Robinson Lake site is one mile northwest of Bechler Ranger Station in the southwestern corner of Yellowstone National Park.

Size (acres): 240 **Elevation Range (feet):** 6,440 - 6,532
Site Description: The site consists of a complex of at least four wetlands and is the most floristically significant of the wetlands surveyed in Fremont and Teton counties. Community types within the complex are Dulichium arundinacea, Carex lasiocarpa, Carex buxbaumii, Carex rostrata, Eleocharis pauciflora-Carex aquatilis (Carex livida phase), Carex limosa, Nuphar polysepalum, and valley peatland floating mat. Six rare plant species occur within the site.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	Undetermined
Carex buxbaumii	Undetermined
Carex lasiocarpa	Undetermined
Carex limosa	Undetermined
Dulichium arundinaceum	Undetermined
Nuphar polysepalum	Undetermined
Eleocharis pauciflora-Carex aquatilis, Carex livida	Undetermined

Land Manager: National Park Service
Designation: National Park

STAMP MEADOWS **CDC Site # 1966**

County: Fremont
Location: From Macks Inn, Idaho travel 1.5 miles north to Sawtell Peak Road (FS Road 024); thence east on FS Road 024 for 1.7 miles to FS Road 052. Continue South on FS Road 052 approximately 1.3 miles to the first of three meadows.

Size (acres): 70 **Elevation Range (feet):** 6,440 - 6,490

Site Description: Stamp Meadows is a series of three spring fed meadows dominated by graminoids. Margins consist of the Salix geyeriana/Carex utriculata and S. geyeriana/Poa palustris community types. These types are also present in small patches within the graminoid complex. Patches of Pinus contorta are also present with an exotic graminoid (Poa palustris, Phleum pratense) understory. The graminoid communities include Eleocharis palustris, Carex vesicaria, Carex aquatilis, Eleocharis acicularis, Deschampsia cespitosa, and Poa pratensis along a wet-to-dry gradient. The west meadow, east of the primitive road shown on the topo, is a drier site dominated by tall graminoids with a high cover of Calochortus eurycarpus. The area west of the primitive road contains numerous small to large emerging springs. The vegetation is predominantly the Poa pratensis community type dominated by Alopecurus pratensis, with Carex aquatilis and Carex vesicaria community types surrounding springs and outlets.

Wetland and Riparian Plant Associations and Size (in acres):

Salix geyeriana/Carex utriculata	4
Salix geyeriana/Poa palustris	7
Deschampsia cespitosa	1
Carex aquatilis	7
Eleocharis acicularis	2
Eleocharis palustris	4
Carex vesicaria	10

Land Manager: USDA Forest Service
Designation: Unprotected

THURMON CREEK **CDC Site # 254**

County: Fremont
Location: Thurmon Creek is in eastern Idaho along U.S. Route 20 near Harriman State Park in Island Park, Idaho.

Size (acres): 607 **Elevation Range (feet):** 6,145 - 6,745

Site Description: The Thurmon Creek site is composed of a portion of the southeast slope of Thurmon Ridge and adjacent gently sloping land at the base of the ridge, near Harriman State Park. Thurmon Ridge is a low, moderately steep, southwest to northeast trending ridge, a segment of the Henrys Fork Caldera. Several cold springs and streams emanating from the base of the ridge are the main features of the site. Other features include wet sedge meadows, mainly along the streams; several forest types, including Populus trichocarpa, Pseudotsuga menziesii, and Pinus contorta types; shrub types including Artemisia tridentata ssp. vaseyana and Prunus virginiana; essential habitat for bald eagles, Situation 3 grizzly bear habitat, and elk in abundance.

Wetland and Riparian Plant Associations and Size (in acres):

Carex utriculata	18
Carex aquatilis	18

Land Manager: USDA Forest Service
Designation: Research Natural Area

TOMS CREEK/BUFFALO RIVER WETLANDS **CDC Site # 351**

County: Fremont
Location: From Island Park, Idaho travel two and a half miles south to Eccles Road (USFS Road 291). Continue east on Eccles Road to the railroad bed that has been converted to a recreational trail. Park and walk half mile north to Toms Creek and the south boundary of site.

Size (acres): 1,050 **Elevation Range (feet):** 6,280 - 6,300

Site Description: Toms Creek/Buffalo River site is a spring-fed complex that flows into both Toms Creek and the Buffalo River. Wet meadows have the Eleocharis palustris, Typha latifolia, Carex aquatilis, Carex utriculata, Carex lanuginosa, Carex simulata, and Deschampsia cespitosa community types present on a wet-to-dry gradient. Parts of the Deschampsia cespitosa occurrence are influenced by past grazing on the west side of the trail. However, native species are present and reproducing so rehabilitation potential is high. Drier portions of the west meadow have been converted by grazing to the Poa pratensis community type with Danthonia californica, Phleum pratense, Poa palustris, Potentilla gracilis, Senecio serra, Achillea millefolium, and Trifolium repens present. The wet meadow substrate is primarily sedge peat with small areas of floating mats. Hummocks of moss peat are present (10 square meters), mostly fed by groundwater. A moderate Glyceria borealis community occurrence is present in the pond margins and in shallow water on Toms Creek.

Wetland and Riparian Plant Associations and Size (in acres):

Artemisia cana/Deschampsia cespitosa	5
Salix geyeriana/Mesic graminoid	5
Carex utriculata	82
Glyceria borealis	1
Deschampsia cespitosa	205
Carex aquatilis	16
Carex lanuginosa	41
Carex simulata	164
Eleocharis palustris	41
Scirpus acutus	5
Nuphar polysepalum	5
Typha latifolia	24

Land Manager: USDA Forest Service; Idaho Department of Lands; Private
Designation: Unprotected

WARM RIVER DAMS **CDC Site # 182**

County: Fremont
Location: From Last Chance travel two and a half miles east on Mesa Falls Road. Continue east 12.5 miles on Eccles Road. On Fish Creek Road (USFS Rd 161) travel east for two miles to Black Spring Road (USFS Rd 352), then north four and a half miles to a logging road headed east. Take this road 0.3 miles to its end. A primitive trail on a dam crosses the site.

Size (acres): 31 **Elevation Range (feet):** 6,275 - 6,280
Site Description: Warm River Dams is a large, previously forested wetland on Warm River. An open dam exists perpendicular to the Warm River, creating small, open-water areas on the upstream side. Communities upstream of the dam include Carex lasiocarpa, Eleocharis palustris, and Carex utriculata, all in standing water. Hummocks are occupied by Pinus contorta saplings. Downstream of the dam, Warm River is very sinuous; there is current beaver activity, including a dam built in 1995. Pinus contorta occurs with Equisetum arvense and Carex nebraskensis in areas that previously supported the Pinus contorta/Calamagrostis canadensis community type. Pinus contorta mortality indicates that recently flooded areas may revert to a mesic graminoid wetland type if the current water regime remains unaltered. Occasional willows and patches of Deschampsia cespitosa occupy the site, but do not constitute an element occurrence.

Wetland and Riparian Plant Associations and Size (in acres):

Pinus contorta/Calamagrostis canadensis	1
Carex utriculata	3
Carex lanuginosa	1
Carex nebraskensis	12
Eleocharis palustris	3

Land Manager: USDA Forest Service; Private

Designation: Unprotected

WARM RIVER FEN **CDC Site # 326**

County: Fremont
Location: From Hwy 20 travel approximately two and a half miles east on State Route 47 (Mesa Falls Scenic Byway) to Eccles Road. Continue east and then north approximately 12 miles total to USFS Road 150. Follow USFS Road 150 east and north approximately five and a half miles. Park and walk one eighth mile to the site.

Size (acres): 87 **Elevation Range (feet):** 6,200 - 6,250
Site Description: The site consists of a series of historic beaver ponds with an extensive floating mat over most of the south side. Stagnant, open-water areas have the Nuphar polysepalum and Typha latifolia community types present. Other aquatics include Ranunculus aquatilis, Menyanthes trifoliata, Potentilla palustris, Myriophyllum sp., and Sagitaria sp. The floating mat is dominated by the Carex lasiocarpa and Carex simulata community types. The ecotone to the uplands, the active channel, the north and south end of the site, and old beaver dams have the Salix geyeriana/Carex utriculata community type with Carex simulata, Carex canescens, and Carex lasiocarpa locally abundant. Drier areas of the site have the Carex utriculata community type.

Wetland and Riparian Plant Associations and Size (in acres):

Salix boothii/Carex utriculata	4
Carex utriculata	9
Carex lasiocarpa	26
Carex nebraskensis	9
Carex simulata	35
Nuphar polysepalum	3
Typha latifolia	1

Land Manager: USDA Forest Service
Designation: Unprotected

WYOMING CREEK **CDC Site # 345**

County: Fremont
Location: From Ashton, Idaho travel six miles east and north on Warm River Road to Cave Falls Road (USFS Road 582). Continue approximately 17 miles east on Cave Falls Road to Sheep Falls Road (USFS Road 124). Travel three-fourth mile south on this road, and continue to where bridge crosses Wyoming Creek.

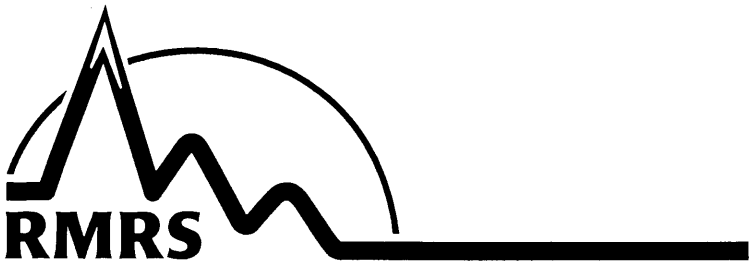
Size (acres): 100 **Elevation Range (feet):** 6,160 - 6,400
Site Description: Wyoming Creek site is a large carr- and graminoid-dominated complex in a broad meadow. The carr includes the Salix geyeriana/Calamagrostis canadensis community type away from the channel with Salix boothii locally codominant. The Salix geyeriana/Carex utriculata and Salix geyeriana/Carex aquatilis community types are common along banks with small occurrences of the Nuphar polysepalum community type in the slow-moving channel. Numerous beaver dams occur along the reach. The large meadow includes an expansive occurrence of the Deschampsia cespitosa community type in somewhat drier sites. Saturated areas are a mosaic of the Carex utriculata and Carex aquatilis community types. Slightly raised microsites are dominated by mesic graminoids with occasional Pinus contorta individuals. The graminoids include Poa palustris, Danthonia californica, and Phleum pratense. The valley narrows near the bridge on the west end of the site, and the downstream reach is dominated by Salix carr vegetation.

Wetland and Riparian Plant Associations and Size (in acres):

Pinus contorta/Calamagrostis canadensis	Undetermined
Salix geyeriana/Calamagrostis canadensis	7

Salix geyeriana/Carex aquatilis	20
Salix geyeriana/Carex utriculata	10
Carex utriculata	10
Deschampsia cespitosa	40
Carex aquatilis	10
Nuphar polysepalum	1

Land Manager: USDA Forest Service
Designation: Unprotected



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