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**EPA Wetland Program  
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# **Idaho's Wetland Program Plan**

**A plan for implementing the  
Idaho Wetland Conservation Strategy  
focused on  
Idaho Department of Fish and Game's  
wetland and riparian habitats**



Emergent marsh at Sand Creek WMA, northern leopard frog, moose, lesser yellowlegs (Photos by Chris Murphy).

**Chris Murphy**

**October 2014**

## ABSTRACT

Idaho Department of Fish and Game (IDFG) is the lead state agency regarding on-the-ground wetland management, restoration, enhancement, and conservation, as well as classification, mapping, inventory, assessment, monitoring, education, and outreach. IDFG manages or influences many of Idaho's most important wetlands. IDFG has management authority on about 389,000 ac, of which an estimated 10% is wetland and riparian habitat. Up to 89% of IDFG wetland and riparian habitat occurs on Wildlife Management Areas (WMAs) and similar lands managed for wildlife habitat and recreation. Because IDFG influences a significant amount of wetlands on non-federal lands in Idaho and supports the state's de facto wetland program, it needed a Wetland Program Plan (WPP) to help ensure that actions and activities are positive and defensible for improving condition, function, conservation, and restoration, while also consistent with the Department's goals and objectives. A WPP is an action plan for the implementation of effective and efficient wetland conservation, restoration, and management, including assessment and monitoring. It includes overall programmatic goals and a schedule for implementation. This WPP focuses on the EPA wetland program core elements of **Assessment and Monitoring** (including classification, mapping, and inventory) and **Voluntary Restoration and Protection** (including management, maintenance, enhancement, and creation). The plan also includes important statewide wetland program building actions related to **Coordination and Partnerships**, including **Data Management and Delivery, Mitigation**, and **Outreach and Education**. This WPP is unique in that it summarizes specific, on-the-ground actions and activities that will occur on portions of 42,000 - 48,000 ac of IDFG-managed wetland and riparian habitat during the next **5 years**. Wetland and riparian activities directly affecting these habitats are detailed in 31 site-specific WMA management plans revised with public and IDFG input between 2012 and 2014), which form the foundation for much of this WPP. The characteristics of IDFG-managed wetland and riparian habitats are also summarized, including their conservation importance, extent, types, condition, and functions.

## **KEYWORDS**

activities; actions; assessment; condition; conservation; creation; coordination and partnerships; data; enhancement; extent; function; goals; habitat; Idaho Department of Fish and Game; Idaho Wetland Conservation Strategy; landscape; management; maintenance; mitigation; monitoring; outreach; education; restoration; riparian; type; Wildlife Management Areas; wetland; Wetland Program Plan

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**Table 3. Scientific names of plant species referred to in text.**

## I. INTRODUCTION

### Idaho Department of Fish and Game and Wetlands—Critical Responsibility for an Essential Habitat

Idaho Department of Fish and Game (IDFG) is the lead state agency regarding wetland issues and management. Wetlands are an essential habitat for many of Idaho's fish, wildlife, invertebrate, and plant species. Nearly 50% of bird species rely on wetland and riparian habitats (IWWG 2008). Wetlands, and associated aquatic and riparian habitats, support about 47% of Idaho's wildlife Species of Greatest Conservation Need (SGCN) (IDFG 2005a) and 46% of the state's rare plant species are dependent on these habitats. The hydrologic, water quality, ecosystem support, and habitat functions of wetlands provide highly valued ecosystem services to Idaho's citizens, including:

- food and fiber (including culturally important fish, waterfowl, plants, etc.)
- groundwater recharge
- irrigation/domestic water supply
- support of base flows for springs, streams, and rivers
- flood minimization
- wastewater treatment
- sediment and shoreline stabilization
- water quality improvement
- carbon sequestration
- environmental education, interpretation
- wildlife and bird observation, appreciation
- solitude and nature observation, appreciation
- scientific research
- hunting and fishing
- other recreation (e.g., camping, swimming, ice skating, boating, hiking)

IDFG actively manages or influences many of Idaho's most important wetlands. IDFG is involved with nearly 600,000 ac across the state (with management authority on about 389,000 ac, comprised of almost 1,000 parcels), of which an estimated 10% is wetland and riparian habitat (Figures 1 - 4). Although this reflects a small percent of wetlands statewide (about 1.25%) (Figure 5), it includes at least portions of 33 wetlands that are high priorities for conservation and 28 global or state Important Bird Areas (Figure 6). This portfolio of lands encompasses a range of ownership and use types, from areas primarily managed for wildlife habitat and outdoor recreation (e.g., Wildlife Management Areas (WMAs), Wildlife Management Units (WMUs), and Wildlife Habitat Areas (WHAs)), to boating and fishing access sites, to conservation easements and fish hatcheries. Importantly, up to 89% of the approximately 60,000 ac of wetland and riparian habitat managed by IDFG occurs on WMAs, WMUs, and WHAs (Figures 7 and 8). Roughly 64 - 75% of these wetlands are palustrine emergent and open water, with the remainder predominantly riverine and associated palustrine forested and scrub-shrub riparian wetlands (Figure 9). Complete summaries of the importance, extent, types, and landscape-scale condition of wetland and riparian habitats managed by IDFG, as well as field assessed condition and potential functions of selected wetlands, are found in Section III and the Appendix of this document.

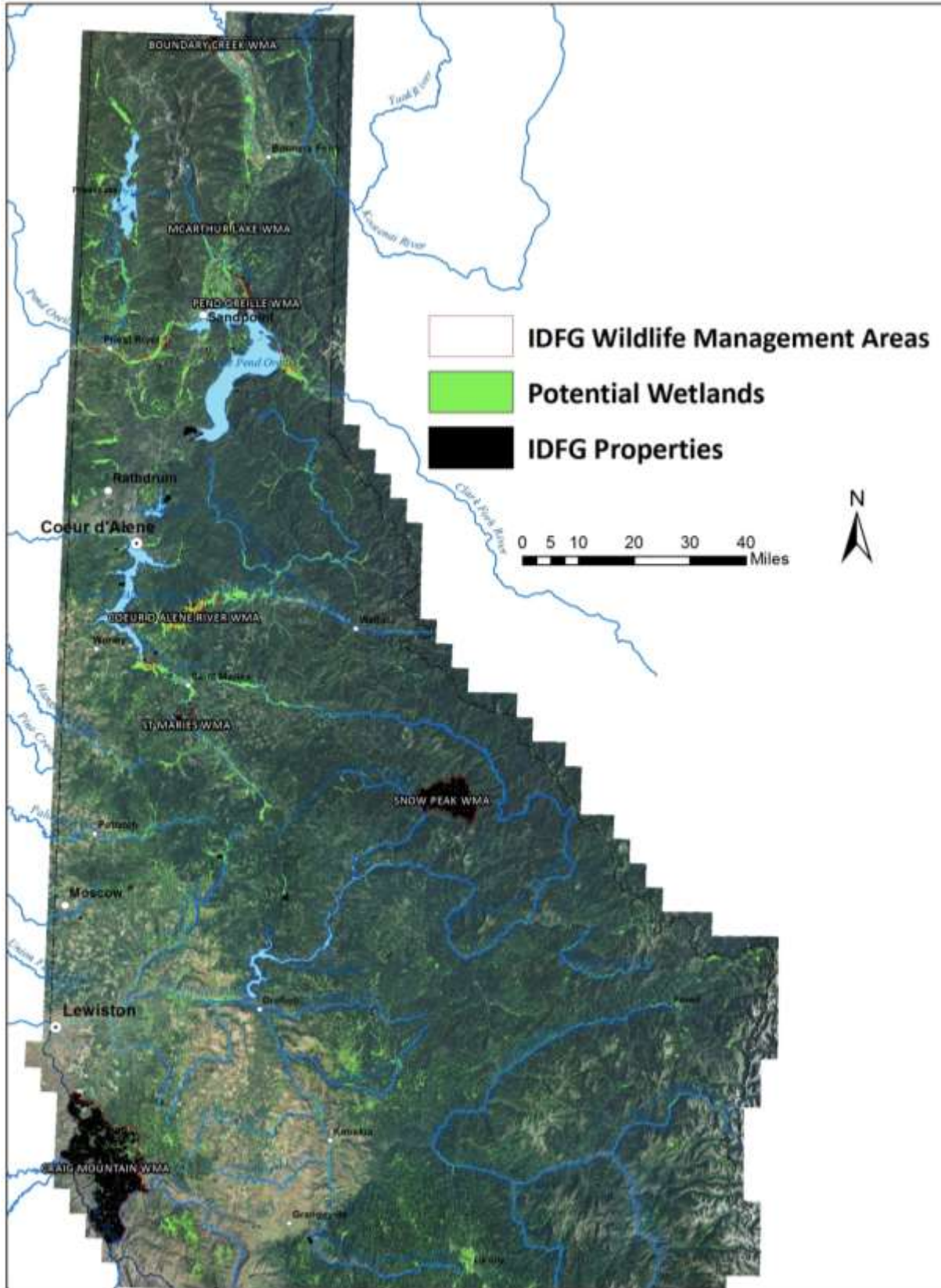


Figure 1. Properties managed by IDFG (or in cooperation with IDFG) and potential wetlands in northern Idaho.

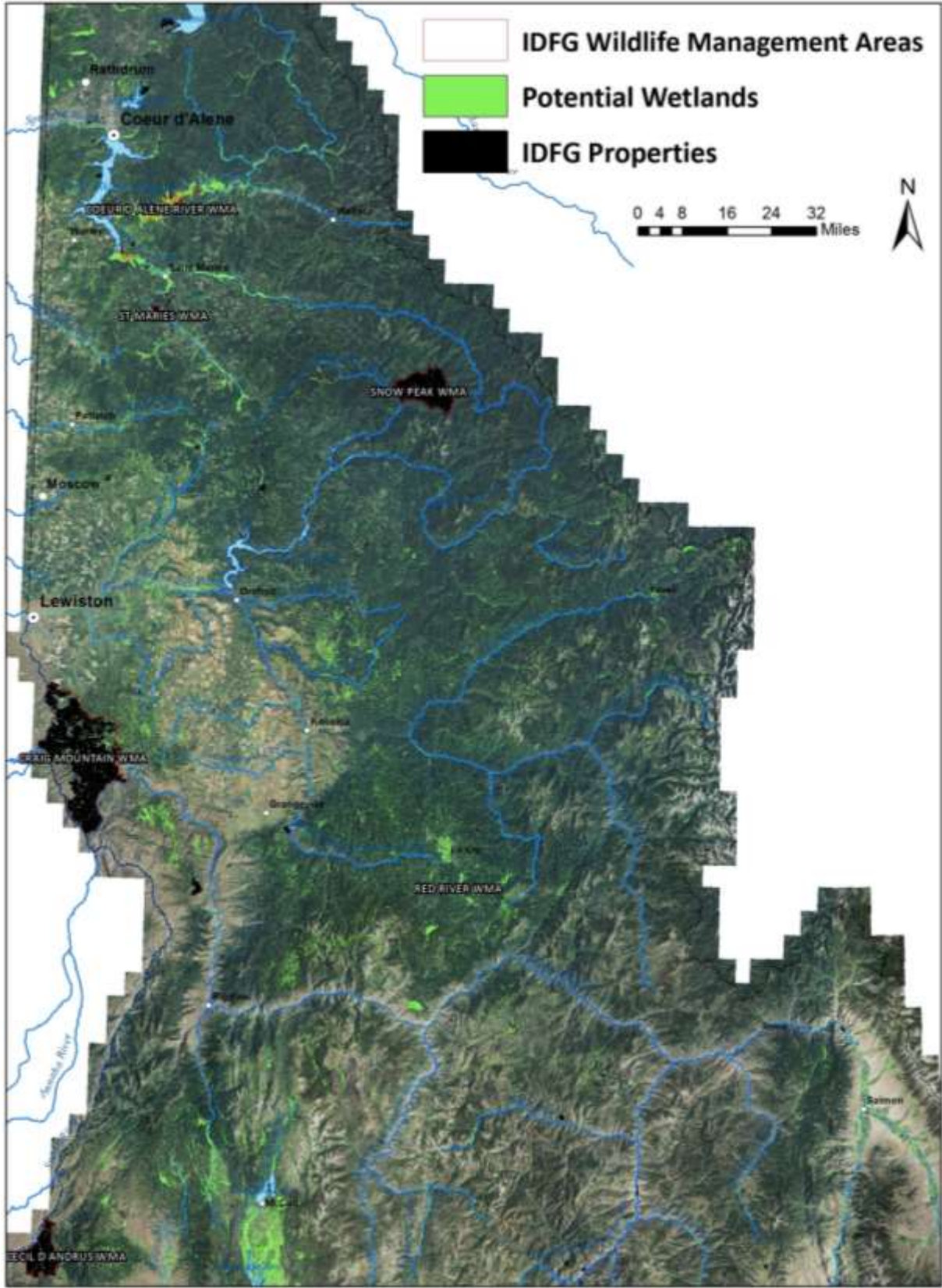


Figure 2. Properties managed by IDFG (or in cooperation with IDFG) and potential wetlands in central Idaho.

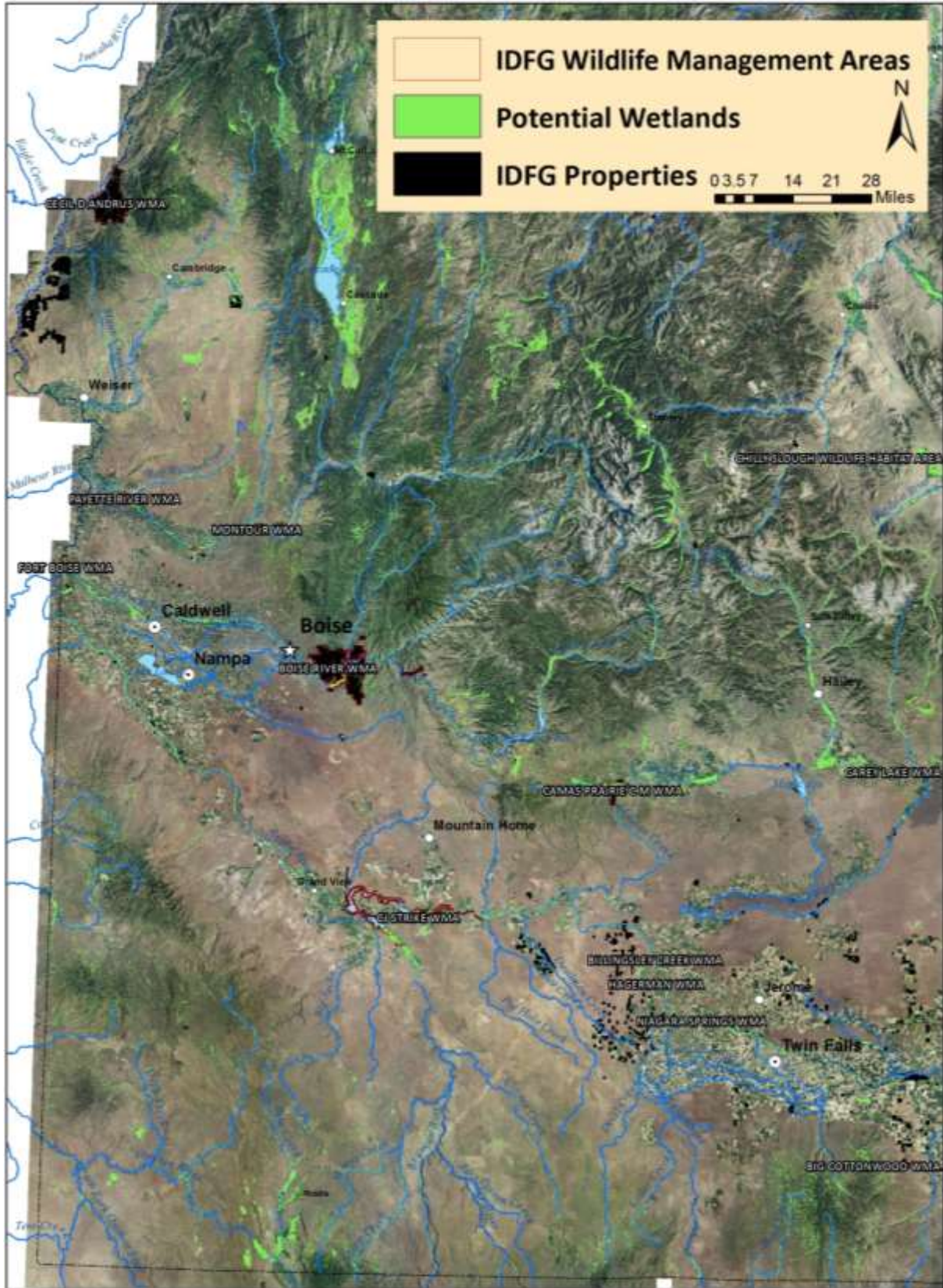


Figure 3. Properties managed by IDFG (or in cooperation with IDFG) and potential wetlands in southwestern Idaho.



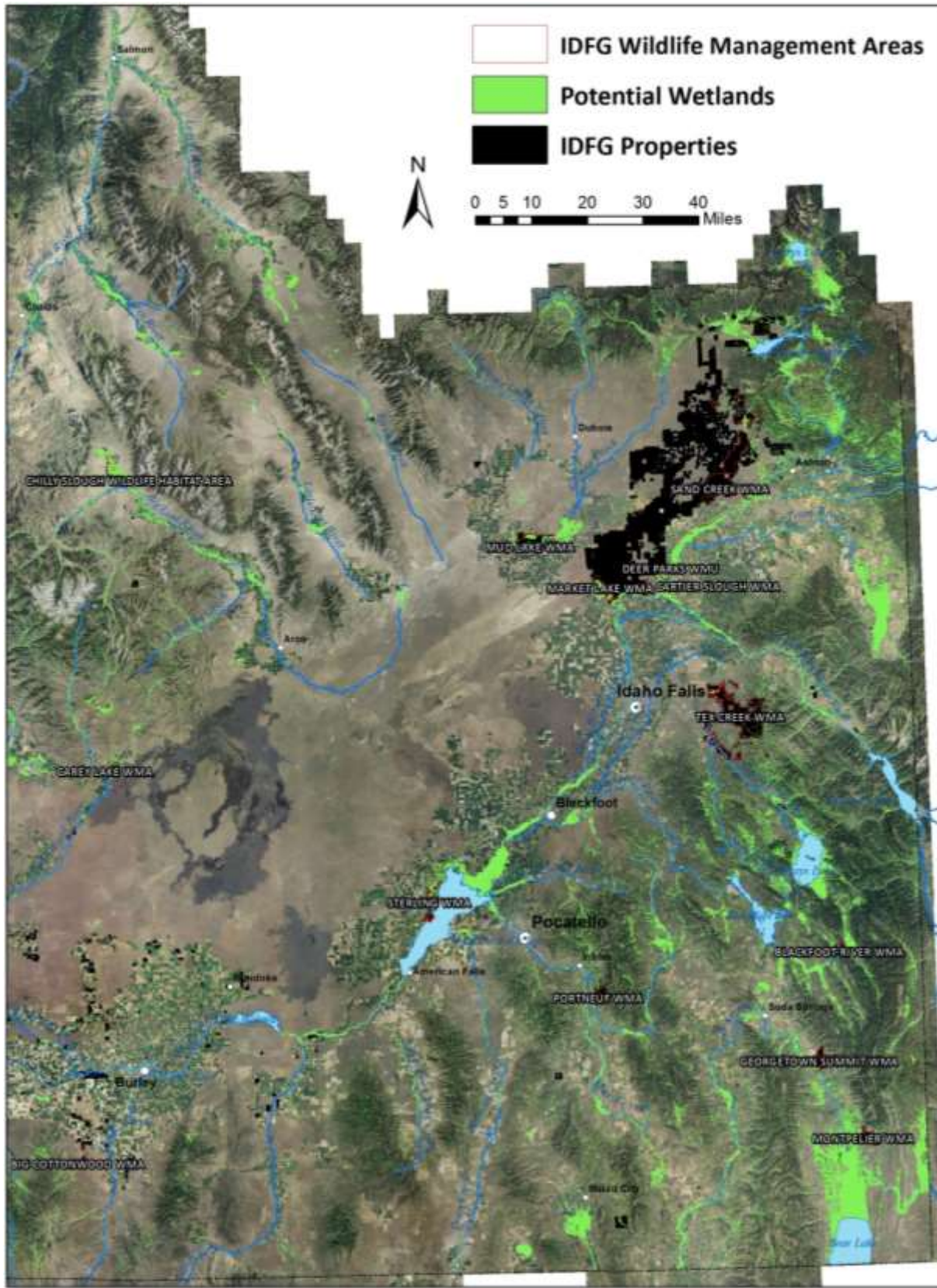


Figure 4. Properties managed by IDFG (or in cooperation with IDFG) and potential wetlands in eastern Idaho.

### % of Potential Wetland and Riparian Habitat in Idaho by Land Management Responsibility

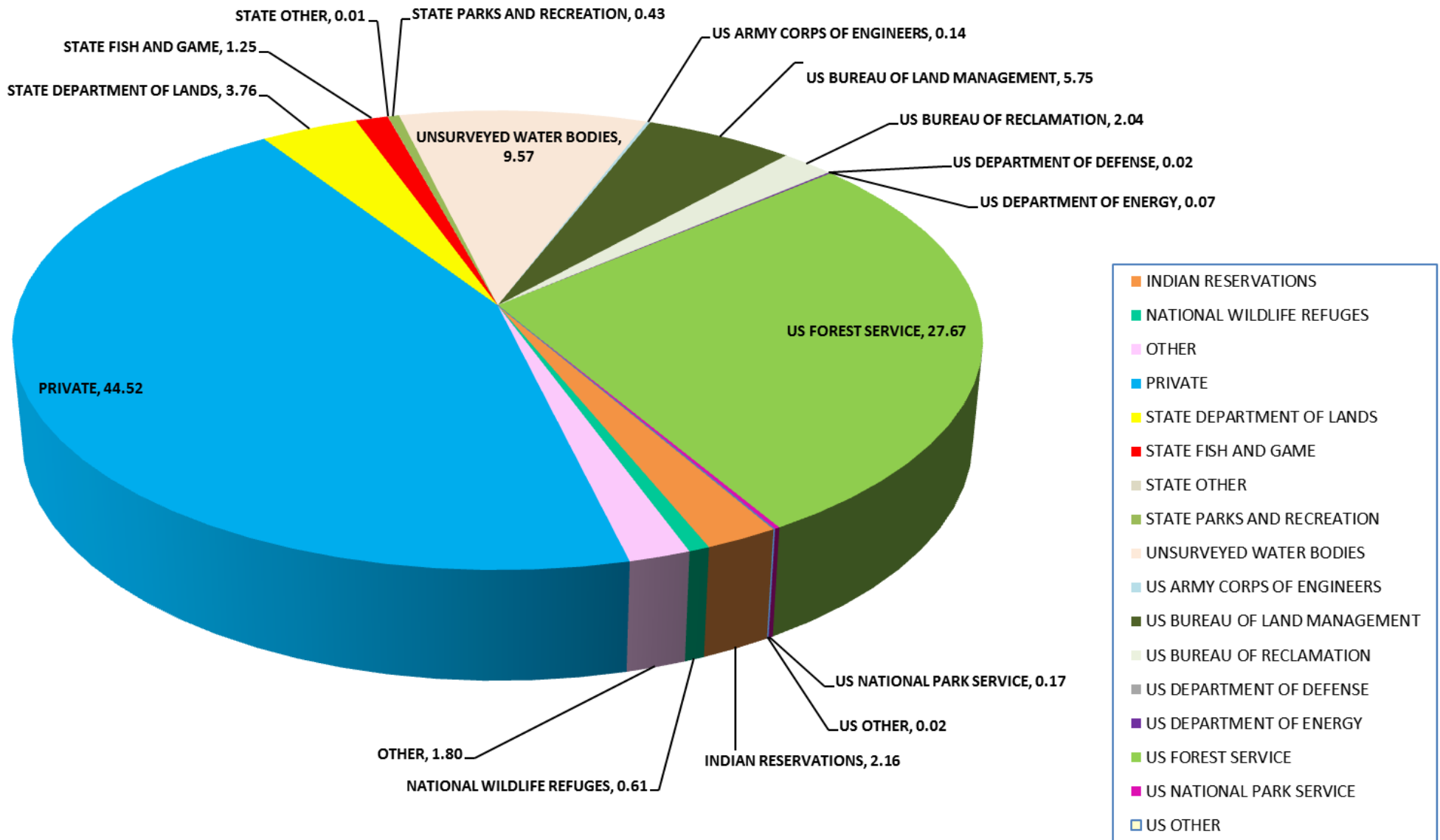
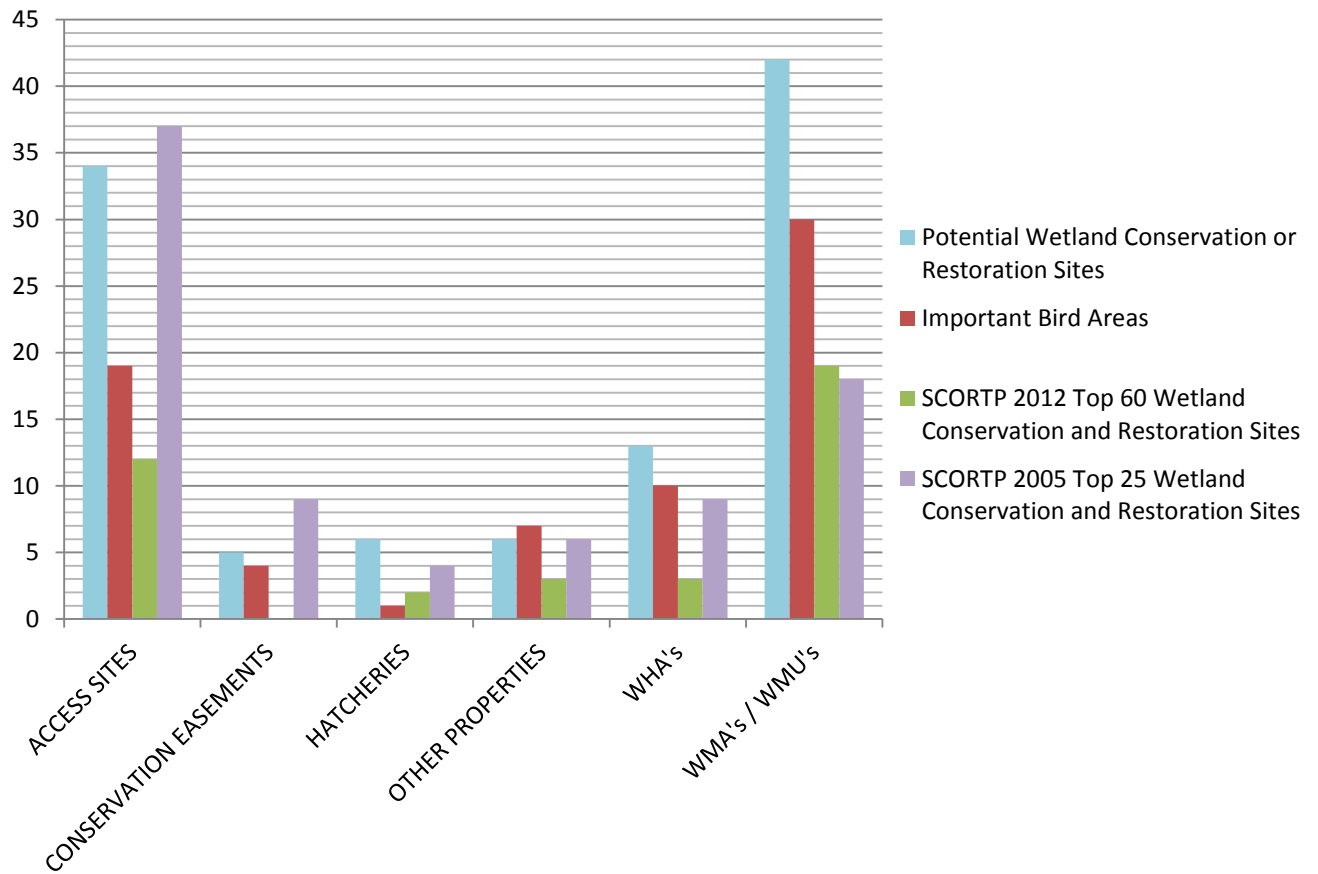


Figure 5.

## Number of IDFG Parcels Occurring in Wetland Conservation Sites by Property Type



**Figure 6.**



Wetland habitats at high priority wetland conservation sites: black cottonwood forested riparian wetland in a wide river valley, Clark Fork Delta, Pend Oreille WMA (left); hardstem bulrush tall emergent marsh, Chester Wetlands, Sand Creek WMA (right) (photos by Chris Murphy).

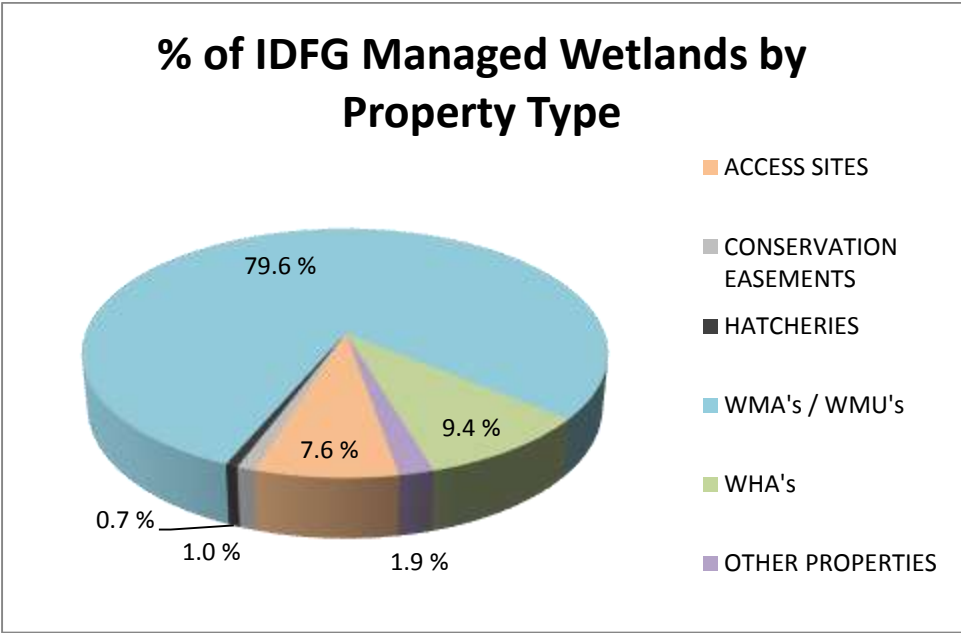


Figure 7.

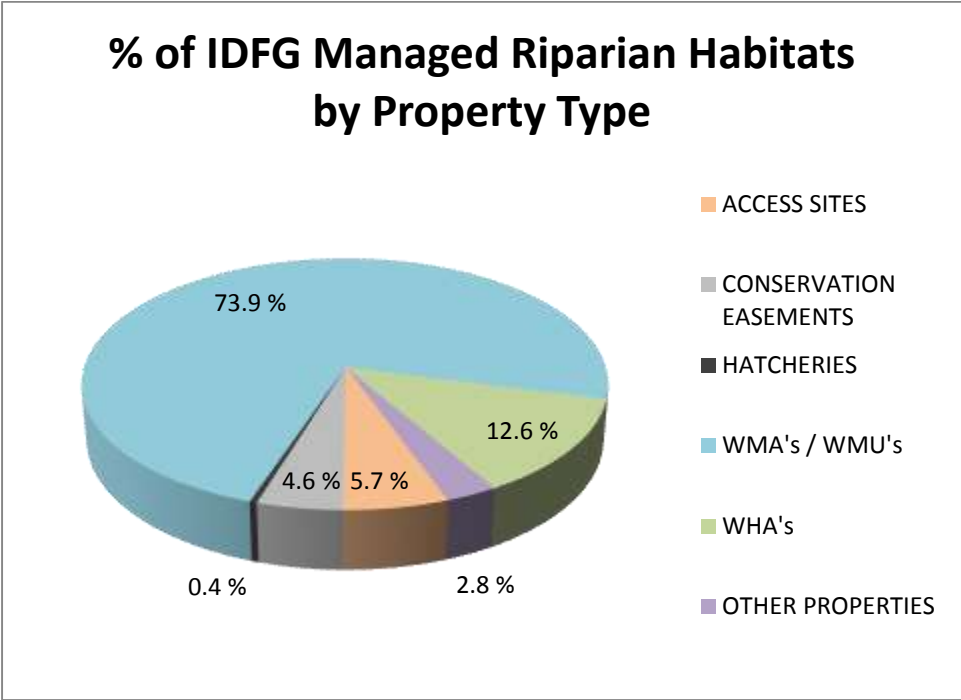
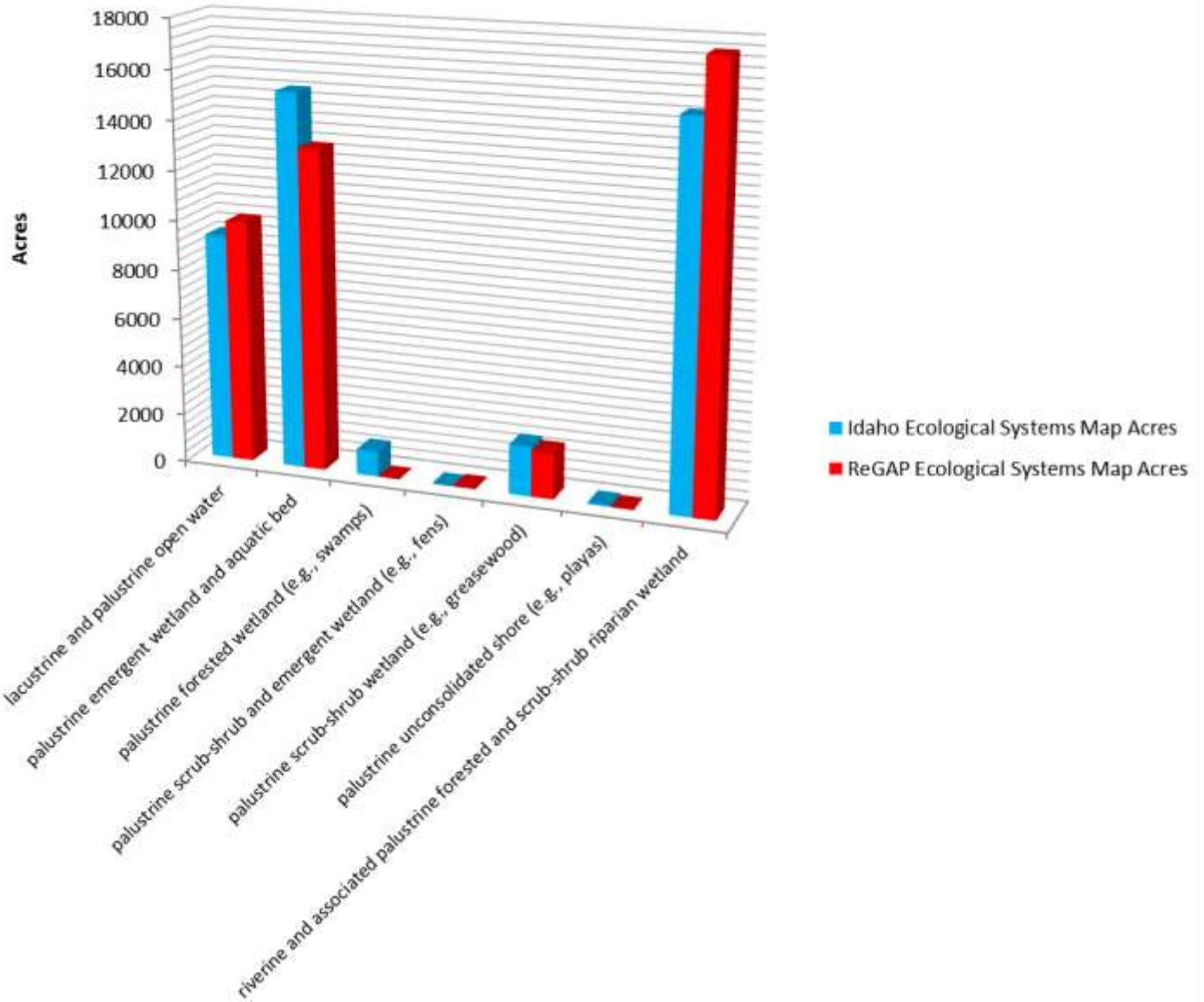


Figure 8.

## Acres of Cowardin Wetland Classes on WMA's, WMU's, and WHA's Based on Ecological System Maps



**Figure 9.**

Idaho currently lacks a formally recognized wetland program. IDFG and Idaho Department of Environmental Quality (IDEQ) are the only state agencies employing staff members who have the majority of their duties dedicated to wetland issues. IDFG and IDEQ are frequent partners on wetland projects, including monitoring (e.g., National Wetland Condition Assessment) and water quality improvement (e.g., Clean Water Act S. 319 grants). However, IDFG is the primary state agency responsible for on-the-ground wetland management, restoration, enhancement, and conservation (often involving partnerships with agencies and organizations), as well as classification, mapping,

inventory, assessment, monitoring, education, and outreach. During the last 20 years, as Idaho's de facto wetland program, IDFG has received 18 Wetland Program Development Grants (WPDG's) from the U. S. Environmental Protection Agency (EPA), Region 10, to support many of these activities. In addition to habitat management, IDFG provides technical assistance on wetland permitting and mitigation to the U. S. Army Corps of Engineers (USACE) and EPA, and is active in wetland acquisition, protection, mitigation, and restoration. Clearly, IDFG's wetland-related activities and decisions influence the condition and function of many wetlands and often affect the watersheds in which they occur.

### **What is a Wetland Program Plan? Why is it Needed?**

A Wetland Program Plan (WPP) is an action plan for the implementation of effective and efficient wetland conservation, restoration, and management, including assessment and monitoring (Association of State Wetland Managers 2013). They are multi-year plans that direct and track a state or tribal wetland program's activities toward these goals. In 2009, the EPA encouraged states and tribes to develop WPPs for the purpose of guiding and prioritizing program actions for the benefit of wetland conservation and restoration. They should address at least one of the EPA's 4 core elements of a state or tribal wetland program (e.g., Monitoring and Assessment, Regulation, Voluntary Restoration and Protection, and Water Quality Standards for wetlands) (EPA 2008). WPPs also list current and proposed work that can be funded by WPDGs. These plans form a baseline from which to measure progress toward meeting wetland goals and objectives over time. Minimum requirements for a WPP include:

- overall goals for the program
- a 3 to 6-year timeframe
- actions consistent with the core elements that if carried out over the timeframe will accomplish the plan's goals
- schedule for implementation of each action
- specific activities accomplished under each action

The potential benefits of a WPP for a state's wetland program are many. For example, a WPP can help agencies implement long-term planning based on strategic thinking, as opposed to short-term, crisis or budget-driven decision making (Association of State Wetland Managers 2013). Through improved prioritization of actions, current and future needs of wetlands can be better addressed while programmatic or on-the-ground problems and their solutions can be predicted before they become an emergency. The WPP approach also promotes stronger partnerships by identifying shared goals and preventing duplication of efforts, reducing competition for limited resources, leveraging funding and increasing spending efficiency, building new alliances, and encouraging creative problem solving (Association of State Wetland Managers 2013). Finally, agencies can use a WPP to better communicate and defend, to public stakeholders and decision makers (e.g., directors, appointed commissions, elected officials), the wetland-related activities they intend to spend taxpayer or user-group funds on.

Currently, Idaho's wetland activities are not guided by a statewide plan. Because IDFG is a primary influencer of wetlands on non-federal lands in Idaho and supports the state's de facto wetland program, IDFG needed a WPP to help ensure that actions and activities are positive and defensible for improving wetland condition, function, conservation, and restoration, while also consistent with the Department's mission and other strategic documents. Although the WPP focuses on IDFG wetlands, the framework is intended to be "expandable" to include wetlands managed or influenced by other state, federal, county, or municipal agencies, or non-governmental organizations (e.g., Ducks Unlimited, land trusts, The Nature Conservancy). It will be a useful model for these agencies to create their own WPPs. Adoption of IDFG's WPP will promote management, conservation, and restoration consistency at the state level.

IDFG's WPP focuses on the EPA wetland program core elements of **Assessment and Monitoring** (including classification, mapping, and inventory), and **Voluntary Restoration and Protection** (including management, maintenance, enhancement, and creation) (EPA 2008). The plan also includes important statewide wetland program building actions related to **Coordination and Partnerships**, including **Data Management and Delivery**, **Mitigation**, and **Outreach and Education** elements. This WPP is unique in that it summarizes specific, on-the-ground conservation, restoration, and management actions and activities that will occur on portions of 42,000 - 48,000 ac of IDFG-managed wetland and riparian habitat during the next 5 to 10 years. Wetland and riparian activities directly affecting these habitats are detailed in 31 site-specific WMA and WMU management plans (inclusive of some WHAs and Access Areas, hereafter referred to as "WMA management plans," revised with public and IDFG input between 2012 and 2014) which form the foundation for much of this WPP.

### **The Wetland Program Planning Approach and Collaborative Process**

*Planning approach:* Idaho's WPP seeks to implement guiding strategies of the Idaho Wetland Conservation Strategy (IWCS) (IWWG 2008). Through public meetings held between 2006 and 2008, the Idaho Wetlands Working Group (IWWG), a statewide stakeholder organization of governmental agencies, non-governmental organizations, and private citizens led by IDFG, developed the IWCS. Guided by EPA's core elements for state wetland programs, goals of the IWCS were to:

- promote voluntary conservation based on consensus
- improve access to data
- increase conservation through technical assistance, outreach, and education
- provide direction on management, mapping, restoration, monitoring, assessment, and inventory
- leverage funding and prioritize spending

Until IDFG decided to create a WPP, no IWWG member had stepped forward to commit resources toward an action plan to implement any goals and objectives of the IWCS. In 2011, IDFG received an EPA Region 10 WPDG to develop the WPP and work on related products (e.g., wetland data compilation, condition assessment, mapping, and monitoring and assessment methodologies).

For any program or management plan to be relevant and implemented, the responsible agency must be fully committed to the planning process and outcomes. It was important that Idaho's WPP first fit with IDFG's mission and their strategic goals and objectives. IDFG's mission is:

"All wildlife, including all wild animals, wild birds, and fish, within the state of Idaho, is hereby declared to be the property of the state of Idaho. It shall be preserved, protected, perpetuated, and managed. It shall be only captured or taken at such times or places, under such conditions, or by such means, or in such manner, as will preserve, protect, and perpetuate such wildlife, and provide for the citizens of this state and, as by law permitted to others, continued supplies of such wildlife for hunting, fishing and trapping (Idaho Code Section 36-103)."

The key link to habitat conservation, restoration, and management relates to how wildlife will be "preserved, protected, perpetuated, and managed." This is clarified in IDFG's Strategic Plan, "The Compass," (IDFG 2005b) which guides agency actions and activities. Four important goals for IDFG in this plan related to wetland and riparian habitat actions are:

- Fish, Wildlife and Habitat: Sustain Idaho's fish and wildlife and the habitats upon which they depend.
- Fish and Wildlife Recreation: Meet the demand for fish and wildlife recreation.
- Working With Others: Improve public understanding of and involvement in fish and wildlife management.
- Management Support: Enhance the capacity of the Department to manage fish and wildlife and serve the public.

Within "The Compass" are several objectives with direct ties to wetland and riparian habitat conservation, restoration, and management. For example, IDFG aims to: inventory, monitor, and assess habitat; develop and implement collaborative conservation plans; develop measurable and achievable objectives for habitat; and prioritize habitats for protection, restoration, and enhancement. This WPP directly supports implementation of IDFG's strategic plan. It will help IDFG meet these wetland-related objectives while maximizing wetland ecosystem services for the benefit of all citizens.

Equally important for creation of a strong, adoptable WPP is that it integrates or builds off existing strategic planning efforts related to wetland and riparian habitats. Although existing plans can be outdated, vague (relative to wetland and riparian habitat), inconsistent, or conflicting, they are important because they reflect the cumulative knowledge and opinions of a large number of experts, stakeholders, and decision makers. Efforts were taken to consult or incorporate, when appropriate, relevant plans into this WPP. They include:

- Conservation Plan for the Greater Sage-grouse in Idaho (2006)
- Idaho Aquatic Nuisance Species Plan (2007)
- Idaho Partners in Flight: Idaho Bird Conservation Plan (2000)



- Idaho Wetland Conservation Strategy (2008)
- Idaho's Invasive Species Plan (2012)
- IDFG Management Plans including: furbearers (e.g., beaver and muskrat) (1991), moose (1991), upland game (1991), waterfowl (1991), white-tailed deer (2005), mule deer (2010), fisheries management plan (2013) (and individual species plans), and elk (2014)
- Intermountain West Regional Shorebird Plan (2000)
- Intermountain West Waterbird Conservation Plan (2006)
- North American Waterfowl Management Plan (2012)
- Partners in Flight Tri-National Vision for Landbird Conservation (2010)
- Policy for Avian and Mammalian Predation Management (2000)
- State Wildlife Action Plan (2005, currently being revised)
- U. S. Shorebird Conservation Plan (2001)

The main approach used to create a WPP that meshed with existing strategic plans was to build off 31 WMA, WHA, and WMU management plans revised between 2012 and 2014 (these and other management plans are available at <http://fishandgame.idaho.gov/>). IDFG's vision for WMAs, WHAs, and WMUs are lands managed to provide and showcase important habitat for all wildlife and to offer high quality, wildlife-based public recreation. Habitat management on WMAs, WMUs, and WHAs is funded through a combination of hunting license sale revenue, appropriations from federal excise taxes derived from the sale of ammunition and firearms (Pittman - Robertson Act), and/or funding provided by the Bonneville Power Administration and U. S. Bureau of Reclamation to mitigate habitat loss from construction of dams in Idaho. These land types are frequently managed for sustaining and restoring wetland habitat for the purpose of waterfowl and waterbird nesting and migration, as well as other beneficial functions and ecosystem services. Most parcels also support upland habitat important for game and non-game wildlife species. Riparian, spring, and seep habitats are frequently present, providing water quality improvement and water supply maintenance functions, while supporting fisheries and a diverse suite of species dependent on these habitats. WMAs, WMUs, and WHAs provide important wildlife and water-based recreation and are heavily used by waterfowl and game hunters, anglers, and non-consumptive users such as birdwatchers, hikers, and naturalists. Management plans guide current and future habitat managers on where to direct efforts and resources for maximum wildlife benefit, habitat conservation and restoration, public enjoyment, and efficient operation.

*Collaborative Process and Plan Structure:* To complete the WPP we followed a strategic planning process (Association of State Wetland Managers 2013) mirroring that used for revising WMA management plans (Table 1). The first step was to collect and analyze existing wetland data and information related to the type and condition of IDFG wetland and riparian habitats. This included all information related to wetland classification, mapping, inventory, monitoring, assessment, maps, and an analysis of wetland condition at the landscape-scale. The second step was to identify issues and concerns (from public and agency input) and to formulate and evaluate plan options. This included defining the plan "side boards" by considering binding requirements (e.g., legislative or funding mandates), contracts, cooperative agreements, mitigation requirements, easements, IDFG policies and

plans, water rights, and funding. The next steps were to develop the strategic plan, including priorities, goals, objectives, actions, and future activities necessary to achieve goals. These steps included two rounds of revision based on internal review by IDFG managers and biologists. The WMA management plans forming the basis of the WPP were again reviewed by the public, stakeholders, and IDFG staff, resulting in a more unified and accepted collection of actions and activities.

All WMA management plans followed a consistent structure analogous to that of the WPP. Each plan included sections describing Management Directions (goals), Performance Targets (objectives, actions), and Strategies (activities) (Table 1). Performance Targets and Strategies apply to specific Conservation Targets (a sub-set of species or habitats selected to represent biodiversity needs and other management priorities for each site, as determined by site priorities, issues, and a biological analysis of the target’s value for biodiversity conservation). As much as possible, Performance Targets were structured to be **Specific, Measurable, Achievable, Realistic, and Time-fixed** (i.e., SMART). Although WMA management plans were consistent in structure and guided by a common approach, the Management Directions, Performance Targets, and Strategies were specific to the needs and constraints of each WMA.

<b>WMA Management Plan Section</b>	=	<b>Equivalent Section in Wetland Program Plan</b>
Management Directions	=	Goals
Performance Targets / Objectives	=	Actions
Strategies	=	Activities

Collaboration and input from partners and IDFG staff was invited at all steps in the process for each core element addressed by the WPP (Table 1). For **Voluntary Restoration and Protection** actions and activities (including management, maintenance, enhancement, creation, and planning), public input was gathered twice (February - December 2012 and April - June 2014) primarily by using online survey forms on the IDFG website. Additional input was received in person by habitat biologists during meetings or other contacts with the public. A broad range of IDFG staff provided input, analysis, and review of WMA management plans between 2012 and 2014, including wildlife bureau program coordinators, regional habitat managers, habitat biologists, wildlife biologists (game and non-game species), and the wetland and riparian ecologist.



IDFG manages wetland, riparian, and aquatic habitat for numerous sensitive and non-game species, such as Chinook salmon (left) (photo by Ed Bottum), as at Red River WMA, and western toad at Roswell WHA (right) (photo by Chris Murphy).



**Table 1. Collaborative process used to develop Wetland Program Plan.**

Process:	Collect and Analyze Data on Existing Conditions	Identify Issues and Concerns; Generate and Evaluate Plan Options	Develop Strategic Plan-- Priorities, Goals, Objectives	Develop Long-term Plan of Future Actions and the Activities Necessary to Achieve Goals	Develop a Common Vision for the Plan
Task:	develop wetland resource baseline	WMA Management Plans definition of scope, public and agency input	WMA Management Plans revision	WMA Management Plans second revision, finalization	WMA Management Plans public review, final revision, IDFG Wetland Program Plan
Timeline:	January 2012 - September 2014	February 2012 - December 2012	January 2013 - August 2013	September 2013 - March 2014	April 2014 - September 2014
Components:	compilation of existing <b>Classification, Mapping, and Inventory</b> data and information	identify binding requirements, including legislative or funding mandates, contracts, cooperative agreements, mitigation requirements, easements, IDFG Strategic Plan objectives, IDFG policies and species plans, water rights, funding, etc. (e.g., "side boards" to plan)	develop Vision, Management Priorities, Conservation Targets, Timeframe (5 year review)		define plan Timeframe (5 years); describe benefits of Wetland Program Plan, summarize IDFG wetland condition, extent, and types
	conduct landscape-scale wetland condition assessment of IDFG managed properties		identify Goals (Management Directions)		write Overall Goal Statement
	update wetland maps for priority IDFG managed properties		formulate Actions, S.M.A.R.T. Objectives (Performance Targets)		summarize Actions from WMA Management Plans; describe additional wetland program Actions (e.g., Coordination and Partnerships, Outreach and Education)
	create assessment and monitoring method "tool box" tailored to IDFG wetland and riparian habitats		develop Activities, Strategies for Actions, scope of influence, schedule of implementation, and metrics for measuring outcomes	finalize Activities, Strategies for implementation ( <b>Restoration, Enhancement, Creation, Maintenance, and Protection</b> )	summarize specific Activities from WMA Management Plans; describe additional wetland program Activities (e.g., Idaho Wetlands Website)
	test assessment and monitoring methods in field			finalize Activities, Strategies for <b>Assessment and Monitoring</b>	summarize specific Activities from WMA Management Plans; describe additional wetland program Activities (e.g., National Wetlands Condition Assessment)
				finalize implementation schedule and metrics for measuring outcomes	identify Schedule and metrics for Achievement of each Action
Collaboration:	train IDFG and partners on assessment and monitoring methodologies	IDFG regional managers and biologists input	IDFG regional managers and biologists input	IDFG wetland ecologist, managers, and biologists input and review	IDFG review
	IDFG biologists input				EPA and partner review and comment
	partner (IDEQ, USACE, EPA) input	public input			public comment

For **Assessment and Monitoring** (including classification, mapping, and inventory) components of the WPP, agency and other outside partners, as well as IDFG staff were contacted to identify inventory, mapping, monitoring, and assessment activities and methodologies that were most appropriate for informing adaptive management and restoration of IDFG wetland and riparian habitats. To this end, 3 meetings, a survey, and 4 training workshops were conducted:

- Meeting in Upper Snake Region with IDFG habitat managers and biologists from throughout the state, included discussion of wetland and riparian ecology, monitoring, and assessment (October 2 - 3, 2012).
- Meeting with IDFG Southwest and Clearwater Region habitat biologists to discuss monitoring needs and methods (October 30, 2012).
- Meeting with IDFG Habitat Managers from all regions to discuss monitoring and wetland planning (December 12, 2012).
- A survey of all IDFG WMA habitat managers asking them about their monitoring, management, and assessment needs (December 2012).
- Montane Wet and Mesic Meadow Rapid Assessment methods training workshop at Craig Mountain WMA (Clearwater Region) (June 11 - 12, 2013).
- Three regional training workshops held to provide introductory training for IDFG managers, biologists, and technicians, as well as other agency partners (e.g., USFWS) on how to assess and monitor wetland and riparian habitats. Training focused on rapid methods used to assess function and condition (specifically the Wetland Ecosystem Services Protocol for the United States, a modified version of the Oregon Rapid Wetland Assessment Protocol), as well as protocols currently being used to monitor wetland and riparian vegetation on WMAs:
  - ✓ Southwest Region / Magic Valley Region workshop at C. J. Strike WMA and Ted Trueblood WHA (July 30 - 31, 2013)
  - ✓ Panhandle Region / Clearwater Region workshop at Coeur d'Alene River WMA (August 15 - 16, 2013)
  - ✓ Upper Snake Region / Southeast Region / Magic Valley Region / Salmon Region workshop at Sterling WMA (August 20 - 21, 2013).

Throughout the process, we consulted with partners from outside IDFG, as well as IDFG Environmental Staff Biologists, to identify which monitoring and assessment data and tools were most useful for planning, impact analysis, and mitigation, and how to best share this information. Partners input came from numerous discussions and meetings with IDEQ, USACE, EPA, Ducks Unlimited, and private wetland consultants. The model put forth by EPA (2006) for state wetland monitoring and assessment programs was incorporated.

## **II. IDAHO'S WETLAND PROGRAM PLAN**

The following Tables (2 - 6) explain IDFG's Wetland Program Plan (WPP). As new information becomes available, and as more property is acquired, actions and activities may be modified to achieve goals. Edits to correct errors, inconsistencies, or ambiguities may be made. Implementation of all actions and activities are dependent on funding, personnel, support of leadership, and stakeholder support.

### **Goal of Idaho's Wetland Program Plan**

The overarching goal of Idaho's Wetland Program Plan is to protect, restore, and enhance wetland and riparian habitat functions for the benefit of watershed health, ecosystem services, and economic values. This includes sustaining Idaho's fish, wildlife, and plants; meeting the demand for fish and wildlife recreation; improving public understanding of the importance of these habitats; and enhancing the scientific and technical capacity of stakeholders to effectively and efficiently manage, conserve, and restore wetland and riparian habitats. This goal is a blend of goals directing the Idaho Wetland Conservation Strategy (IWWG 2008) and IDFG's 2005 strategic plan.

### **Wetland Program Plan Elements**

- Assessment and Monitoring (including classification, mapping, and inventory)
- Coordination and Partnerships
- Data Management and Delivery
- Mitigation
- Outreach and Education
- Voluntary Restoration and Protection (including management, maintenance, enhancement, creation, and water quality improvement)

### **Wetland Program Plan Timeframe**

The WPP timeframe for implementation is 5 years, beginning in 2015 and extending through 2019. Some complex on-the-ground wetland and riparian restoration projects (e.g., forested wetlands and montane meadows) require 5 to 10 years to plan and implement. Some other actions at various WMAs were given 5 to 10 year timeframes for implementation because of resource constraints (e.g., staff, funding) or prioritization of needs. All IDFG WMA plans will be reviewed after 5 years in 2019.

### **IDFG's Funding Strategy for Wetland Program Plan Implementation**

Wetland Program Plan Actions and Activities that support a broader statewide wetland program are typically supported by EPA, Region 10, Wetland Program Development Grants (WPDG's). Currently, IDFG relies on WPDGs to fund approximately 75% of a wetland and riparian ecologist position whose responsibilities include developing and conducting statewide wetland programmatic activities. IDFG has received a \$131,900 WPDG for "Building Idaho's Wetlands website for delivering maps, data, analyses, and tools for mitigation and restoration planning," which will fund activities through June, 2016. In 2015, IDFG may apply for additional

WPDG funding to complete one or more statewide Assessment and Monitoring and/or Voluntary Protection and Restoration Actions and Activities outlined in the WPP.

Implementation of Actions and Activities specific to WMAs, WHAs, and WMUs are primarily funded through a combination of hunting license sale revenue, appropriations from federal excise taxes derived from the sale of ammunition and firearms (Pittman - Robertson Act), and/or funding provided by the Bonneville Power Administration and U. S. Bureau of Reclamation to mitigate habitat loss from construction of dams in Idaho. Outside funding, such as North American Wetland Conservation Act (NAWCA) grants and Clean Water Act S. 319 grants administered through IDEQ, supplement this funding base. Collectively, these funds support an extensive IDFG regional habitat biologist staff responsible for implementation of the on-the-ground actions in the plan. Approximately 25% of the funding of IDFG's wetland and riparian ecologist position is also supported by these sources, especially IDFG license sale revenue used as non-federal matching funds for WPDGs.

### **Goals (Management Directions), Actions (Performance Targets), and Activities (Strategies)**

Specific Goals, or Management Directions, to which Actions and Activities directly apply are shown in Table 2. The Conservation Targets benefited by Management Directions at WMAs, WHAs, and WMUs are listed in Table 3. Focal Species and Habitats supported by Conservation Targets are in Table 4. Actions (also referred to as Performance Targets by IDFG) and Activities (also referred to as Strategies) supporting the Management Directions are in Table 5. For each Element of the WPP, statewide programmatic actions and activities are listed first, followed by actions and activities specific to WMAs, WHAs, and WMUs. IDFG Priorities are areas of focus that reflect objectives of its strategic plan (IDFG 2005b) and priorities or issues important to WMAs, WHAs, and WMUs. Monitoring actions, activities, metrics and implementation schedule specific to WMAs, WHAs, and WMUs are in Table 6. Statewide monitoring activities and actions are in Table 5.



Camas bloom on seasonally flooded emergent marsh and wet meadow, as at Centennial Marsh WMA (left); quaking aspen forested wetland and Geyer's willow scrub-shrub wetland, Sand Creek Ponds, Sand Creek WMA (right) (photos by Chris Murphy).

**Table 2. Wetland and riparian Goals (IDFG Management Directions) for Wetland Program Plan.**

Element	Goals (Management Directions)	Number of Applicable WMAs, WHAs, and WMUs
Assessment and Monitoring / Coordination and Partnerships	Collaboratively develop, test, and refine Idaho-specific wetland condition assessment methodology within EPA's Level 1-2-3 assessment approach	statewide
Assessment and Monitoring / Coordination and Partnerships	Coordinate with partners to develop a statewide wetland monitoring program by building off and supplementing the National Wetland Condition Assessment	statewide
Assessment and Monitoring (at the WMA Scale)	Increase knowledge of wetland condition and functions (including wildlife use and production) to improve management decisions for the benefit of waterfowl (e.g., northern pintail) and other wildlife (e.g., northern leopard frog) and maximization of ecosystem services	4
Coordination and Partnerships	Build a sustainable, formalized, and institutionally supported Idaho Wetland Program to coordinate statewide wetland actions and activities	statewide
Coordination and Partnerships	Increase use of wetland data and assessment tools to avoid impacts to wetlands and promote high quality mitigation with a watershed approach	statewide
Coordination and Partnerships / Assessment and Monitoring (at the Landscape or Watershed Scale)	Survey, inventory, map, assess, and monitor non-game, sensitive, and other aquatic and terrestrial wildlife species populations, habitat, and habitat use (e.g., travel corridors, staging areas, etc.); monitor for disease, toxins and other impacts to wetland and riparian wildlife in the landscape or watershed	7
Coordination and Partnerships / Assessment and Monitoring (at the Landscape or Watershed Scale)	Increase our knowledge of northern pintail, trumpeter swan, other waterfowl, and waterbirds (e.g., white-faced ibis) seasonal habitat requirements, movements, population dynamics, and the potential effects of human activity in the landscape or watershed	3
Coordination and Partnerships / Assessment and Monitoring (at the Landscape or Watershed Scale)	Assess the conservation potential of wetlands in the landscape or watershed for waterfowl, other wildlife, and ecosystem services based on condition, functions, and values for the purpose of improving conservation decisions	2
Coordination and Partnerships / Voluntary Protection and Restoration (at the Landscape or Watershed Scale)	Provide functioning forested and scrub-shrub riparian wetland habitat in good to excellent ecological condition in the landscape or watershed to benefit a wide range of fish and wildlife species	20
Coordination and Partnerships / Voluntary Protection and Restoration (at the Landscape or Watershed Scale)	Increase amount of high quality emergent wetland habitat (marshes, wet meadows) in the landscape or watershed managed for breeding and/or migrating waterfowl, waterbirds, shorebirds, amphibians (e.g., northern leopard frog), and other wildlife, while enhancing productivity, diversity, and functions (e.g., water quality improvement, ecosystem support, remediation of contaminated wetlands)	18
Coordination and Partnerships / Voluntary Protection and Restoration (at the Landscape or Watershed Scale)	Provide quality migrational, wintering, breeding/nesting, and brood-rearing habitat for northern pintails, mallard, and other waterfowl in the landscape or watershed	11
Coordination and Partnerships / Voluntary Protection and Restoration (at the Landscape or Watershed Scale)	Provide a mosaic of diverse, productive grassland/forb and mesic meadow habitat in the landscape or watershed dominated by native species and a forb component or wildlife food plantings to benefit a wide range of wildlife species, especially nesting waterfowl	9
Coordination and Partnerships / Voluntary Protection and Restoration (at the Landscape or Watershed Scale)	Protect wetlands in the landscape or watershed, or expand WMA, to provide a sufficient quantity of clean, secure high quality wetland habitat to meet the needs of migratory waterfowl, shorebirds, and other wildlife	8
Coordination and Partnerships / Voluntary Protection and Restoration (at the Landscape or Watershed Scale)	Provide high quality, year-round aquatic habitat for sensitive species (e.g., native salmonids, Bliss Rapids snail) in the landscape or watershed; promote opportunities to protect and enhance fish and aquatic habitat, including riparian habitat	7
Coordination and Partnerships / Voluntary Protection and Restoration (at the Landscape or Watershed Scale)	Maintain or increase the amount, quality, and security of nesting and foraging habitat for sensitive waterbirds (e.g., white-faced ibis) so as to maintain or increase populations in the landscape or watershed	3
Coordination and Partnerships / Voluntary Protection and Restoration (at the Landscape or Watershed Scale)	Provide high quality, functioning montane meadows and associated riparian habitat in the landscape or watershed to benefit focal species (e.g., elk, amphibians, spawning habitat for sensitive salmonids, rare plants)	2

**Table 2 continued.**

Element	Goals (Management Directions)	Number of Applicable WMAs, WHAs, and WMUs
Data Management and Distribution / Coordination and Partnerships	Utilize information systems technology to maximize accessibility of wetland data, classifications, tools, and analyses to improve efficiency and effectiveness of conservation, restoration, planning, impact-analysis, and decision making at multiple spatial scales	statewide
Mitigation / Voluntary Protection and Restoration	Produce watershed and reference-based wetland tools to increase the effectiveness and likelihood of success of restoration and compensatory mitigation	statewide
Outreach and Education	Educate students and the general public about the ecology, functions, and services of wetland and riparian habitats, and why conservation and restoration are needed; recruit and train volunteers for wetland and riparian habitat restoration and stewardship	statewide
Voluntary Protection and Restoration / Coordination and Partnerships / Mitigation	Develop proven and creative ecosystem services markets, foundations, and incentive-based programs to motivate and fund landowners and land managers to engage in wetland conservation, mitigation, restoration, enhancement, stewardship, monitoring, and research	statewide
Voluntary Protection and Restoration / Coordination and Partnerships / Mitigation	Provide critical review of projects, plans, developments, etc. that have the potential to affect to wetland, riparian, and aquatic ecosystem function, condition, and values for the purpose of minimizing negative impacts to fish and wildlife populations and habitat	statewide
Voluntary Protection and Restoration (at the WMA Scale)	Provide high quality and secure breeding, nesting, and brood rearing habitat for waterfowl (e.g., mallard, northern pintail, trumpeter swan), waterbirds (e.g., white-faced ibis), shorebirds, and other wildlife, while enhancing wetland productivity, diversity, and functions (e.g., water quality improvement)	20
Voluntary Protection and Restoration (at the WMA Scale)	Provide functioning scrub-shrub wetland and riparian habitat in good to excellent ecological condition to benefit a wide range of fish and wildlife species, including mammals, songbirds, and amphibians	20
Voluntary Protection and Restoration (at the WMA Scale)	Provide functioning forested wetland and riparian habitat in good to excellent ecological condition to benefit a wide range of fish and wildlife species, including mammals, songbirds, cavity nesters, raptors, and amphibians	17
Voluntary Protection and Restoration (at the WMA Scale)	Provide diverse, functioning, high quality emergent wetland and aquatic habitat, escape cover (including winter), resting areas, and food / foraging sources for migrating and seasonal waterfowl, waterbirds (e.g., white-faced ibis), shorebirds, amphibians (e.g., northern leopard frog), invertebrates, and other wildlife, while maximizing potential water quality and ecosystem support functions	16
Voluntary Protection and Restoration (at the WMA Scale)	Provide a mosaic of diverse, productive mesic meadow and upland grassland/forb waterfowl nesting habitat dominated by native species and forb-dominated wildlife food plantings to benefit a wide range of wildlife species	15
Voluntary Protection and Restoration (at the WMA Scale)	Provide high quality aquatic / stream / spring habitat (e.g., clean, cold water with stable banks, minimal silt, high cover of deeply rooted riparian vegetation, invertebrate habitat, appropriate fish habitat cover and structure, etc.) for native at-risk salmonids (e.g., cutthroat trout, anadromous spp.) and invertebrates (e.g., Bliss Rapids snail)	4
Voluntary Protection and Restoration / Coordination and Partnerships (at the WMA Scale)	Utilize expert knowledge and critical review from inside and outside IDFG to implement wetland actions and activities for the purpose of increasing likelihood of success and maximizing wetland functions and services	3
Voluntary Protection and Restoration (at the WMA Scale)	Provide montane wet meadow and associated riparian habitat in good to excellent ecological condition, providing cover and forage for the benefit of a wide range of fish and wildlife, including game and sensitive species	2
Voluntary Protection and Restoration (at the WMA Scale)	Manage livestock grazing to help achieve wildlife and habitat objectives	2
Voluntary Protection and Restoration (at the WMA Scale)	Protect fragile, difficult to restore, alkaline-saline wetlands for the benefit of sensitive plants (e.g., iodine bush, red glasswort), unique plant associations, migratory waterbirds, and specially adapted biota (including invertebrates)	1
Voluntary Protection and Restoration (at the WMA Scale)	Expand WMA boundaries to provide additional habitat	1



**Table 3. Wetland and riparian habitat and species Conservation Targets on IDFG WMAs, WHAs, and WMUs.**

Conservation Targets	Number of Applicable WMAs, WHAs, and WMUs
Mesic Meadow, Pasture, Hayfield, and Upland Grassland Habitats and/or Food Plots (waterfowl nesting, ungulate grazing)	19
Emergent Marsh and Wet Meadow Habitats (mallard, other waterfowl brood rearing, waterfowl and waterbird migration / staging)	17
Scrub-shrub Wetland Habitat (swamp and wide river valley)	12
Forested Wetland Habitat (swamp and wide river valley)	10
Forested Wetland Habitat (narrow stream valley)	7
Scrub-shrub Wetland Habitat (narrow stream valley)	6
Montane Wet Meadow, Seep and Spring, and Associated Riparian Habitat	4
Native Salmonids (Aquatic and Riparian Woodland and Shrubland Habitats)	4
Northern Leopard Frog (Emergent Wetland and Floodplain Habitats)	4
Northern Pintail (Emergent Wetland Habitat for breeding, nesting, and brood rearing)	2
White-faced Ibis (Emergent Wetland Habitat for breeding, nesting, and foraging)	2
Alkaline-saline Wetland Habitat	1
Bliss Rapids Snail (Snake River Canyon Springs Aquatic and Riparian Habitats)	1
Trumpeter Swan (Emergent Wetland Habitat for breeding, nesting, and brood rearing)	1



Nevada bulrush alkaline-saline depressional wetland surrounded by greasewood / saltgrass alkaline scrub-shrub wetland, Roswell WHA (left); alkaline-saline wetlands at Sterling WMA are habitat for red glasswort (*Salicornia rubra*) (right) and iodine bush (*Allenrolfea occidentalis*), both rare plants in Idaho (photos by Chris Murphy).

**Table 4. High priority Focal Guilds, Species, and Ecological Systems supported by Conservation Targets on IDFG WMAs, WHAs, and WMUs.**

Guild or Focal Habitat	Number of Applicable WMAs, WHAs, and WMUs	Examples of Wetland and Riparian Focal Species (Sensitive or SGCN)									
mammals	21	Coast Mole	Myotis Bat spp.	North American River Otter							
waterfowl	21	Barrow's Goldeneye	Harlequin Duck	Hooded Merganser	Lesser Scaup	Northern Pintail	Trumpeter Swan				
amphibians	19	Coeur d'Alene Salamander	Columbia Spotted frog	Idaho Giant Salamander	Northern Leopard Frog	Western Toad					
riparian raptors	19	Bald Eagle	Swainson's Hawk								
riparian songbirds, cavity nesters, and gamebirds	18	Columbian Sharp-tailed Grouse	Lewis's Woodpecker	Mountain quail	Willow Flycatcher	Yellow-billed Cuckoo					
fish	16	Bluehead Sucker	Bonneville Cutthroat Trout	Bull Trout	Chinook Salmon	Inland Redband Trout	Leopard Dace	Shoshone Sculpin	Steelhead	Umatilla Dace	
		Westslope Cutthroat Trout	White Sturgeon	Yellowstone Cutthroat Trout							
transitional waterbirds and shorebirds	14	American Avocet	Black-necked Stilt	Spotted Sandpiper	White-faced Ibis	Wilson's Phalarope					
diving waterbirds	9	American White Pelican	Clark's Grebe	Common Loon	Red-necked Grebe	Western Grebe					
marsh birds	9	Black Tern	California Gull	Caspian Tern	Forster's Tern	Franklin's Gull					
meadow and grassland birds	9	Great Gray Owl	Greater Sage-grouse	Long-billed Curlew	Sandhill Crane						
colonial nesting wading birds	7	Black-crowned Night Heron	Cattle Egret	Great Egret	Snowy Egret						
gastopods and bivalves	4	Banbury Springs Limpet	Bliss Rapids Snail	Desert Valvata	Green River Pebblesnail	Jackson Lake Springsnail	Pristine Pyrg	Shortface Lanx	Snake River Physa	Western Ridged Mussel	
insects	1	Stonefly ( <i>Utacapnia nedia</i> )									
Wetland Habitat or Ecological System of High Conservation Priority?	28	Alkaline Marsh	Alkaline Meadow	Black Cottonwood Forested Riparian Wetland	Canyon Springs	Columbia Basin Foothill Riparian Woodland and Shrubland	Coniferous Forested Swamp Wetland	Ephemerally Moist Meadow	Fen	Great Basin Foothill Riparian Woodland and Shrubland	
		Narrowleaf Cottonwood Forested Riparian Wetland	Peachleaf Willow Forested Riparian Wetland	Quaking Aspen - Paper Birch Forested Riparian Wetland	Quaking Aspen Forested Riparian Wetland	Red Alder Forested Riparian Wetland	Scrub-Shrub Swamp Wetland	Vernal Pool	White Alder Forested Riparian Wetland		
Wetland Habitat or Ecological System Medium Conservation Priority?	26										
Wetland Rare Plants?	16	<i>Allenrolfea occidentalis</i>	<i>Betula pumila</i>	<i>Carex aboriginum</i>	<i>Carex flava</i>	<i>Carex hendersonii</i>	<i>Carex idahoensis</i>	<i>Carex lacustris</i>	<i>Carex leptalea</i>	<i>Cicuta bulbifera</i>	
		<i>Collema curtisporum</i>	<i>Crassula aquatica</i>	<i>Cyperus bipartitus</i>	<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	<i>Damasonium californicum</i>	<i>Epilobium palustre</i>	<i>Epipactis gigantea</i>	<i>Eriophorum viridicarinatum</i>	<i>Hierochloa odorata</i>	
		<i>Ludwigia polycarpa</i>	<i>Petasites sagittatus</i>	<i>Ribes wolfii</i>	<i>Salicornia rubra</i>	<i>Salix candida</i>	<i>Sanicula marilandica</i>	<i>Schoenoplectus subterminalis</i>	<i>Sphaeromeria potentilloides</i>	<i>Spiranthes diluvialis</i>	
		<i>Spiranthes porrifolia</i>	<i>Teucrium canadense</i> var. <i>occidentale</i>	<i>Thalictrum dasycarpum</i>	<i>Trifolium douglasii</i>	<i>Tuckermannopsis sepincola</i>	<i>Vallisneria americana</i>	<i>Waldsteinia idahoensis</i>			
Upland Rare Plants?	11										

**Table 5. Wetland Program Plan Actions and Activities (IDFG Performance Targets and Strategies).**

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs, WHAs, and WMUs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs, WHAs, and WMUs	
Assessment and Monitoring / Coordination and Partnerships	Assessment of Condition, Habitat Use, and Potential Function	continue development of Idaho's wetland monitoring program by building off and supplementing the 2011 National Wetland Condition Assessment (NWCA) sample frame and protocols during 2016		statewide	2 years	30 - 50+ points monitored; report produced	identify and obtain funding (EPA, state) for, and coordinate planning and logistics (with IDEQ) for, Idaho's wetland monitoring program and participation in the NWCA	statewide	
							implement a monitoring and inventory program for wetlands not represented in Idaho's 2012 NWCA, especially those that are of conservation concern or biodiversity importance, and difficult to restore (e.g., alkaline wetlands, ephemeral wetlands, marshes, peatlands, springs and seeps, vernal pools and playas)	statewide	
							conduct on-the-ground monitoring of randomly selected sites supplemental to NWCA monitoring that provide baseline data for a statewide assessment of wetland condition; utilize national databases for storage and quality control of data, or create Idaho-specific database as needed; assist IDEQ with incorporating wetland data into the Clean Water Act (CWA) S. 305(b) Water Quality Integrated Report	statewide	
		seek opportunities to collaboratively develop, test, and refine Idaho-specific wetland condition assessment methodology within EPA's Level 1-2-3 assessment approach			statewide	3 years	landscape, rapid, and intensive assessments refined and tested	utilize recent spatial data on stressors and land use to update and refine Idaho's Landscape Wetland Assessment Tool for use in the State Wildlife Action Plan and the Idaho Wetlands Website; adjust model calculations to better reflect on-the-ground hydrologic connectivity within a wetland	statewide
								continue to rapidly assess condition and potential function of wetlands on IDFG lands and statewide using Wetland Ecosystem Services Protocol for the United States (WESPUS); assess potential functions using WESPUS at reference wetlands; promote use of this method in CWA S. 404 wetland permitting	statewide
								continue to test the utility of Floristic Quality Assessment methods for assessing wetland condition on IDFG lands and statewide (e.g., NWCA); create a tool to assess the function of wetland and riparian plant communities for wildlife based on the food and habitat values of individual plant species; develop a Vegetation Index of Biotic Integrity for Idaho if necessary	statewide

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Assessment and Monitoring	Assessment of Condition, Habitat Use, and Potential Function	<p>assess condition and potential function of wetlands; inventory and map wildlife habitat and use (including sensitive species foraging, breeding, etc.), water management potential, and other environmental concerns (e.g., levels of contamination at Coeur d'Alene River WMA) of all wetlands; conduct management-oriented research and monitoring projects to increase our knowledge of seasonal habitat requirements, movements, population dynamics, and effects of land management on waterfowl (e.g., northern pintail) and other waterbirds (e.g., white-faced ibis); utilize results to develop and implement management and restoration plans</p>		15	2 to 5 years (5 to 10 years at 2 WMAs)	8,290+ ac assessed	<p>conduct inventories at the appropriate times and frequency for special status and/or common fish and wildlife species occupancy, density, and production, including migration, foraging, wintering, breeding, nesting, denning, nest success / production, etc. in wetland, riverine, spring, and/or riparian habitats; map occupied and potential habitat, including disturbance and human activity; implement Habitat Evaluation Procedures where required; regular report observations of sensitive species, including rare plants; use results to determine effects of management practices</p>	19
							<p>assess condition of wetland and riparian habitats using IDFG's Landscape-scale Wetland Assessment GIS tool to help identify areas for protection and restoration; ground truth maps related to condition and function</p>	3
							<p>rapidly assess condition and potential function of wetland management units using WESPUS</p>	4
							<p>rapidly assess condition and function of montane wet and mesic meadows; develop GIS map to include composition, condition, and distribution of current and potential montane meadow and associated riparian habitat for focal species based, in part, on assessment data</p>	1
		<p>complete inventory and assessment of condition, function, and bank stability for floodplain, riparian forest and scrub-shrub, and seep / spring habitats along all river and stream reaches; map riparian vegetation; map wildlife use (including sensitive species foraging, breeding, etc. determined by bird surveys or other inventory methods) and native at-risk salmonid spawning habitat; identify sites for restoration of riparian woodland (e.g., black or narrowleaf cottonwood) and shrubland based on assessment</p>		13	2 to 5 years (5 to 10 years at 3 WMAs)	107+ river and stream miles assessed	<p>rapidly assess floodplain and riparian forest and scrub-shrub habitat condition and function, including potential to support black or narrowleaf cottonwood trees; inventory and monitor bank stability; assess high priority streams (e.g., those at-risk or in potential need of restoration) based on landscape-scale assessment; define site characteristics appropriate for cottonwood restoration and seed reproduction</p>	11

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Assessment and Monitoring	Inventory and Mapping	inventory and map all unique, sensitive, and difficult to restore wetland habitats (e.g., peatlands, alkaline-saline wetlands, springs and seeps) for the presence of special status plant populations, plant associations, other biota, and to document the primary hydrologic regimes		2	5 years (10 years at 1 WMA)	230+ ac inventoried and mapped	create GIS map of current vegetation, including composition, distribution, and condition, of all wetland, riparian, and stream habitats, including marsh successional stage, water management potential, and beaver activity; inventory infestations of noxious weeds and highly invasive non-native species (e.g., reed canarygrass); perform Habitat Evaluation Procedures where required	14
							conduct peatland inventory, including mapping of existing peatland extent, rare plants, and peatland plant associations	1
							inventory and map all alkaline-saline wetlands for their potential to support sensitive plants; map and document sensitive plant populations and plant associations; identify primary hydrologic process (e.g., groundwater discharge slope or recharge depression) of each mapped alkaline-saline wetland	1
Coordination and Partnerships	Prioritization, Planning, and Funding	develop a sustainable and institutionally supported Idaho Wetland Program to coordinate statewide funding and implementation of wetland protection, restoration, and enhancement, as well as assessment and monitoring		statewide	5 years	wetland program established	strengthen agency and stakeholder support necessary for a formalized Idaho Wetland Program, including the hiring of a state wetland coordinator; model program after other successful state programs (e.g., Oregon, Montana)	statewide
		increase use of existing analyses and assessment tools by partners to avoid wetland impacts and promote high quality mitigation with a watershed approach		statewide	1 year	2 trainings conducted	conduct trainings of federal and state governmental agencies (e.g., EPA, USACE, IDFG, IDEQ, counties, cities) and other partners on use of wetlands data and tools in CWA S. 404 permitting and other wetland impact analyses	statewide
	Assessment of Condition, Habitat Use, and Function	work cooperatively with agencies and local interest groups in efforts to collect and share information on current and historic habitat conditions and wildlife use		7	5 years		provide succinct, quantifiable wildlife population, habitat use monitoring data, as well as expertise and assistance to cooperating agencies and local interest groups regarding fish, wildlife, and waterfowl habitat quality, use, and project planning; collect samples for possible West Nile virus, chytrid fungus ( <i>Chytridiomycosis</i> in amphibians), and other diseases and toxins affecting wetland and riparian wildlife	7

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Coordination and Partnerships	Assessment of Condition, Habitat Use, and Potential Function	work with partners to complete a floodplain and riparian forest and scrub-shrub habitat inventory, in-stream habitat and species occupancy assessment, riparian condition and function assessment, and bank stability inventory along high priority river reaches in landscape or watershed; utilize existing IDFG Landscape Wetland Assessment GIS tool to prioritize areas for inventory		4	5 to 10 years	4+ floodplain / riparian assessment and restoration prioritization for watershed(s) completed	work with partners and volunteers to assess and monitor floodplain and riparian forest and scrub-shrub habitat condition and function, instream aquatic habitat and species use (e.g., sensitive salmonid populations), and inventory bank stability in the watershed; through technical assistance and supported by other programs, identify existing or potential sources of sediment or other pollutants entering rivers and streams; review projects with potential to impact aquatic habitat	8
		coordinate with partners to implement research projects that further our knowledge of seasonal habitat needs, movements, population dynamics, and effects of land management for northern pintail, other waterfowl, and waterbirds (e.g., white-faced ibis) in the landscape or watershed		3	10 years	6+ research projects implemented	conduct and/or support research that documents movement, habitat use, nesting occupancy, and production / nesting success on northern pintails, other waterfowl (e.g., trumpeter swans), and waterbirds (e.g., white-faced ibis) in the landscape or watershed; utilize data on waterfowl habitat needs to inform and prioritize proposed projects; communicate with partners to stay abreast of issues and conservation opportunities	4
							monitor high priority bird species populations and habitat use; conduct waterfowl banding each year in August in coordination with the USFWS; monitor bald eagle nests as part of IDFG statewide monitoring to determine presence, nest initiation, number of young, and fledging rate	2
	Implementation, Funding, and Acquisition	prioritize and acquire (or use conservation easements) or otherwise protect at least xx acres in the landscape, watershed, and/or within boundaries of WMA (including custodial and mitigation lands); meet the needs of resident and migratory waterfowl and shorebirds by creating buffer zones around core areas and improve overall management in larger blocks of habitat that can be more effectively restored (or remediated at Coeur d' Alene River WMA); share results with partners involved with land use or watershed planning		8	10 years (1 to 5 years to identify parcels for acquisition / protection at 3 WMAs)	1,200+ ac protected; 1+ wetland complex protected; 4+ parcels identified for acquisition / protection	create a database of all non-IDFG lands within this wetland landscape or watershed (include information on current ownership, water rights affecting IDFG lands, current vegetation, and perceived/potential habitat value); develop criteria to rank and prioritize potential properties for acquisition, restoration, or conservation in the landscape or watershed; work with willing sellers to acquire additional lands through fee title, easement, lease or legal agreement	11

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Coordination and Partnerships	Mesic Meadow and Upland Grassland Management	work with landowners and land management agencies to enhance or restore pasture, hayfield (no longer used), CRP land, mesic meadows, and grassland stands to provide functioning, diverse, high quality habitat (food and cover) for wildlife species, especially nesting waterfowl; implement management practices to decreasing noxious and invasive weed cover and increase native plant cover (e.g., seeding); participate in Cooperative Weed Management Areas; maximize wildlife crop plantings in landscape		9	10 years (5 years at 2 WMAs; annually at 2 WMAs)	365+ ac maintained, restored, or enhanced; 2+ landowner and/or agency partnerships; 4+ projects implemented	work with private landowners, public land managers, and the local Cooperative Weed Management Area to treat and manage noxious and highly invasive weeds in wetland and riparian habitats	11
							provide information to private landowners on the impacts of vegetation manipulation activities (i.e., mowing, burning, disking, herbicide application, seeding water tolerant crops, livestock management, etc.); work with private landowners to purchase and leave standing grain and crop residue for migratory birds; work with the IDFG Farm Bill Coordinator to prioritize, identify, and implement CRP-SAFE and other applicable projects within the landscape	7
							provide technical assistance to willing landowners on the use of fire, mowing, and herbicide control of noxious weeds (after nesting) to increase diversity, condition, and structure of upland and mesic meadow waterfowl nesting habitat; convert rhizomatous grass fields (e.g., expired CRP fields) on private lands to more beneficial bunchgrass/forb mix stands for nesting waterfowl; protect nesting cover; remove Russian olive trees (to decrease avian predator roosting and nesting)	6
	provide technical assistance and funding to landowners through private, state, and federal conservation programs to create or restore grassland cover and forb food species for nesting and forage for upland game birds and waterfowl on their lands (e.g., native grass and forb seeding projects); develop tool to assist landowners with developing desirable seed mixes to use on disturbed ground or heavily weed infested areas	5						
	Moist Soil Management / Tall Emergent Marsh Management	work with conservation partners, government agencies, politicians, and private landowners to identify programs or policies that expand or maintain flood irrigation practices across the landscape; implement cooperative programs (e.g., the Regional Conservation Partnership Program grant at Mud Lake WMA) to maintain and improve nesting (e.g., tall emergent marsh with stable water levels) and foraging habitat (e.g., shallowly flooded fields and wetlands) for waterbirds (e.g., white-faced ibis)		3	5 years	4,000+ ac maintained or enhanced; 2+ landowner and/or agency partnerships; 1+ projects implemented	work with conservation partners and landowners to identify programs or policies that expand or maintain or increase flood irrigation practices across the landscape; identify properties still managed under flood irrigation and work with landowners and NRCS conservation programs to maintain flood irrigation; educate landowners on benefits of retaining flood irrigation; maintain saturation of fields for a longer period of time in summer to increase invertebrate production for wading and shorebirds	6

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Coordination and Partnerships	Montane Meadow and Spring Restoration and Enhancement	work with land managers and landowners to maintain, enhance, or restore montane wet meadows and associated riparian habitats identified as suitable for focal species and as high priority for restoration		2	10 years	60+ ac maintained, enhanced, or restored	use partnerships to maintain, enhance, or restore montane wet meadows and associated riparian habitats; actions may include native riparian tree and shrub plantings, livestock exclusion, conifer removal (in meadows), restoration of natural hydrologic processes, eliminating and/or preventing human-related disturbance, etc.	2
	Prioritization, Planning, and Funding	increase communication and cooperation between agency and private land managers; provide technical assistance to agencies and landowners regarding wetland restoration, remediation (e.g., metals contaminated wetlands in Coeur d'Alene River basin), and management; stay abreast of changing policies, programs, agreements, easements, or other efforts affecting wetlands		4	annually	respond to 100% of the technical assistance requests	form strong working relationships with all stakeholders to develop, fund, and implement riparian and wetland management (e.g., agricultural practices), protection, and restoration / remediation plans for watersheds (e.g., Hecla Settlement Restoration Partnership in Coeur d'Alene River basin where future conservation work is guided by the "Partnership" and the CDA Basin Natural Resource Restoration Plan)	8
		use assessments to prioritize wetlands for conservation and restoration in the landscape or watershed according to estimated ecological condition, connectivity to other wetlands, and values for waterfowl, other wildlife, and ecosystem services; develop conservation and restoration plans, as well as funding strategies, with partners		2	5 to 7 years	1+ prioritization completed; 3+ conservation / restoration plans completed	create or utilize GIS layers that identify wetlands in the landscape or watershed that, if conserved or restored, would provide habitat of migratory and resident waterfowl, shorebirds, etc.; utilize professional knowledge and data related to watershed restoration (e.g., Lower Coeur d'Alene River Basin); ground truth and refine products related to wetland and riparian condition and function in the landscape or watershed (e.g., Landscape Wetland Assessment GIS Tool)	8
	Riverine, Riparian, and Floodplain Enhancement and Restoration	work with private landowners and land management agencies to maintain, restore, and/or establish a diverse mix of riparian species in black cottonwood or other native forested wetland, bank, and floodplain stands; improve ecological condition and function of habitat; improve grazing management in riparian habitat; increase cover of native trees, decrease non-native invasive species along river banks and throughout floodplains; prioritize sites based on floodplain / riparian assessments		16	10 years (5 years at 2 WMAs; annually at 4 WMAs)	13.2+ river / stream miles and 100+ ac restored or enhanced; 5+ landowner and/or agency partnerships; 5+ projects implemented	work with private land owners through HIP and other private, state, and federal conservation programs to create and restore healthy floodplain forested wetland habitat on their land (e.g., riparian forest planting projects; improving livestock management; weed control); prioritize efforts in degraded habitat identified by watershed-scale GIS and field assessments where possible, provide technical assistance and funding to cooperating agencies on projects that restore or enhance forested wetland habitat condition and function in the floodplain (e.g., riparian forest planting projects; weed control; livestock management; agricultural practices) within constraint of preventing unintended flooding of agricultural or residential lands, or entraining contaminated alluvium into river, identify opportunities to restore natural floodplain processes and hydrology for the purpose of enhancing black cottonwood reproduction and floodplain restoration	13 10 4



Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Coordination and Partnerships	Riverine, Riparian, and Floodplain Enhancement and Restoration	work with landowners and land management agencies to maintain, restore, and/or establish a diverse mix of riparian species in scrub-shrub wetland stands; improve ecological condition and function of terrestrial and aquatic habitat; improve grazing management in riparian habitat; increase cover of native shrubs, and decrease non-native invasive species along river banks and throughout floodplains; prioritize sites based on floodplain / riparian assessments		16	10 years (5 years at 2 WMAs; annually at 4 WMAs)	13.2+ river / stream miles and 105+ ac restored or enhanced; 5+ landowner and/or agency partnerships; 5+ projects implemented	work with private land owners through private, state and federal conservation programs to create and restore riparian scrub-shrub cover and forage for upland game birds, songbirds, waterfowl, native ungulates, fish, and other wildlife on their land (e.g., riparian shrub planting projects; improving livestock management; weed control); prioritize efforts in degraded habitat identified by watershed-scale GIS and field assessments	17
							where possible, provide technical assistance and funding to cooperating agencies on projects that restore or enhance scrub-shrub wetland habitat condition and function in the floodplain (e.g., riparian shrub planting projects; weed control; livestock management; agricultural practices)	10
	Tall Emergent Marsh Management / Waterfowl and Waterbird Wintering, Nesting, and Brood Rearing Security	work with, and provide technical assistance to, conservation partners, government agencies, and private landowners to improve seasonal habitats for northern pintail and other waterfowl and incorporate their needs into land use and planning; provide xx acres of secure breeding, brood rearing, migratory, staging, and foraging habitat for northern pintail and other waterfowl in the landscape or watershed		11	annually (10 years at 3 WMAs)	600+ ac maintained or enhanced; 5+ landowners or agencies assisted per year	provide technical assistance to willing landowners on how and when to promote wetland diversity, increase condition and function, and maximize invertebrate and plant production to feed migrating and breeding waterfowl, northern pintail, waterbirds, and shorebirds (e.g., periodically drawdown water in marshes and treat depauperate bulrush-cattail stands, increase duration of saturation in shallowly flooded marshes and wet meadows; provide winter habitat)	16
							seek opportunities on private land to implement seasonal activity closures to minimize disturbance to nesting waterfowl (e.g., trumpeter swans) or waterbirds (e.g., white-faced ibis) where appropriate; work with water users to manage spring water fluctuations to minimize impacts to nesting waterbirds; install and maintain nest boxes; work with local planning and zoning committees to reduce the impacts of development on waterfowl / wetland habitat; review proposed projects for their effects on riparian and wetland habitat	8
	Water Quality Protection and Improvement	work cooperatively with partners and interest groups, including local watershed advisory groups or initiatives, to protect and improve water resources, water quality, natural hydrology, and fish and aquatic species habitat (including spawning areas and woody riparian cover for stream shade), especially for sensitive native salmonids and snails (e.g., Bliss Rapids snail)		7	5 years (annually at 3 WMAs; 10 years at 1 WMA)	1.7+ stream miles of aquatic habitat restored	focusing on degraded riparian areas in the watershed and access, utilize proven riparian and aquatic restoration techniques to stabilize river or stream bank stabilization, such as riparian tree and shrub planting projects, bioengineered bank armoring, culvert and road removal, exclusion of vehicles or livestock, restoration of natural hydrology, etc.; ensure that forest treatments do not negatively impact riparian and spring habitat	7
							provide assistance to landowners and cooperating agencies (e.g., Watershed Advisory Groups) on projects that improve water quality and protect water resources and habitat for sensitive fish and aquatic species (e.g., Bliss Rapids snail); implement best management practices for livestock management, agriculture, and urban development to minimizing inputs of nutrients and sediment into wetlands and waterways	7

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Coordination and Partnerships	Wet Meadow and Shallowly-flooded Emergent Marsh Restoration and Enhancement	work with xx willing landowners and/or public land management agencies on at least yy ac to maintain, restore, enhance, or create emergent wetland habitat and improve management (e.g., flooding and periodic drawdowns at the appropriate times and frequency) for a wide variety of wildlife species and other beneficial functions; focus on high priority wetland complexes identified by landscape assessments and utilize conservation programs for funding		14	5 to 10 years (annually at 3 WMAs)	545+ ac maintained, restored, or enhanced; 12+ landowner and/or agency partnerships; 25+ projects implemented	work with landowners and partners to develop, fund (e.g., through programs such as Habitat Improvement Program (HIP), Partners for Wildlife, Wetlands Reserve Program, NAWCA grants, State Wildlife Grants, etc.), and implement emergent wetland, shallow marsh, and moist soil restoration, enhancement, creation, and improved management on for the benefit of breeding and/or migrating waterfowl, northern pintails, shorebirds, other waterbirds, amphibians, etc.	19
Data Management and Distribution / Coordination and Partnerships	Prioritization, Planning, and Funding	build an "Idaho Wetlands" website that maximizes data and information accessibility; create a map interface to query and download data, analyses, and tools for planning, impact-analysis, and decision making specific to a project site and watershed		statewide	2 years	website built and online;	build a database-driven website that gives users a map interface from which to query and download data, analyses, tools, reports, and other information specific to their project area and watershed; provide links to wetland monitoring and assessment methods, reports, maps, etc.	statewide
	Inventory, Mapping, and Classification	update and complete a statewide classification of Idaho's wetland and riparian habitats built on crosswalks between existing classifications, including ecological systems, Cowardin, hydrogeomorphic, and the National Vegetation Classification		statewide	2 years	Idaho wetland and riparian classification database updated and online	continue to update and refine existing classifications of wetland and riparian habitats, ecological systems, and plant associations; refine existing vegetation database to include crosswalks with the National Vegetation Classification, Cowardin, and hydrogeomorphic systems, as well as conservation rankings; make database accessible on Idaho Wetlands website; create field key(s) to higher level groupings	statewide
Mitigation / Voluntary Protection and Restoration	Prioritization, Planning, and Funding	produce watershed and reference-based wetland tools to increase the effectiveness and likelihood of success of restoration and compensatory mitigation, including a wetland mitigation planning tool and wetland restoration planting guides		statewide	2 years	mitigation and restoration planning tools completed and online	develop an online wetland mitigation site planning tool; potential mitigation sites will be based on wetland condition estimated by the landscape-scale assessment tool and organized by watershed type (HGM profile) so that sites in watersheds equivalent to those containing the impact site will be mapped	statewide
							develop online wetland restoration planting guides; watershed-specific plant species lists, organized by habitat type, will be compiled from reference wetland sites (determined using the landscape assessment tool, field descriptions, etc.); lists will be generated from vegetation data collected at reference sites and organized by ecologically similar watersheds	statewide

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Outreach and Education	Outreach and Education	use IDFG's existing statewide and regional programs (e.g., WaterLife Discovery Center, Sandpoint, and Morrison Knudsen Nature Center, Boise), as well as the Idaho Wetlands Website, to educate students and the general public about the ecology, functions, and services of wetlands and riparian areas, and why these habitats need conservation and restoration		statewide	annually	215+ Streamwalk Programs serving 9,700+ students; 6+ Master Naturalist Programs	sustain and promote wetland and riparian science curricula within the Idaho Master Naturalist Program and other programs (e.g., WaterLife Discovery Center, MK Nature Center Streamwalk, Salmon and Steelhead Days); continue to incorporate IDFG and outside wetland expertise into teaching and periodic review of curricula; utilize trained volunteers (e.g., riparian team and Master Naturalists) in wetland and riparian restoration, stewardship, research, assessment, and monitoring when and where appropriate	statewide
							support and promote IDFG's Idaho Watchable Wildlife Program to ensure continued public appreciation and understanding of the importance of wetland and riparian habitats for wildlife, as well as beneficial services provided (e.g., eco-tourism)	statewide
							establish an in-lieu fee mitigation program for Idaho that will allow fees collected from one or more impact projects to finance a large-scale mitigation project; revisit and revise the 2006 Memorandum of Understanding between USACE, Idaho Transportation Department, and the Idaho Fish and Wildlife Foundation	statewide
Voluntary Protection and Restoration / Coordination and Partnerships / Mitigation	Implementation, Funding, and Acquisition	utilize proven and creative ecosystem services market-based approaches to wetland conservation and mitigation for the benefit of maximization of wetland function, increased project success, and potential revenue to IDFG		statewide	5 years	wetland program planned and proposed	research the potential of restoration projects on IDFG WMAs, WHAs, and WMUs to generate credits in ecosystem services markets (including wetland mitigation banks); utilize refined WESPUS assessment protocols to determine potential ecosystem credits for wetlands	statewide
Voluntary Protection and Restoration / Coordination and Partnerships / Mitigation	Prioritization, Planning, and Funding	critically review all projects, plans, regulations, developments, mitigation, water use proposals, etc. that have the potential to negatively affect wetland, riparian, and aquatic ecosystem function, condition, and values; provide comments to regulatory and planning agencies on these projects		statewide	annually		provide resources and technical assistance to IDFG regional Environmental Staff Biologists for review of, and comment on, projects (e.g., CWA S. 404 permits), regulations, restoration plans, developments, compensatory mitigation projects, water use proposals (e.g., aquifer recharge), etc. to minimize negative impacts to wetland, riparian, and aquatic ecosystem function, condition, and values	statewide

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration / Coordination and Partnerships	Implementation, Funding, and Acquisition	fully utilize and sustain statewide habitat programs to fund wetland conservation (including acquisition and easements), mitigation, restoration, enhancement, stewardship, monitoring, etc. on private and public lands		statewide	annually	wetland habitat programs fully utilized	fully utilize IDFG's statewide habitat programs (e.g., Habitat Improvement Program, Idaho Watershed Initiative) and federal farm bill programs (e.g., Wetland Reserve Program) to fund projects which conserve, restore, enhance, and maintain wetland functions; identify and promote partnerships where these programs can be used to leverage additional funding to create larger, watershed-scale wetland restoration projects; promote re-funding and expansion of these programs	statewide
Voluntary Protection and Restoration	Adaptive Management of Vegetation	working with partners, use an integrated approach (biological, chemical, and/or mechanical methods) to control xx ac of noxious weeds and undesirable, highly invasive non-native plant species; monitor all Early Detection Rapid Response sites and control any new infestations discovered	treat 100% of known noxious weed infestations	10	annually (10 years at 1 WMA)	4,201+ ac treated	prioritize noxious weed control efforts in riparian habitats; work with Cooperative Weed Management Areas to maintain awareness of new noxious weeds and invasive species, and to maximize effectiveness of control; regularly inventory areas for new noxious weed species and respond immediately with appropriate control (Early Detection Rapid Response; utilize IDFG's state-wide noxious weed database to track control efforts	6
							monitor and update Vegetation Management Plan to adapt to changing conditions or respond to other needs	1
							attend wetland trainings to stay abreast of current vegetation management practices and techniques	1
	Contaminated Wetlands and Tundra Swan Management	identify, evaluate, remediate, and restore wetlands in the Lower Coeur d'Alene River Basin contaminated by metals for the purpose of reducing waterfowl mortality and improving wetland condition		1	5 years		utilize waterfowl observations, water level and flood event information, wetland contaminant survey results, and waterfowl mortality data to identify locations of wetlands with the greatest need and opportunity for remediation and restoration; prioritize wetland restoration efforts according to their historic waterfowl usage, overall contaminant levels, and likelihood to be re-contaminated	1

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Contaminated Wetlands and Tundra Swan Management	identify, evaluate, remediate, and restore wetlands in the Lower Coeur d'Alene River Basin contaminated by metals for the purpose of reducing waterfowl mortality and improving wetland condition		1	5 years		evaluate wetland sites for remediation and restoration of clean foraging areas for tundra swans as part of the long-term wetland restoration efforts in the Lower Coeur d'Alene River Basin	1
							identify wetland sites within Coeur d'Alene River WMA with the greatest opportunity for remediation and restoration of clean foraging areas for migratory waterfowl	1
							submit wetland remediation and restoration project proposals to EPA and the Natural Resources Trustees for funding	1
	Implementation, Funding, and Acquisition	initiate and/or complete wetland enhancement and/or restoration on at least xx number of high priority wetland xx complexes comprising at least xx acres; utilize results of assessment to guide restoration planning		1	10 years	500 ac enhanced or restored (3 wetland complexes); 1,000 ac of contaminated wetlands remediated	with potential partners, begin development of restoration plans and secure funding (e.g., NAWCA Grants, HIP Projects, Candidate Species Grants, Idaho Fish and Wildlife Foundation Grants, etc.) to implement collaborative wetland and riparian restoration or enhancement projects; work with conservation organizations and volunteers to implement projects	5
							locate and secure non-federal funding through grants and non-profit conservation groups (e.g., Trumpeter Swan Society) to aid in habitat management enhancements to benefit sensitive wildlife and plant species	3
	explore ways to expand WMA boundaries by working with willing sellers to acquire additional lands		1	annually		use fee title acquisition, easements, leases, or legal agreements as opportunities arise to expand WMA boundaries	1	
Livestock Management	control permitted grazing on WMA through administration, communication, monitoring, and maintenance; assess costs and benefits of grazing to wildlife habitat within allotments; assess grazing as a management tool on WMA and methods to minimize detrimental impacts of grazing to focal species and habitats		2	management annually; 2 to 3 years for assessment	4,013+ ac of wetland and/or riparian habitat with actively managed grazing	monitor annual utilization and assess or quantify livestock impacts of current grazing system on habitat (e.g., a graduate student project); use knowledge gained from monitoring and assessment to develop grazing management plans and implement adaptive management to adjust livestock grazing to ameliorate detrimental effects to wildlife and habitat, and maximize any benefits (e.g., noxious weed control)	2	

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Livestock Management	improve livestock distribution to reduce localized impacts at developed water sources and other sensitive wetland or riparian locations		1	annually	2 water tanks replaced	construct wildlife friendly property line fences to control livestock from trespassing onto WMAs where necessary (e.g., along common boundary in the Swan Lake Marsh area at Coeur d'Alene River WMA); drift fence options at key locations may prevent livestock trespass or entry into riparian habitat, while also addressing unauthorized ORV use (e.g., establish 15 - 75 foot-wide buffers, fenced as needed); use water tanks to maintain proper livestock distribution	5
							maintain fences and monitor newly constructed fences (e.g., Thompson Lake parcel fence at Coeur d'Alene River WMA)	3
		remove all trespass cattle (within the procedures and timeframe outlined in the Idaho State Trespass of Animals [Title 25, Chapter 22] or Estrays [Title 25, Chapter 23] Laws, whichever is applicable); prevent cattle access to WMAs by maintaining boundary fences; prioritize areas according to riparian assessment		9	trespass cattle removed annually; 2 to 5 years for stream protection fences	28+ miles of boundary fence maintained and 4.1+ stream miles protected	work with adjacent landowners, livestock operators (permittees and neighbors), and land management agencies to regularly survey and maintain fences, gates, and cattleguards to prevent unwanted cattle entry; quickly remove trespass cattle; work with grazing partners to protect and perpetuate high quality native wetland and riparian vegetation and improve the condition of rangelands adjacent to WMAs (e.g., West Fork Brownlee Creek at Cecil Andrus WMA)	14
							when direct communication with the livestock owner isn't possible or does not result in a timely removal of livestock, work with the county brand inspector and/or sheriff to ensure trespass cattle are removed as quickly as Idaho law allows	5
						when necessary, follow the legal process outlined in the Estrays Law for detaining trespass livestock and recouping expenditures for feed and care of livestock; evaluate feasibility of constructing livestock enclosures to lawfully corral trespass cattle under Estrays Law	2	
Voluntary Protection and Restoration	Mesic Meadow and Upland Grassland Management	maintain, enhance, or restore xx acres or xx % of secure waterfowl nesting, upland gamebird cover and brood rearing (e.g., sage grouse), and songbird foraging habitat by treating upland grasslands, pasture, hayfields, and mesic meadows to maintain or improve cover, health, vigor, diversity, and ecological condition (e.g., interplant native grass into existing stands, control noxious weeds and Russian olive and salt cedar trees, etc.)	increase the Floristic Quality Index by 5%, increase native species richness by 10%, decrease cover of noxious and invasive weeds (including Russian olive, reed canarygrass, etc.) by 20 - 50%, decrease % of flora comprised of non-native species by 10%, increase native forb cover to 10 - 25% (desired results 5 years after treatment); aim for good to excellent ecological condition	20	25 to 50% in 5 years; additional 25 to 50% in 5 to 10 years (10 years at 2 WMAs)	6,371+ ac enhanced, maintained, or restored	after nesting, use plantings (species with high wildlife value), burning, fertilization, mechanical disturbance (e.g., disking, haying, mowing), grazing, irrigation, cooperative agreements, and noxious weed control (including herbicides) to increase diversity, floristic quality, productivity / vigor, nutrients and palatability, density, and structure of upland grassland (e.g., smooth brome) and mesic meadows (e.g., Baltic rush, clustered field sedge, reed canarygrass, etc.)	17

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Mesic Meadow and Upland Grassland Management	maintain, enhance, or restore xx acres or xx % of secure waterfowl nesting, upland gamebird cover and brood rearing (e.g., sage grouse), and songbird foraging habitat by treating upland grasslands, pasture, hayfields, and mesic meadows to maintain or improve cover, health, vigor, diversity, and ecological condition (e.g., interplant native grass into existing stands, control noxious weeds and Russian olive and salt cedar trees, etc.)	increase the Floristic Quality Index by 5%, increase native species richness by 10%, decrease cover of noxious and invasive weeds (including Russian olive, reed canarygrass, etc.) by 20 - 50%, decrease % of flora comprised of non-native species by 10%, increase native forb cover to 10 - 25% (desired results 5 years after treatment); aim for good to excellent ecological condition	20	25 to 50% in 5 years; additional 25 to 50% in 5 to 10 years (10 years at 2 WMAs)	6,371+ ac enhanced, maintained, or restored	employ an integrated weed management program (chemical, biological, mechanical, grazing--such as goats on leafy spurge) to control noxious and highly invasive weeds in meadows, pastures, hayfields, and upland grasslands; remove Russian olive trees to increase mesic meadow habitat and decrease avian predator (e.g., black-billed magpie) roosting and nesting; experiment with techniques to reduce reed canarygrass and smooth brome	15
							develop standard native plant seed mixes; after weed control is accomplished, incorporate native perennial forb species (e.g., legumes) into new grassland plantings to transition from non-native rhizomatous perennial grass, annual food plots, pastures, hayfields, or disturbed soil; maintain or increase the forb component in grassland habitat by interseeding or planting appropriate native forbs in areas lacking diversity	10
							plant and maintain forb strips within the grassland habitat, and prevent weeds through mechanical methods such as mowing and chemical seed bed preparation; irrigate grass-alfalfa for grazing, nesting, and brood rearing	3
		re-establish native grass dominance in xx acres of older decadent and near monoculture stands currently dominated by non-native seeded grasses (especially rhizomatous grasses such as smooth brome); implement native grass interseeding and/or replanting where needed	cover and/or frequency of native grass species > cover and/or frequency of non-native seeded grasses; increase native species richness by 25%, decrease cover of noxious and invasive weeds by 25%, decrease % of flora comprised of non-native species	6	annually to 5 years (10 years at 2 WMAs)	982+ ac enhanced or restored	mow grass stands and no-till drill native grass seed mix into existing non-native grass stands to increase diversity (after nesting)	4
		treat / mow xx acres of mesic meadow habitat to create low-height grass cover for Canada Goose brood rearing and/or early spring green-up for elk forage		2	annually	50+ ac maintained	mow appropriate areas to provide low-height grass for goose rearing pasture	1

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Moist Soil Management	implement moist soil management techniques in at least one wetland basin to create a plant community with flora comprised of species with high nutritional value for migrating/staging waterfowl and other waterbirds (e.g., smartweed, beggartick, goosefoot, barnyard grass, etc.)	restore and/or create at least 5 ac of wetlands with moist soil management per year (at Pend Oreille WMA), aim for > 50 - 75% of the flora comprised of species with high nutritional value for migrating waterfowl and other waterbirds, target a 25% increase in the cover planted and/or desired species in 5 years	8	annually to 5 years (10 years at 1 WMA)	1,138+ ac enhanced, restored, or created	manage water levels during the spring (e.g., gradual flooding early followed by gradual drawdown late) and fall (gradual re-flood to shallow depth) to promote growth of beneficial food plants and provide resting and feeding habitat for migrating waterfowl and shorebirds (e.g., Bare Marsh Wetland Restoration project on the Coeur d'Alene River WMA); avoid flooding during peak mosquito production season	8
							use plantings of native wetland plant species and/or mechanical disturbance (e.g., disking, mowing) where appropriate to promote desirable early seral wetland vegetation and to provide food sources for migrating and breeding waterfowl	2
	Montane Meadow and Headwater Spring and Seep Restoration and Enhancement	protect, maintain, and/or improve the floristic quality and hydrologic function of montane wet meadows and associated riparian habitat	increase native species richness by 10%, decrease cover of noxious weeds and invasive species (e.g., reed canarygrass) by 25%, decrease % of flora comprised of non-native species by 10%	4	10 years (2 years at 1 WMA)	652+ ac protected or restored	utilize boulders, anchored large wood, beaver, or other methods to stabilize headcuts and raise the water table of incised channels in the meadows (e.g., Brownlee-Pine Creek divide at Cecil Andrus WMA); scatter small logs to disperse overland flow	2
							protect spring sources from livestock using temporary or permanent fencing; protect, maintain, and restore properly functioning meadows by preventing new roads and trails, relocating roads and trails, removing barriers to water flow, eliminating off-road vehicle access, limiting dispersed campsites, minimizing livestock access, building enclosures, etc.	2
							remove conifers that are encroaching montane wet and mesic meadows through use of pre-commercial thinning and, where possible, prescribed fire	1
	Prioritization, Planning, and Funding	identify and secure funding sources for habitat, operations, and management of northern pintail, trumpeter swan, white-faced ibis, and other sensitive species; implement state, federal, and non-governmental organization programs and grants to benefit sensitive species habitat (e.g., NAWCA Grants, HIP Projects, Candidate Species Grants, Idaho Fish and Wildlife Foundation Grants, etc.)					document the most frequently observed, abundant, and/or highest priority sensitive species and identify their habitat needs; plan wetland and riparian habitat restoration and enhancement projects or adaptive management specifically addressing needs of sensitive species	6
							utilize waterfowl observations, water level and flood event information, wetland contaminant survey results, and waterfowl mortality data to determine locations of wetlands in greatest need of restoration	1
							determine which low-lying areas could be developed with water control to create shallowly flooded emergent marshes and mudflats; develop plan and obtain necessary permits; avoid impacts to existing, functional wetlands by targeting highly degraded sites	1



Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Prioritization, Planning, and Funding	conduct 3 "wetland reviews" of WMA actions and activities utilizing expert knowledge and critical review from inside and outside IDFG to increase likelihood of success and maximize wetland functions and services		3	3 years	3,878+ ac at 3 WMAs managed according to wetland review outcomes	complete the wetland review process at Market Lake WMA (2014 - 2015), Fort Boise WMA (2015 - 2016), and a WMA to be determined (2017)	3
	Protection of Rare and Difficult to Restore Wetland Habitats and Sensitive Wetland Species	maintain or expand current extent of unique, sensitive, and difficult to restore wetland habitats (e.g., peatlands, alkaline-saline wetlands, springs and seeps); maintain or expand total populations of sensitive peatland plants, alkaline-saline wetland plants (e.g., iodine bush, red glasswort), or spring and seep plant and animal species (e.g., Indian Valley sedge, Bliss Rapids snail) by protecting site hydrology; protect habitats and populations of sensitive plant and animal species from human or cattle trampling, noxious and invasive weed competition, stream incision, erosion, etc.	maintain or expand extent of sensitive wetland habitat; maintain or expand populations of sensitive wetland plant and animal species (within +/-10% of level documented by inventory)	4	annually to 5 years (10 years at 1 WMA)	265+ ac and 1.0+ spring stream mile protected, restored, or maintained	protect peatlands from human disturbance by limiting foot or vehicle access; restrict infrastructure development (e.g., docks), mechanical vegetation treatment, or any other soil disturbance or hydrological alteration to non-peatland areas	1
							investigate opportunities for peatland restoration in areas impacted by historical drainage and ditching	1
							before implementing meadow or marsh restoration / enhancement projects adjacent to alkaline-saline habitats, assess potential impacts to the hydrologic regime of alkaline-saline wetlands	1
							protect all alkaline-saline wetlands by preventing disturbances to soil or hydrology; eliminate administrative vehicle traffic and minimize foot traffic on alkaline-saline soils highly vulnerable to compaction; post signs instructing visitors to avoid hiking in these areas	1
control noxious weed and other undesirable invasive non-native species in headwater springs and seeps; avoid chemical application within habitat occupied by sensitive species (e.g., Indian Valley sedge at Cecil Andrus WMA) or otherwise ensure no adverse impacts to sensitive species (e.g., Bliss Rapids snail)	2							
protect and enhance Bliss Rapids snail spring outflows and associated riparian vegetation; restrict vehicles and equipment to existing access roads, use non-motorized off-trail travel in areas not accessible by existing roads (no new roads); construct foot bridges where visitors impact springs by frequent crossing; consult U. S. Fish and Wildlife Service prior to implementing projects to ensure mitigation and protective measures are consistent with Biological Opinion	1							

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Protection of Rare and Difficult to Restore Wetland Habitats and Sensitive Wetland Species	maintain or expand current extent of unique, sensitive, and difficult to restore wetland habitats (e.g., peatlands, alkaline-saline wetlands, springs and seeps); maintain or expand total populations of sensitive peatland plants, alkaline-saline wetland plants (e.g., iodine bush, red glasswort), or spring and seep plant and animal species (e.g., Indian Valley sedge, Bliss Rapids snail) by protecting site hydrology; protect habitats and populations of sensitive plant and animal species from human or cattle trampling, noxious and invasive weed competition, stream incision, erosion, etc.	maintain or expand extent of sensitive wetland habitat; maintain or expand populations of sensitive wetland plant and animal species (within +/-10% of level documented by inventory)	4	annually to 5 years (10 years at 1 WMA)	265+ ac and 1.0+ spring stream mile protected, restored, or maintained	ensure spatial separation of wild resident trout and hatchery raised trout to ensure genetic integrity and minimize introduction of disease into wild population; mitigate impacts of WMA operation on wild resident trout habitat	1
							promote awareness of sensitive / special status species populations and their habitat needs; work with users to manage group activities so they do not impact sensitive species habitat; ensure that habitat management and recreation are balanced with sensitive species needs; educate WMA and river users, including jet boaters, about importance of not disturbing nesting or wintering bald eagles; use informational signs to educate public and manage access in sensitive areas and species needs (e.g., trumpeter swans)	10
	Riverine, Riparian, and Floodplain Enhancement and Restoration	using results of riparian assessment, identify locations to replace, repair, and/or reinforce culverts and roadbeds at road-creek crossings to prevent erosion, minimize flooding, maintain hydrologic function, ensure fish passage, and minimize sediment input to streams	100% of culverts/crossings allow fish passage	4	5 years (5 to 10 years at 2 WMAs)	0.5+ stream miles restored; 3+ culverts repaired or replaced; 4+ roadbeds repaired or reinforced	utilize IDFG Engineering staff to investigate road crossings with erosion potential and develop a plan to reinforce roads and replace culverts to accommodate flows; relocate roads and trails out of riparian areas where possible; install properly engineered bridges at crossings, replacing any undersized culverts which may block fish passage or cause other impacts to hydrology; clean clogged culverts, repair as necessary; prevent construction of roads and trails in riparian areas where possible	5
						plan riparian restoration projects concurrent with forest management projects to protect or improve riparian habitat integrity and function; work with private corporate timber landowners through private, state and federal conservation programs to implement riparian habitat enhancement and/or restoration actions; prevent new forest management road and trail crossings; maintain 75 foot wide stream buffers (each side) from forest management	2	

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Riverine, Riparian, and Floodplain Enhancement and Restoration	create, restore, enhance, and/or maintain xx acres or feet or xx % of forested wetland with excess human disturbance, poor bank stability, and/or insufficient riparian vegetation through implementation of vegetation planting projects or other methods (e.g., bioengineering, beaver translocation) for water quality improvement, ungulate, bird, and other wildlife cover and forage; maintain or improve understories; establish permanent cover adjacent to riparian habitats to improve forage and cover in transition to uplands; focus stream reaches in poor to fair ecological condition; prioritize stream reaches based on floodplain / riparian assessment	no increase in cover of non-native tree species, aim for 25 - 50% canopy cover with at least 30% survival of planted black cottonwood (narrowleaf in eastern Idaho) trees and/or other native trees (after 10 years), aim for > 50% frequency of native tree species, evidence of natural tree reproduction, > 50% stream shading, 90% bank stability	14	10 years (annually at 1 WMA)	11+ stream miles and 450+ ac (50 to 100% of non-functioning forested riparian wetland) enhanced, maintained, or restored	plant native hydrophytic tree species (e.g., cottonwood species) within wetlands and floodplain riparian habitat to increase cover, stream shading, and bank stability while reducing erosion and protecting water quality; re-establish cottonwood trees in areas that lack hydrologic regime needed for natural regeneration	15
		create, restore, and/or enhance xx acres or feet or xx % of scrub-shrub wetland habitat with excess human disturbance, poor bank stability, and/or insufficient riparian vegetation; implement vegetation planting projects or other methods (e.g., bioengineering, beaver translocation) for improving water quality, cover and shade for fish, nutrients and substrate for aquatic insects, instream woody debris, and ungulate, bird, and other wildlife cover and forage; establish permanent cover adjacent to riparian habitats to improve forage and cover in transition to uplands; focus on stream reaches in poor to fair ecological condition; prioritize sites based on floodplain / riparian assessment	no increase in cover of non-native shrub species, aim for 25 - 50% canopy cover with at least 25 - 50% survival of planted native shrubs (after 3 years), aim for > 50% frequency of native shrub species, evidence of natural shrub reproduction, increase riparian and greenline shrub cover by 5%, increased young shoot density, 90% bank stability	15	5 to 10 years (annually at 3 WMAs)	13+ stream miles and 399+ ac (50 to 100% of non-functioning scrub-shrub riparian wetland) enhanced, maintained, or restored	plant native shrub species where shrubs are lacking due to historical land use or other disturbance (e.g., agriculture, stream / river bank or lake shore erosion) to increase cover, stream shading, and bank stability while reducing erosion and protecting water quality; plant native berry producing shrubs (e.g., golden currant, snowberry, chokecherry, serviceberry, etc.) to enhance wildlife food availability	21
		protect, maintain, and/or enhance xx acres or feet of existing forested and/or scrub-shrub wetlands with the goal of improving ecological condition, minimizing browse on regenerating trees and shrubs, and maintaining river and stream bank stability; protect existing bald eagle nest sites from disturbance; protect riparian habitat from human-related impacts	increase the Floristic Quality Index by 5%, increase flora comprised of hydric species by 5%, decrease flora comprised of non-native species by 10%, increase native tree cover by 10%, increase riparian and greenline cover by 5%, target 25% survivability of planted species and 90% bank stability	12	annually (5 to 10 years at 9 WMAs)	24+ miles and 774+ ac of protected, maintained, or enhanced	use floodplain / riparian assessment results to identify degraded reaches; implement stream and river bank stabilization protection and restoration projects (e.g., riparian forest/shrub planting, bank armoring other than rip-rap, bioengineering, beaver, vehicle and livestock exclusion, altering angler foot traffic, etc.); elevate incised channel beds to their former floodplain as necessary	15

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Riverine, Riparian, and Floodplain Enhancement and Restoration	protect, maintain, and/or enhance xx acres or feet of existing forested and/or scrub-shrub wetlands with the goal of improving ecological condition, minimizing browse on regenerating trees and shrubs, and maintaining river and stream bank stability; protect existing bald eagle nest sites from disturbance; protect riparian habitat from human-related impacts	increase the Floristic Quality Index by 5%, increase flora comprised of hydric species by 5%, decrease flora comprised of non-native species by 10%, increase native tree cover by 10%, increase riparian and greenline cover by 5%, target 25% survivability of planted species and 90% bank stability	12	annually (5 to 10 years at 9 WMAs)	24+ miles and 774+ ac of protected, maintained, or enhanced	develop spatial data layer of beaver habitat suitability to prioritize and inform beaver translocation locations; explore and document alternative methods for translocating beavers to increase site fidelity and survival of released beaver	5
							manage for a stable beaver population to promote wetland creation and shrub browsing and rejuvenation; translocate beaver to fill suitable, unoccupied beaver habitat identified by beaver suitability maps; implement methods for translocating beavers to increase site fidelity and survival of released beaver; monitor beaver activity and address negative impacts if necessary	5
							control noxious and invasive weed species in riparian woodland and shrubland understory using chemical, mechanical, and biological methods, including methods to reduce cover of reed canarygrass and expansion of false indigo, russian olive, salt cedar, etc.; utilize physical or chemical weed barriers to decrease herbaceous competition within shrub plantations	18
							mechanically prune or trim, or otherwise disturb (e.g., fire) unproductive shrubs not affected by beaver activity or ungulates, to rejuvenate growth and increase browse nutritional quality	2
	Tall Emergent Marsh Management	treat all unproductive, depauperate, and overgrown deep water marsh units at least once to approximate a hemi-marsh of open water and tall emergent marsh vegetation (e.g., cattail - bulrush) (if appropriate) and to maximize productivity and plant diversity for the benefit of waterfowl breed pairing, brood rearing, and other functions (e.g., marsh bird nesting, waterfowl wintering and molting habitat); maintain stable water levels during marsh and waterbird (e.g., white-faced ibis) nesting; manage shoreline vegetation appropriately to benefit nesting birds	50:50 (+/- 10%) ratio of open water to tall marsh vegetation; at Sterling WMA: maintain 800 ac of hardstem bulrush - cattail habitat (high quality over-water marsh bird nesting cover)	15	50% in 5 years; remaining 50% in 5 to 10 years (10 years at 4 WMAs)	5,281+ ac enhanced or maintained	necessary for maintaining marsh habitat productivity and quality, incorporate full drawdowns (winter and/or summer) or partial drawdowns, where possible, to mimic natural wetland hydrology and simulate long-term natural climate fluctuations between very wet years and extreme drought years, and to control carp infestations; rotate wetland management units	12
							use herbicide applications, mechanical treatments, fire, and/or water level manipulation to rejuvenate stands of depauperate, unproductive marsh vegetation and maintain an approximate 50:50 (+/- 10%) ratio (e.g., hemi-marsh, if appropriate) of open water to tall emergent marsh vegetation, with diverse and productive plant foods for waterfowl and other waterbirds (especially in ponds > 0.25 ac)	13
							maintain areas of bulrush and cattails to provide dense wintering habitat; ensure that larger stands (> 10 ac) of dense, undisturbed tall emergent marsh vegetation are available for nesting, escape, and winter cover for waterbirds and sensitive species	2
							manage shoreline and marsh vegetation (e.g., herbicide treatment, biological control, and/or mechanical disturbance) to improve or maintain quality of breeding, nesting, and brood rearing habitat for waterfowl and other waterbirds (e.g., black terns) and muskrats	5
							plant native emergent wetland plant species around marshes to provide food sources for breeding waterfowl	1

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Tall Emergent Marsh Management	maintain or restore open water habitat for brood rearing; remove silt from ponds susceptible to excess sedimentation as needed; provide year-round open water for waterfowl; create open water ponds as needed; reduce carp populations	Fort Boise WMA: reduce carp populations by 50% in all ponds; restore 1 silted-in pond, remove silt from other ponds; Sterling WMA: provide at least 1 ice-free area of open water and manage 35 waterfowl breeding ponds; Billingsley Creek WMA: 0.5 to 1.5-ac ponds; C. J. Strike WMA: maintain water levels in 2 ponds	7	annually to 5 years (5 to 10 years at 4 WMAs)	42+ ponds and 380+ ac maintained, restored, or managed; 9+ ponds created	use ground or surface water pumping or management to maintain water levels and provide year-round open water (e.g., at Sterling and Hagerman WMAs) or fishing opportunities where appropriate; remove silt to maintain flows through ponds necessary for quality habitat and wetland function; develop long-term silt removal program; evaluate areas for potential ponds (e.g., to minimize impacts to existing wetlands); create open water ponds as needed utilizing excavation or blasting	9
	Tree, Shrub, and Snag Protection and Enhancement	maintain or increase the density of large diameter trees and snags for cavity nesting birds, mammals, and bald eagle nest or perch sites; maintain cottonwood snags resulting from wildfire	at least 2 large diameter trees and snags per acre; at least 25% of standing cottonwood snags resulting from the Minidoka Complex Fire maintained at Big Cottonwood WMA	4	10 years	15+ ac maintained or enhanced	protect large diameter trees and retain snags within the floodplain riparian forest habitat for cavity nest sites and other wildlife use (e.g., bald eagle, Swainson's hawk nesting and roosting)	8
							protect natural regeneration of native hydrophytic tree and shrub species from ungulate browsing, beaver, fire, herbicides, and other disturbance to allow woody species to get established and spread; protect scrub-shrub stands used by upland nesting waterfowl (e.g., rose spirea); where very high levels of browsing occur, construct enclosures, use browse deterrents, or other methods to decrease ungulate use until shrubs recover	6
							Create snags where needed, if tree densities allow.	1
							continue non-motorized vehicle restrictions in riparian habitats; maintain signs, gates, fences, and mowed trails; implement camping, fireworks, and fire restrictions	2
	Water Delivery and Control Structure Maintenance	maintain existing water control structures, delivery systems, and dikes on ponds, lakes, and reservoirs to enable stable water levels (e.g., during nesting or for fisheries) and/or water level fluctuation that mimics the natural wetland hydrograph (spring flooding, summer drawdown, fall re-flood); maintain irrigation; where possible, completely drawdown water body at least once every 10 years; protect current water use and rights (e.g., at Sand Creek Ponds) with a cooperative approach between private and government agencies			7	annually (2 to 10 years at 2 WMAs)	1,178+ ac and 15+ miles of water delivery infrastructure maintained	improve water management and irrigation infrastructure; install, replace, modify, maintain (e.g., replace boards as needed), and clean water control structures; improve ditches and maintain dam and dike systems, and control beaver (if necessary) for improving aquatic vegetation condition, keeping water levels high enough to reduce freezing, and/or allowing for draining and treatment of marsh units and moist soils management, etc. (e.g., Bare Marsh Wetland Restoration project on the Coeur d'Alene River WMA); work with landowners to replace aging water control structures
						monitor water flows; work with partners responsible for water delivery (e.g., irrigation canal companies, fish hatcheries, government agencies) to insure timely and adequate flows of water to ponds, wetlands, and wildlife cover and forage crops; understand water rights and their influence on wetland hydrology; involve Idaho Dept. of Water Resources and local landowners in development of water use regulation (e.g., upper Sand Creek drainage) and signed agreements for water management system maintenance; work with water users to eliminate large water level fluctuations that flood white-faced ibis nests	4	

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Water Quality Protection and Improvement	assess and monitor water quality of wetland management units most vulnerable to agricultural or other pollutants (determined by WESPUS assessment); assess and monitor potential lead accumulation from hunting; monitor and manage waterfowl disease outbreaks and toxic poisoning; implement remediation of polluted wetlands		4	annually to 5 years	5,000+ ac assessed or monitored	work with partners (e.g., Idaho Department of Environmental Quality, U. S. Geological Survey, Master Naturalists) to collect baseline water quality and/or lead accumulation data in targeted wetland management units using established, standardized sampling protocols; implement waterfowl disease monitoring and management protocol	4
							identify sources and causes of sediment or other pollutants entering ponds, springs, streams, and tributaries; sample streams and pond bottoms for silt accumulation to identify areas most at-risk from silting-in; develop plan to address issues (e.g., drain and remove silt) and eliminate sources of water quality degradation	3
	Waterfowl and Waterbird Wintering, Nesting, and Brood Rearing Security	maintain or increase nesting pair numbers for focal waterfowl species (e.g., Canada goose, wood duck); reduce tundra swan mortality during spring migration (at Coeur d'Alene River WMA); maintain or replace Canada goose nesting structures/platforms, mallard nest boxes, cavity nesting waterfowl boxes, and/or nesting islands	at Coeur d'Alene River WMA: > 60 nesting pairs of Canada geese, > 90 nesting pairs of wood ducks, reduce swan mortality during spring migration by 25%	8	annually to 3 years (10 years at 1 WMA)	134+ Canada goose nesting platforms; 200 wood duck boxes	install and/or maintain artificial nesting platforms and boxes for Canada goose, mallard, and cavity nesting waterfowl (e.g., wood duck, goldeneye, merganser, etc.) if present conditions do not support plentiful, quality nesting conditions	12
							install and/or maintain artificial nest boxes for cavity nesting species, primarily wood ducks, if snag density is low	4
							create islands within wetland areas, where feasible, to provide secure waterfowl nesting habitat	1
Waterfowl and Waterbird Wintering, Nesting, and Brood Rearing Security	maintain or increase waterfowl and waterbird nesting success by improving habitat security; reduce human disturbance, predation (employ passive predation prevention), and other disruptions during waterfowl / waterbird breeding, nesting, brood rearing, and wintering in all wetlands susceptible to disturbance; protect nesting and migrating birds from disturbance with seasonal nesting area closures and travel restrictions; provide platforms / blinds for public viewing of wintering waterfowl and other wildlife; restrict access to maintained, mowed trails	> 30% waterfowl nesting success, increase waterfowl nesting success by 25%	12	annually (5 to 10 years at 1 WMA)	1,400+ ac protected	encourage tundra swan use away from heavily contaminated wetland sites using a variety of new deterrent methods, including water level management and wetland shrub plantings	1	
						protect waterfowl and waterbird wintering and nesting habitat by reducing disturbances (e.g., unauthorized livestock grazing and human activity) during critical periods; implement clearly signed seasonal human activity (e.g., fishing) area closures to minimize disturbance to waterfowl and other birds (e.g., bald eagles); prohibit boat and vehicle access and maintain weekly presence to report travel violations to enforcement; implement adaptive access management (e.g., temporary road or human entry closures, restrict access to mowed trails); require leashing of pets; initiate passive predator control if needed	14	

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Waterfowl and Waterbird Wintering, Nesting, and Brood Rearing Security	maintain or increase waterfowl and waterbird nesting success by improving habitat security; reduce human disturbance, predation (employ passive predation prevention), and other disruptions during waterfowl / waterbird breeding, nesting, brood rearing, and wintering in all wetlands susceptible to disturbance; protect nesting and migrating birds from disturbance with seasonal nesting area closures and travel restrictions; provide platforms / blinds for public viewing of wintering waterfowl and other wildlife; restrict access to maintained, mowed trails	> 30% waterfowl nesting success, increase waterfowl nesting success by 25%	12	annually (5 to 10 years at 1 WMA)	1,400+ ac protected	maintain water levels during nesting seasons of waterfowl and other waterbirds (e.g., white-faced ibis) to reduce flooding of nests	7
							monitor waterfowl nest predator numbers and waterfowl nesting success; remove potential mammalian denning sites and avian perching habitat; initiate direct predator control, if warranted; remove feral cats, hogs, or any other introduced predator from WMAs	6
							work with users to manage group activities so they do not impact nesting waterfowl and other waterbirds (e.g., local Audubon chapter to reduce disturbance during Christmas Bird Count; install interpretive signs to educate public on importance of undisturbed areas for wintering waterfowl and other wildlife; provide platforms or blinds for public viewing of wintering waterfowl; maintain waterfowl hunting outside WMA boundaries prior to arrival of migratory waterfowl	3
	Wet Meadow and Shallowly-flooded Emergent Marsh Restoration and Enhancement	protect, enhance, restore, or create shallowly flooded short-emergent marsh and seasonally flooded wet meadow habitat; implement management (e.g., flooding and periodic drawdowns, seasonal water control) at the appropriate times and frequency, in suitable wetland management units, to expose mudflats, promote germination of plants, maximize invertebrate production, and improve ecological condition where possible for the purpose of providing optimal foraging and loafing for waterbirds during migration; control noxious weeds and invasive species	maintain or increase % of wetland comprised of shallow water short-height emergent marsh vegetation (e.g., common spikerush, water smartweed, etc.), maintain water levels through the nesting and brood-rearing periods (if appropriate), increase floristic diversity by 10%, decrease % of flora comprised of non-native species by 10%	11	annually to 5 years (5 to 10 years at 4 WMAs)	2,717+ ac enhanced or restored	maintain hydrology or manage water levels during spring and fall to provide areas of deep open water, shallow open water, shallowly flooded emergent marsh vegetation, and mudflats to provide habitat for a variety of wildlife species, their life stages, and habitat needs (breeding, foraging, cover, hibernaculum)	7
							use mechanical disturbance (e.g., disking, mowing, harrowing, etc.), fire, herbicides, seasonal flooding, seeding, and/or other treatments where appropriate to increase diversity and productivity of wet meadow and shallowly flooded emergent marshes, including the objective of decreasing cover of reed canarygrass, saltcedar, noxious weeds, or other highly invasive plants	13
							utilize diversion water and manage dam outflows to mimic the natural hydrograph of streams and rivers to provide quality waterbird migration stop-over habitat with maximum plant and invertebrate production; capture and hold high levels of spring runoff; slowly release water to create receding summer water levels; re-flood in the fall	5

Table 5 continued.

Element	IDFG Priorities	Actions (Performance Targets)	Desired Conditions (examples, not applicable at every site)	Number of Applicable WMAs	Schedule for Implementation	Outcomes / Impact	Strategies (Activities)	Number of Applicable WMAs
Voluntary Protection and Restoration	Wet Meadow and Shallowly-flooded Emergent Marsh Restoration and Enhancement	flood irrigate xx acres of agricultural cropland in a manner that is beneficial for migrating and foraging waterfowl and other waterbirds (e.g., white-faced ibis)		3	annually	840+ ac flood irrigated	maintain or increase duration of saturation and shallow flooding in wet meadows and shallow emergent marshes during late spring to keep groundwater closer to surface for longer periods in summer for maximizing invertebrate production (e.g., restoration of Triangle Marsh, East Springs, Corral Springs at Market Lake WMA; West Sloughs and Marty Wetlands at Mud Lake WMA); include soils kept moist by flood irrigation throughout the growing season to benefit white-faced ibis and other waterbirds	6
		enhance wetland plant diversity and productivity within water management constraints across existing emergent wetlands; Plant at least xx acres per year of native emergent wetland plant species beneficial for waterfowl at wetlands lacking food sources or are which are unproductive	enhance at least 1 ac of emergent wetlands (at Pend Oreille WMA) by planting native emergent wetland plant species, obtain a 25% increase in the cover of planted species in 5 years	1	annually (1 ac per year for 10 years)	10 ac enhanced	plant native emergent wetland plants in degraded or minimally diverse wetlands to provide food sources for migratory waterfowl and other waterbirds	2
	Wildlife Food Plots	increase native forb in grasslands; plant xx acres of forb strips and/or wildlife food plots (e.g., forbs, unharvested cereal grain, or other crops near habitat dominated by woody species) comprised of beneficial non-native, non-invasive wildlife food species to increase carrying capacity for wildlife who's limiting factor is winter food availability; maintain sharecropping to produce a minimum of xx ac of forage crops for a variety of wildlife species	increase native forb cover to at least 10% in grasslands; aim for 25% forb cover in forb strips after 5 years	9	annually to 5 years (10 years at 2 WMAs)	539+ ac created, enhanced, or restored	evaluate best locations to create food plots to maximize waterfowl or wildlife utilization; plant and maintain wildlife food plots using wildlife friendly modern farming practices (e.g., no-till) to increase the carrying capacity of habitat for wildlife species who's limiting factor is winter food availability, such as ring-necked pheasants; leave cereal grains or other crops standing to provide high energy winter forage for migrating waterfowl and other wintering wildlife; maintain and improve irrigation system (canals, ditches, pumps, mainlines, wheel-lines, sprinklers, etc.)	6
						convert wildlife food plots to perennial vegetation.	1	
						utilize sharecrop money to plant food plots and complete other habitat projects	1	



**Table 6. Wetland Program Plan Monitoring Actions, Activities, Metrics and Schedule for Implementation.**

Monitoring Objectives / Actions	Methods / Activities	Metrics	Number of Applicable WMAs, WHAs, and WMUs	Schedule for Implementation Across Applicable WMAs, WHAs, and WMUs
baseline vegetation composition, structure, and condition to monitor long-term habitat change resulting from management or other causes	photo points, line-point intercept, circular tree composition and stem density plots, belt transects, time-constrained plant species inventory; GPS mapping of habitats, aerial imagery analysis; Habitat Evaluation Procedure (HEP) at BPA-funded mitigation properties	distribution and extent of cover types; vegetation composition, structure, and condition (floristic quality metrics); cover and density of noxious and invasive weed species	30	ongoing, repeated every 5 to 10 years
effectiveness of control of noxious weed and highly invasive non-native species and "early detection rapid response" monitoring for new invasive non-native plant species	GPS mapping of weed population area, photo points, line-point intercept transects, plots (e.g., 10.5 ft. radius circular plots (346 ft <sup>2</sup> ) or other configuration), stem counts	weed population area; cover, frequency, and/or density of noxious weeds and invasive non-native species	22	annually (before treatment and 2+ times within 5 years post-treatment at 1 WMA)
wetland habitat use by waterfowl, waterfowl production and nest success of waterfowl, waterfowl migration patterns and wintering waterfowl use	pair and brood counts, wintering and migratory waterfowl counts, nest searches, nest platform and box surveys, waterfowl banding	waterfowl species occupancy, densities, nest success, production	20	annually to 5 years
effectiveness of herbicide, grazing, mechanical disturbance, fire, seeding, or other treatments (e.g., Russian olive removal) to restore, enhance, create, or maintain waterfowl breeding and nesting habitat (e.g., mesic meadows and upland grasslands), and enhance productivity and ecological condition for other wildlife (e.g., improve floristic quality, increase forb diversity, improve hayfields, pastures, and seeded grasslands)	aerial imagery analysis, photo points, line-point intercept and belt transects, Daubenmire frame for cover estimation; cover board for vertical structure	area treated; vegetation composition and structure (e.g., layer height and cover); floristic quality metrics: native species richness; non-native species cover; % of flora comprised of non-native species	18	annually to 3 years, or before treatment and 2+ times within 5 years post-treatment
wetland and riparian habitat use by sensitive or focal riparian or wetland-dependent wildlife or invertebrate species (e.g., amphibians, snails, beaver, muskrat, nongame, carnivores, etc.), and impacts of management practices and livestock grazing on their populations	visual or other established survey protocols	amphibian, beaver, snail, or other species occupancy, densities, abundance	16	annually to 5 years at 6 WMAs; 10 years at 10 WMAs
effectiveness of riparian restoration and bank stabilization, including the composition, structure, condition, and function of forested and scrub-shrub riparian and wetland habitat	GPS mapping of restored or enhanced riparian habitat, plant survival survey, photo points, line-point intercept, belt transects, greenline and multiple indicators riparian transects, IDFG riparian rapid assessment method	area or linear distance of riparian habitat restored or enhanced; % survival of planted trees and shrubs; cover, height, size class (e.g., stem diameter), and frequency of trees and shrubs (e.g., native versus non-native); streambank stability; stream channel geomorphology	15	annually to 5 years, or before treatment and 2+ times within 5 years post-treatment (3 times in 5 to 10 year period post-treatment at 1 WMA)
composition, structure, and quality of restored, enhanced, or created migratory waterfowl and other waterbird staging habitat (e.g., moist soil management units, wet meadows, and shallowly flooded emergent marshes), including water levels and water diversion rates; effectiveness of remediation and restoration of metal contaminated wetlands at Coeur d'Alene River WMA	aerial imagery analysis, photo points, line-point intercept and belt transects, staff gauges and piezometers, flow meters	area treated; vegetation composition, structure, and condition (floristic quality metrics); hydrograph (water depth and rate of change)	10	water levels and diversion rates weekly to monthly; habitat annually to 3 years, or before treatment and 2+ times within 5 years post-treatment
effectiveness of herbicide, mechanical disturbance, fire, water management, or other treatments to enhance, create, or maintain waterfowl brood rearing habitat (e.g., tall emergent and open water marshes), including water levels	aerial imagery analysis, photo points, line-point intercept transects, staff gauges and piezometers	area of cattail and/or bulrush marsh and open water; vegetation composition, structure, and condition (floristic quality metrics)	10	annually to 5 years, or before treatment and 2+ times within 5 years post-treatment
success of plantings of native riparian shrubs, berry or mast producing trees or shrubs, low growing shrubs, and/or tree-shrub shelterbelt plantings; establishment and use of grain or forb wildlife food plots	GPS mapping of restored, enhanced, or created shrubland/shelterbelts and/or wildlife food plots, photo points, line-point intercept, plant survival survey	area of shrubland restored, enhanced, or created; % survival of planted shrubs; % cover of desirable species in wildlife food plots	8	annually to 5 years, or before treatment and 2+ times within 5 years post-treatment
wetland habitat use and production of shorebirds, colonial nesting waterbirds, marsh birds, diving waterbirds, or other focal wetland dependent birds	call broadcasts, visual surveys (e.g., point counts)	waterbird species occupancy, densities, abundance	8	annually to 2 years
neo-tropical migratory birds and other focal bird species use and impacts of management practices on bird populations	point counts	bird species occupancy, densities, diversity	6	annually to 5 years

Table 6 continued.

Monitoring Objectives / Actions	Methods / Activities	Metrics	Number of Applicable WMAs, WHAs, and WMUs	Schedule for Implementation Across Applicable WMAs, WHAs, and WMUs
aquatic habitat use by anadromous fish and/or other native salmonids	redd counts, mark/recapture techniques, pit tags, telemetry, electro-fishing	fish occupancy, densities, abundance, production, age class by length frequency	5	annually to 3 years, 3 times in 5 to 10 year period post-treatment
presence of avian cholera or avian botulism in wetlands; presence of West Nile virus or other pathogens or toxins, such as metal contamination from historic mining (especially impacting tundra swans at Coeur d'Alene River WMA), that could negatively impact wildlife populations	survey of waterfowl and other bird health (for presence of sick or dead birds) during spring and fall	presence or absence of avian cholera, botulism, West Nile virus, metal toxicity, etc.	4	annually
water quality (e.g., sediment, nutrients, or other pollutants), metal contamination from historic mining, and lead accumulation	standard water quality and lead sampling protocols (Idaho Department of Environmental Quality), sediment accumulation survey	presence of sediment, nutrients, metals, or other pollutants elevated above water quality standards; depth of sediment in ponds	4	annually to 5 years
wetland rare plant population size and habitat condition (e.g., Indian Valley sedge in meadows at Cecil Andrus, peatlands at McArthur Lake, Ute ladies'-tresses in wet meadows at Sand Creek, iodine bush and red glasswort in alkaline-saline habitats at Sterling)	GPS mapping of occupied habitat and extent of specialized habitats (e.g., peatlands, alkaline-saline), population inventory and census, photo points, habitat integrity belt transects, line intercept transects	observable population of rare plant species, cover of noxious weeds and invasive non-native species, woody species cover, cover and frequency of plant species indicative of specialized habitats	4	2 to 5 years
effectiveness of biological control and survival of biological weed control insect (or other) releases	GPS mapping of weed population area, photo points, line-point intercept transects, plots, stem counts, net insect sweeps	weed population area; cover, frequency, and/or density of noxious weeds and invasive non-native species; number of surviving biocontrol releases	3	annually to 3 years (before treatment and 2+ times within 5 years post-treatment or flood at 1 WMA)
effectiveness of replacing smooth brome stands with native or desirable non-native bunchgrasses and forbs	photo points, line-point intercept and belt transects	cover and frequency of smooth brome and other native or non-native species	3	before treatment and 2+ times within 5 years post-treatment
effectiveness of restoration of montane meadow wetland and riparian habitat condition and function	GPS mapping of restored or enhanced meadow habitat, photo points, line-point intercept, belt transects, greenline and riparian transects, IDFG meadow rapid assessment method	area of meadow habitat restored or enhanced; vegetation composition, structure, and condition (floristic quality metrics); cover, height, size class, and frequency of trees; streambank stability; stream channel geomorphology	3	5 years (before treatment and 2+ times within 5 years post-treatment at 1 WMA)
river bank erosion rate during high water runoff events	photo points, river bank location marking	change in location of river bank as measure of area lost to erosion	3	annually to 5 years
success of riparian cottonwood (black or narrowleaf) or other native tree plantings	plant survival survey	number of trees planted; % survival of planted cottonwood trees	3	annually to 3 years (3 times in 5 to 10 year period post-treatment at 1 WMA)
effectiveness of methods used to convert reed canarygrass to native or desirable non-native vegetation	photo points, line-point intercept and belt transects	cover and frequency of reed canarygrass and other native or non-native species	2	before treatment and 2+ times within 5 years post-treatment
habitat use and nest success of breeding riparian raptors, including bald eagle and osprey	visual nest surveys	nest success, production, occupancy	2	annually
presence and location of unauthorized trespass cattle impacting habitat	visual survey, count, and GPS mapping of cattle on WMA	presence or absence, number, and location of unauthorized cattle	2	weekly to monthly during grazing season, annually
success of beaver translocation and movements of translocated beaver	radio telemetry tail tags, survey of beaver activity (e.g., cutting, dams, lodges, etc.)	% survival of translocated beaver, beaver occupancy, density, and abundance	2	annually
aquatic habitat condition and function for native salmonids	standard stream aquatic habitat survey protocols (e.g., CHaMP, EMAP, PIBO, IDEQ, etc.)	particle size and embeddedness, large woody debris, pool habitat, temperature, macroinvertebrate richness, riparian structure and canopy cover	1	annually to 3 years, 3 times in 5 to 10 year period post-treatment
effectiveness of using goats for leafy spurge control	photo points, line-point intercept transects	cover and frequency of leafy spurge	1	before treatment and 2 years post-treatment

### III. CHARACTERISTICS OF IDFG-MANAGED WETLAND AND RIPARIAN HABITATS

#### Conservation Importance of IDFG Wetland and Riparian Habitats

IDFG lands are typically managed to provide wildlife habitat and wildlife-based recreation. Because of this, IDFG rarely uses a “hands off” approach to management. For example, wetlands on WMAs, WMUs, and WHAs are typically highly manipulated, with extensive water management infrastructure that allows for intensive management of habitat to benefit waterfowl and waterbird nesting and migration. With this approach, IDFG lands infrequently meet the qualifications typically used to describe high quality preserves (e.g., natural and highly functioning condition in an intact landscape, with minimal human influence and exceptional values for biodiversity, such as at Research Natural Areas). Nevertheless, WMAs collectively provide potential habitat for over 98% of the state’s wildlife species and these lands are an important part of Idaho’s conservation network (Karl et al. 2005). A few IDFG properties are recognized as Class I Wetland Conservation Sites that are representative of this level of importance and quality (e.g., peatlands at Chase Lake and Kaufman Access Sites). Many other properties, however, are recognized as high value, functioning habitat in fair to good ecological condition (e.g., Important Bird Areas, Class II Wetland Conservation Sites) (Figure 10; Table 6). The conservation importance of IDFG properties was identified using the following references: Bottum 2004, Bottum 2005, Hahn et al. 2005, Idaho Conservation Data Center 2006, Idaho Department of Fish and Game 2006, Idaho Department of Fish and Game 2007, Jankovsky-Jones 1996, Jankovsky-Jones 1997a, Jankovsky-Jones 1997b, Jankovsky-Jones 1997c, Jankovsky-Jones 1998, Jankovsky-Jones 1999, Jankovsky-Jones 2001a, Jankovsky-Jones 2001b, Jankovsky-Jones and Bottum 2003, Lichthardt, J. 2004, and Murphy et al. 2012.

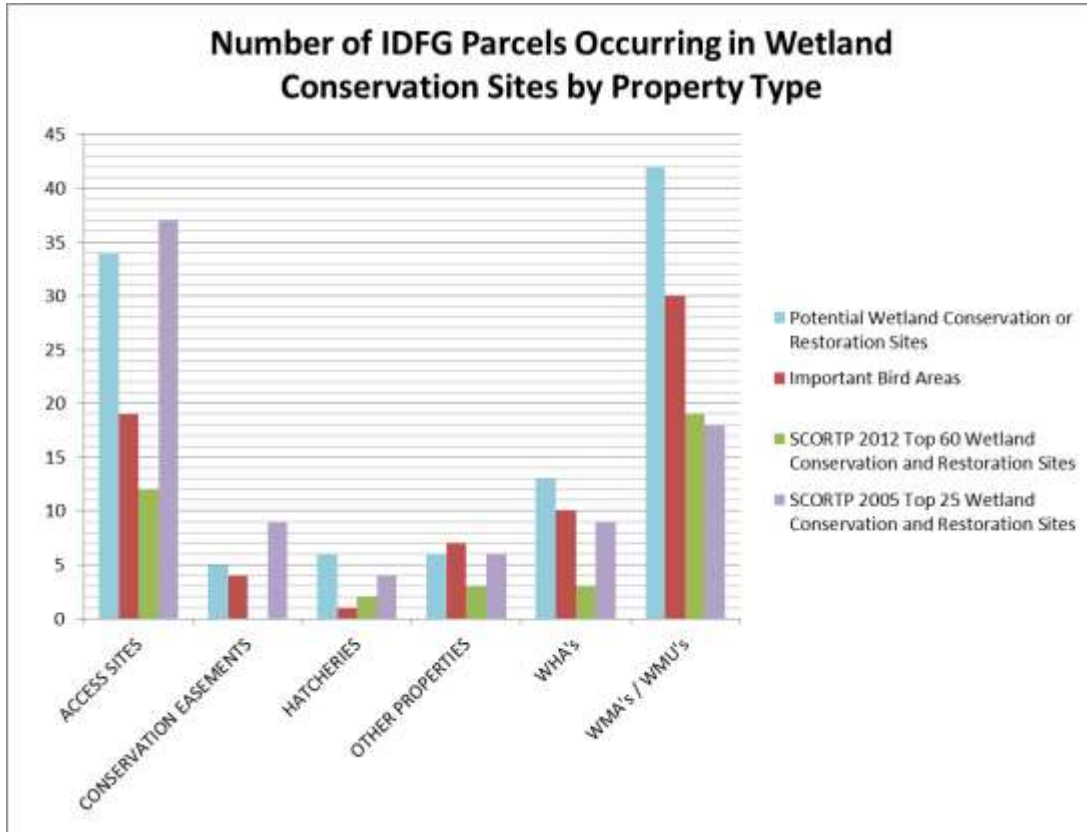


Figure 10.

**Table 7. Conservation importance of IDFG properties based watershed wetland conservation strategies, statewide prioritizations, and important bird areas.**

IDFG Property Parcel	Type	Potential Wetland Conservation or Restoration Site	Rank	Important Bird Area Name	Bird Area Importance	SCORTP 2012 Top 60 Wetland Conservation and Restoration Sites	SCORTP 2005 Top 25 Wetland Conservation and Restoration Sites
AMERICAN FALLS HATCHERY	HATCHERY	AMERICAN FALLS RESERVOIR	Class II	American Falls Reservoir	global		AMERICAN FALLS RESERVOIR
ARRINGTON CONSERVATION EASEMENT	CONSERVATION EASEMENT	SALMON RIVER BOTTOMS					SALMON RIVER BOTTOMS
AUGER FALLS ACCESS SITE	ACCESS SITE					Snake River (Twin Falls to Niagara Springs)	
BADGER CREEK ACCESS SITE	ACCESS SITE			Teton Basin	state		
BANBURY SPRINGS WHA	WHA						LOWER SNAKE RIVER
BEAR TRACKS WILLIAMS ACCESS SITE	ACCESS SITE	LOWER LITTLE WOOD RIVER					
BERNARDS LANDING ACCESS SITE	ACCESS SITE			Deer Flat NWR	state		
BIG LOST RIVER (LOWER) ACCESS SITE	ACCESS SITE	BIG LOST RIVER					BIG LOST RIVER
BIG LOST RIVER (UPPER) ACCESS SITE	ACCESS SITE	BIG LOST RIVER					BIG LOST RIVER
BILLINGSLEY CREEK WMA	WMA	BILLINGSLEY CREEK	Class II				
BLACKFOOT RIVER WMA	WMA	BLACKFOOT RIVER				Blackfoot River - Upper Valley - Lanes Creek	
BLACKS BRIDGE ACCESS SITE	ACCESS SITE	BIRDING ISLANDS					PAYETTE RIVER/BIRDING ISLANDS
BOISE RIVER CONS EASEMENT - WARM SPRINGS	CONSERVATION EASEMENT	BARBER TO BOISE		Boise River	state		
BOISE RIVER PACK INC CONS EASEMENT	CONSERVATION EASEMENT						FORT BOISE/BOISE RIVER
BORES ISLAND WHA	WHA						PAYETTE RIVER/BIRDING ISLANDS
BOUNDARY CREEK WMA	WMA			Boundary Creek WMA	state	Kootenai River Valley	
BUHLER CONSERVATION EASEMENT	CONSERVATION EASEMENT						FORT BOISE/BOISE RIVER
BURGDORF MEADOWS CONSERVATION EASEMENT	CONSERVATION EASEMENT	BURGDORF MEADOW	Class II				
CAMAS PRAIRIE C M WMA	WMA	HILL CITY MARSH	Class II	Camas Prairie Centennial Marsh WMA	state		
CAREY LAKE WMA	WMA	CAREY LAKE		Carey Lake WMA	state		
CARMEN BRIDGE ACCESS SITE	ACCESS SITE	SALMON RIVER BOTTOMS					SALMON RIVER BOTTOMS
CARTIER SLOUGH WMA	WMA	UPPER SNAKE RIVER		Cartier Slough WMA	state	Henrys Fork (Teton River to Snake River)	
CARTIER SLOUGH WMA	WMA	UPPER SNAKE RIVER		Snake River ACEC	state		UPPER SNAKE RIVER
CEDAR DRAW ACCESS SITE	ACCESS SITE					Snake River (Twin Falls to Niagara Springs)	
CHASE LAKE ACCESS SITE	ACCESS SITE	CHASE LAKE	Class I				CHASE LAKE/LEE LAKE
CHILLY CANAL DIVERSION FISH LADDER	OTHER	BIG LOST RIVER					BIG LOST RIVER
CHILLY SLOUGH WHA	WHA	CHILLY SLOUGH	Class II	Chilly Slough WMA	state	Thousand Springs Valley - Chilly Slough	BIG LOST RIVER
CHRISTIAN CONSERVATION EASEMENT	CONSERVATION EASEMENT						PAYETTE RIVER/BIRDING ISLANDS
CJ STRIKE WMA	WMA	C. J. STRIKE RESERVOIR	Class II	CJ Strike WMA/Reservoir	global	C. J. Strike Reservoir - Bruneau River	C. J. STRIKE
CLARK FORK HATCHERY	HATCHERY	CLARK FORK DELTA	Class II				CLARK FORK DELTA
CLARKS ISLAND ACCESS SITE	ACCESS SITE			Deer Flat NWR	state	Snake River (Marsing to Homedale)	

Table 7 continued.

IDFG Property Parcel	Type	Potential Wetland Conservation or Restoration Site	Rank	Important Bird Area Name	Bird Area Importance	SCORTP 2012 Top 60 Wetland Conservation and Restoration Sites	SCORTP 2005 Top 25 Wetland Conservation and Restoration Sites
COEUR D ALENE RIVER WMA	WMA	ROSE LAKE	Class II			Coeur d'Alene River (Rose Lake to Thompson Lake)	COEUR DALENE RIVER
COEUR D ALENE RIVER WMA	WMA	THOMPSON LAKE	Class II			Coeur d'Alene River (Rose Lake to Thompson Lake)	COEUR DALENE RIVER
COEUR D ALENE RIVER WMA	WMA					Coeur d'Alene River - Cataldo Mission Flats	
COEUR D ALENE RIVER WMA	WMA	RIVER IN A LAKE				Saint Joe River - River in a Lake	
COEUR D ALENE RIVER WMA	WMA					Saint Joe River Valley	
COEUR D ALENE RIVER WMA	WMA	HIDDEN LAKE					
CRAIG MOUNTAIN WMA	WMA	CAPTAIN JOHN CREEK					
DAVENPORT ISLAND ACCESS SITE	ACCESS SITE	UPPER SNAKE RIVER		Snake River ACEC	state		UPPER SNAKE RIVER
DEER PARKS WMU	WMU	UPPER SNAKE RIVER		Snake River ACEC	state	Henrys Fork (Teton River to Snake River)	UPPER SNAKE RIVER
DEER PARKS WMU	WMU	SNAKE RIVER BELOW HEISE GAUGE		Snake River ACEC	state		UPPER SNAKE RIVER
DILLON CONSERVATION EASEMENT	CONSERVATION EASEMENT						PAYETTE RIVER/BIRDING ISLANDS
DINGLE SWAMP WHA	WHA					Bear Lake Valley	BEAR LAKE
DIXIE ACCESS SITE	ACCESS SITE						FORT BOISE/BOISE RIVER
ELLIS ACCESS SITE	ACCESS SITE						PAHSIMEROI VALLEY
FALK BRIDGE ACCESS SITE	ACCESS SITE						PAYETTE RIVER/BIRDING ISLANDS
FEATHERVILLE PATROL CABIN	OTHER					South Fork Boise River (Featherville to Paradise Hot Springs)	
FERRY BUTTE ACCESS SITE	ACCESS SITE						AMERICAN FALLS RESERVOIR
FORT BOISE WMA	WMA	FORT BOISE		Fort Boise WMA	state		FORT BOISE/BOISE RIVER
FOX CREEK EAST ACCESS SITE	ACCESS SITE	TETON BASIN		Teton Basin	state	Teton Basin	TETON BASIN
FOX CREEK WEST ACCESS SITE	ACCESS SITE	TETON BASIN		Teton Basin	state	Teton Basin	TETON BASIN
GEM STATE WHA	WHA	UPPER SNAKE RIVER		Snake River ACEC	state		UPPER SNAKE RIVER
GEM STATE WHA	WHA	SNAKE RIVER BELOW HEISE GAUGE		Snake River ACEC	state		
GEORGETOWN SUMMIT WMA	WMA					Bear River (Georgetown Summit to Eightmile Creek)	
GRANITE LAKE ACCESS SITE	ACCESS SITE	KELSO LAKE	Class II				HOODOO
HAGERMAN WMA	WMA	C. J. STRIKE RESERVOIR	Class II	Heron Island/Hagerman WMA	global	C. J. Strike Reservoir - Snake River	C. J. STRIKE
HAGERMAN WMA	WMA	HAGERMAN WMA		Heron Island/Hagerman WMA	state	C. J. Strike Reservoir - Snake River	C. J. STRIKE
HAGERMAN WMA	WMA	THOUSAND SPRINGS, GOODING COUNTY		Heron Island/Hagerman WMA	state		
HAGERMAN WMA	WMA						LOWER SNAKE RIVER
HAYSPUR HATCHERY	HATCHERY	SILVER CREEK	Class II				SILVER CREEK
HENRYS LAKE HATCHERY	HATCHERY	HENRYS LAKE WHITE SPRUCE	Class II			Henrys Lake	
IDL CONSERVATION EASEMENT	CONSERVATION EASEMENT						PAYETTE RIVER/BIRDING ISLANDS
IDL LEASE M6020	OTHER						FORT BOISE/BOISE RIVER
IMMIGRATION ACCESS SITE	ACCESS SITE						FORT BOISE/BOISE RIVER
ISLAND PARK ACCESS SITE	ACCESS SITE	SALMON RIVER BOTTOMS					SALMON RIVER BOTTOMS
KAUFMAN ACCESS SITE	ACCESS SITE	BIRCH CREEK FEN	Class I				
KAUFMAN ACCESS SITE	ACCESS SITE	BIRCH CREEK VALLEY					

Table 7 continued.

IDFG Property Parcel	Type	Potential Wetland Conservation or Restoration Site	Rank	Important Bird Area Name	Bird Area Importance	SCORTP 2012 Top 60 Wetland Conservation and Restoration Sites	SCORTP 2005 Top 25 Wetland Conservation and Restoration Sites
KELSO LAKE ACCESS SITE	ACCESS SITE	KELSO LAKE	Class II				HOODOO
LAVA POINT ACCESS SITE	ACCESS SITE			Deer Flat NWR	state		
LAVA POINT ACCESS SITE	ACCESS SITE			Magic Reservoir	state		
LEMHI HOLE ACCESS SITE	ACCESS SITE	SALMON RIVER BOTTOMS					SALMON RIVER BOTTOMS
LOBDELL CONSERVATION EASEMENT	CONSERVATION EASEMENT						FORT BOISE/BOISE RIVER
MACKAY DAM ACCESS SITE	ACCESS SITE	BIG LOST RIVER					BIG LOST RIVER
MACKAY RESERVOIR ACCESS SITE	ACCESS SITE	BIG LOST RIVER					BIG LOST RIVER
MAP ROCK ACCESS SITE	ACCESS SITE			Deer Flat NWR	state		
MARINAC ACCESS SITE	ACCESS SITE	BIG LOST RIVER					BIG LOST RIVER
MARKET LAKE WMA	WMA	MARKET LAKE	Class II	Market Lake WMA	global		
MARKET LAKE WMA	WMA	UPPER SNAKE RIVER		Snake River ACEC	global		UPPER SNAKE RIVER
MARKET LAKE WMA	WMA	SNAKE RIVER BELOW HEISE GAUGE		Snake River ACEC	global		
MCARTHUR LAKE WMA	WMA	MCARTHUR LAKE	Class II	McArthur Lake WMA	state		MCARTHUR LAKE
MCARTHUR LAKE WMA	WMA	BONNER LAKE	Class II	McArthur Lake WMA	state		
MCARTHUR LAKE WMA	WMA	FREEMAN LAKE					
MCARTHUR LAKE WMA FLOWAGE EASEMENT	WMA	MCARTHUR LAKE	Class II	McArthur Lake WMA	state		MCARTHUR LAKE
MCTUCKER POND ACCESS SITE	ACCESS SITE	AMERICAN FALLS RESERVOIR	Class II	American Falls Reservoir	global	American Falls Reservoir (Snake River to Sterling)	AMERICAN FALLS RESERVOIR
MONTOUR WMA	WMA	MONTOUR					
MOONSTONE ACCESS SITE	ACCESS SITE			Magic Reservoir	state		
MOYIE RIVER ACCESS SITE	ACCESS SITE						MOYIE RIVER BASIN
MUD LAKE WMA	WMA	CAMAS CREEK, JEFFERSON COUNTY		Camas NWR	state		
MUD LAKE WMA	WMA	MUD LAKE	Class II	Mud Lake WMA	state		
NATURES WOOD DUCK ISLAND	CONSERVATION EASEMENT	BARBER TO BOISE		Boise River	state		
NEWDIGER CONSERVATION EASEMENT	CONSERVATION EASEMENT						PAYETTE RIVER/BIRDING ISLANDS
NIAGARA SPRINGS ACCESS SITE	ACCESS SITE	NIAGARA SPRINGS				Snake River (Twin Falls to Niagara Springs)	
NIAGARA SPRINGS HATCHERY	HATCHERY	NIAGARA SPRINGS				Snake River (Twin Falls to Niagara Springs)	
NIAGARA SPRINGS WMA	WMA	SNAKE RIVER ISLAND		Heron Island/Hagerman WMA	state		
NIAGARA SPRINGS WMA	WMA	SNAKE RIVER ISLAND		Snake River Island Habitat Area	state	Snake River (Twin Falls to Niagara Springs)	LOWER SNAKE RIVER
NOBLE ISLAND ACCESS SITE	ACCESS SITE			Deer Flat NWR	state		
PAHSIMEROI REARING PONDS	HATCHERY	PAHSIMEROI VALLEY					PAHSIMEROI VALLEY
PAHSIMEROI RIVER ACCESS SITE	ACCESS SITE	PAHSIMEROI VALLEY					PAHSIMEROI VALLEY
PALISADES CREEK ACCESS SITE	ACCESS SITE	UPPER SNAKE RIVER		Snake River ACEC	state		UPPER SNAKE RIVER
PALISADES CREEK FISH SCREEN	OTHER	UPPER SNAKE RIVER					UPPER SNAKE RIVER
PALISADES CREEK WEIR	OTHER	UPPER SNAKE RIVER					UPPER SNAKE RIVER
PALISADES CREEK WINTER RANGE WHA	WHA	UPPER SNAKE RIVER					UPPER SNAKE RIVER
PAYETTE RIVER WMA	WMA	BIRDING ISLANDS					PAYETTE RIVER/BIRDING ISLANDS

Table 7 continued.

IDFG Property Parcel	Type	Potential Wetland Conservation or Restoration Site	Rank	Important Bird Area Name	Bird Area Importance	SCORTP 2012 Top 60 Wetland Conservation and Restoration Sites	SCORTP 2005 Top 25 Wetland Conservation and Restoration Sites
PENAL GULCH ACCESS SITE	ACCESS SITE					Salmon River - Round Valley (downstream of Challis)	
PEND OREILLE WMA	WMA	CLARK FORK DELTA	Class II	Clark Fork Delta	state	Clark Fork River Delta	CLARK FORK DELTA
PEND OREILLE WMA	WMA	DENTON SLOUGH IMPORTANT BIRD AREA		Denton Slough	state		
PEND OREILLE WMA	WMA	FISHERMAN ISLAND		Fisherman Island/Oden Bay	state		
PEND OREILLE WMA	WMA	MORTON SLOUGH		Morton Slough	state		
PEND OREILLE WMA	WMA	PACK RIVER		Pack River Delta	state		
PEND OREILLE WMA	WMA	WESTMOND LAKE		Westmond Lake	state		
PEND OREILLE WMA	WMA					Pend Oreille River	CLARK FORK DELTA
PEND OREILLE WMA	WMA	HAUSER LAKE FEN				Hauser Lake	
PINGREE ACCESS SITE	ACCESS SITE	AMERICAN FALLS RESERVOIR	Class II	American Falls Reservoir	global		AMERICAN FALLS RESERVOIR
PIT TAG RIGHT OF WAY	OTHER	UPPER SNAKE RIVER		Snake River ACEC	state		UPPER SNAKE RIVER
POISON CREEK ACCESS SITE	ACCESS SITE						BLACKFOOT/WILSON FLAT
POLE CREEK DITCH	OTHER	POLE CREEK MEADOWS					
PREACHER BRIDGE ACCESS SITE	ACCESS SITE	LOWER LITTLE WOOD RIVER					
PUGMIRE PARK	OTHER					Snake River (Twin Falls to Niagara Springs)	
RAGAN CONSERVATION EASEMENT MANAGER	CONSERVATION EASEMENT			Deer Flat NWR	state		
RAINEY BRIDGE ACCESS SITE	ACCESS SITE	TETON BASIN		Teton Basin	state	Teton Basin	TETON BASIN
RED RIVER WMA	WMA	MIDDLE RED RIVER - RED RIVER WMA					
RED ROCK ACCESS SITE	ACCESS SITE	SALMON RIVER BOTTOMS					SALMON RIVER BOTTOMS
ROSE LAKE - SPORTSMAN PARK ACCESS SITE	ACCESS SITE	ROSE LAKE	Class II				
ROSE LAKE WHA	WHA	ROSE LAKE	Class II				
ROSWELL MARSH WHA	WHA	ROSWELL MARSH					
ROTHWELL ACCESS SITE	ACCESS SITE	BIG LOST RIVER					BIG LOST RIVER
SAND CREEK WMA	WMA	HOORAY RANCH					
SANDS SIKES ACT	WHAS	MARKET LAKE	Class II	Market Lake WMA	state		
SANDS SIKES ACT	WHAS	UPPER SNAKE RIVER		Snake River ACEC	state		UPPER SNAKE RIVER
SCOTT ACCESS SITE	ACCESS SITE					Snake River (Twin Falls to Niagara Springs)	
SIKES ACT WHAS	WHAS	LAKE WALCOTT		Minidoka NWR	global		LAKE WALCOTT
SIKES ACT WHAS	WHAS	MARKET LAKE	Class II	Market Lake WMA	state		
SIKES ACT WHAS	WHAS	SNAKE RIVER BELOW HEISE GAUGE		Snake River ACEC	state		
SIKES ACT WHAS	WHAS	UPPER SNAKE RIVER		Snake River ACEC	state		
SIKES ACT WHAS	WHAS					Snake River (Twin Falls to Niagara Springs)	UPPER SNAKE RIVER
SILVER CREEK EAST ACCESS SITE	ACCESS SITE	SILVER CREEK	Class II				SILVER CREEK
SILVER CREEK WEST ACCESS SITE	ACCESS SITE	SILVER CREEK	Class II				SILVER CREEK
SNAKE RIVER CONSERVATION EASEMENT MANAGER	CONSERVATION EASEMENT			Deer Flat NWR	state		
SNOW PEAK WMA	WMA	CLEARWATER BUCK CREEK					

Table 7 continued.

IDFG Property Parcel	Type	Potential Wetland Conservation or Restoration Site	Rank	Important Bird Area Name	Bird Area Importance	SCORTP 2012 Top 60 Wetland Conservation and Restoration Sites	SCORTP 2005 Top 25 Wetland Conservation and Restoration Sites
SOUTH FORK CLEARWATER RIVER WHA	WHA	SOUTH FORK CLEARWATER RIVER - MILE 18 TO FARRENS CREEK					
SPORTSMAN PARK ACCESS SITE	ACCESS SITE	AMERICAN FALLS RESERVOIR	Class II	American Falls Reservoir	global		AMERICAN FALLS RESERVOIR
SPRINGFIELD HATCHERY & FISHING ACCESS SITE	ACCESS SITE						AMERICAN FALLS RESERVOIR
ST ANTHONY ACCESS SITE	ACCESS SITE						UPPER SNAKE RIVER
ST CHARLES CREEK FISH TRAP	OTHER					Bear Lake	
ST MARIES WMA	WMA					Saint Maries River Valley	
STENNETT ACCESS SITE	ACCESS SITE	BIG LOST RIVER					BIG LOST RIVER
STERLING WMA	WMA	AMERICAN FALLS RESERVOIR	Class II	American Falls Reservoir	global	American Falls Reservoir (Snake River to Sterling)	AMERICAN FALLS RESERVOIR
TED TRUEBLOOD WHA	WHA			CJ Strike WMA/Reservoir	global		
TETON CREEK ACCESS SITE	ACCESS SITE	TETON BASIN		Teton Basin	state	Teton Basin	TETON BASIN
TEX CREEK WMA	WMA			Tex Creek WMA	state		
TRAIL CREEK POND ACCESS SITE	ACCESS SITE			Teton Basin	state		
WARM SLOUGH ACCESS SITE	ACCESS SITE	UPPER SNAKE RIVER		Snake River ACEC	state	Henry's Fork (Teton River to Snake River)	UPPER SNAKE RIVER
WINTERFELD CONSERVATION EASEMENT	CONSERVATION EASEMENT	UPPER SNAKE RIVER					UPPER SNAKE RIVER
WOOD RIVER DEER MIGRATION CORRIDOR	OTHER	MAHONEY FLAT		Magic Reservoir	state		



Important habitats for breeding and migratory waterbirds at State Important Bird Areas: hardstem bulrush tall emergent marsh, Hagerman WMA (left); common spikerush seasonally and shallowly flooded short emergent marsh, Mud Lake WMA (right) (photos by Chris Murphy).



## Extent of Wetland and Riparian Habitats Managed by IDFG

IDFG properties are not evenly distributed across the state, often being clustered in watersheds containing relatively heavily populated areas (Figures 11 - 16). In some regions, however, their distribution coincides with relatively large blocks of wetlands (Figures 11 - 14). To estimate the extent of wetlands in Idaho a simple model of their potential occurrence was built by compiling existing wetland-related land cover maps (e.g., Jin et al. 2013, NatureServe 2005, NW ReGAP 2010, USFWS 2014, and others; see Murphy et al. 2012a for methods). This method resulted in approximately 60,000 acres of potential wetland and riparian habitat on IDFG properties, of which 53,400 acres occur on WMAs, WHAs, and WMUs. This method likely overestimates the extent of wetlands, but after close inspection, is more accurate than any single land cover map (each of which tended to under map wetland and riparian habitat; see wetland types section below).

In northern Idaho, IDFG properties encompass numerous marsh wetland and forested riparian wetlands along the Pend Oreille River, around Pend Oreille Lake (e.g., Clark Fork River Delta), and in the Kootenai and Coeur d'Alene River valleys (Figures 11 and 15). In central Idaho, several IDFG properties encompass extensive forested and scrub-shrub riparian habitats extending from foothill canyons up montane slopes (e.g., Snow Peak and Craig Mountain WMAs; Figures 12 and 15; Table 7). Cecil Andrus, Boise River WMAs, and the Rocking M Conservation Easement are similarly representative of foothill / canyon to montane riparian habitat in southwest Idaho (Figures 13 and 16; Table 7). Tex Creek and smaller WMAs (Georgetown Summit, Montpelier, and Portneuf) (Figures 14 and 16; Table 7) include a range of foothill to montane riparian habitats in southeast Idaho. Blackfoot River WMA and Chilly Slough WHA are excellent examples of large wet meadow complexes (over 700 ac each; Table 7) in cold, high elevation intermountain basins of eastern Idaho (Figures 14 and 16). With the exception of Red River WMA and Chamberlain Basin Backcountry Ranches, extensive montane wet meadows of central Idaho are not represented well in IDFG's land portfolio. In contrast, emergent wetlands (primarily marshes and alkaline meadows) on the Snake River Plain and forested and scrub-shrub riparian habitats along major rivers (e.g., Boise, Payette, Snake, Henrys Fork) are well captured by a variety of IDFG properties in southwest, south-central, and eastern Idaho (Figure 13 and 16).

Larger WMAs, WHAs, and WMUs are part of regional wetland complex networks and are key links in migratory bird flyways. For example, IDFG properties contain relatively large wetlands in 3 of 4 focal wetland landscapes for bird conservation (Idaho Panhandle, Snake River Plain, and Greater Yellowstone) identified by the Intermountain West Joint Venture (Donnelly and Vest 2012). In northern Idaho, Coeur d'Alene River, Pend Oreille, McArthur Lake, and Boundary Creek WMAs combined include over 13,100 acres of potential wetland and riparian habitats (Table 7) and include wetland types critical for waterfowl during all seasons. Similarly, Mud Lake, Sand Creek, Market Lake, Sterling, and Cartier Slough WMAs, Deer Parks WMU, and Gem State WHA combined manage over 14,575 acres of potential wetland and riparian habitats (Table 7) in the upper Snake River Plain. This includes nesting and foraging habitat for about 25% of the known breeding population of white-faced ibis in the western United States (Moulton et al. 2013). In southwest Idaho, Fort Boise, Payette River, and Montour WMAs and Roswell Marsh WHA encompass over 2,700 acres of potential wetland and riparian habitats (Table 7) that represent the largest wetland complexes in this heavily urbanized and agriculture-dominated landscape. C. J. Strike, Hagerman, Niagara Springs, and Billingsley Creek WMAs and Ted Trueblood WHA provide nearly 4,400 acres of potential wetland and riparian habitat (Table 7) along the Snake River that is especially important for wintering waterfowl.

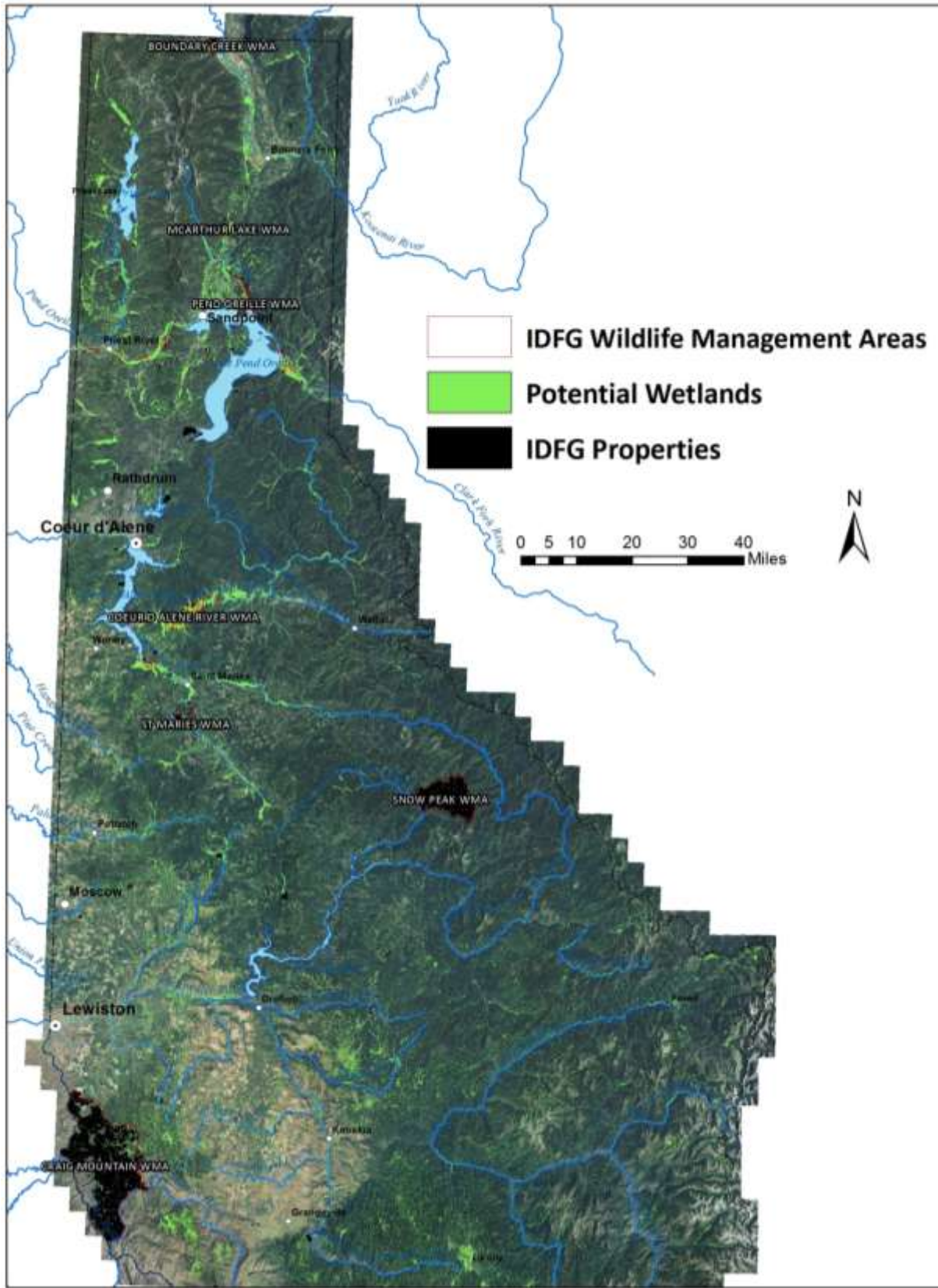


Figure 11.

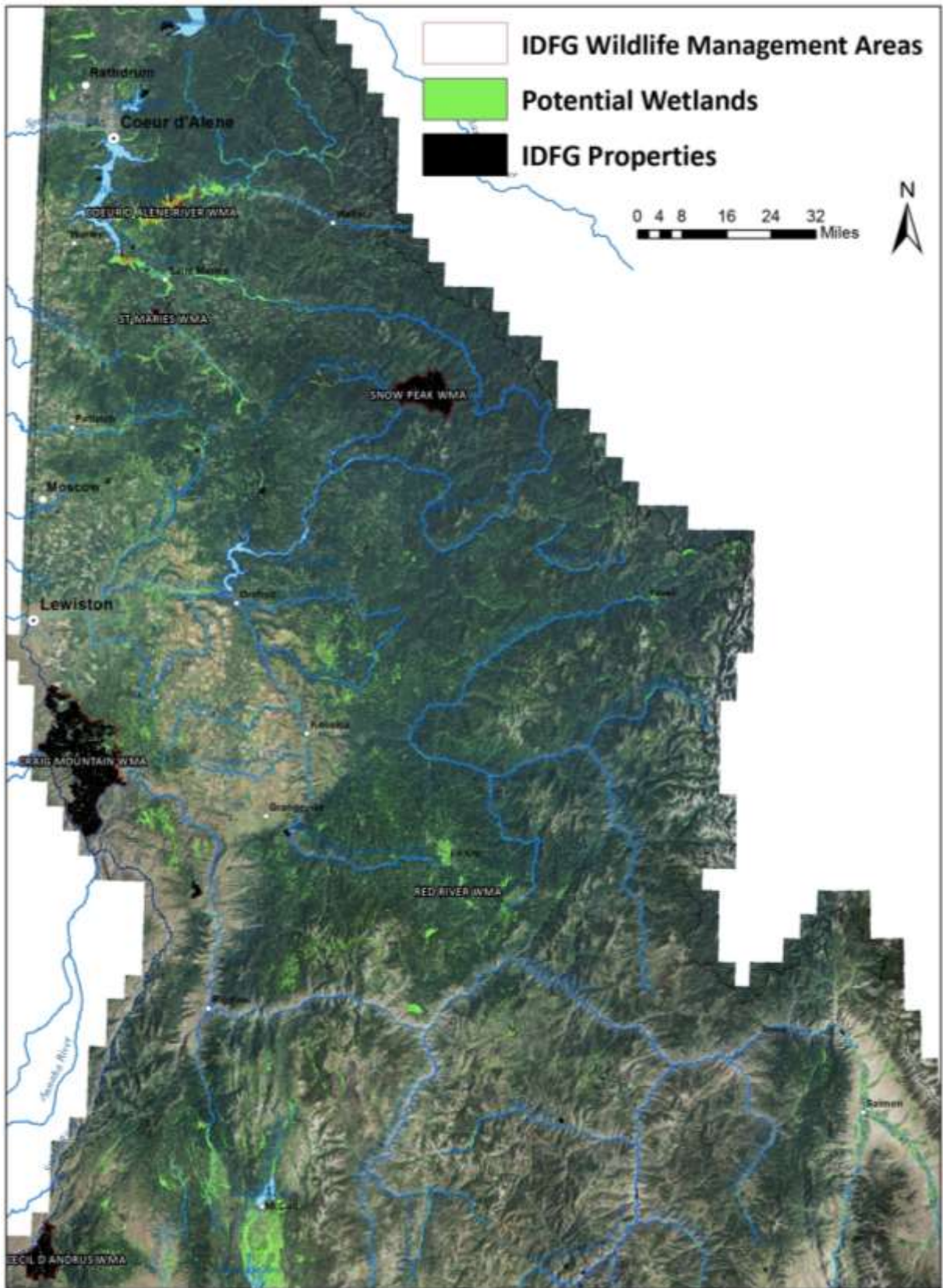


Figure 12.



Figure 13.

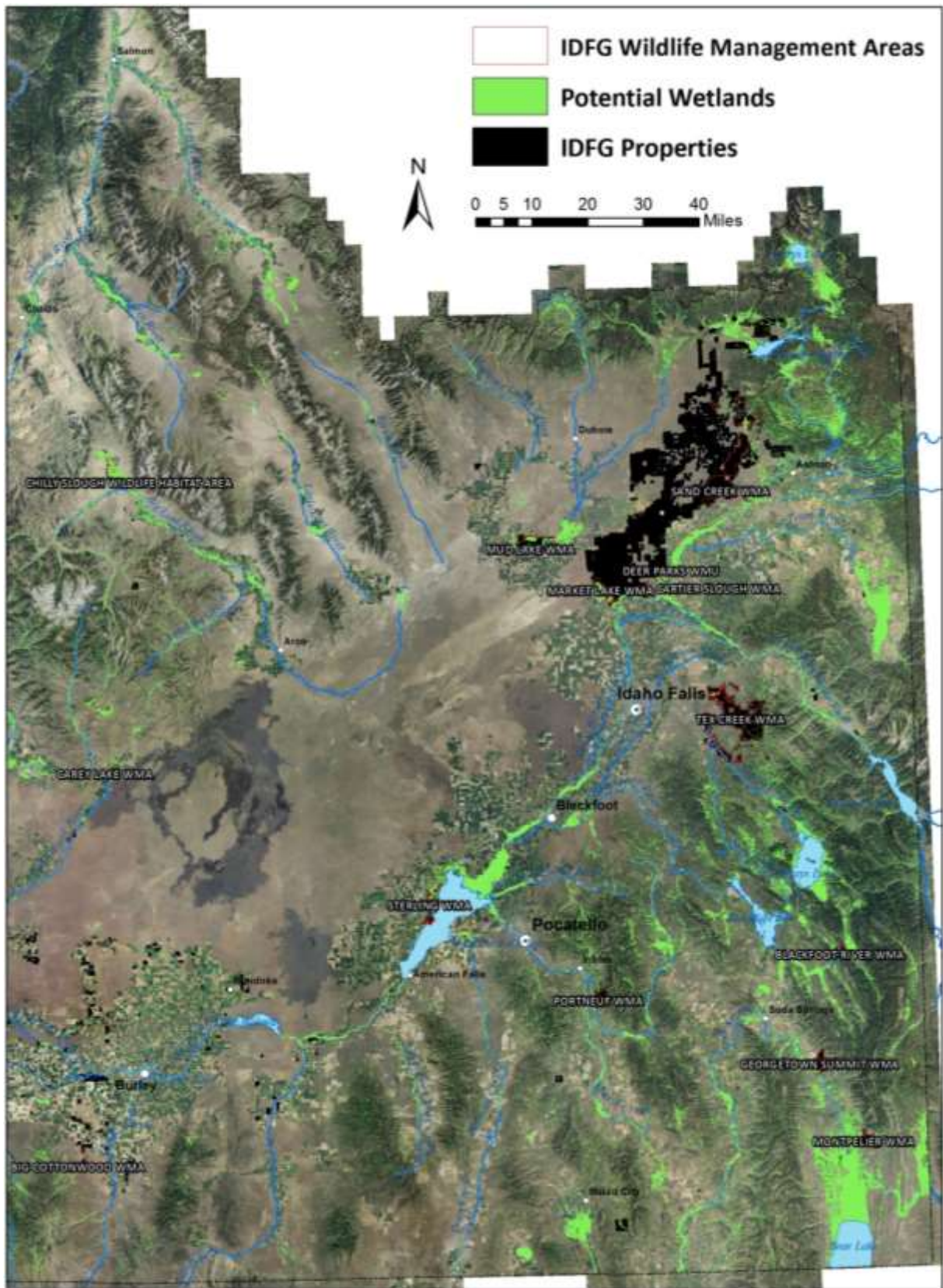


Figure 14.

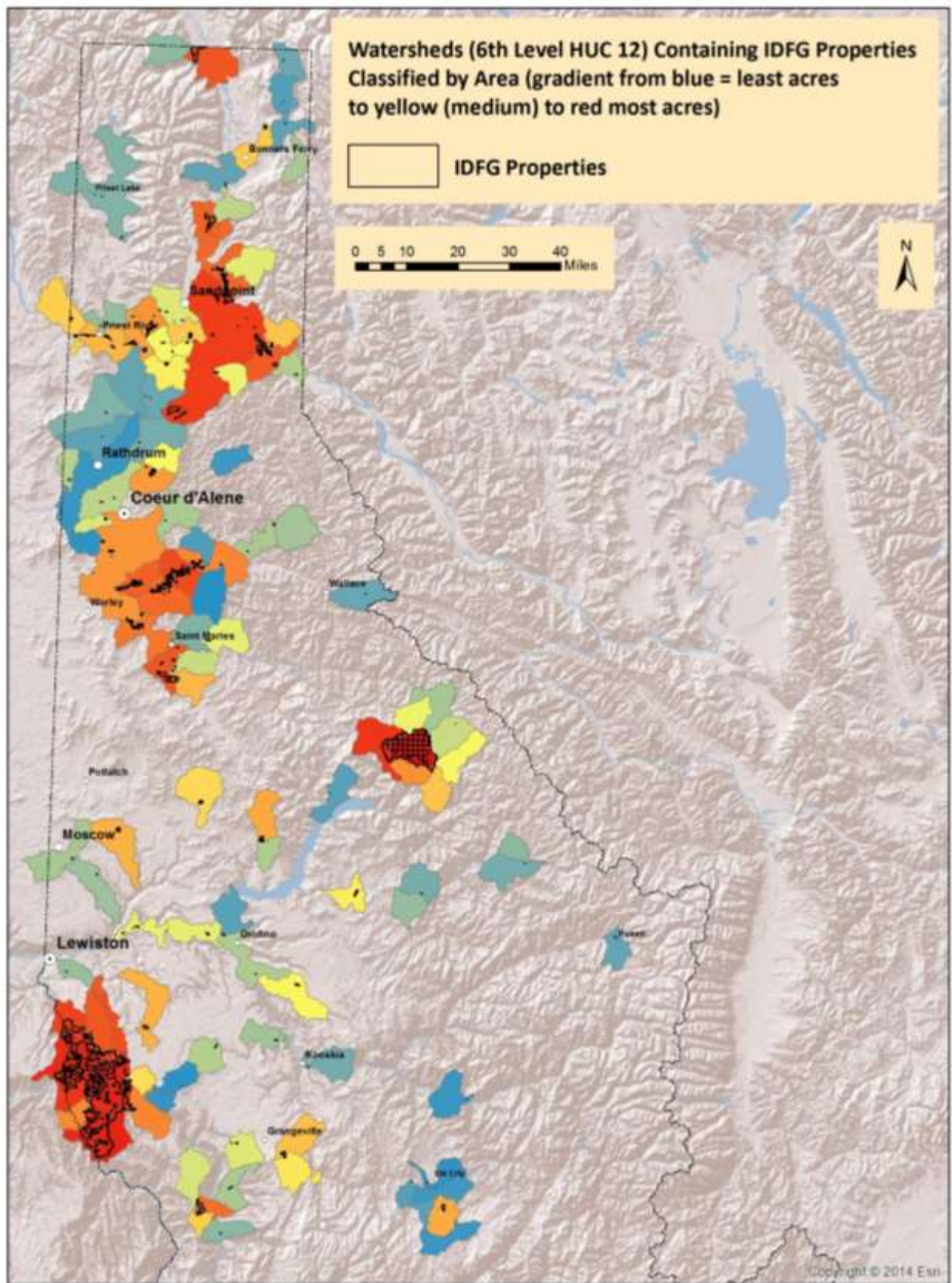


Figure 15.

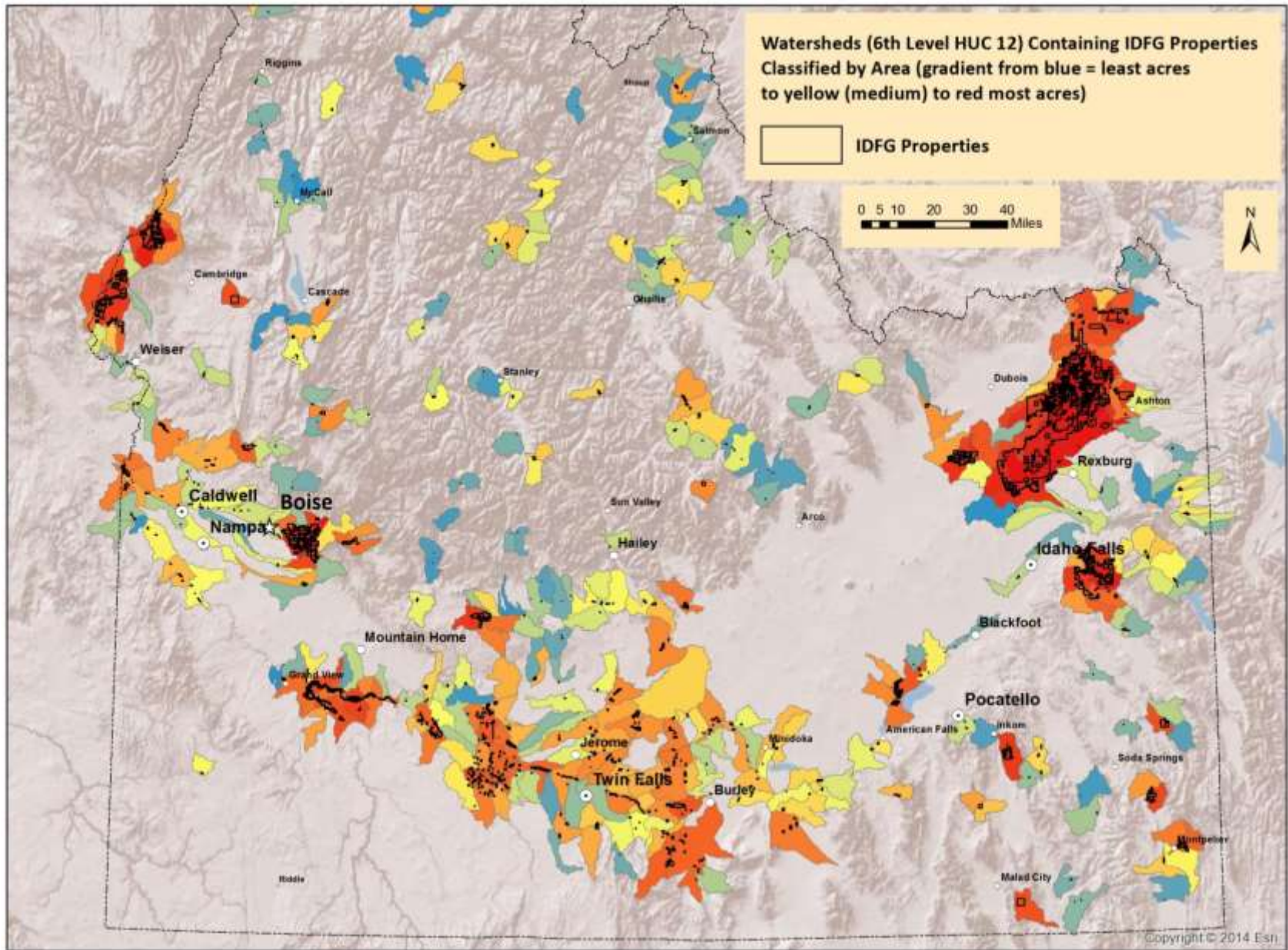


Figure 16.

**Table 8. Acres of potential wetland and riparian habitat by IDFG parcel.**

Parcel Name	Land Type	Acres	Potential Acres of Wetland and Riparian Habitat	% Wetland and Riparian Habitat
COEUR D ALENE RIVER WMA	WMA	7179.7	5912.7	82.4
PEND OREILLE WMA	WMA	6932.0	5701.4	82.2
MUD LAKE WMA	WMA	11495.8	5315.1	46.2
CAMAS PRAIRIE C M WMA	WMA	6187.8	3388.7	54.8
CJ STRIKE WMA	WMA	11304.3	3269.7	28.9
CRAIG MOUNTAIN WMA	WMA	83658.3	3104.5	3.7
SAND CREEK WMA	WMA	32095.7	3065.5	9.6
MARKET LAKE WMA	WMA	5020.2	2547.6	50.7
SANDS SIKES ACT (BLM)	WHAS	184877.2	2446.8	1.3
TEX CREEK WMA	WMA	34049.3	2053.6	6.0
STERLING WMA	WMA	3816.4	1477.2	38.7
FORT BOISE WMA	WMA	1634.6	1329.7	81.3
SIKES ACT WHAS (BLM)	WHAS	35561.4	1240.8	3.5
DEER PARKS WMU	WMU	3221.4	1159.4	36.0
MCARTHUR LAKE WMA	WMA	1617.7	1149.8	71.1
CARTIER SLOUGH WMA	WMA	1025.7	956.3	93.2
CECIL D ANDRUS WMA	WMA	23450.9	907.8	3.9
BOISE RIVER WMA	WMA	34455.4	901.6	2.6
CHILLY SLOUGH WHA	WHA	906.7	810.6	89.4
BLACKFOOT RIVER WMA	WMA	2357.2	738.1	31.3
C BEN ROSS RESERVOIR ACCESS SITE	ACCESS SITE	2570.3	679.4	26.4
PAYETTE RIVER WMA	WMA	894.5	587.6	65.7
PORTNEUF WMA	WMA	3946.7	577.3	14.6
SNOW PEAK WMA	WMA	32545.6	566.0	1.7
HAGERMAN WMA	WMA	1019.9	556.7	54.6
CAREY LAKE WMA	WMA	777.1	496.4	63.9
WESTON RESERVOIR ACCESS SITE	ACCESS SITE	2570.5	427.5	16.6
MONTOUR WMA	WMA	1555.5	411.7	26.5
ROSWELL MARSH WHA	WHA	706.8	382.3	54.1
BOUNDARY CREEK WMA	WMA	2048.7	369.2	18.0
CHAMBERLAIN BASIN BACKCOUNTRY RANCHES	OTHER	407.4	276.7	67.9
RED RIVER WMA	WMA	320.3	265.3	82.8
ROSE LAKE WHA	WHA	225.3	225.3	100.0
NIAGARA SPRINGS WMA	WMA	1153.1	218.4	18.9
HORSETHIEF RESERVOIR ACCESS SITE	ACCESS SITE	451.9	214.2	47.4
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	16351.4	186.1	1.1
BILLINGSLEY CREEK WMA	WMA	276.2	184.8	66.9
TED TRUEBLOOD WHA	WHA	343.6	163.9	47.7
RAINEY BRIDGE ACCESS SITE	ACCESS SITE	279.3	162.1	58.0
GEORGETOWN SUMMIT WMA	WMA	3546.2	158.6	4.5
MONTPELIER WMA	WMA	2202.9	148.6	6.7
INDIAN CREEK RESERVOIR ACCESS SITE	ACCESS SITE	385.9	143.4	37.2
WARM SLOUGH ACCESS SITE	ACCESS SITE	143.0	143.0	100.0
REDBIRD CANYON	OTHER	2842.9	142.1	5.0
WINCHESTER LAKE ACCESS SITE	ACCESS SITE	291.8	138.1	47.3
PAHSIMEROI RIVER ACCESS SITE	ACCESS SITE	199.3	133.4	67.0
FOX CREEK EAST ACCESS SITE	ACCESS SITE	136.6	133.0	97.4
SCOTT ACCESS SITE	ACCESS SITE	198.6	125.9	63.4
DINGLE SWAMP WHA	WHA	199.7	121.9	61.0
BRUNEAU SAND DUNES LAKES	OTHER	116.3	110.8	95.2
ST MARIES WMA	WMA	2343.0	104.1	4.4
BEAR TRACKS WILLIAMS ACCESS SITE	ACCESS SITE	488.2	102.3	21.0
CLARK FORK HATCHERY	HATCHERY	159.7	99.9	62.5



**Table 8 continued.**

Parcel Name	Land Type	Acres	Potential Acres of Wetland and Riparian Habitat	% Wetland and Riparian Habitat
MCTUCKER POND ACCESS SITE	ACCESS SITE	100.7	94.5	93.8
TWELVEMILE SUBDIVISION	DEPREDAATION	234.2	89.0	38.0
EAST FORK ROCK CREEK ACCESS SITE	ACCESS SITE	251.1	87.0	34.6
JENKINS CONSERVATION EASEMENT	CONSERVATION EASEMENT	328.5	85.6	26.1
BIG COTTONWOOD WMA	WMA	1451.4	85.4	5.9
HAYSPUR HATCHERY	HATCHERY	116.3	85.2	73.2
PETERSON ISLAND ACCESS SITE	ACCESS SITE	81.6	81.4	99.7
HAWKINS RESERVOIR ACCESS SITE	ACCESS SITE	638.1	78.5	12.3
AMERICAN FALLS HATCHERY	HATCHERY	108.3	71.8	66.3
SILVER CREEK EAST ACCESS SITE	ACCESS SITE	170.1	71.6	42.1
DEYO POND ACCESS SITE	ACCESS SITE	98.1	70.1	71.4
SPRINGFIELD HATCHERY & FISHING ACCESS SITE	ACCESS SITE	75.8	67.2	88.6
WOOD RIVER DEER MIGRATION CORRIDOR	OTHER	191.5	64.7	33.8
HERRICK RESERVOIR ACCESS SITE	ACCESS SITE	330.7	61.8	18.7
SPRING VALLEY RESERVOIR ACCESS SITE	ACCESS SITE	291.6	60.7	20.8
JEWELL LAKE ACCESS SITE	ACCESS SITE	202.8	59.8	29.5
GEM STATE WHA	WHA	54.7	54.7	100.0
SHEPHERD LAKE ACCESS SITE	ACCESS SITE	210.2	54.5	25.9
MORGAN CREEK RANCH	DEPREDAATION	151.9	51.6	34.0
SAWTOOTH HATCHERY	HATCHERY	71.8	50.0	69.7
COPPER BASIN PATROL CABIN	OTHER	636.5	48.9	7.7
DICKEY CONSERVATION EASEMENT (SMITHS FERRY WHA)	CONSERVATION EASEMENT	70.1	46.9	67.0
PORTNEUF (UPPER) ACCESS SITE	ACCESS SITE	70.5	45.6	64.7
BURGDORF MEADOWS CONSERVATION EASEMENT	CONSERVATION EASEMENT	84.7	44.9	53.0
PORTNEUF (LOWER) ACCESS SITE	ACCESS SITE	53.2	43.4	81.6
FOX CREEK WEST ACCESS SITE	ACCESS SITE	41.4	41.4	100.0
MCGILL SPUR ACCESS SITE	ACCESS SITE	64.5	41.4	64.1
FAWN CREEK RANCH CONS EAS MANAGER	CONSERVATION EASEMENT	41.8	41.1	98.4
DEER CREEK RESERVOIR ACCESS SITE	ACCESS SITE	119.7	40.5	33.8
GRANITE CREEK	OTHER	60.3	39.8	66.1
NOBLE ISLAND ACCESS SITE	ACCESS SITE	73.4	39.8	54.2
DIXIE ACCESS SITE	ACCESS SITE	39.6	39.6	100.0
SILVER CREEK WEST ACCESS SITE	ACCESS SITE	84.1	38.9	46.3
BULL RUN LAKE ACCESS SITE	ACCESS SITE	54.9	37.6	68.4
POLE CREEK DITCH	OTHER	318.5	37.6	11.8
JIM MOORE ACCESS SITE	ACCESS SITE	51.6	36.3	70.3
KAUFMAN ACCESS SITE	ACCESS SITE	173.5	36.0	20.8
TOLO LAKE ACCESS SITE	ACCESS SITE	39.8	33.4	83.8
CRYSTAL LAKE ACCESS SITE	ACCESS SITE	39.1	33.1	84.7
FIR ISLAND WHA	WHA	57.2	32.9	57.6
LEMHI RIVER WEIR	OTHER	37.6	32.0	85.2
PREACHER BRIDGE ACCESS SITE	ACCESS SITE	124.5	30.9	24.8
GRAYS CREEK OUTLET ACCESS SITE	ACCESS SITE	46.5	29.4	63.2
CROWN PACIFIC CONSERVATION EASEMENT - 2	CONSERVATION EASEMENT	239.7	28.5	11.9
WINTERFELD CONSERVATION EASEMENT	CONSERVATION EASEMENT	435.0	27.8	6.4
DEER GULCH ACCESS SITE	ACCESS SITE	48.7	27.6	56.6
PONDEROSA POND ACCESS SITE	ACCESS SITE	54.3	27.1	50.0
WILSON SPRINGS ACCESS SITE/R3 OFFICE	ACCESS SITE	41.4	25.6	61.8
ELK CREEK RESERVOIR ACCESS SITE	ACCESS SITE	361.2	25.4	7.0
IDL LEASE M6020	OTHER	41.6	25.1	60.4
HENLEY BASIN WHA	WHA	2795.1	21.8	0.8
CLOVER CREEK WHA	WHA	72.7	20.9	28.7
PADDOCK VALLEY RESERVOIR ACCESS SITE	ACCESS SITE	78.3	20.9	26.7

**Table 8 continued.**

Parcel Name	Land Type	Acres	Potential Acres of Wetland and Riparian Habitat	% Wetland and Riparian Habitat
SUNNYSIDE PARK ACCESS SITE	ACCESS SITE	83.4	20.9	25.1
MOOSE CREEK RESERVOIR ACCESS SITE	ACCESS SITE	165.7	20.7	12.5
FISH LAKE ACCESS SITE	ACCESS SITE	28.7	20.5	71.3
JOSEPH PLAINS	OTHER	1299.5	19.6	1.5
MIKES PLACE ACCESS SITE	ACCESS SITE	47.4	18.2	38.5
CLARKS ISLAND ACCESS SITE	ACCESS SITE	23.4	18.0	77.1
GRACE HATCHERY	HATCHERY	21.8	17.3	79.6
SAND HOLLOW WHA	WHA	85.6	17.3	20.3
AIRPORT ACCESS SITE	ACCESS SITE	38.0	17.1	45.0
MARBLE CREEK RANCH	OTHER	159.2	16.9	10.6
THREE ISLAND CROSSING WHA	WHA	23.6	16.7	70.8
STEAMBOAT PONDS ACCESS SITE	ACCESS SITE	22.5	15.8	70.3
MYHRE	DEPREDATION	156.3	15.8	10.1
FARRAGUT WMA	WMA	1408.5	15.8	1.1
JAMES CONSERVATION EASEMENT	CONSERVATION EASEMENT	17.6	15.6	88.6
HORSESHOE BEND MILL POND ACCESS SITE	ACCESS SITE	34.0	15.6	45.8
CALDWELL PONDS ACCESS SITE	ACCESS SITE	41.4	15.6	37.6
TETON CREEK ACCESS SITE	ACCESS SITE	14.9	14.9	100.0
GEM STATE ACCESS SITE	ACCESS SITE	37.1	14.7	39.5
DAVENPORT ISLAND ACCESS SITE	ACCESS SITE	14.5	14.5	100.0
AUGER FALLS ACCESS SITE	ACCESS SITE	36.7	14.5	39.4
MINIDOKA POND ACCESS SITE	ACCESS SITE	29.8	14.2	47.8
JIMMY SMITH LAKE ACCESS SITE	ACCESS SITE	191.5	13.8	7.2
MORMON RESERVOIR ACCESS SITE	ACCESS SITE	37.6	13.3	35.5
WALCOTT ISLAND WHA	WHA	15.1	12.9	85.3
LANSING LANE ACCESS SITE	ACCESS SITE	12.9	12.5	96.6
BORES ISLAND WHA	WHA	12.2	12.2	100.0
TOLO LAKE CONSERVATION EASEMENT MANAGER	CONSERVATION EASEMENT	16.2	12.2	75.3
CARMEN BRIDGE ACCESS SITE	ACCESS SITE	12.2	12.0	98.2
PENAL GULCH ACCESS SITE	ACCESS SITE	12.2	12.0	98.2
MURTAUGH LAKE ACCESS SITE	ACCESS SITE	20.9	11.8	56.4
BIG LOST RIVER (UPPER) ACCESS SITE	ACCESS SITE	11.8	11.6	98.1
SANDPOINT HATCHERY	HATCHERY	13.8	11.6	83.9
MOODY CREEK ACCESS SITE	ACCESS SITE	14.5	11.6	80.0
CRANE CREEK ACCESS SITE	ACCESS SITE	28.0	11.6	41.3
CHILLY CANAL DIVERSION FISH LADDER	OTHER	43.6	11.6	26.5
BERNARDS LANDING ACCESS SITE	ACCESS SITE	43.6	11.3	26.0
EMMETT AIRPORT POND ACCESS SITE	ACCESS SITE	15.8	11.1	70.4
MCARTHUR LAKE WMA FLOWAGE EASEMENT	WMA	39.8	11.1	27.9
CEDAR DRAW ACCESS SITE	ACCESS SITE	12.5	10.9	87.5
NAMPA HATCHERY	HATCHERY	11.3	10.7	94.1
WHITE BIRD CREEK CONSERVATION EASEMENT MANAGER	CONSERVATION EASEMENT	20.9	10.5	50.0
SMITHS FERRY WHA	WHA	10.7	10.2	95.8
BOISE RIVER CONS EASEMENT - WARM SPRINGS	CONSERVATION EASEMENT	29.4	10.2	34.8
BEAR VALLEY PATROL CABIN	OTHER	41.1	9.8	23.8
HAYDEN CREEK REARING PONDS	HATCHERY	10.0	9.6	95.6
STANTON CROSSING ACCESS SITE	ACCESS SITE	17.3	9.6	55.1
IDL CONSERVATION EASEMENT	CONSERVATION EASEMENT	10.7	9.3	87.5
EDSON FICHTER NATURE AREA	OTHER	32.9	9.1	27.7
NIAGARA SPRINGS ACCESS SITE	ACCESS SITE	28.7	8.7	30.2
CLAYTONIA POND ACCESS SITE	ACCESS SITE	35.4	8.5	23.9
SAWYER PONDS ACCESS SITE	ACCESS SITE	78.1	8.5	10.8
MORMON CREEK RANCH/POLE CREEK RANCH	OTHER	225.1	8.5	3.8

**Table 8 continued.**

Parcel Name	Land Type	Acres	Potential Acres of Wetland and Riparian Habitat	% Wetland and Riparian Habitat
LITTLE LOST RIVER ACCESS SITE	ACCESS SITE	8.5	8.2	97.4
SAM NOBLE SPRINGS	OTHER	97.2	8.2	8.5
PENROD	OTHER	134.6	8.2	6.1
MIDDLE FORK PAYETTE RIVER WHA	WHA	9.8	8.0	81.8
NEWDIGER CONSERVATION EASEMENT	CONSERVATION EASEMENT	11.1	7.8	70.0
COCOLALLA LAKE ACCESS SITE	ACCESS SITE	11.3	7.8	68.6
COTTONWOOD ACCESS SITE	ACCESS SITE	15.8	7.8	49.3
ASHTON HATCHERY	HATCHERY	18.5	7.8	42.2
WOLF LODGE HOLDING PONDS	OTHER	21.1	7.6	35.8
LAWYERS CANYON CONSERVATION EASEMENT MANAGER	CONSERVATION EASEMENT	28.9	7.6	26.2
ROSE LAKE - SPORTSMAN PARK ACCESS SITE	ACCESS SITE	31.1	7.6	24.3
SOUTH FORK CLEARWATER RIVER WHA	WHA	373.2	7.6	2.0
TEDESCO	DEPREDAATION	20.5	7.3	35.9
LOON CREEK RANCH	OTHER	110.8	7.3	6.6
LEMHI RIVER SALMON TRAP	OTHER	10.9	7.1	65.3
BIG LOST RIVER (LOWER) ACCESS SITE	ACCESS SITE	44.3	7.1	16.1
SPORTSMAN PARK ACCESS SITE	ACCESS SITE	46.7	7.1	15.2
BRECKENRIDGE	DEPREDAATION	13.8	6.9	50.0
MARY MINE/PLACER MINE ACCESS SITE	ACCESS SITE	18.5	6.9	37.3
DUFF POND ACCESS SITE	ACCESS SITE	9.1	6.7	73.2
ASPENDALE WHA	WHA	11.3	6.7	58.8
SULLIVAN SPRINGS	OTHER	12.2	6.7	54.5
NIAGARA SPRINGS HATCHERY	HATCHERY	19.3	6.4	33.3
WEISER BASS POND ACCESS SITE	ACCESS SITE	11.8	6.2	52.8
TRAPPER FLAT ACCESS SITE	ACCESS SITE	47.6	6.2	13.1
VANDERBILT CONSERVATION EASEMENT	CONSERVATION EASEMENT	314.2	6.2	2.0
ELLIS ACCESS SITE	ACCESS SITE	17.8	6.0	33.8
PUGMIRE PARK	OTHER	104.3	6.0	5.8
G & B REDI-MIX CONSERVATION EASEMENT	CONSERVATION EASEMENT	5.8	5.8	100.0
FOURTH OF JULY CREEK ACCESS SITE	ACCESS SITE	11.1	5.8	52.0
MCFARLAND ACCESS SITE	ACCESS SITE	19.3	5.8	29.9
PALISADES CREEK ACCESS SITE	ACCESS SITE	19.3	5.6	28.7
MACKAY HATCHERY	HATCHERY	37.6	5.6	14.8
GARFIELD BAY ACCESS SITE	ACCESS SITE	64.3	5.6	8.7
SCOUT POND ACCESS SITE	ACCESS SITE	6.0	5.3	88.9
WILSON SPRINGS ACCESS SITE	ACCESS SITE	13.6	5.3	39.3
EAGLE HATCHERY	HATCHERY	34.5	5.3	15.5
CROWN PACIFIC CONSERVATION EASEMENT - 1	CONSERVATION EASEMENT	18.5	5.1	27.7
RAGAN CONSERVATION EASEMENT MANAGER	CONSERVATION EASEMENT	28.2	5.1	18.1
KING HILL ACCESS SITE	ACCESS SITE	51.6	5.1	9.9
COLSTON CREEK ACCESS SITE	ACCESS SITE	4.7	4.7	100.0
BELL RAPIDS ACCESS SITE	ACCESS SITE	6.2	4.7	75.0
FALL RIVER ACCESS SITE	ACCESS SITE	10.5	4.7	44.7
MYRTLE ACCESS SITE	ACCESS SITE	12.0	4.7	38.9
BOISE RIVER PACK INC CONS EASEMENT	CONSERVATION EASEMENT	4.4	4.4	100.0
ROBINSON POND ACCESS SITE	ACCESS SITE	13.1	4.4	33.9
LQ DRAIN WHA	WHA	33.1	4.4	13.4
HAYDEN CREEK ACCESS SITE	ACCESS SITE	5.3	4.2	79.2
BLACKS BRIDGE ACCESS SITE	ACCESS SITE	5.6	4.2	76.0
STAR LANE POND ACCESS SITE	ACCESS SITE	14.5	4.2	29.2
BLACKFOOT RIVER PARK ACCESS SITE	ACCESS SITE	4.0	4.0	100.0
LEMHI POWER SITE ACCESS SITE	ACCESS SITE	4.0	4.0	100.0
TRAIL CREEK POND ACCESS SITE	ACCESS SITE	6.2	3.8	60.7

**Table 8 continued.**

Parcel Name	Land Type	Acres	Potential Acres of Wetland and Riparian Habitat	% Wetland and Riparian Habitat
SNAKE RIVER CONSERVATION EASEMENT MANAGER	CONSERVATION EASEMENT	11.1	3.8	34.0
DILLON CONSERVATION EASEMENT	CONSERVATION EASEMENT	4.2	3.6	84.2
WILLOW CREEK CNSV EASEMENT MNGR	CONSERVATION EASEMENT	10.5	3.6	34.0
HAYDEN LAKE SPORTSMAN'S PARK ACCESS SITE	ACCESS SITE	12.7	3.6	28.1
WAHA LAKE ACCESS SITE	ACCESS SITE	44.3	3.6	8.0
MUNDT	DEPREDATION	52.7	3.6	6.8
SPRINGFIELD LAKE ACCESS SITE	ACCESS SITE	4.9	3.3	68.2
STECK PARK ACCESS SITE	ACCESS SITE	60.3	3.3	5.5
CAMAS PRAIRIE KIDS POND ACCESS SITE	ACCESS SITE	4.0	3.1	77.8
YELLOW BELLY LAKE FISH BARRIER DAM	OTHER	4.4	3.1	70.0
CLARK ISLAND ACCESS SITE	ACCESS SITE	44.7	3.1	7.0
DOG CREEK RESERVOIR EASEMENT	OTHER	54.3	3.1	5.7
CAMAS CREEK ACCESS SITE	ACCESS SITE	4.0	2.9	72.2
LITTLE SMOKEY PATROL CABIN	OTHER	4.9	2.9	59.1
POISON CREEK ACCESS SITE	ACCESS SITE	7.6	2.9	38.2
KELLY CREEK PATROL CABIN	OTHER	10.5	2.9	27.7
BOBCAT GULCH ACCESS SITE	ACCESS SITE	13.6	2.9	21.3
MOONSTONE ACCESS SITE	ACCESS SITE	103.9	2.9	2.8
MOYIE RIVER ACCESS SITE	ACCESS SITE	2.9	2.7	92.3
HENRYS LAKE HATCHERY	HATCHERY	4.0	2.7	66.7
WATTS BRIDGE ACCESS SITE	ACCESS SITE	4.4	2.7	60.0
MAP ROCK ACCESS SITE	ACCESS SITE	166.1	2.7	1.6
CARLSON CONSERVATION EASEMENT	CONSERVATION EASEMENT	2.9	2.4	84.6
MIDLAND ROAD ACCESS SITE	ACCESS SITE	4.4	2.4	55.0
FALK BRIDGE ACCESS SITE	ACCESS SITE	5.8	2.4	42.3
LIME & WADDINGTON CREEK ACCESS SITES	ACCESS SITE	5.8	2.4	42.3
CARRIBOO CONSERVANCY	OTHER	10.9	2.4	22.4
MACKAY DAM ACCESS SITE	ACCESS SITE	20.2	2.4	12.1
BUHLER CONSERVATION EASEMENT	CONSERVATION EASEMENT	3.8	2.2	58.8
PRIEST LAKE INCUBATION CHANNEL	HATCHERY	4.4	2.2	50.0
AHSAHKA ACCESS SITE	ACCESS SITE	18.5	2.2	12.0
LAVA POINT ACCESS SITE	ACCESS SITE	24.7	2.2	9.0
RIFLE RANGE	OTHER	549.1	2.2	0.4
TRIPOD RESERVOIR ACCESS SITE	ACCESS SITE	2.9	2.0	69.2
ROCK CREEK CHECK STATION	OTHER	3.3	2.0	60.0
GARDEN VALLEY CO RESIDENCE	OTHER	4.0	2.0	50.0
CABINET GORGE HATCHERY	HATCHERY	29.4	2.0	6.8
IMMIGRATION ACCESS SITE	ACCESS SITE	2.9	1.8	61.5
CONDIE RESERVOIR ACCESS SITE	ACCESS SITE	3.1	1.8	57.1
LOBDELL CONSERVATION EASEMENT	CONSERVATION EASEMENT	11.8	1.8	15.1
REXBURG DITCH EASEMENT	OTHER	20.2	1.8	8.8
LITTLE CAMAS RESERVOIR ACCESS SITE	ACCESS SITE	70.5	1.8	2.5
REDFISH LAKE CABIN	OTHER	1.6	1.6	100.0
LOWER LEMHI ACCESS SITE	ACCESS SITE	1.8	1.6	87.5
LICK CREEK HAY SHED	OTHER	2.2	1.6	70.0
GLENDALE RESERVOIR ACCESS SITE	ACCESS SITE	2.4	1.6	63.6
LUCKY FRIDAY POND ACCESS SITE	ACCESS SITE	2.4	1.6	63.6
KAMIAH STORAGE	OTHER	2.7	1.6	58.3
REGION 2 OFFICE	OTHER	11.3	1.6	13.7
BUNGALOW REARING PONDS	OTHER	13.6	1.6	11.5
LITTLE SALMON RIVER ACCESS SITE (SLETAGER)	ACCESS SITE	15.6	1.6	10.0
PAHSIMEROI REARING PONDS	HATCHERY	1.3	1.3	100.0
LITTLE PAYETTE LAKE ACCESS SITE	ACCESS SITE	2.7	1.3	50.0

**Table 8 continued.**

Parcel Name	Land Type	Acres	Potential Acres of Wetland and Riparian Habitat	% Wetland and Riparian Habitat
CEDAR DRAW WHA	WHA	3.1	1.3	42.9
BANBURY SPRINGS WHA	WHA	57.4	1.3	2.3
PALISADES CREEK WINTER RANGE WHA	WHA	102.1	1.3	1.3
CAMERON RANCH	OTHER	153.2	1.3	0.9
NORTH FORK ACCESS SITE	ACCESS SITE	1.3	1.1	83.3
PALISADES CREEK WEIR	OTHER	1.3	1.1	83.3
PLAZA ROAD BRIDGE ACCESS SITE	ACCESS SITE	1.8	1.1	62.5
RIVERTON ACCESS SITE	ACCESS SITE	1.8	1.1	62.5
COCOLALLA CREEK FISH WEIR	OTHER	4.4	1.1	25.0
PINGREE ACCESS SITE	ACCESS SITE	10.0	1.1	11.1
MARINAC ACCESS SITE	ACCESS SITE	0.9	0.9	100.0
SOUTH FORK CLEARWATER RIVER FISH TRAPS	OTHER	0.9	0.9	100.0
LENORE ACCESS SITE	ACCESS SITE	1.1	0.9	80.0
SHEEP CREEK	OTHER	2.0	0.9	44.4
CHASE LAKE ACCESS SITE	ACCESS SITE	4.9	0.9	18.2
BORDEWICK ACCESS SITE	ACCESS SITE	5.1	0.9	17.4
MCCALL HATCHERY	HATCHERY	12.0	0.9	7.4
MILE HIGH RANCH	OTHER	162.1	0.9	0.5
FALL CREEK ACCESS SITE	ACCESS SITE	0.7	0.7	100.0
STENNETT ACCESS SITE	ACCESS SITE	0.7	0.7	100.0
ARRINGTON CONSERVATION EASEMENT	CONSERVATION EASEMENT	0.7	0.7	100.0
ST CHARLES CREEK FISH TRAP	OTHER	0.7	0.7	100.0
SALMON RIVER EASEMENT #5861	CONSERVATION EASEMENT	0.9	0.7	75.0
KELSO LAKE ACCESS SITE	ACCESS SITE	1.3	0.7	50.0
MOYER RIVER ACCESS SITE	ACCESS SITE	1.6	0.7	42.9
KOOSKIA CHECK STATION	OTHER	3.3	0.7	20.0
ANTELOPE CREEK ACCESS SITE	ACCESS SITE	4.0	0.7	16.7
NORTH FORK CO RESIDENCE	OTHER	4.0	0.7	16.7
ISLAND PARK ACCESS SITE	ACCESS SITE	4.7	0.7	14.3
STAR LANE WHA	WHA	9.6	0.7	7.0
NAMPA RESEARCH OFFICE	OTHER	12.0	0.7	5.6
ROSE LAKE - WATSON ROAD ACCESS SITE	ACCESS SITE	0.4	0.4	100.0
NORTH FORK CLEARWATER RIVER ACCESS SITE	ACCESS SITE	0.9	0.4	50.0
CHRISTIAN CONSERVATION EASEMENT	CONSERVATION EASEMENT	0.9	0.4	50.0
RAMEY LICENSE	OTHER	1.6	0.4	28.6
STULMAN	DEPREDAATION	3.8	0.4	11.8
STANLEY LAKE FISH BARRIER DAM	OTHER	3.8	0.4	11.8
TWIN BRIDGES ACCESS SITE	ACCESS SITE	6.4	0.4	6.9
ROBERTS ACCESS SITE	ACCESS SITE	8.2	0.4	5.4
LEMHI HOLE ACCESS SITE	ACCESS SITE	12.7	0.4	3.5
PINE FLAT	OTHER	40.7	0.4	1.1
ST ANTHONY ACCESS SITE	ACCESS SITE	0.2	0.2	100.0
VALLEY CREEK ACCESS SITE	ACCESS SITE	0.2	0.2	100.0
COLSON CREEK PATROL CABIN	OTHER	0.2	0.2	100.0
KOKANEE TRAP (S FK BOISE RIVER)	OTHER	0.2	0.2	100.0
LEMHI RIVER FISH SCREENS	OTHER	0.2	0.2	100.0
PALISADES CREEK FISH SCREEN	OTHER	0.2	0.2	100.0
PIT TAG RIGHT OF WAY	OTHER	0.2	0.2	100.0
SELWAY FALLS FISH LADDER	OTHER	0.2	0.2	100.0
BLACK CANYON ACCESS SITE	ACCESS SITE	0.4	0.2	50.0
GRANITE LAKE ACCESS SITE	ACCESS SITE	0.9	0.2	25.0
TWIN LAKES ACCESS SITE	ACCESS SITE	0.9	0.2	25.0
TWANA GULCH ACCESS SITE	ACCESS SITE	1.8	0.2	12.5

**Table 8 continued.**

Parcel Name	Land Type	Acres	Potential Acres of Wetland and Riparian Habitat	% Wetland and Riparian Habitat
DEEP CREEK	OTHER	1.8	0.2	12.5
DAGGER FALLS FISH LADDER	OTHER	2.0	0.2	11.1
GREER ACCESS SITE	ACCESS SITE	2.4	0.2	9.1
KIRBY DAM FISH LADDER	OTHER	2.7	0.2	8.3
HOOD RANCH	OTHER	12.7	0.2	1.8
DOG CREEK ACCESS SITE	ACCESS SITE	160.3	0.0	0.0
SNAKE RIVER VISTA ACCESS SITE	ACCESS SITE	65.4	0.0	0.0
BOULDER HOLE ACCESS SITE	ACCESS SITE	5.1	0.0	0.0
KIDS CREEK PARK ACCESS SITE	ACCESS SITE	4.7	0.0	0.0
SPIRIT LAKE ACCESS SITE	ACCESS SITE	4.4	0.0	0.0
BADGER CREEK ACCESS SITE	ACCESS SITE	3.8	0.0	0.0
FOSTER RESERVOIR ACCESS SITE	ACCESS SITE	3.6	0.0	0.0
RED ROCK ACCESS SITE	ACCESS SITE	2.9	0.0	0.0
CHERRYLANE ACCESS SITE	ACCESS SITE	2.4	0.0	0.0
FERRY BUTTE ACCESS SITE	ACCESS SITE	2.2	0.0	0.0
THORN CREEK RESERVOIR ACCESS SITE	ACCESS SITE	2.2	0.0	0.0
LOFFS BAY ACCESS SITE	ACCESS SITE	2.0	0.0	0.0
PORTERVILLE BRIDGE ACCESS SITE	ACCESS SITE	1.6	0.0	0.0
ROTHWELL ACCESS SITE	ACCESS SITE	1.6	0.0	0.0
WALTERS FERRY ACCESS SITE	ACCESS SITE	1.6	0.0	0.0
THREE ISLAND CROSSING ACCESS SITE	ACCESS SITE	1.3	0.0	0.0
MACKAY RESERVOIR ACCESS SITE	ACCESS SITE	1.3	0.0	0.0
ROCKFORD BAY ACCESS SITE	ACCESS SITE	0.7	0.0	0.0
COEUR D ALENE RIVER - E OF ROSE LAKE ACCESS SITE	ACCESS SITE	0.2	0.0	0.0
HAYDEN POND ACCESS SITE	ACCESS SITE	0.2	0.0	0.0
LEMHI RIVER SOUTH ACCESS SITE	ACCESS SITE	0.2	0.0	0.0
PRINGLE PARK, EAST HOPE ACCESS SITE	ACCESS SITE	0.2	0.0	0.0
TRAIL CREEK ACCESS SITE	ACCESS SITE	0.2	0.0	0.0
IDL-IDFG-BIRCH CREEK RANCHES EASEMENT	CONSERVATION EASEMENT	497.7	0.0	0.0
ROCKING M ROAD EASEMENT	CONSERVATION EASEMENT	15.1	0.0	0.0
NATURES WOOD DUCK ISLAND	CONSERVATION EASEMENT	11.3	0.0	0.0
MONROC CONSERVATION EASEMENT	CONSERVATION EASEMENT	7.3	0.0	0.0
THOMAS CONSERVATION EASEMENT	CONSERVATION EASEMENT	3.3	0.0	0.0
REDDING	DEPREDATION	8.7	0.0	0.0
COUGAR CREEK RANCH	OTHER	66.1	0.0	0.0
BLACKS CREEK RIFLE RANGE	OTHER	63.6	0.0	0.0
INTERSTATE 90 PAVEMENT (R.P..BIRD FARM)	OTHER	26.0	0.0	0.0
VETERINARY RESEARCH LAB BUILDINGS	OTHER	14.9	0.0	0.0
SHAFER BUTTE RADIO REPEATER	OTHER	11.3	0.0	0.0
BOISE HEADQUARTERS OFFICE	OTHER	9.8	0.0	0.0
REGION 1 OFFICE	OTHER	9.8	0.0	0.0
REGION 5 OFFICE	OTHER	8.7	0.0	0.0
MCCALL SUBREGION OFFICE	OTHER	5.6	0.0	0.0
REGION 7 OFFICE	OTHER	5.6	0.0	0.0
REGION 4 OFFICE BUILDING	OTHER	4.9	0.0	0.0
POWELL CABIN	OTHER	3.6	0.0	0.0
TALL PINE	OTHER	3.1	0.0	0.0
SALMON WAREHOUSE ADDITION	OTHER	2.2	0.0	0.0
GARDEN CITY WAREHOUSE	OTHER	2.0	0.0	0.0
REGION 6 OFFICE LOT	OTHER	2.0	0.0	0.0
BEAN LANE/SALMON OUTDOOR CLASSROOM SITE	OTHER	1.8	0.0	0.0
REGION 6 OFFICE	OTHER	1.6	0.0	0.0
CHINKS PEAK RADIO REPEATER	OTHER	1.3	0.0	0.0

Table 8 continued.

Parcel Name	Land Type	Acres	Potential Acres of Wetland and Riparian Habitat	% Wetland and Riparian Habitat
DEER CREEK HAY SHED	OTHER	1.3	0.0	0.0
PATROL CABIN CAMP LEWISTON	OTHER	1.3	0.0	0.0
DOG CR CAMPGROUND FISH WEIR	OTHER	0.7	0.0	0.0
BRUNDAGE MOUNTAIN RADIO REPEATER	OTHER	0.4	0.0	0.0
ISLAND PARK PATROL CABIN & CO RESIDENCE	OTHER	0.4	0.0	0.0
MIDGET CREEK PATROL CABIN	OTHER	0.4	0.0	0.0
MORES CREEK CHECK STATION	OTHER	0.4	0.0	0.0
SNOW BANK MOUNTAIN RADIO REPEATER	OTHER	0.4	0.0	0.0
BALDY MOUNTAIN RADIO REPEATER	OTHER	0.2	0.0	0.0
COTTONWOOD BUTTE RADIO REPEATER	OTHER	0.2	0.0	0.0
FEATHERVILLE PATROL CABIN	OTHER	0.2	0.0	0.0
MICA MOUNTAIN RADIO REPEATER	OTHER	0.2	0.0	0.0
RED RIVER USFS PERMITS	OTHER	0.2	0.0	0.0
RYAN PEAK RADIO REPEATER	OTHER	0.2	0.0	0.0
TRAIL CREEK PATROL CABIN	OTHER	0.2	0.0	0.0
PARADISE WHA	WHA	19.6	0.0	0.0
THORN CREEK WHA	WHA	6.0	0.0	0.0
BONNER LAKE ACCESS SITE	ACCESS SITE	n/a	n/a	n/a
CAMPBELL POND ACCESS SITE	ACCESS SITE	n/a	n/a	n/a
CHERRY PLANT ACCESS SITE	ACCESS SITE	n/a	n/a	n/a
DAWSON LAKE ACCESS SITE	ACCESS SITE	n/a	n/a	n/a
FREEMAN LAKE ACCESS SITE	ACCESS SITE	n/a	n/a	n/a
HAUSER LAKE ACCESS SITE	ACCESS SITE	n/a	n/a	n/a
HAZZARD CREEK ACCESS SITE	ACCESS SITE	n/a	n/a	n/a
MICA BAY ACCESS SITE	ACCESS SITE	n/a	n/a	n/a
MIRROR LAKE ACCESS SITE	ACCESS SITE	n/a	n/a	n/a
EAGLE SEWER DISTRICT CONSERVATION EASEMENT	CONSERVATION EASEMENT	n/a	n/a	n/a
SANDAKER LAST WILL AND TESTAMENT	CONSERVATION EASEMENT	n/a	n/a	n/a
BAYVIEW KOKANEE RESEARCH BUILDING	OTHER	n/a	n/a	n/a
BIG SPRING CREEK HATCHING CHANNEL	OTHER	n/a	n/a	n/a
ISLAND PARK RESERVOIR ACCESS ROAD	OTHER	n/a	n/a	n/a
PINHURST	OTHER	n/a	n/a	n/a
RED RIVER HATCHING CHANNEL	OTHER	n/a	n/a	n/a
RUEN KOKANEE PICKET WEIR	OTHER	n/a	n/a	n/a
WALKER LEASE	OTHER	n/a	n/a	n/a
LITTLE BANKS ISLAND WHA	WHA	n/a	n/a	n/a
	<b>Totals</b>	594365.6	59951.4	10.1

Approximately 80% of wetlands and 74% of riparian habitat managed by IDFG occurs on WMAs and WMUs (Figures 17 and 18). WHAs account for 9% of IDFG wetlands and 13% of IDFG riparian habitat. WMAs and WMUs are the focus of comprehensive management planning, but management of only a few WHAs (e.g., Gem State, Rose Lake, and Roswell Marsh) are directed by plans. Chilly Slough, with over 800 acres of wetlands, does not have a management plan and is therefore not explicitly covered by this Wetland Program Plan. WMAs, WMUs, and larger WHAs have also received the most wetland inventory and monitoring work. Access areas include 8% of IDFG wetlands and 6% of IDFG riparian habitat (Figures 17 and 18), but only rarely is wetland or riparian habitat at access areas inventoried or strategically managed for natural functions (Pahsimeroi River, with about 133 acres of wetland and riparian habitat, is an exception).

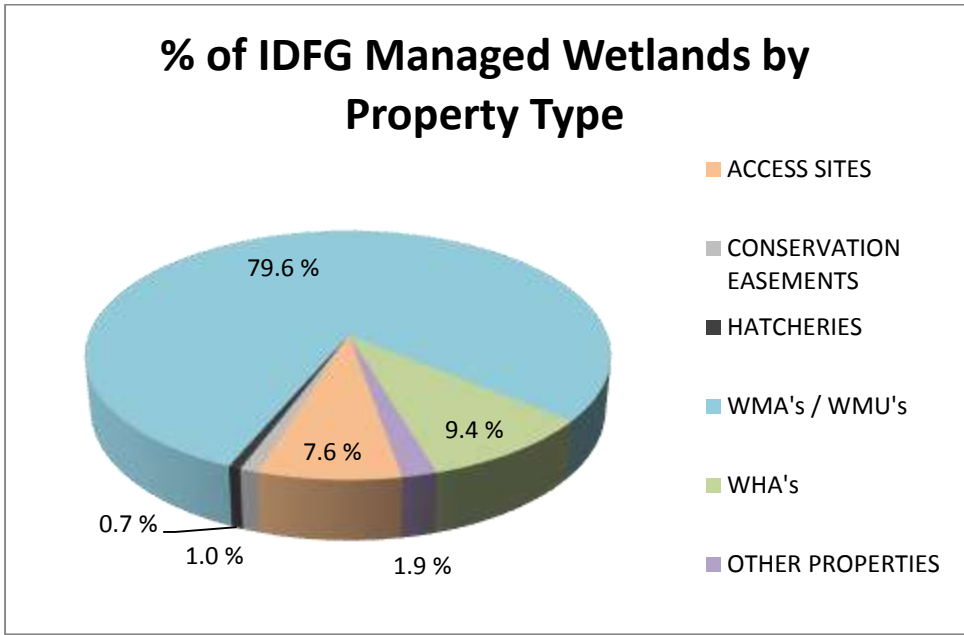


Figure 17.

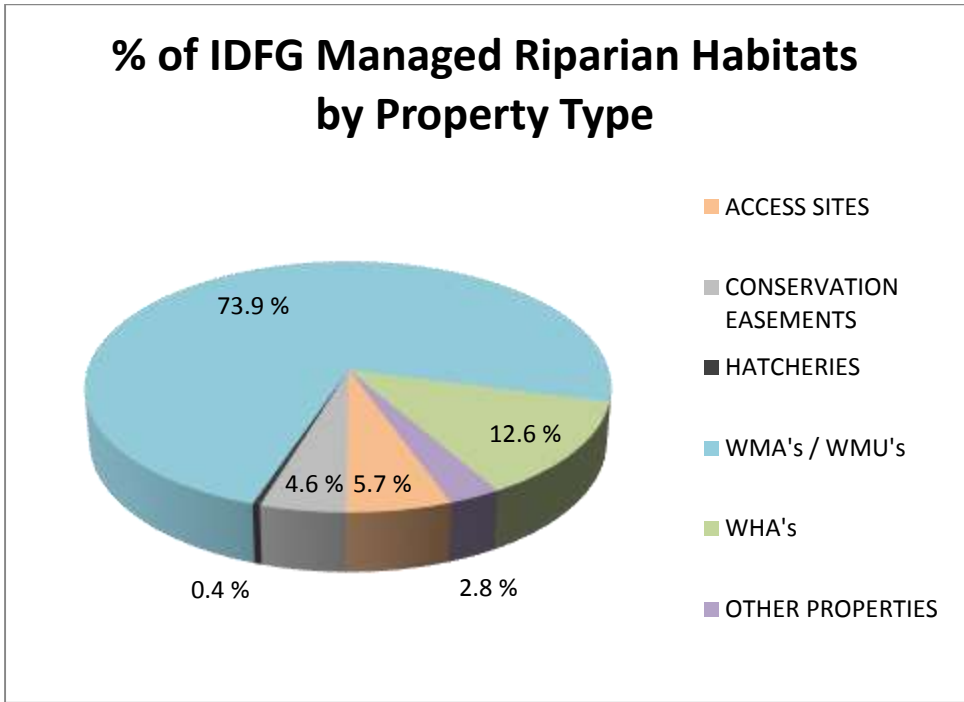


Figure 18.



## Types of Wetland and Riparian Habitats Managed by IDFG

Statewide, fine-scale wetland and riparian habitat mapping has not been completed for IDFG properties, although maps of selected WMAs and WHAs are currently being produced. Instead, estimates of the extent and types of wetland and riparian habitats on IDFG properties are dependent on existing broad-scale land cover maps (e.g., Jin et al. 2013, NatureServe 2005, NW ReGAP 2010, USFWS 2014). Broad scale land cover maps are known to have inaccuracies due to the complexities of interpreting and classifying remotely sensed imagery in the GIS modeling process, as well as the influence of resolution on the final map. It is not unexpected that different land cover map sources produced with different methodologies, using imagery taken in different seasons (e.g., flooded in early summer versus dry in late summer) at different resolutions, with varying map unit classification systems, will result in a wide range of wetland mapping outputs. The actual accuracy of any of these maps is not known. For this project, in order to perform multiple analyses using various land cover maps, cross walks were created between different map unit classification systems.

Because most wetland-focused WMAs, WHAs, and WMUs were acquired for waterfowl production and migration support, it follows that palustrine emergent wetlands are by far the most abundant wetland type on these properties (Figure 19; based on National Wetlands Inventory maps for Idaho and Cowardin et al. 1979; USFWS 2014). Of the 38,000 acres of wetlands on WMAs, WHAs, and WMUs mapped by the National Wetlands Inventory (NWI), 57.5% were palustrine emergent wetlands compared to 5% palustrine forested and 7.5% palustrine scrub-shrub wetlands (which include riparian wetlands). Of the remaining 11,400 acres, 20% were mapped as lacustrine wetlands (deep open water), 5% other palustrine types (shallowly flooded, at least seasonally), and 5% riverine types. In contrast, the 2011 National Land Cover Database (NLCD) map appeared to under map total wetland extent and overestimate the proportion comprised of forested or scrub-shrub types. Of the 28,800 acres of wetlands on WMAs, WHAs, and WMUs mapped by NLCD (Jin et al. 2013), 28% were emergent wetlands, 32% open water, and 40% woody wetlands (Figure 20).

Land cover maps of wetland and riparian ecological systems (NatureServe 2005, NW ReGAP 2010) mapped more acreage and a greater diversity of wetland types on IDFG WMAs, WHAs, and WMUs than the NWI or NLCD. Both of these maps show similar proportions of different wetland types between them, mapping approximately 42,400 to 43,000 acres of wetland and riparian habitats on WMAs, WHAs, and WMUs (Figure 21). This was about 20% less wetland and riparian habitat than predicted by the potential wetland extent model (Murphy et al. 2012a). For comparison with NWI, ecological systems were cross walked to corresponding Cowardin et al. (1979) classes. Of the acreage mapped by ecological system maps, 31 to 35% of the wetlands were palustrine emergent, 43 to 46% palustrine forested and scrub-shrub riparian wetlands, and 22 to 23% lacustrine types and palustrine open water (Figure 21). These proportions were most similar to the 2011 NLCD map.

## Acres of Cowardin Wetland Classes on WMA's, WMU's, and WHA's Based on National Wetlands Inventory Maps

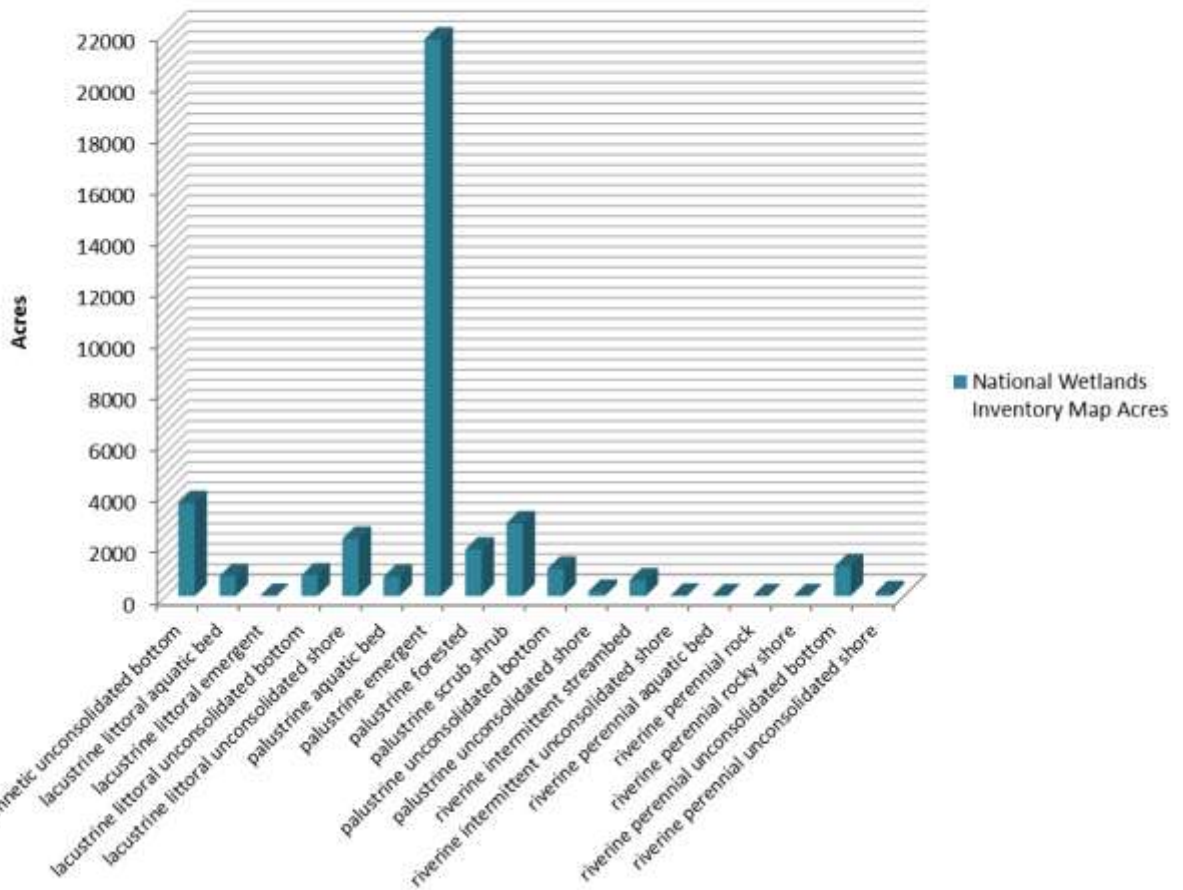
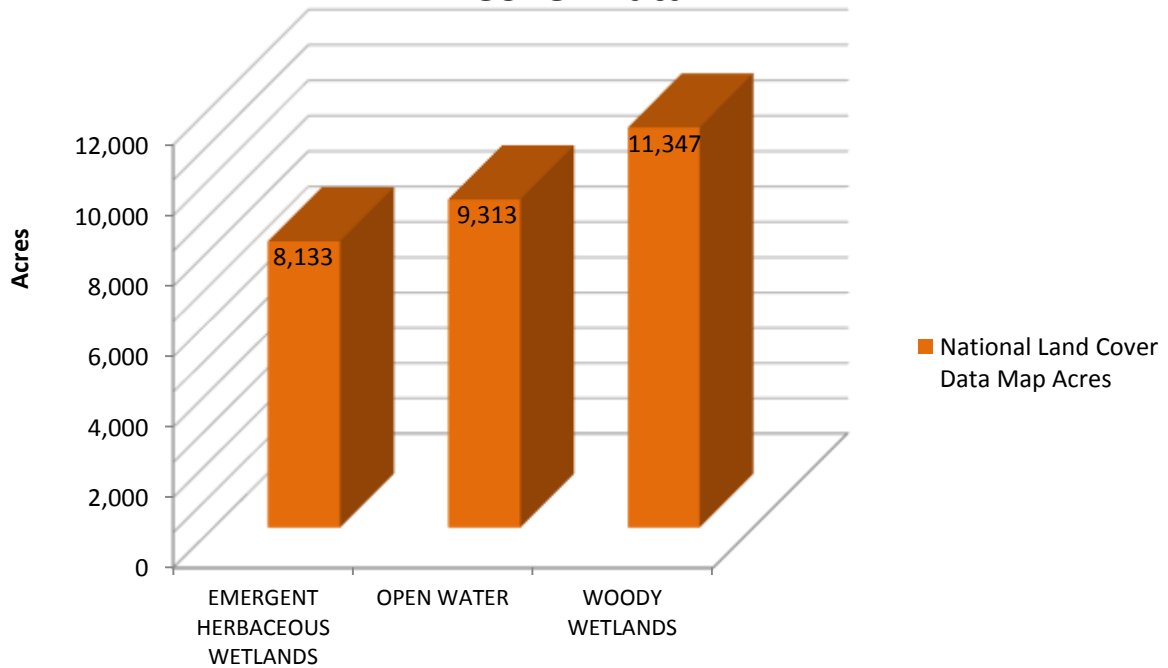


Figure 19.



Willow-dominated palustrine scrub-shrub wetland (left) and pond mapped as palustrine unconsolidated bottom fringed by emergent wetland (right), Sand Creek Ponds, Sand Creek WMA (photos by Chris Murphy).

## Acres of Wetland Land Cover Types on WMA's, WMU's, and WHA's Based on 2011 National Land Cover Data

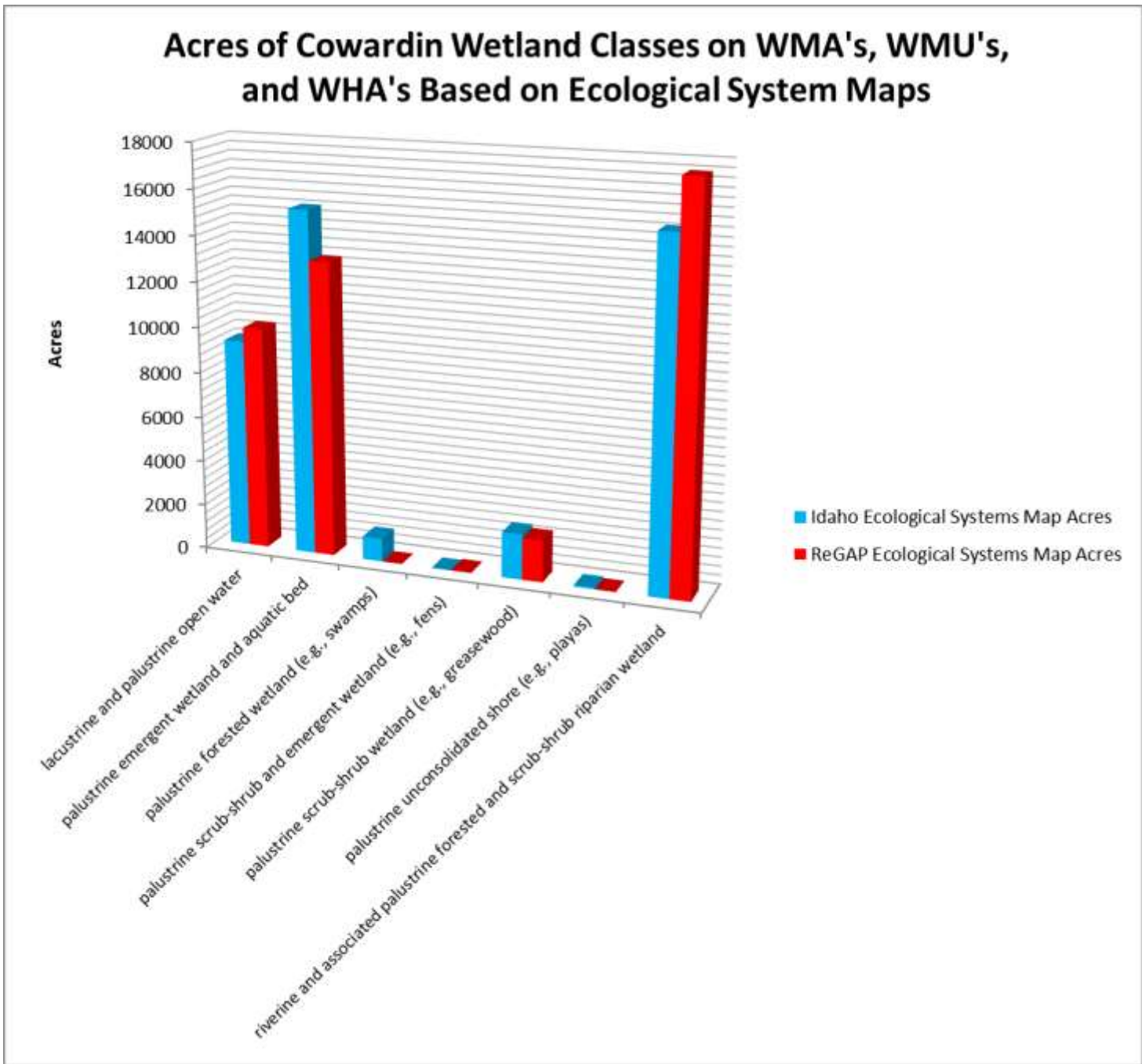


**Figure 20.**



A seep-fed, headwater mesic meadow at Cecil Andrus WMA (left) supports a population of Indian Valley sedge (*Carex aboriginum*), a globally rare plant known only from Adams and Washington Counties of west-central Idaho (right and tuft in lower-right corner of left photo) (photos by Chris Murphy).





**Figure 21.**

Figure 22 shows acres of all habitats (wetland, riparian, and upland) mapped by ecological system land cover maps (NatureServe 2005, NW ReGAP 2010) on WMAs, WMUs, and WHAs. For this analysis, “habitats” are land cover type classification units created for IDFG land managers that are closely related to ecological systems. Habitats reflect the way IDFG staff view the land they manage (based on surveys of habitat biologists). Habitats are groups of vegetation types with similar ecological processes (e.g., fire, hydrologic regimes) and management challenges (e.g., noxious weed invasion), and can be mapped.

Figure 22 shows the ecological context in which wetland and riparian habitats occur on WMAs, WMUs, and WHAs. Approximately 28 to 29% of acreage on these lands is big sagebrush-bitterbrush shrub-steppe, predominantly at low elevations across southern Idaho's Snake River Plain. Mountain big sagebrush-bitterbrush shrub-steppe occupies 7 to 18% of these lands at higher elevations, mostly in southeastern Idaho, but also in lower mountain locations of southwest Idaho (e.g., Boise River WMA). This habitat is often associated with mountain deciduous shrubland (accounting for 2 to 5% of these lands). An important habitat surrounding wetland and riparian habitats on WMAs, WMUs, and WHAs are perennial grasslands, either canyon grasslands (e.g., at Cecil Andrus and Craig Mountain WMAs), seeded upland non-native grasses (e.g., intermediate wheatgrass, smooth brome), or seeded pasture or hay grasses (e.g., bentgrasses, orchardgrass, tall wheatgrass), the latter important for waterfowl nesting cover. Perennial grasslands of all types are 16 to 17% of the acreage at WMAs, WMUs, and WHAs. Cultivated croplands (typically for wildlife food) are mapped as 2 to 4% of these lands. Approximately 7 to 11% of WMA, WMU, and WHA land area supports dry to mesic forest types of relatively warm, maritime influenced climates; these are concentrated in southwest (e.g., Boise River and Cecil Andrus WMAs), central (e.g., Craig Mountain and Red River WMAs), and northern Idaho (all WMAs). These forests are dominated by ponderosa pine, Douglas-fir, and grand fir (grand fir is lacking on the Boise River WMA). Inland maritime climate forests of western hemlock, western red-cedar, and grand fir occupy 2 to 3% of WMAs, WMUs, and WHAs statewide, but are restricted to northern Idaho. Douglas-fir forests of cold, continental climates are found in eastern Idaho (e.g., Sand Creek and Tex Creek WMAs) but are less than 1% of total statewide area.

Figure 23 shows acreage of wetland and riparian habitats on WMAs, WMUs, and WHAs mapped by ecological system land cover maps (NatureServe 2005, NW ReGAP 2010). Approximately 36 to 41% of wetlands and riparian areas on these lands are mapped as riparian woodland or shrubland habitat. Open water accounts for 22 to 23% of these habitats and emergent marsh 6 to 12%. Wet meadows (characterized by sedges, common spikerush, tufted hairgrass, and wetter Baltic rush sites) represent 6 to 10% of the total wetland and riparian habitat mapped on WMAs, WMUs, and WHAs. Good examples of wet meadows occur statewide, from Pend Oreille WMA in northern Idaho, to Chilly Slough WHA and Centennial Marsh WMA in central Idaho basins, to Blackfoot River and Red River WMAs in montane valleys, and Market Lake and Sand Creek WMAs on the Snake River Plain. Peatland fens are not well represented on ecological system maps, likely lumped with wet meadows, emergent marshes (e.g., at McArthur Lake WMA), or riparian shrublands (e.g., at Coeur d'Alene River WMA). Mesic meadows (characterized by native grasses (e.g., bluejoint, oatgrasses), Baltic rush, sedges, non-native grasses (e.g., Kentucky bluegrass), and an abundance of forbs) are transitional to uplands and often similar to seeded pastures. They account for 15 to 18% of wetland or riparian habitats on these lands and occur on or near the Snake River Plain (e.g., Centennial Marsh, Market Lake, Mud Lake, Sand Creek, Sterling WMAs), across northern Idaho, on sloped headwater seeps (e.g., Boise River, Cecil Andrus, Tex Creek WMAs), and in montane meadow complexes (e.g., Craig Mountain and Red River WMAs). Alkaline-saline grasslands dominated by saltgrass (common on southwest Idaho WMAs) are not well represented on ecological system maps, likely lumped with mesic or wet meadows. Greasewood shrublands occupy only 4 to 5% of wetland habitats on WMAs, WMUs, and WHAs, but these IDFG lands protect many of the larger intact blocks of this alkaline-saline type in southern Idaho.

## Acres of Habitats on WMA's, WMU's, and WHA's Based on Ecological System Maps

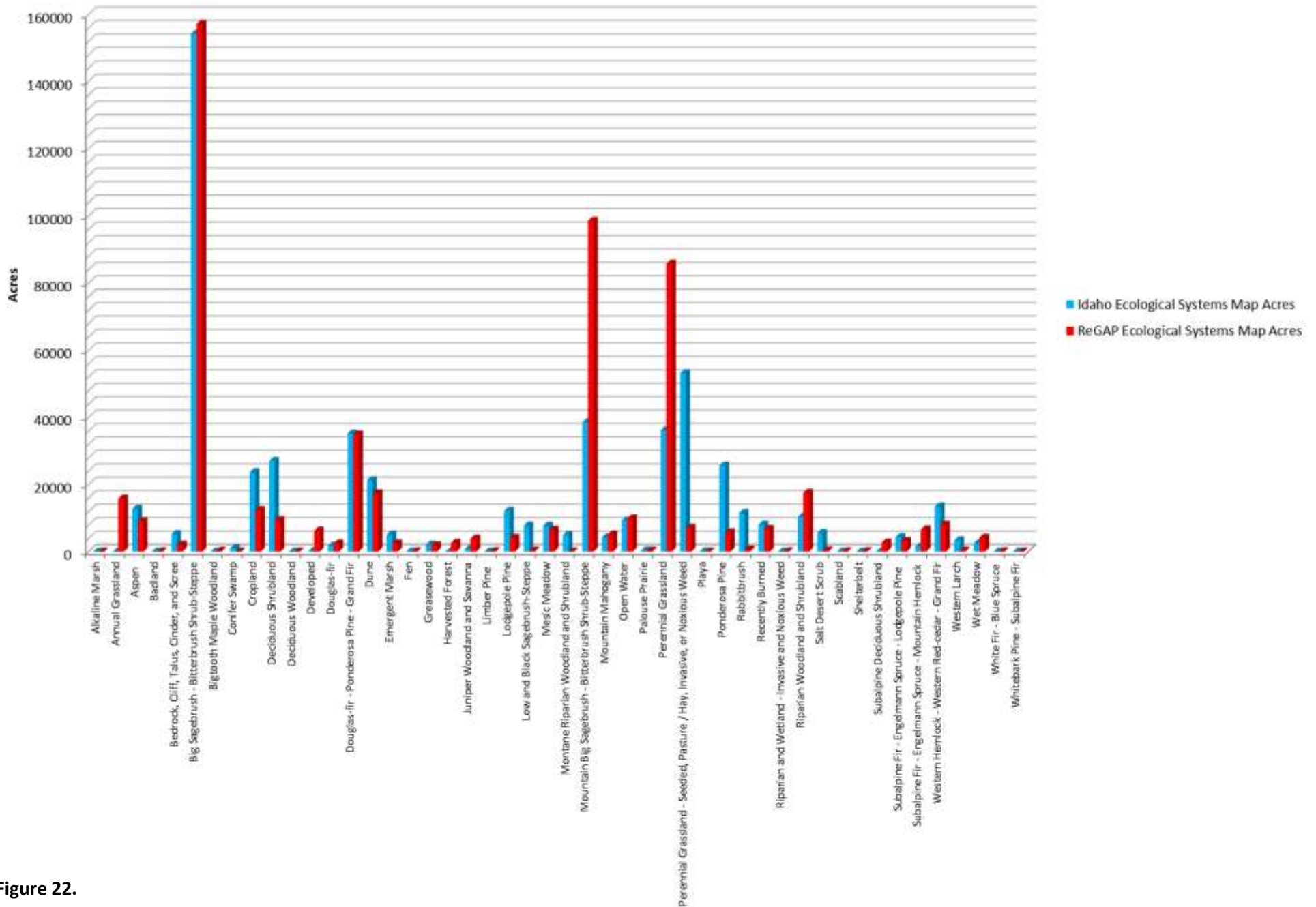
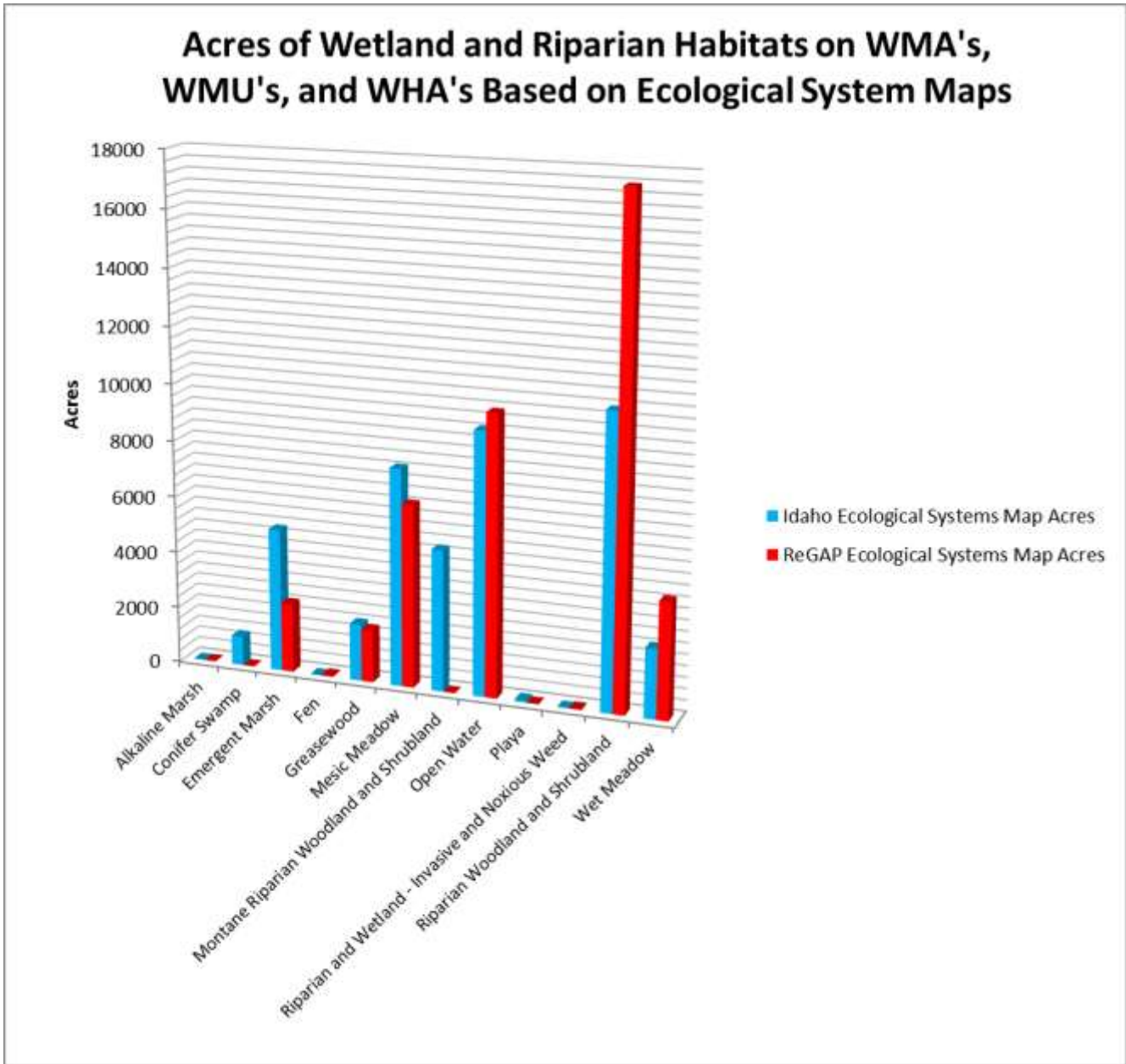


Figure 22.



**Figure 23.**

**Ecological Condition of IDFG Wetland and Riparian Habitats**

The condition of IDFG wetland and riparian habitats was estimated using the Idaho Landscape-scale Level 1 Wetland Assessment Tool (Murphy et al. 2012b). This GIS method classifies potential wetland and riparian habitat into 5 condition classes based on a statewide landscape integrity model. The landscape integrity model combines statewide GIS layers of land use and disturbances known to affect wetland and riparian condition and function (weighted for their relative impact on these habitats) into one landscape integrity layer at a 30 m<sup>2</sup> pixel resolution (see Murphy et al. 2012b for complete methods). Figures 24 - 41 show the percentage of pixels in each condition class for wetlands and riparian habitats for each IDFG land type and for the watersheds containing IDFG parcels.

As expected the majority of access sites and hatcheries more disturbed because they are developed with infrastructure to meet their intended purposes (roads, hatchery facilities). Approximately two-thirds of access area wetland and riparian habitats were in the moderately to completely disturbed condition classes (Figures 24 and 25). Hatcheries were the most disturbed of any IDFG land type, with about 50 to 60% of wetland and riparian habitats are in the severely or completely disturbed classes (Figures 27 and 28). Watersheds containing access areas and hatcheries were in slightly better overall condition, but still approximately 50% of these watersheds were in moderately to completely disturbed classes (Figure 26 and 29). The proximity of access areas to urban areas and hatcheries to spring sources (which attract development for aquaculture, irrigation, agriculture, etc.) explain observed watershed disturbances.

In contrast, the best condition wetlands (as predicted by the GIS landscape-scale assessment tool) were located on WMAs, WMUs, WHAs, and other properties (e.g., conservation agreements and leases, fish weirs / traps / rearing areas, patrol cabins, regional offices, etc.). Approximately 60% of wetlands on these land types were in the minimally or lightly disturbed condition classes (Figures 33, 36, and 39). Wetland habitat on conservation easements was about 50% minimally or lightly disturbed (Figure 30). On WMAs, WMUs, and WHAs, this result reflects that fact that these properties tend to support larger wetland complexes insulated from roads or other development (e.g., agriculture, urban), although some on-the-ground impacts (e.g., noxious weed infestations) is underestimated by the GIS tool). Other properties tend to occur in less developed areas, including in central Idaho's National Forest lands and designated Wilderness Areas, as reflected in large areas of minimally disturbed surrounding watersheds (Figure 41).

The best condition riparian areas are predicted to occur on conservation easements, WMAs, and WMUs where two-thirds of this habitat are in minimally or lightly disturbed condition classes (Figures 31 and 34). Riparian habitat on other property types was also predominately minimally or lightly disturbed (Figure 40). Extensive riparian habitat on larger WMAs (e.g., Boise River, Cecil Andrus, Craig Mountain, Snow Peak, Tex Creek) and conservation easements (e.g., Rocking M) occurs in steep, narrow valleys and canyons minimally impacted by roads or other development (although livestock use in some locations is underestimated by the GIS tool). While many WMAs in northern, southwest, and south-central Idaho are located in watersheds dominated by agricultural, urban, or rural housing development, most in central and eastern Idaho occur (at least partially) in watersheds managed by federal land agencies where road densities or other mapped development are lower (e.g., 60% of surrounding watersheds in minimally to lightly disturbed condition; Figure 35). Riparian condition on WHAs is predicted to be lower (50% minimally or lightly disturbed; Figure 37). WHAs tend to be smaller in size (and therefore less buffered from roads or agriculture) and occur in more developed watersheds (e.g., 55% of surrounding watersheds in moderately to severely disturbed classes; Figure 38).

The accuracy of the Idaho Landscape-scale Level 1 Wetland Assessment Tool has been tested by comparing condition predicted by GIS to condition estimated on-the-ground using the Idaho Rapid Assessment Method (ID RAM), based on the land uses and disturbances present at a wetland site (see Murphy and Schmidt 2010 for methods). Overall accuracy was approximately 63% (rising to 93% if condition class were reduced from 5 to 3), comparable to other GIS assessments (Murphy et al. 2012b).



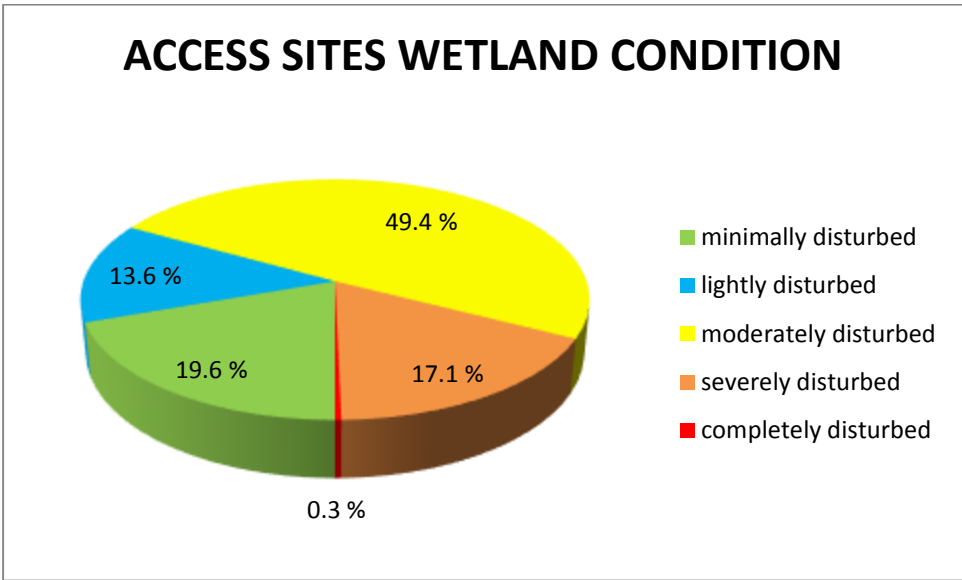


Figure 24.

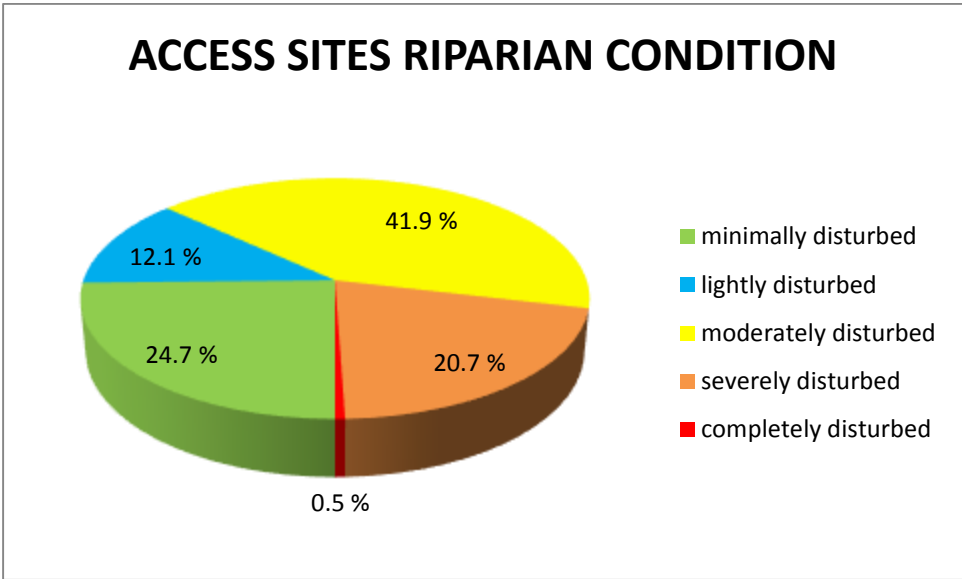


Figure 25.

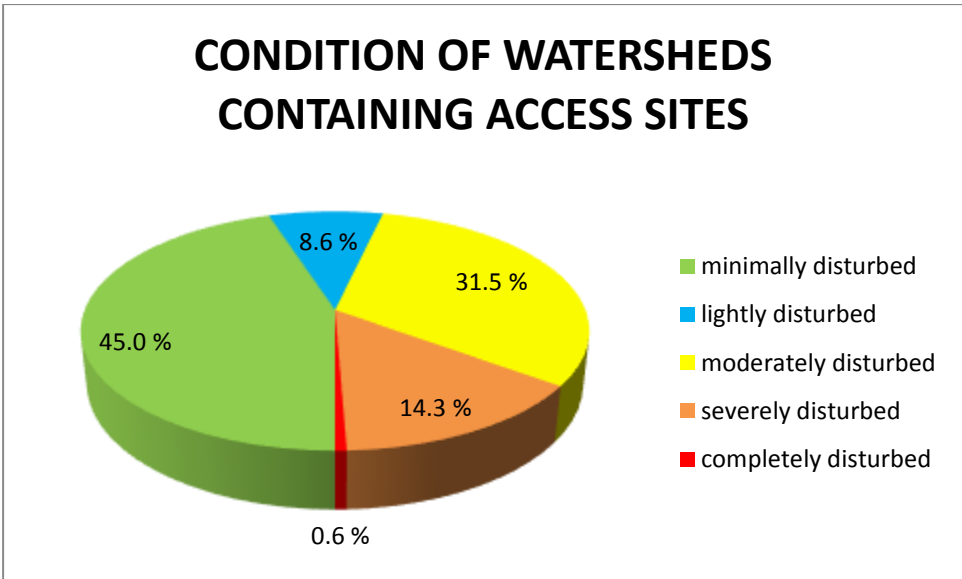


Figure 26.

### HATCHERIES WETLAND CONDITION

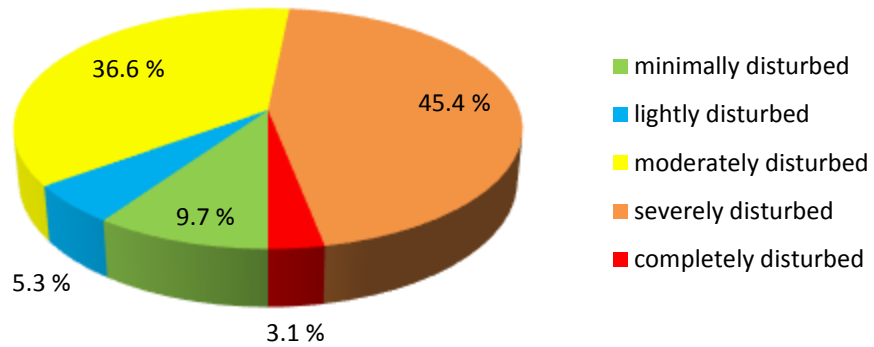


Figure 27.

### HATCHERIES RIPARIAN CONDITION

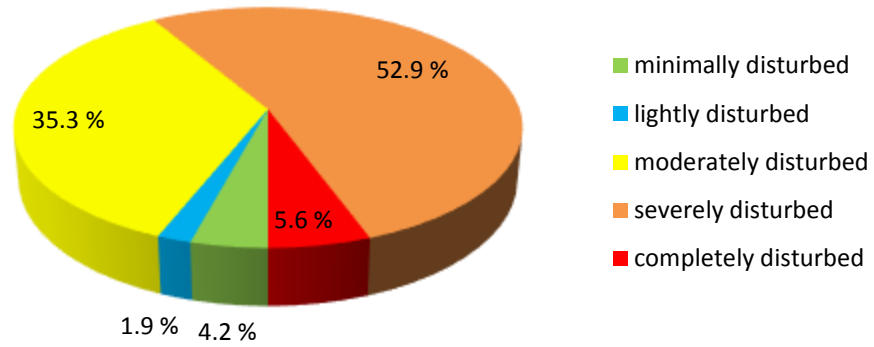


Figure 28.

### CONDITION OF WATERSHEDS CONTAINING HATCHERIES

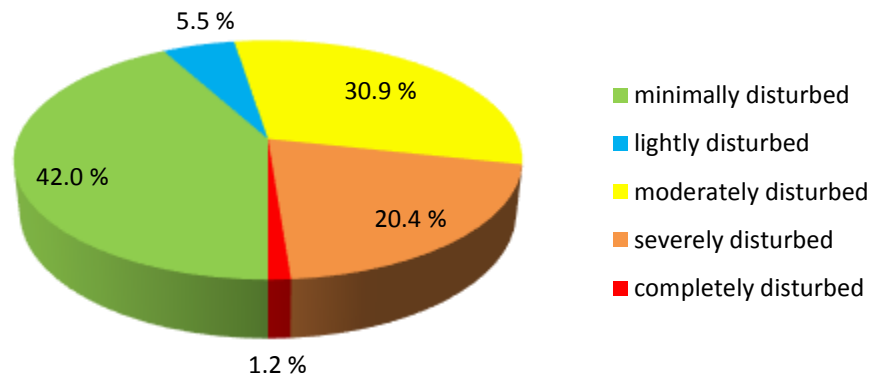


Figure 29.

### CONSERVATION EASEMENTS WETLAND CONDITION

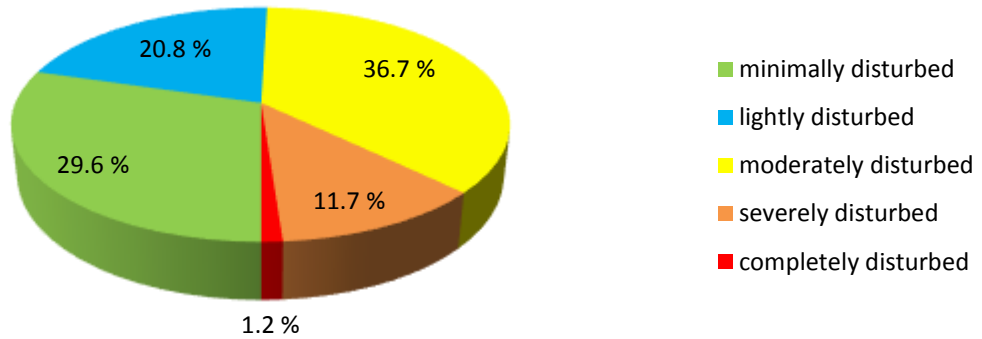


Figure 30.

### CONSERVATION EASEMENTS RIPARIAN CONDITION

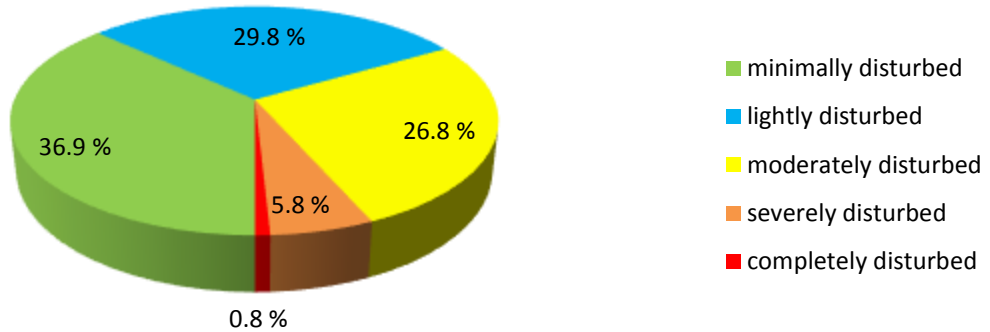


Figure 31.

### CONDITION OF WATERSHEDS CONTAINING CONSERVATION EASEMENTS

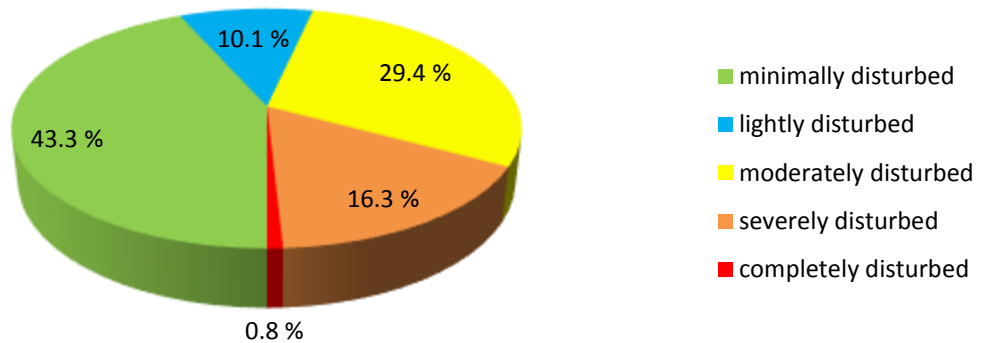


Figure 32.

### WMA's / WMU's WETLAND CONDITION

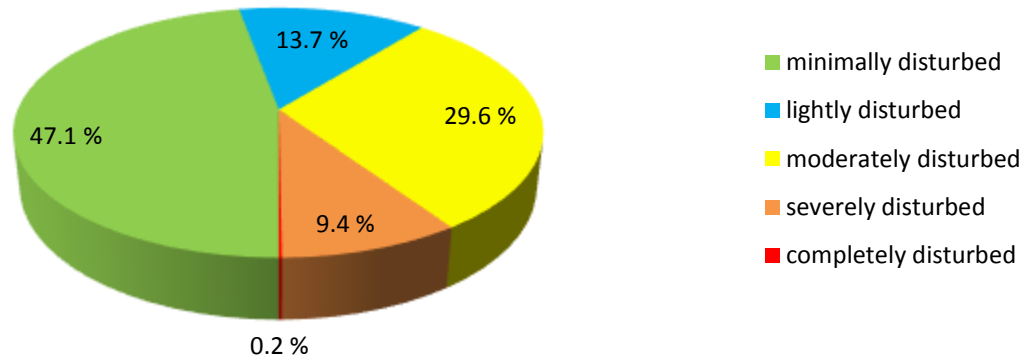


Figure 33.

### WMA's / WMU's RIPARIAN CONDITION

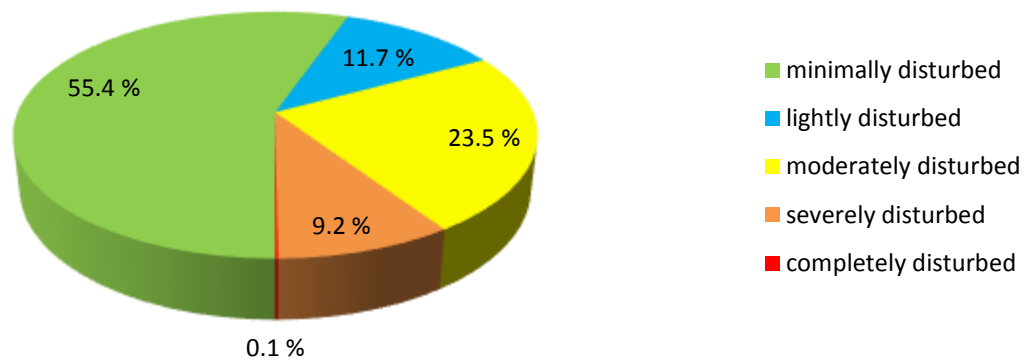


Figure 34.

### CONDITION OF WATERSHEDS CONTAINING WMA's / WMU's

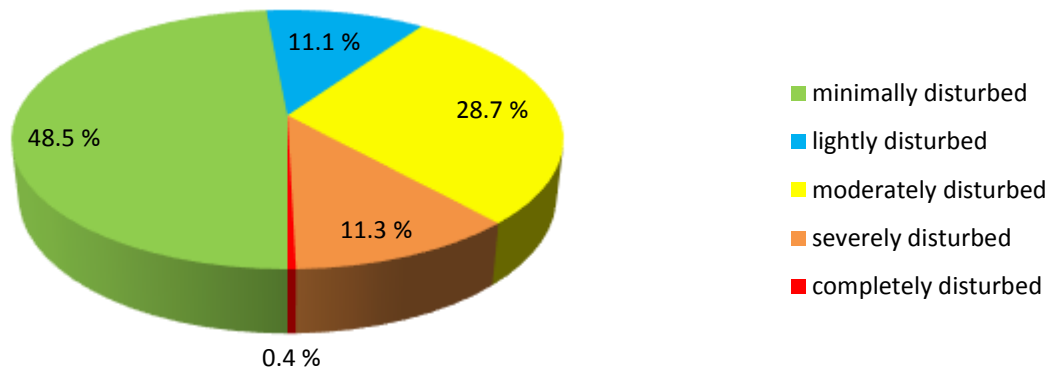


Figure 35.

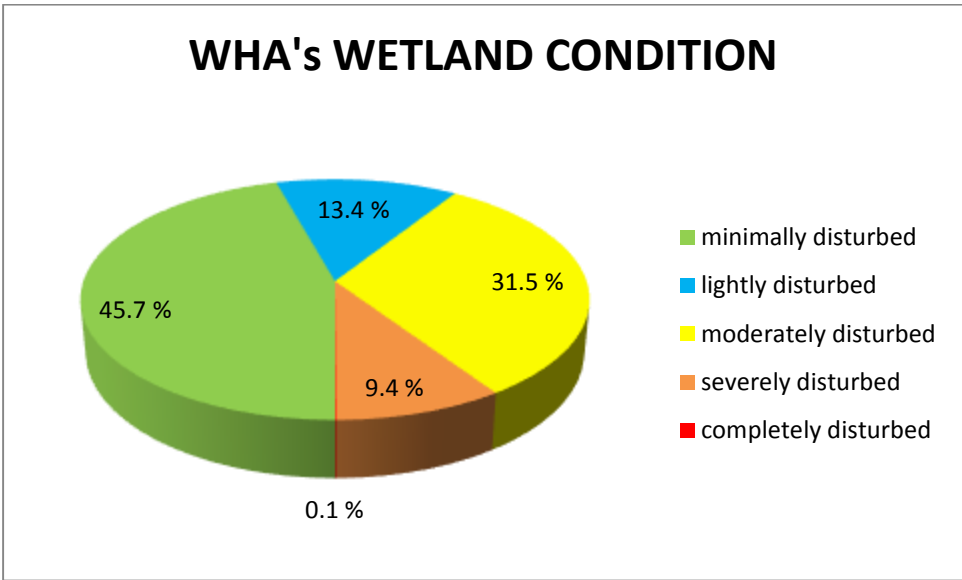


Figure 36.

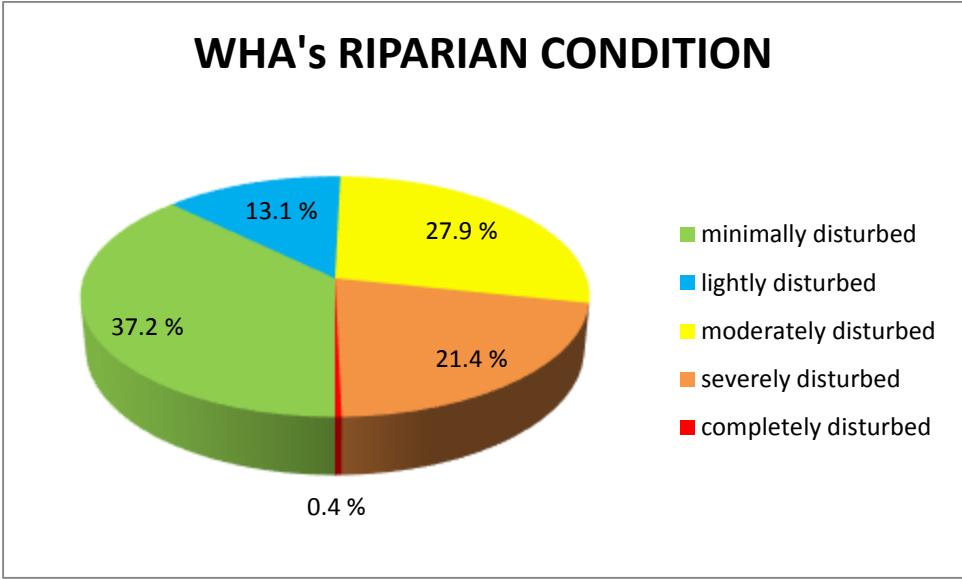


Figure 37.

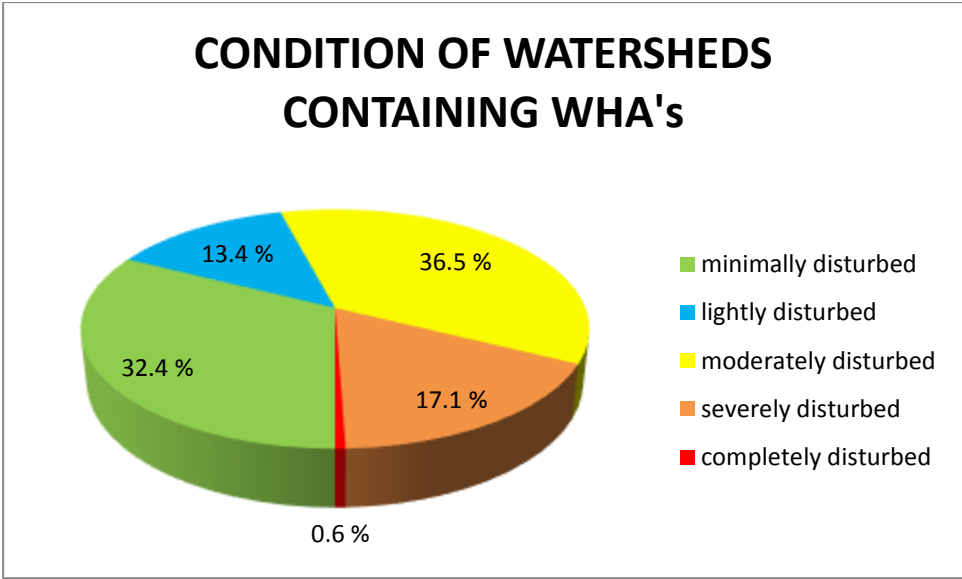


Figure 38.

### OTHER PROPERTIES WETLAND CONDITION

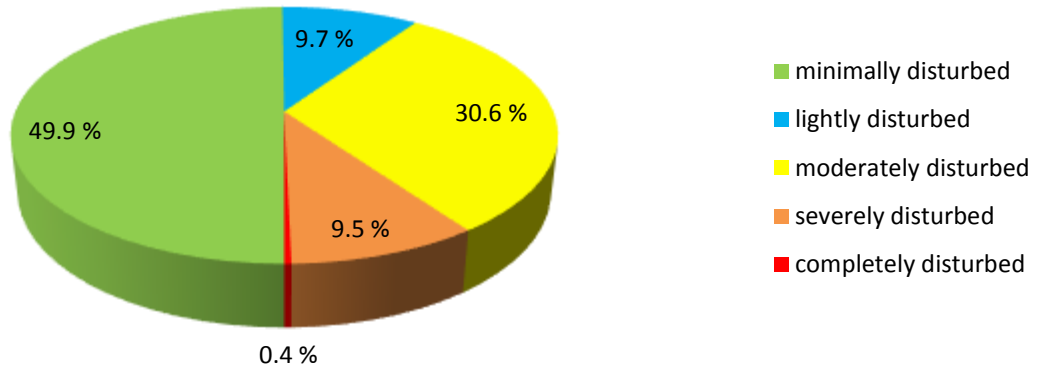


Figure 39.

### OTHER PROPERTIES RIPARIAN CONDITION

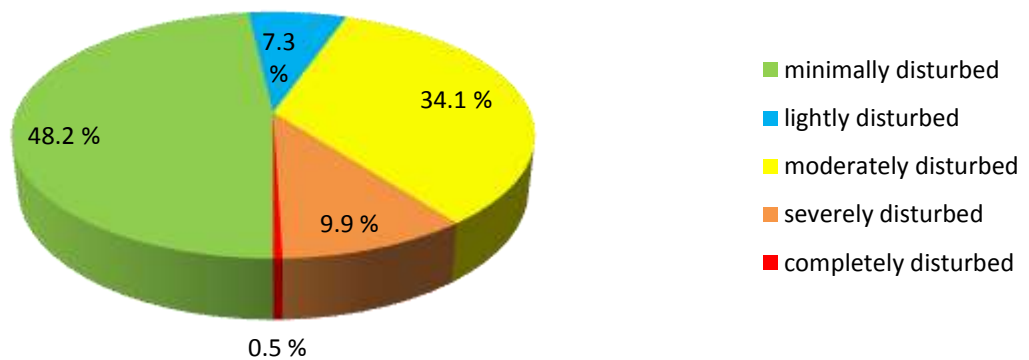


Figure 40.

### CONDITION OF WATERSHEDS CONTAINING OTHER PROPERTIES

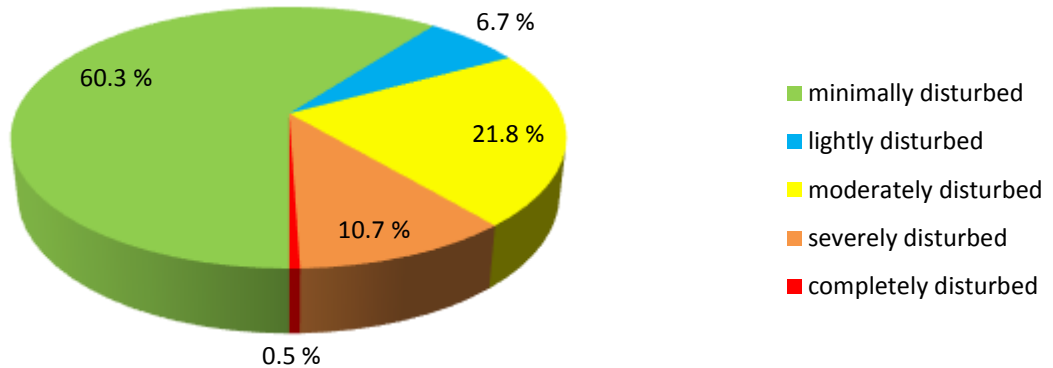


Figure 41.

**Table 9. Estimated condition of IDFG-managed wetland sites assessed using the Idaho Rapid Assessment Method.**

IDFG Survey Site Name	Land Type	Cowardin Classes Assessed	Cowardin Subclasses Mapped by National Wetlands Inventory	NWI type wholly converted or partially converted to?	Human-caused type conversion?	Human-created or enhanced wetland?	Condition Estimated in Field Using the Idaho Rapid Assessment Method	ID RAM Total Condition Score	Landscape-scale Level I Wetland Assessment Tool Predicted Condition
Bruneau River Delta - CJ Strike WMA	WMA	PEM	PEMCh	no	no	no	minimally disturbed	11	moderately to severely disturbed
Bruneau River Highway 51 - CJ Strike WMA	WMA	PEM	PEMF	no	no	no	lightly disturbed	10	moderately disturbed
Chester Wetlands - Sand Creek WMA West Pond	WMA	PSS/PEM/PAB/PUB/PUS/POW	R4SBCKx/PSSC/PEMA/PEMC/PEMF/PEMKCx/PABF/PABH	PAB/PUB/PUS/POW	partial	enhancement	moderately disturbed	26	moderately disturbed
Deyo Reservoir	ACCESS SITE	n/a	n/a	POW	partial	restoration/enhancement	moderately disturbed	29	moderately disturbed
Fort Boise WMA Redhead Pond	WMA	PUB	PUBFx	no	no	enhancement	moderately disturbed	21	minimally disturbed
Freeman Lake	ACCESS SITE	L1	L1UBH	no	no	no	lightly disturbed	8	lightly disturbed
Hot Creek Ranch - CJ Strike WMA	WMA	PEM	PEMA	no	no	no	lightly disturbed	16	minimally disturbed
LQ Drain	WHA	PSS/PEM/PAB/PUB/POW	PEMAh/PEMCh/PEMCx	PAB/PUB/POW	partial	creation	completely disturbed	56	moderately disturbed
Paddock Valley Reservoir Access Site	ACCESS SITE	PEM	PEMAh	no	no	no	severely disturbed	34	moderately disturbed
Payette River WMA Riverbend Pond	WMA	PUB	PUBH	PAB3H	partial	enhancement	lightly disturbed	21	minimally disturbed
Rose Lake WHA - Coeur D'Alene River WMA	WHA	PSS	PSS1C	no	no	no	moderately disturbed	24	lightly disturbed
Tolo Lake Easement - Telcher Creek Wetland	CONSERVATION EASEMENT	PEM/PUB/POW	PEMF/PABF	PEMF/PUB	partial	enhancement	moderately disturbed	26	moderately disturbed
Valley Creek - Stanley Reach	ACCESS SITE	PSS/R3/PEM	PEMC	UPL	partial	no	completely disturbed	54	severely to moderately disturbed

The condition of wetlands on 13 IDFG parcels was estimated in the field using ID RAM (Murphy and Schmidt 2010, Murphy and Weekley 2012; Table 8). Idaho's GIS assessment tool was only able to correctly predict the condition of these 13 IDFG wetlands only 31% of the time; however, this increased to 77% if the number of condition classes were reduced (Table 8). Figure 42 shows the field estimated condition of these 13 wetlands by property type. In 7 of the 9 prediction errors the GIS tool underestimated the level of disturbance observed in the field. This is expected because an important disturbance to wetland and riparian habitats on IDFG properties is invasion by noxious and highly competitive non-native species, a factor that is poorly represented in with GIS assessment. Other disturbances frequently observed on IDFG properties that are not well mapped on GIS layers include hydrologic alterations (e.g., water management infrastructure development) and unmapped access roads and trails.

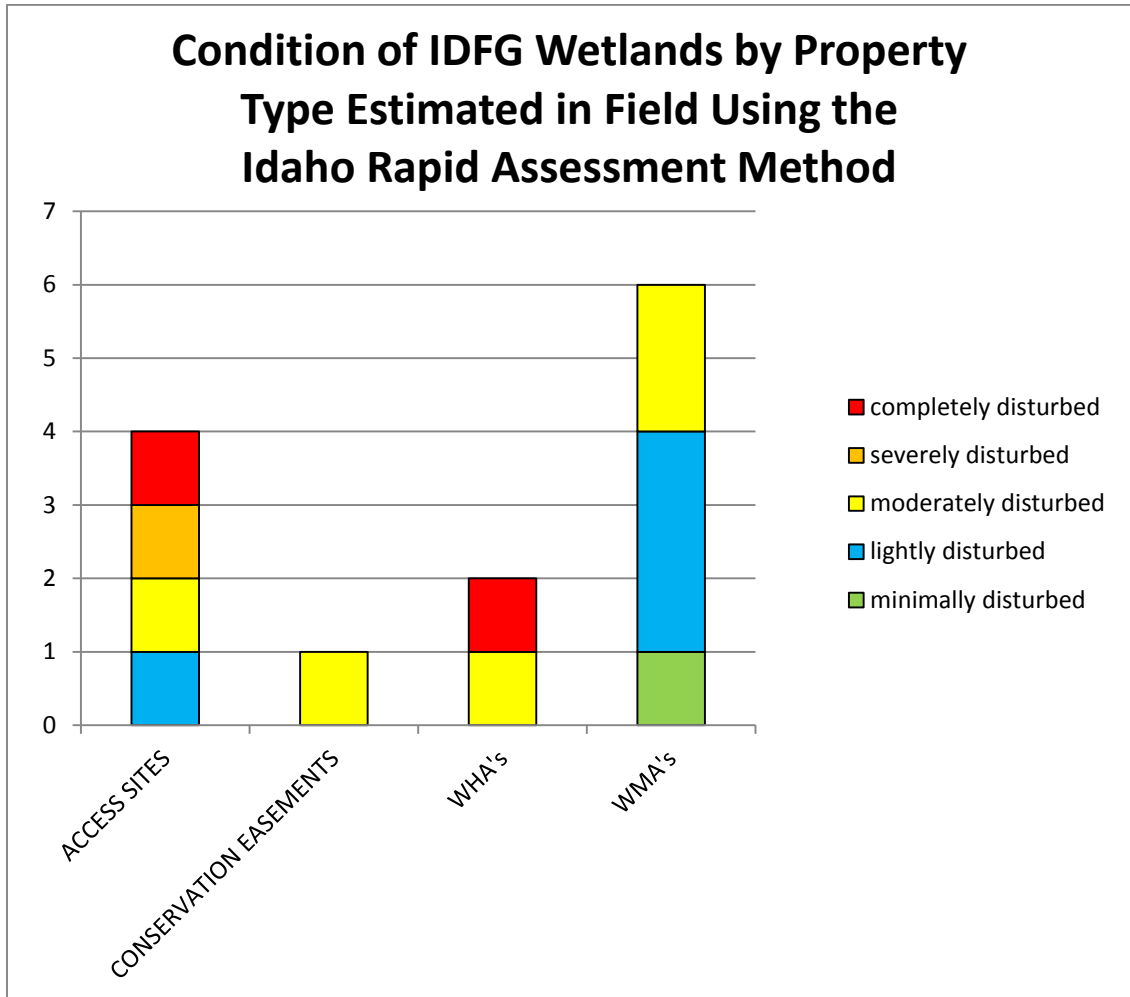


Figure 42.



Minimally disturbed montane wet meadows: Red River WMA (left) and Blackfoot River WMA (right) (photos by Chris Murphy).



## Functions of IDFG Wetland and Riparian Habitats

Beyond the fish and wildlife habitat functions supported by IDFG wetland and riparian habitats, few of the other functions provided by these habitats have been quantified or estimated. One method of estimating the potential functions of wetlands is the Wetland Ecosystem Services Protocol for the United States (WESPUS) (Adamus 2011). This logic-based rapid assessment method incorporates principles of hydrology, biogeochemistry, ecology, and hydrogeomorphic assessment to create explicit, scientifically-based models of wetland functions. Application of the method at a wetland generates scores for potential functions, condition, and values of ecosystem services (on a scale 1 - 10) for an assessment area (Adamus 2011). It also addresses wetland stressors and integrity. WESPUS allows for comparisons between all wetland types and can be used to evaluating wetland restoration and enhancement project success, as well as to determine credits for ecosystem service markets and mitigation banks.

To test the utility of the method and to describe the potential functions of restored, enhanced, and created wetlands, WESPUS was used to assess the potential functions of 6 IDFG-managed wetlands (4 tall emergent cattail and bulrush marsh - open water wetlands and 2 seasonally and shallowly flooded short emergent marshes; Murphy and Weekley 2012). For water quality support functions, tall emergent marsh - open water wetlands were most effective for phosphorus retention (Figure 43). Both tall emergent marshes and seasonally flooded short emergent marshes supported moderately high organic matter export and nitrate removal and retention, but seasonal emergent marshes were more effective for sediment retention and storage and water storage and delay functions. For ecosystem support functions, tall emergent marsh - open water wetlands had higher potential levels of fish habitat and amphibian and reptile habitat than seasonally flooded emergent marshes (Figure 43). These wetland types supported similar, moderate levels of waterbird nesting and native plant diversity functions. Seasonally flooded marshes supported moderately high habitat functions for pollinators, songbirds, raptors, mammals, waterbird feeding, and aquatic invertebrates, all exceeding levels predicted for tall emergent marshes.

WESPUS can be used to predict the changes in a wetland's functions and values under a different hydrologic regime resulting from management or climatic changes. An important question for IDFG habitat managers is what will be the effect on potential wetland functions if climate change reduces the quantity, timing, and duration of water inflows? The majority of IDFG's wetlands in southern Idaho depend on irrigation-return water for at least part of the year. Dalton et al. (2013) and University of Washington Climate Impacts Group (2014) predict that based on climate change models snow packs in the Columbia River basin that supply the bulk of water for crop irrigation will significantly decrease and reservoirs will be less able to deliver water to junior water right holders (e.g., IDFG in many cases), a situation compounded by increases in growing season length and agricultural demand (especially in spring). There will be increased reliance on groundwater pumping (further depleting aquifers), groundwater recharge projects (further decreasing in-stream flows), and new reservoir storage constructed (further decreasing riparian and aquatic habitat quality), all resulting in less potential water for wetlands. Based on these scenarios, hypothetical hydrographs for tall emergent marsh - open water wetlands and seasonally / shallowly flooded short emergent marshes were created to reflect the hydrologic regime under a generalized future climate change scenario (Figures 44 and 45). For the 6 IDFG-managed wetlands assessed by WESPUS, answers to the WESPUS assessment questions were altered to reflect changes to the hydrology under climate change (Figures 46 - 50).

## Potential Functions of IDFG Wetlands Assessed Using WESPUS

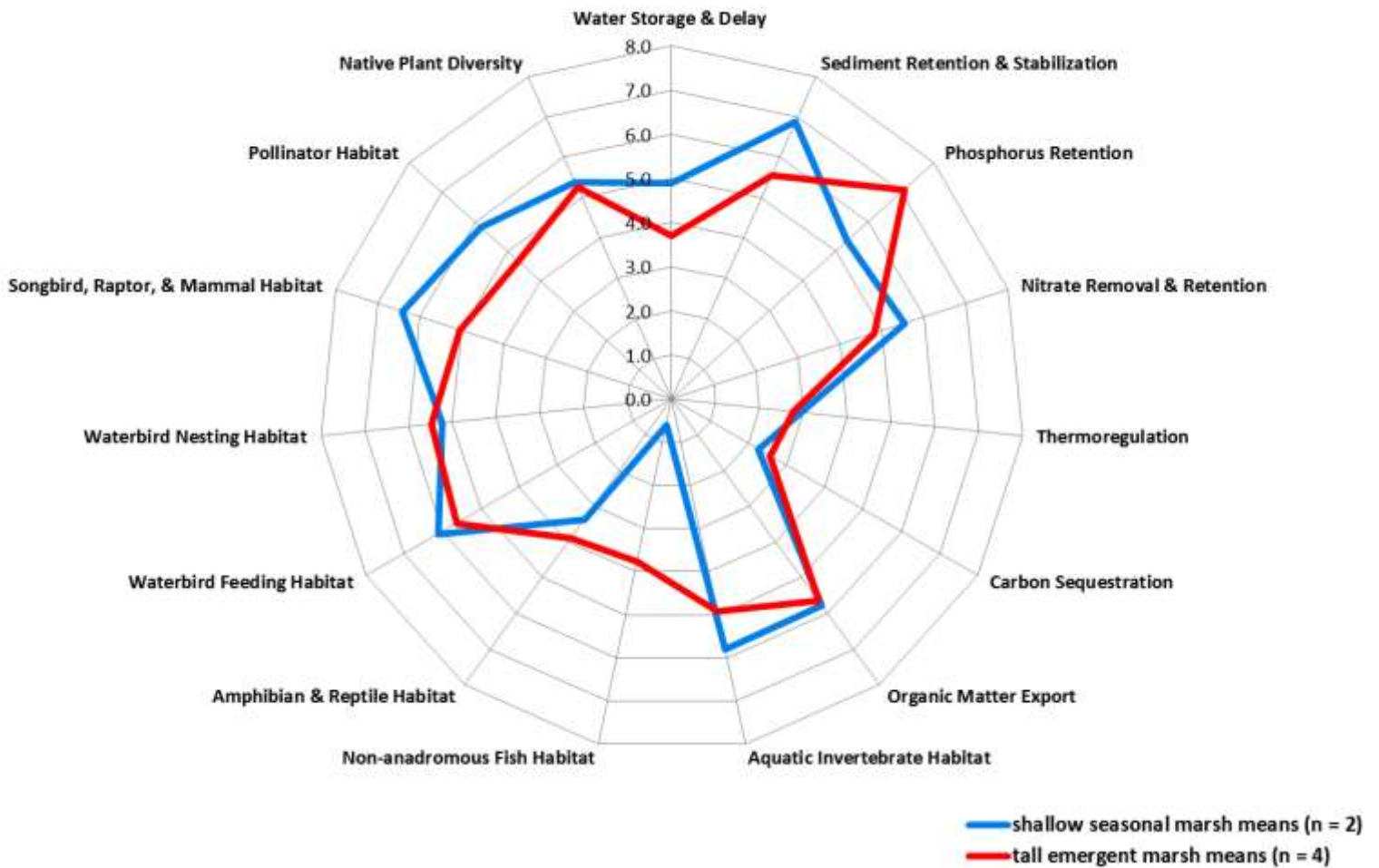


Figure 43.



Seasonally important habitats for waterfowl: beardless wildrye mesic meadow for dense nesting cover, C. J. Strike WMA (left); brood rearing pond with aquatic vegetation for foraging and tall emergent marsh for escape cover, Payette River WMA (middle); and floating pondweed aquatic bed and shallowly flooded emergent marsh for migration support, Montour WMA (right) (photos by Chris Murphy).

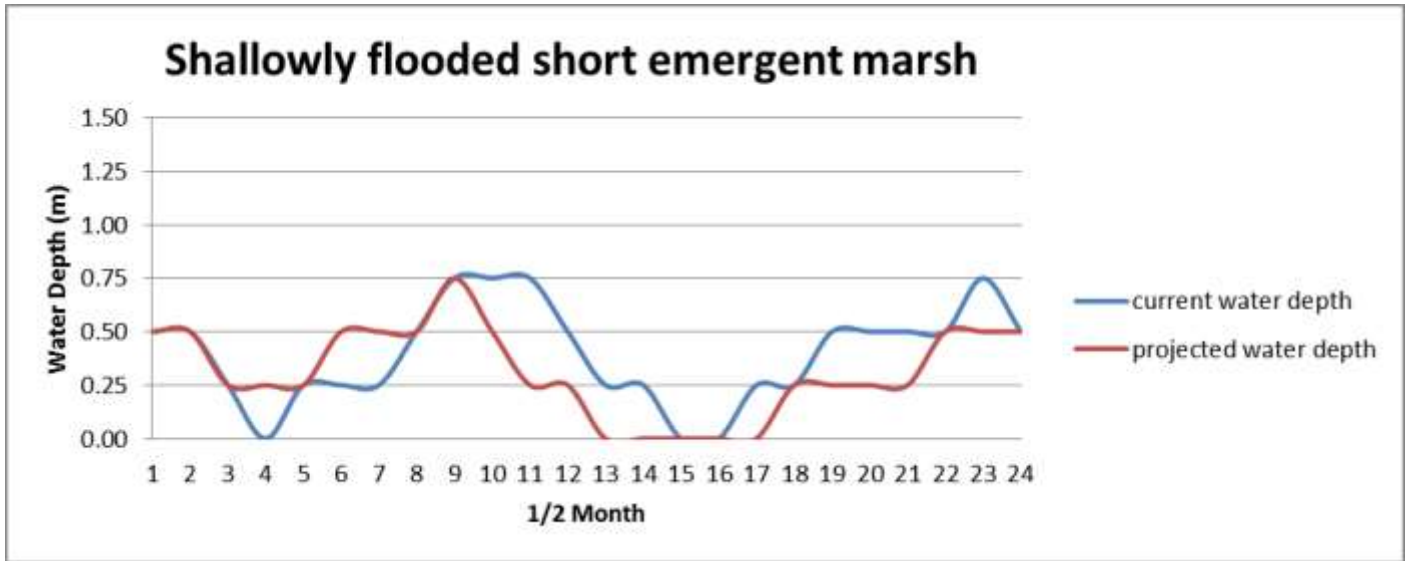


Figure 44.

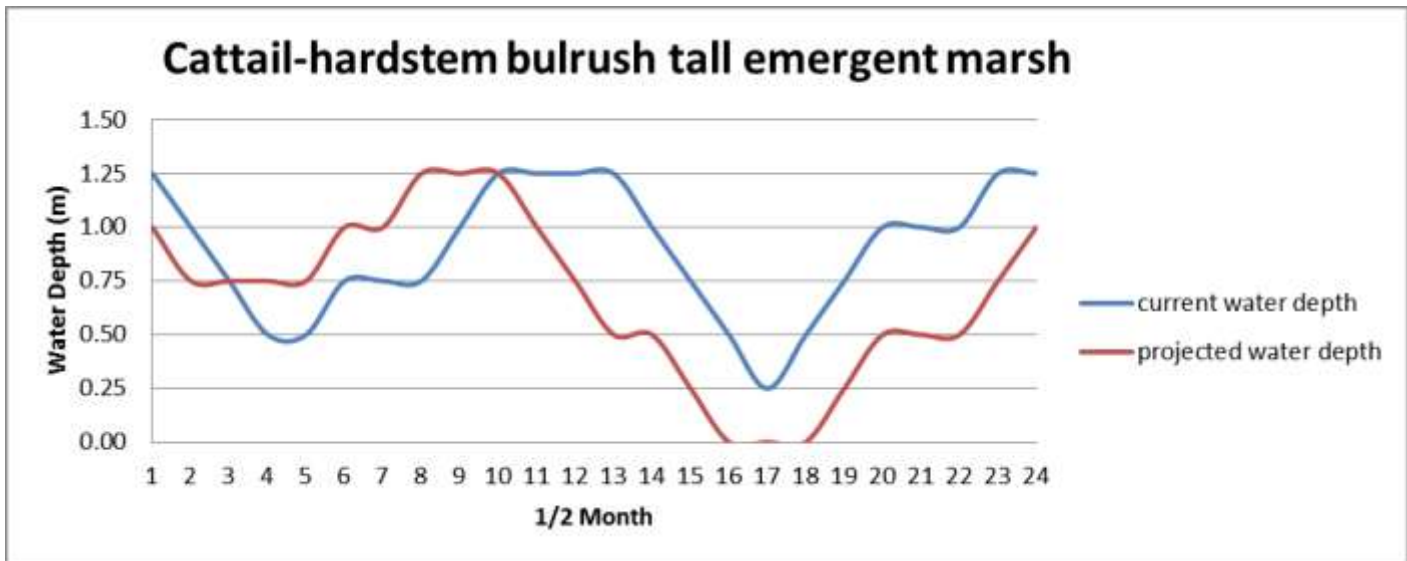


Figure 45.

Currently, seasonally / shallowly flooded emergent marshes fill in spring with rain and snowmelt runoff; water levels are then drawn down in late spring and early summer (either naturally by drought or by managers) for plant growth and invertebrate production; and then they are partially filled in fall to make plant foods available to migrating waterfowl (Figure 44). Under climate change, the drought period is predicted to be longer, fall re-flooding slower and/or minimal to non-existent until winter precipitation resumes, and overall winter flooding levels much lower. Tall emergent marshes are currently managed to maintain water levels at high and stable levels during the marsh bird and waterfowl brood rearing season (spring and early summer), followed by a draw down period in summer during peak irrigation demand, and then filled in fall (with excess irrigation water) for wintering waterfowl habitat and waterfowl hunting opportunities (Figure 45). With climate change, water levels in these marshes will be less stable, full drawdowns more frequent and longer, fall re-flooding slower and less deep until winter precipitation resumes, and overall winter water levels lower.

## Potential Functions of IDFG Wetlands Assessed Using WESPUS Under Current and Estimated Future Climate Regimes

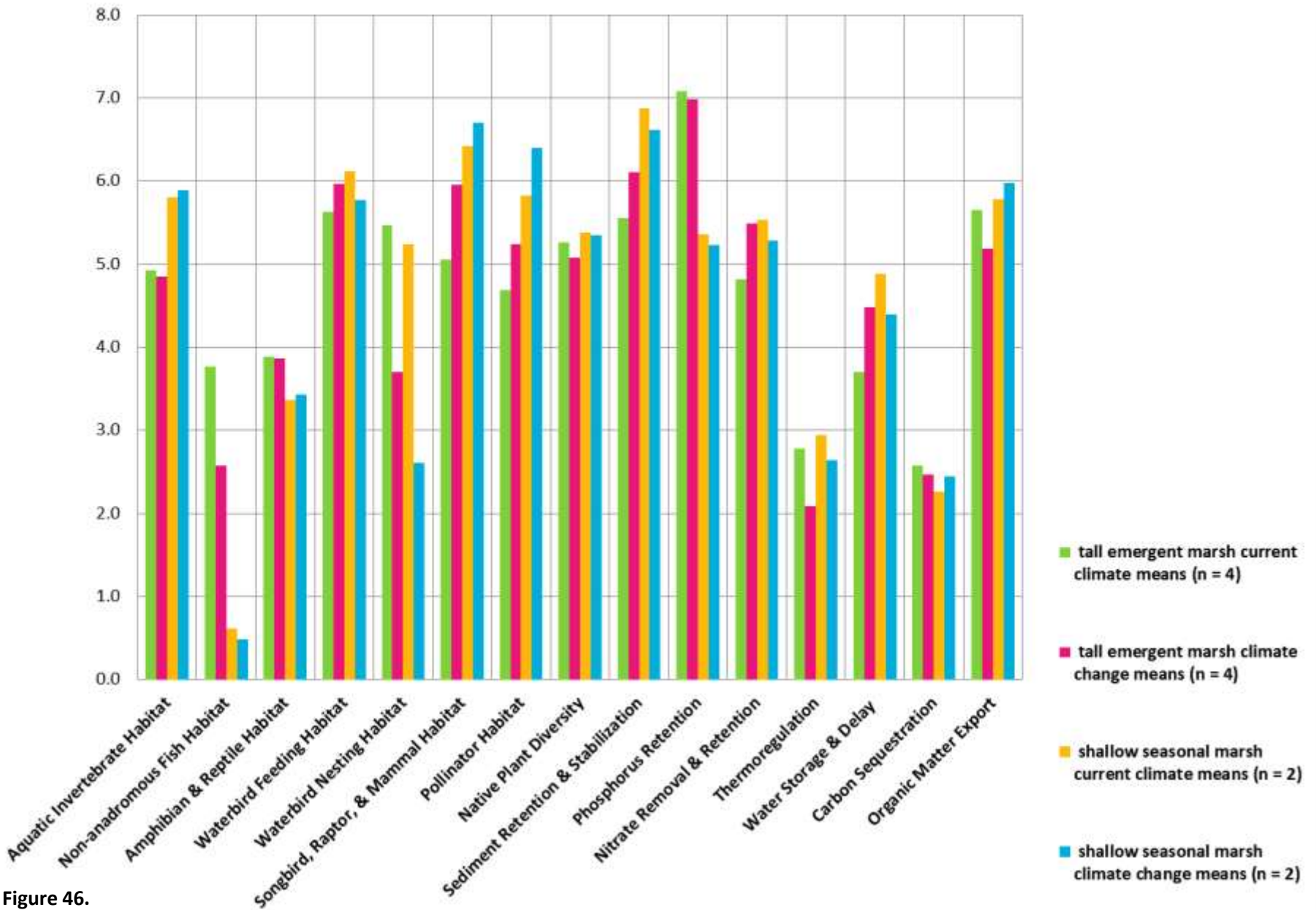


Figure 46.

## Water Quality Functions of IDFG Tall Emergent Marshes Under Current and Estimated Future Climate Regimes

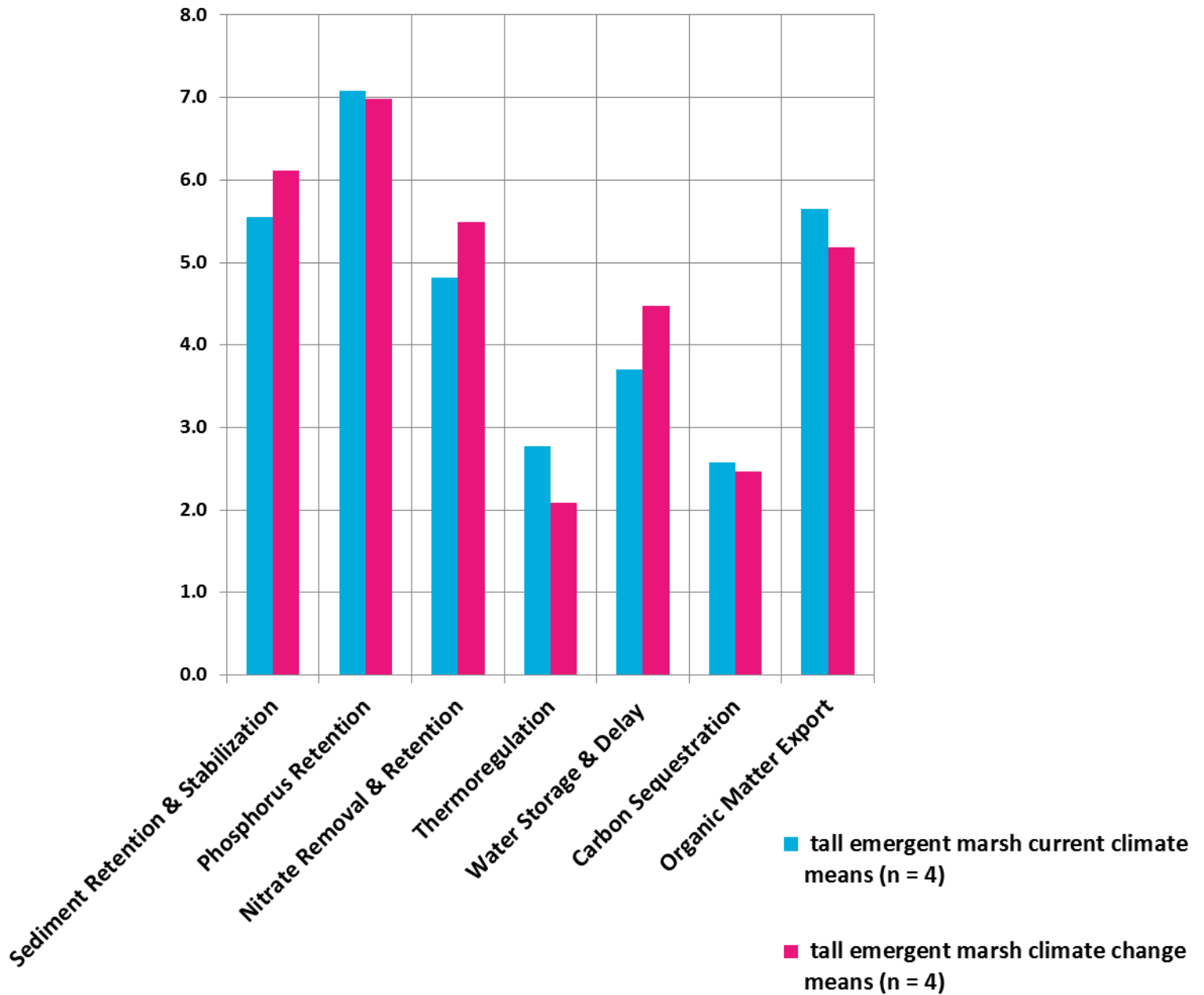


Figure 47.

The most noticeable changes to water quality support functions in tall emergent marsh wetlands under climate change would be a decrease in thermoregulation and organic matter export functions, and increases in sediment retention and stabilization, nitrate removal and retention, and water storage and delay (Figure 47). Phosphorus retention, an important function in wetlands dependent on irrigation return water, is not predicted to decrease greatly in the assessed wetlands.

## Water Quality Functions of IDFG Shallow Seasonal Marshes Under Current and Estimated Future Climate Regimes

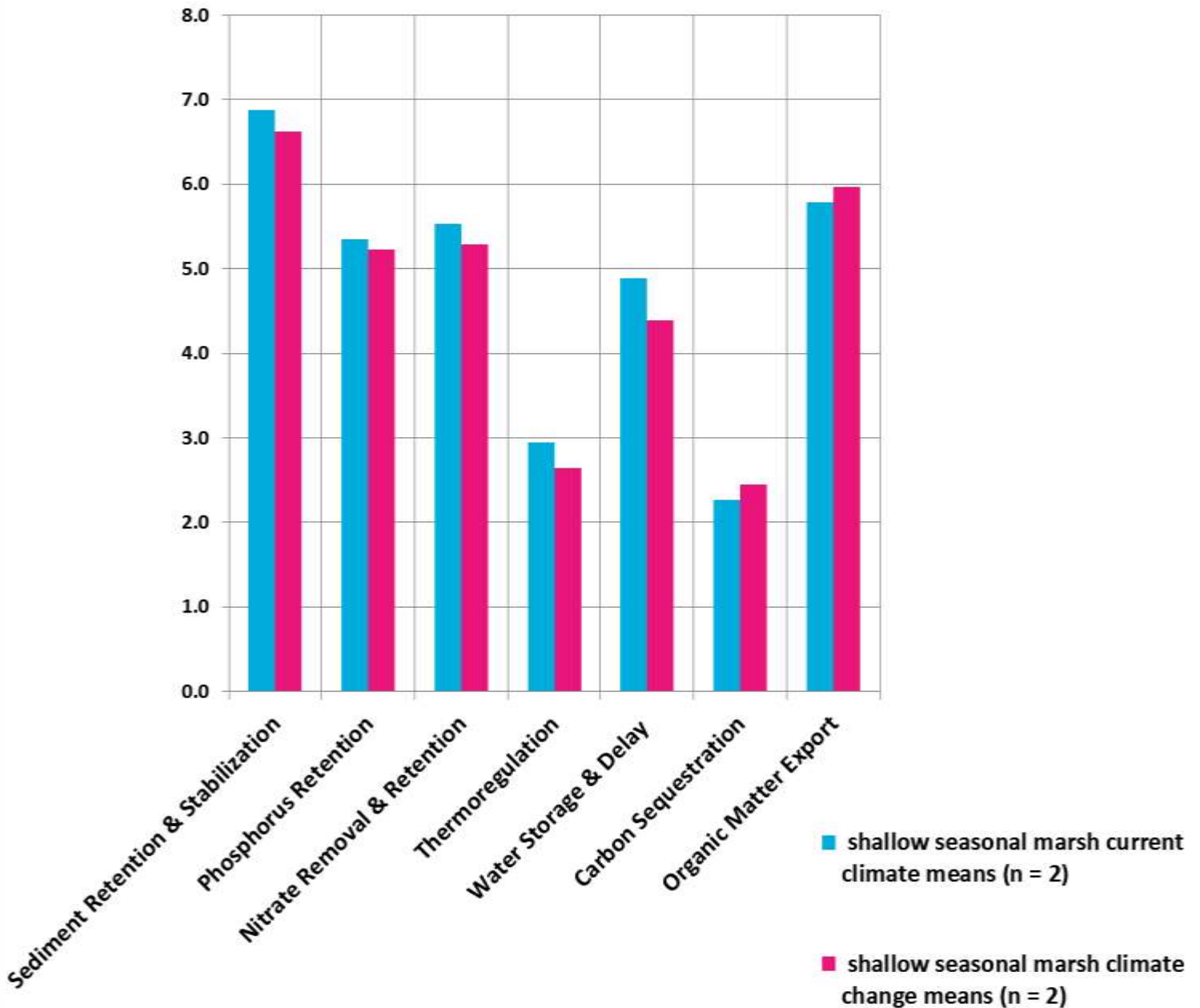


Figure 48.

Changes in water quality support functions provided by seasonally flooded marshes under climate change are not predicted to be as great as changes in tall emergent marsh functions (Figure 48). Only organic matter export and carbon sequestration functions are predicted to increase in these wetlands (although slightly). Thermoregulation and water storage and delay functions decreased the most under a climate change influenced hydrologic regime.

## Ecosystem Support Functions of IDFG Tall Emergent Marshes Under Current and Estimated Future Climate Regimes

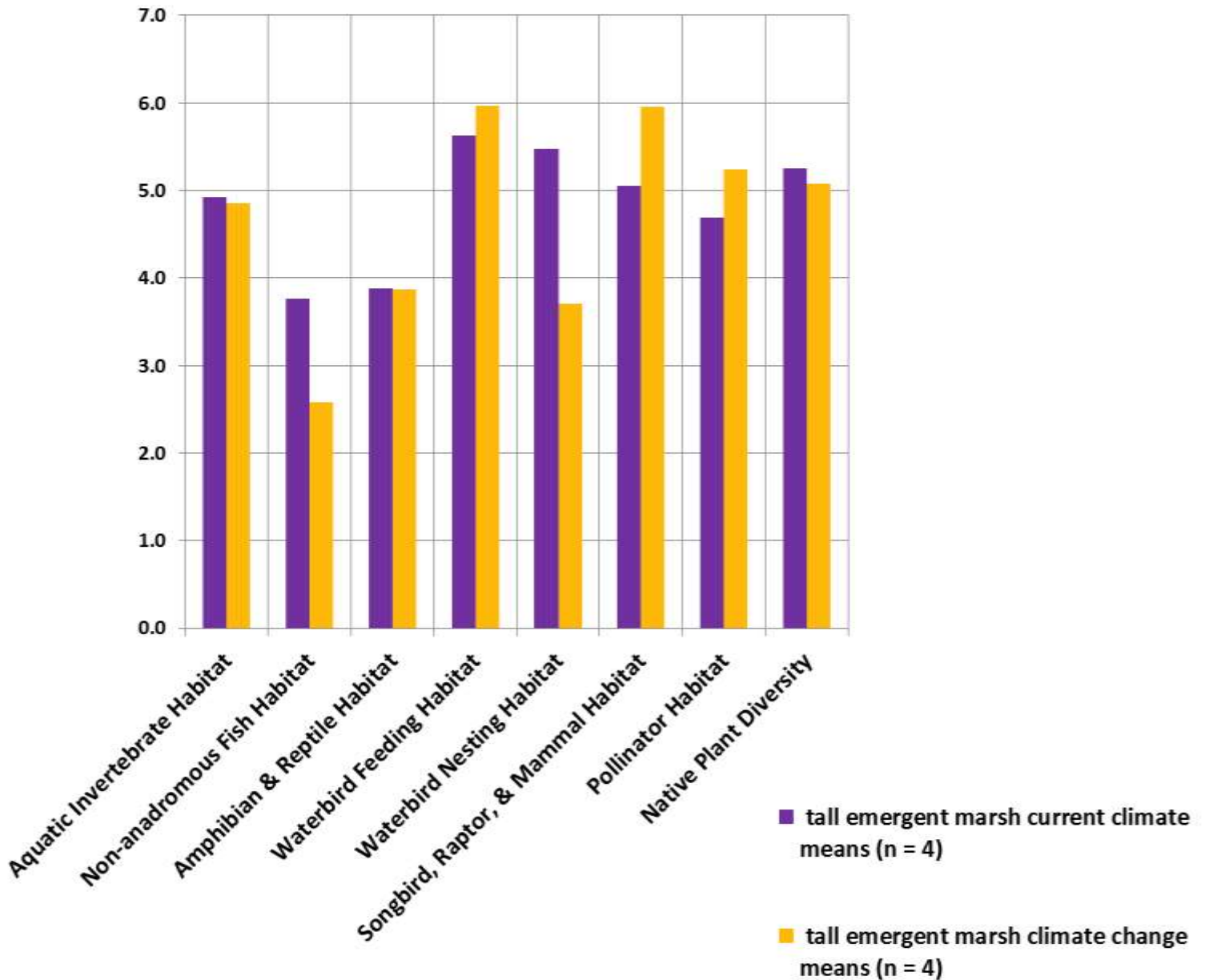
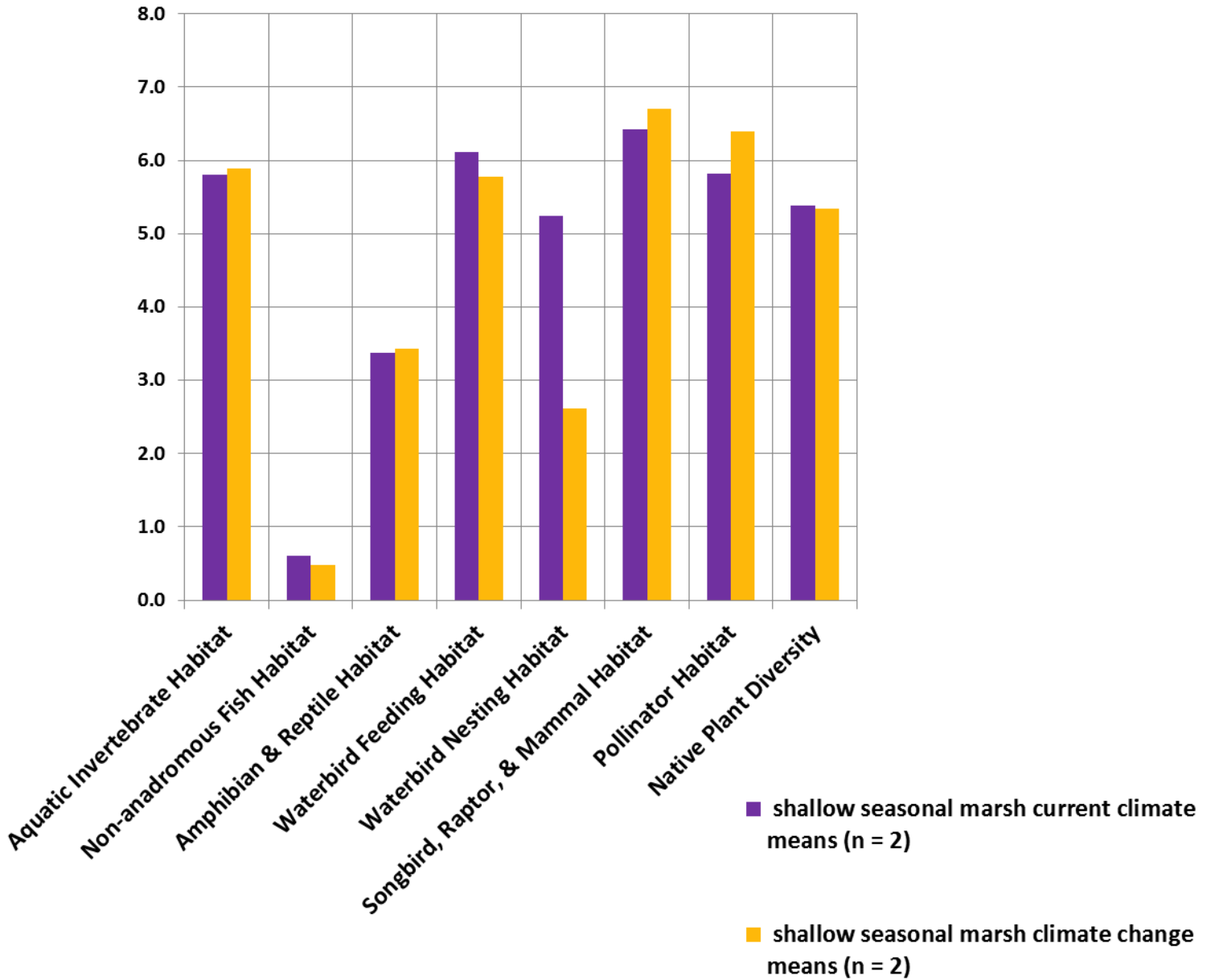


Figure 49.

Fish habitat and waterbird nesting habitat functions are projected to noticeably decrease in tall emergent marshes under climate change (Figure 49). In contrast, songbird, raptor, mammal, pollinator, and to a lesser degree, waterbird feeding habitat functions are likely to increase in tall emergent marshes. The overall movement in functional potentials of tall emergent marshes in a climate change hydrologic regime is toward those of seasonally flooded marshes (Figure 46). In seasonally flooded marshes, climate change will likely decrease waterbird nesting habitat to low levels (Figure 50). Terrestrial species habitat functions (e.g., songbirds, mammals, raptors, and pollinators) are predicted to increase.

## Ecosystem Support Functions of Shallow-Seasonal Marshes Under Current and Estimated Future Climate Regimes



**Figure 50.**

Based on this exercise, IDFG habitat biologists may want to adapt their wetland management to incorporate climate-induced hydrologic changes. They can use these assessment results to develop management techniques which maximize functions under future hydrologic constraints. Climate change may force the hand of managers to focus more on creation, enhancement, and restoration of seasonally flooded wetlands managed for migratory waterfowl and other birds instead of tall emergent marsh - open water wetlands managed for waterfowl production. Adaptive management could benefit migratory birds as well as yield increases in other important functions of wetlands on the Snake River Plain of southern Idaho.



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- Don Kemner, Wildlife Projects
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- Sal Palazzolo, Private Lands/Farm Bill
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- Ann Moser, Staff Biologist/Monitoring
- Andy Ogden, Habitat Biologist
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- Matt Pieron, Staff Biologist
- Walt Poole, Staff Biologist/Water Resources
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- Ben Studer, Web Master
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- Joe Rocchio, Ecologist, Washington Natural Heritage Program
- Linda Vance, Ecologist, Montana Natural Heritage Program
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## APPENDIX



Seasonally and shallowly flooded short emergent marsh dominated by common spikerush and camas, Camas Prairie near Centennial Marsh WMA (photo by Chris Murphy).

**Table 1. Wetland and riparian vegetation communities sampled, monitored, or observed on IDFG properties classified according to the National Vegetation Classification (FGDC 2008).**

Plant associations were classified using existing classifications applicable to Idaho (north Idaho: Cooper and Jones 2004, Hansen et al. 1995, Kovalchik and Clausnitzer 2004, Lichthardt 2004, Pierce and Jensen 2002; north-central and west-central Idaho: Asherin and Orme 1978, Asherin and Claar 1976, Crawford 2003, Crowe et al. 2004, Hansen et al. 1995, Holmstead 2003, Miller 1976, Murphy et al. 2011, Wells 2006; southwest Idaho: Holmstead 2003, Jankovsky-Jones et al. 2001, Murphy et al. 2011; east-central Idaho: Hansen et al. 1995, Hansen and Hall 2002; and southeast Idaho: Padgett et al. 1989; Walford et al. 2001; Youngblood et al. 1985).

**Table 2. All unique wetland and riparian vegetation communities sampled, monitored, or observed on IDFG properties classified by habitat and ecological system.**

**Table 3. Scientific names of plant species referred to in text.**



**Table 1. Wetland and riparian vegetation communities sampled, monitored, or observed on IDFG properties classified according to the National Vegetation Classification.**

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	# of Plots or Observations
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Abies grandis</i> / <i>Alnus incana</i> / <i>Cornus sericea</i> Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Abies grandis</i> / <i>Clintonia uniflora</i> Forest	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Abies grandis</i> / <i>Senecio triangularis</i> Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Abies grandis</i> / <i>Symphoricarpos albus</i> Forest	3
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Acer saccharinum</i> Semi-natural Woodland	6
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Alnus rhombifolia</i> / <i>Betula occidentalis</i> Forest	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Alnus rhombifolia</i> / <i>Cornus sericea</i> Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Alnus rhombifolia</i> / <i>Crataegus douglasii</i> Forest	3
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Alnus rhombifolia</i> / <i>Philadelphus lewisii</i> Forest	8
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Alnus rhombifolia</i> / <i>Rosa woodsii</i> Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Alnus rubra</i> / <i>Athyrium filix-femina</i> - <i>Asarum caudatum</i> Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Betula papyrifera</i> / <i>Aralia nudicaulis</i> Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Betula papyrifera</i> / <i>Symphoricarpos albus</i> Woodland	4
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Elaeagnus angustifolia</i> / <i>Tamarix (chinensis, parviflora, ramosissima)</i> Semi-natural Shrubland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Elaeagnus angustifolia</i> Semi-natural Woodland	13
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Fraxinus pennsylvanica</i> Semi-natural Woodland	3
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Juglans (nigra, regia)</i> Semi-natural Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Orchard - Relict Fruit Trees ( <i>Malus</i> spp., <i>Prunus</i> spp., <i>Pyrus</i> spp.) Semi-natural Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Picea engelmannii</i> / <i>Symphoricarpos albus</i> Forest	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Pinus ponderosa</i> / <i>Betula occidentalis</i> Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Pinus ponderosa</i> / <i>Symphoricarpos albus</i> Temporarily Flooded Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus alba</i> Semi-natural Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus angustifolia</i> / <i>Betula occidentalis</i> Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus angustifolia</i> / Invasive Perennial Grasses Semi-natural Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus angustifolia</i> Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> - <i>Alnus rhombifolia</i> Forest	4
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Acer glabrum</i> Forest	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Alnus incana</i> Forest	13
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Amorpha fruticosa</i> Semi-natural Woodland	6
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Betula occidentalis</i> Woodland	5
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Calamagrostis canadensis</i> Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Cornus sericea</i> Forest	5
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i> / <i>Crataegus douglasii</i> Forest	6

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa / Mixed Herbs Semi-natural Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa / Phalaris arundinacea Semi-natural Woodland	7
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa / Philadelphus lewisii Woodland	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa / Poa pratensis Semi-natural Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa / Rosa woodsii Forest	5
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa / Salix exigua Forest	3
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa / Salix lutea Woodland	3
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa / Spiraea douglasii Woodland	3
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa / Symphoricarpos albus Forest	8
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus balsamifera ssp. trichocarpa Alluvial Bar Woodland	4
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus deltoides Semi-natural Woodland	3
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus fremontii Semi-natural Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus tremuloides / Acer glabrum Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus tremuloides / Cornus sericea Forest	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus tremuloides / Crataegus douglasii / Heracleum maximum Shrubland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus tremuloides / Crataegus douglasii / Symphoricarpos albus Shrubland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus tremuloides / Prunus virginiana Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus tremuloides / Spiraea douglasii Forest	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus tremuloides / Symphoricarpos albus / Elymus glaucus Woodland	3
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Populus tremuloides / Symphoricarpos albus Forest	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Pseudotsuga menziesii / Acer glabrum Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Pseudotsuga menziesii / Cornus sericea Woodland	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Robinia pseudoacacia Semi-natural Woodland	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Salix (fragilis, alba) Semi-natural Woodland	4
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Salix amygdaloides - Elaeagnus angustifolia Semi-natural Woodland	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Salix amygdaloides / Phalaris arundinacea Semi-natural Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Salix amygdaloides / Salix exigua Woodland	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Salix amygdaloides Woodland	3
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Thuja plicata - Tsuga heterophylla / Oplomanax horridus Rocky Mountain Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Thuja plicata / Aralia nudicaulis Forest	1

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Thuja plicata / Athyrium filix-femina Forest	7
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Thuja plicata / Lysichiton americanus Forest	8
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Tsuga heterophylla / Athyrium filix-femina Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G503 - Rocky Mountain & Great Basin Lowland & Foothill Riparian Forest Group	Ulmus pumila Semi-natural Woodland	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G506 - Rocky Mountain & Great Basin Montane Riparian Forest Group	Abies lasiocarpa - Picea engelmannii / Streptopus amplexifolius Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G506 - Rocky Mountain & Great Basin Montane Riparian Forest Group	Pinus contorta / Vaccinium uliginosum Forest	1
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G506 - Rocky Mountain & Great Basin Montane Riparian Forest Group	Populus tremuloides / Cornus sericea Forest	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G506 - Rocky Mountain & Great Basin Montane Riparian Forest Group	Thuja plicata - Tsuga heterophylla / Oplopanax horridus Rocky Mountain Forest	2
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G506 - Rocky Mountain & Great Basin Montane Riparian Forest Group	Thuja plicata / Athyrium filix-femina Forest	7
M034 - Rocky Mountain & Great Basin Flooded & Swamp Forest	G506 - Rocky Mountain & Great Basin Montane Riparian Forest Group	Tsuga mertensiana / Streptopus amplexifolius Forest	14
M064 - Rocky Mountain Subalpine & Montane Fen	G515 - Rocky Mountain Poor Fen Group	Carex lasiocarpa Herbaceous Vegetation	1
M064 - Rocky Mountain Subalpine & Montane Fen	G515 - Rocky Mountain Poor Fen Group	Poor Fen Ecosystem	2
M064 - Rocky Mountain Subalpine & Montane Fen	G515 - Rocky Mountain Poor Fen Group	Spiraea douglasii Shrubland	1
M064 - Rocky Mountain Subalpine & Montane Fen	G516 - Rocky Mountain Alkaline Fen Group	Carex cusickii Herbaceous Vegetation	1
M064 - Rocky Mountain Subalpine & Montane Fen	G516 - Rocky Mountain Alkaline Fen Group	Carex lasiocarpa Herbaceous Vegetation	2
M064 - Rocky Mountain Subalpine & Montane Fen	G516 - Rocky Mountain Alkaline Fen Group	Carex simulata Herbaceous Vegetation	2
M064 - Rocky Mountain Subalpine & Montane Fen	G516 - Rocky Mountain Alkaline Fen Group	Carex utriculata Herbaceous Vegetation	2
M064 - Rocky Mountain Subalpine & Montane Fen	G516 - Rocky Mountain Alkaline Fen Group	Eleocharis quinqueflora Herbaceous Vegetation	3
M064 - Rocky Mountain Subalpine & Montane Fen	G516 - Rocky Mountain Alkaline Fen Group	Pinus contorta / Vaccinium uliginosum Forest	1
M064 - Rocky Mountain Subalpine & Montane Fen	G516 - Rocky Mountain Alkaline Fen Group	Spiraea douglasii Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Eleocharis palustris Herbaceous Vegetation	5
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Equisetum fluviatile Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Glyceria grandis Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Hippuris vulgaris Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Juncus balticus Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Polygonum amphibium Herbaceous Vegetation	3
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Schoenoplectus acutus Herbaceous Vegetation	142
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Schoenoplectus pungens Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Schoenoplectus tabernaemontani Temperate Herbaceous Vegetation	4
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Sparganium eurycarpum Herbaceous Vegetation	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	19

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G518 - Western North American Temperate Interior Freshwater Marsh Group	Typha latifolia, angustifolia Western Herbaceous Vegetation	64
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Artemisia ludoviciana Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Carex aquatilis Herbaceous Vegetation	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Carex nebrascensis Herbaceous Vegetation	7
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Carex pellita Herbaceous Vegetation	6
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Carex praegracilis Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Carex simulata Herbaceous Vegetation	4
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Carex utriculata Herbaceous Vegetation	5
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Carex vulpinoidea Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Danthonia californica Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Deschampsia caespitosa Herbaceous Vegetation	3
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Deschampsia danthonioides Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Eleocharis acicularis Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Eleocharis palustris Herbaceous Vegetation	6
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Elymus glaucus Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Equisetum arvense Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Euthamia occidentalis Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Hordeum brachyantherum Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Juncus balticus Herbaceous Vegetation	19
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Juncus effusus Herbaceous Vegetation	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Leymus cinereus Bottomland Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Leymus triticoides Herbaceous Vegetation	1

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Pascopyrum smithii Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Schoenoplectus pungens Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Scirpus microcarpus Herbaceous Vegetation	3
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G523 - Western North American Maritime Lowland Wet Meadow & Seep Herbaceous Group	Senecio hydrophiloides - Juncus nevadensis var. nevadensis Herbaceous Vegetation	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Alnus incana / Cornus sericea Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Alnus incana / Lysichiton americanus Shrubland	5
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Alnus incana / Mesic Forbs Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Alnus incana / Mesic Graminoids Shrubland	4
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Alnus incana / Spiraea douglasii Shrubland	11
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Alnus incana Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Amorpha fruticosa - Salix exigua Semi-natural Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Amorpha fruticosa Semi-natural Shrubland	7
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Artemisia cana ssp. bolanderi / Festuca idahoensis Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Artemisia ludoviciana Herbaceous Vegetation	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Betula occidentalis - Alnus incana Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Betula occidentalis / Cornus sericea Shrubland	5
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Betula occidentalis / Mesic Forbs Shrubland	3
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Betula occidentalis / Philadelphus lewisii Shrubland	5
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Cornus sericea / Equisetum spp. Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Cornus sericea Shrubland	4
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Crataegus douglasii / Heracleum maximum Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Crataegus douglasii / Mesic Forbs Shrubland	2

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Crataegus douglasii / Rosa woodsii Shrubland	6
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Crataegus douglasii / Symphoricarpos albus Shrubland	5
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Crataegus douglasii Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Philadelphus lewisii Intermittently Flooded Shrubland	4
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Physocarpus malvaceus - Symphoricarpos albus Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Physocarpus malvaceus Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Prunus emarginata Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Prunus virginiana Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Rhus trilobata Intermittently Flooded Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Ribes aureum Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Rosa woodsii Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix amygdaloides / Salix exigua Woodland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix bebbiana / Mesic Graminoids Shrubland	3
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix boothii / Carex utriculata Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix drummondiana / Mesic Graminoids Shrubland	4
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix exigua - Tamarix spp. Semi-natural Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix exigua / Barren Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix exigua / Mesic Forbs Shrubland	5
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix exigua / Mesic Graminoids Shrubland	3
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix exigua / Phalaris arundinacea Semi-natural Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix exigua / Poa pratensis Semi-natural Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix exigua Sand - Gravel Bar Shrubland	9

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix geyeriana / Carex utriculata Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix geyeriana / Poa palustris Semi-natural Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lasiolepis / Barren Ground Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lasiolepis / Mesic Graminoids Shrubland	6
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lasiolepis Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lucida ssp. caudata / Cornus sericea Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lucida ssp. caudata / Mesic Forbs Shrubland	3
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lucida ssp. caudata / Mesic Graminoids Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lucida ssp. caudata / Mesic Graminoids Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lucida ssp. caudata / Poa pratensis Semi-natural Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lucida ssp. caudata / Salix exigua Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lutea - Salix exigua Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lutea / Carex utriculata Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lutea / Mesic Graminoids Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lutea / Poa pratensis Semi-natural Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lutea / Rosa woodsii Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix lutea Alluvial Bar Shrubland	1
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Salix melanopsis Cobble Bar Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Spiraea douglasii Shrubland	2
M073 - Western North American Lowland Freshwater Wet Meadow, Marsh & Shrubland	G526 - Rocky Mountain & Great Basin Lowland & Foothill Riparian & Seep Shrubland Group	Tamarix (chinensis, parviflora, ramosissima) Semi-natural Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Carex aquatilis Herbaceous Vegetation	3
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Carex microptera Herbaceous Vegetation	1

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Carex simulata Herbaceous Vegetation	3
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Carex utriculata Herbaceous Vegetation	5
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Carex vesicaria Herbaceous Vegetation	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Danthonia californica Herbaceous Vegetation	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Deschampsia caespitosa Herbaceous Vegetation	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Eleocharis acicularis Herbaceous Vegetation	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Eleocharis palustris Depressional Wetland Herbaceous Vegetation	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Eleocharis palustris Herbaceous Vegetation	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Juncus balticus Herbaceous Vegetation	2
M075 - Western North American Montane Wet Meadow & Low Shrubland	G521 - Vancouverian & Rocky Mountain Montane Wet Meadow Group	Leymus cinereus Herbaceous Vegetation	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Artemisia cana (ssp. bolanderi, ssp. viscidula) / Poa pratensis Semi-natural Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Artemisia cana ssp. viscidula - (Salix spp.) / Festuca idahoensis Shrubland	2
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Artemisia cana ssp. viscidula / Festuca idahoensis Shrub Herbaceous Vegetation	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Betula nana - Lonicera caerulea / Packera pseudoaurea var. pseudoaurea Shrubland	4
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Betula nana - Salix wolfii / Carex utriculata - Carex aquatilis Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Betula nana / Calamagrostis canadensis Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Betula occidentalis / Cornus sericea Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Cornus sericea / Heracleum maximum Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Dasiphora floribunda / Danthonia intermedia Shrubland	2
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Dasiphora floribunda / Festuca idahoensis Shrub Herbaceous Vegetation	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Dasiphora floribunda / Poa pratensis Semi-natural Shrubland	5
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix boothii / Carex pellita Shrubland	1



National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix boothii / Carex utriculata Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix boothii / Poa pratensis Semi-natural Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix drummondiana - Salix boothii / Mesic Graminoids Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix drummondiana / Calamagrostis canadensis Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix geyeriana / Carex aquatilis Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix geyeriana / Carex utriculata Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix geyeriana / Mesic Forbs Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix lemmonii / Mesic Graminoids Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix wolfii / Carex aquatilis Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix wolfii / Carex utriculata Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix wolfii / Mesic Forbs Shrubland	1
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Salix wolfii / Swertia perennis - Pedicularis groenlandica Shrubland	4
M075 - Western North American Montane Wet Meadow & Low Shrubland	G527 - Rocky Mountain & Great Basin Montane Riparian & Seep Shrubland Group	Vaccinium uliginosum Shrubland	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G537 - Intermountain Basins Alkaline-Saline Shrub Wetland Group	Allenrolfea occidentalis Shrubland	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G537 - Intermountain Basins Alkaline-Saline Shrub Wetland Group	Chrysothamnus viscidiflorus / Distichlis spicata Shrubland	2
M082 - Cool Semi-Desert Alkali-Saline Wetland	G537 - Intermountain Basins Alkaline-Saline Shrub Wetland Group	Dasiphora floribunda / Deschampsia caespitosa Shrubland	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G537 - Intermountain Basins Alkaline-Saline Shrub Wetland Group	Dasiphora floribunda / Juncus balticus Shrubland	4
M082 - Cool Semi-Desert Alkali-Saline Wetland	G537 - Intermountain Basins Alkaline-Saline Shrub Wetland Group	Sarcobatus vermiculatus / Bromus tectorum Semi-natural Shrubland	3
M082 - Cool Semi-Desert Alkali-Saline Wetland	G537 - Intermountain Basins Alkaline-Saline Shrub Wetland Group	Sarcobatus vermiculatus / Distichlis spicata Shrubland	41
M082 - Cool Semi-Desert Alkali-Saline Wetland	G537 - Intermountain Basins Alkaline-Saline Shrub Wetland Group	Sarcobatus vermiculatus / Leymus cinereus Shrubland	3
M082 - Cool Semi-Desert Alkali-Saline Wetland	G537 - Intermountain Basins Alkaline-Saline Shrub Wetland Group	Sarcobatus vermiculatus / Leymus triticoides Shrubland	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Atriplex (micrantha, patula, prostrata) Semi-natural Herbaceous Vegetation	3
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Bassia scoparia Semi-natural Herbaceous Vegetation	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Carex praegracilis Herbaceous Vegetation	5
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Carex simulata Herbaceous Vegetation	7
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Conium maculatum Semi-natural Herbaceous Vegetation	2
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Distichlis spicata - (Scirpus nevadensis) Herbaceous Vegetation	1

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Distichlis spicata Herbaceous Vegetation	33
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Eleocharis rostellata Herbaceous Vegetation	3
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Hordeum jubatum Herbaceous Vegetation	4
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Iva axillaris Herbaceous Vegetation	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Juncus balticus Herbaceous Vegetation	4
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Lepidium latifolium Semi-natural Herbaceous Vegetation	4
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Leymus cinereus - Distichlis spicata Herbaceous Vegetation	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Leymus cinereus Bottomland Herbaceous Vegetation	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Leymus triticoides Herbaceous Vegetation	10
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Muhlenbergia asperifolia Herbaceous Vegetation	2
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Muhlenbergia richardsonis Herbaceous Vegetation	2
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Pascopyrum smithii Herbaceous Vegetation	2
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Poa juncifolia Herbaceous Vegetation	2
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Puccinellia (lemmonii, nuttalliana) Herbaceous Vegetation	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Schoenoplectus americanus Western Herbaceous Vegetation	5
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Spartina gracilis Herbaceous Vegetation	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Sporobolus airoides Northern Plains Herbaceous Vegetation	1
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Suaeda calceoliformis Herbaceous Vegetation	2
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Thinopyrum ponticum - Lepidium latifolium Semi-natural Herbaceous Vegetation	2
M082 - Cool Semi-Desert Alkali-Saline Wetland	G538 - Intermountain Basins Alkaline-Saline Herb Wet Flat Group	Thinopyrum ponticum Semi-natural Herbaceous Vegetation	12
M095 - Great Basin & Intermountain Xero-Riparian Scrub	G559 - Cool Semi-Desert Shrub & Herb Wash-Arroyo Group	Artemisia tridentata ssp. tridentata / Leymus cinereus Shrubland	1
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Brasenia schreberi Herbaceous Vegetation	1
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Myriophyllum spicatum Semi-natural Herbaceous Vegetation	1
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Nuphar lutea ssp. polysepala Herbaceous Vegetation	3
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Potamogeton foliosus - Zannichellia palustris Herbaceous Vegetation	1
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Potamogeton foliosus Herbaceous Vegetation	7
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Potamogeton natans - Potamogeton foliosus Herbaceous Vegetation	1
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Potamogeton natans Herbaceous Vegetation	2
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Ranunculus aquatilis Herbaceous Vegetation	1
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Ruppia cirrhosa Herbaceous Vegetation	2
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Stuckenia pectinata - Potamogeton foliosus Herbaceous Vegetation	1
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Stuckenia pectinata - Zannichellia palustris Herbaceous Vegetation	1

National Vegetation Classification Macrogroup	National Vegetation Classification Group	Plant Association Scientific Name	Plots
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Stuckenia pectinata Herbaceous Vegetation	1
M109 - Western North American Freshwater Aquatic Vegetation	G544 - Western North American Temperate Freshwater Aquatic Bed Group	Thousand Springs Aquatic Ecosystem	6
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Agrostis (gigantea, stolonifera) Semi-natural Herbaceous Vegetation	14
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Alopecurus (arundinaceus, pratensis) Semi-natural Herbaceous Vegetation	3
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Annual Bromus (arvensis, tectorum) Semi-natural Herbaceous Vegetation	3
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Atriplex (micrantha, patula, prostrata) Semi-natural Herbaceous Vegetation	1
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Bassia scoparia Semi-natural Herbaceous Vegetation	4
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Bromus inermis Semi-natural Herbaceous Vegetation	1
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Carex utriculata Herbaceous Vegetation	1
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Cirsium arvense Semi-natural Herbaceous Vegetation	3
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Dactylis glomerata Semi-natural Herbaceous Vegetation	15
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Dipsacus fullonum Semi-natural Herbaceous Vegetation	1
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Elymus repens Semi-natural Herbaceous Vegetation	9
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Equisetum arvense Herbaceous Vegetation	3
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Festuca rubra Semi-natural Herbaceous Vegetation	9
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Iris pseudacorus Semi-natural Herbaceous Vegetation	1
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Lepidium latifolium Semi-natural Herbaceous Vegetation	3
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Leymus triticoides Herbaceous Vegetation	1
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	62
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	9
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Poa pratensis Semi-natural Seasonally Flooded Herbaceous Vegetation	6
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Portulaca oleracea Semi-natural Herbaceous Vegetation	1
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Schoenoplectus acutus Herbaceous Vegetation	8
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Schoenoplectus pungens Herbaceous Vegetation	1
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Scirpus cyperinus Herbaceous Vegetation	3
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Thinopyrum intermedium Semi-natural Herbaceous Vegetation	2
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Thinopyrum ponticum Semi-natural Herbaceous Vegetation	4
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	2
M301 - Western North American Ruderal Wet Meadow & Marsh	G524 - Western North American Ruderal Wet Meadow & Marsh Group	Typha latifolia, angustifolia Western Herbaceous Vegetation	8

**Table 2. All unique wetland and riparian vegetation communities sampled, monitored, or observed on IDFG properties classified by habitat and ecological system.**

IDFG Property	Type	Habitat / Potential Map Unit	Ecological System Name	Plant Association Scientific Name	Plant Association Common Name
BANBURY SPRINGS WHA	WHA	Spring and Seep Herbaceous Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Thousand Springs Aquatic Ecosystem	Thousand Springs Aquatic Ecosystem
BANBURY SPRINGS WHA	WHA	Spring and Seep Scrub-Shrub Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Betula occidentalis / Mesic Forbs Shrubland	Water Birch / Mesic Forbs Shrubland
BANBURY SPRINGS WHA	WHA	Spring and Seep Scrub-Shrub Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Rhus trilobata Intermittently Flooded Shrubland	Skunkbush Intermittently Flooded Shrubland
BANBURY SPRINGS WHA	WHA	Spring and Seep Wetland - Invasive and Noxious Weed	Inter-Mountain Basins Foothill-Canyon Springs	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Common Reed Western North America Temperate Semi-natural Herbaceous Vegetation
BEAR VALLEY PATROL CABIN	OTHER	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Salix drummondiana / Calamagrostis canadensis Shrubland	Drummond's Willow / Bluejoint Shrubland
BIG COTTONWOOD WMA	WMA	Narrowleaf Cottonwood Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Populus angustifolia Woodland	Narrowleaf Cottonwood Woodland
BILLINGSLEY CREEK WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
BILLINGSLEY CREEK WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
BILLINGSLEY CREEK WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
BILLINGSLEY CREEK WMA	WMA	Russian Olive Forested Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Elaeagnus angustifolia Semi-natural Woodland	Russian Olive Semi-natural Woodland
BILLINGSLEY CREEK WMA	WMA	Spring and Seep Scrub-Shrub Wetland	Inter-Mountain Basins Cliff and Canyon	Sarcobatus vermiculatus / Leymus cinereus Shrubland	Black Greasewood / Great Basin Lyme Grass Shrubland
BILLINGSLEY CREEK WMA	WMA	Spring and Seep Scrub-Shrub Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Rhus trilobata Intermittently Flooded Shrubland	Skunkbush Intermittently Flooded Shrubland
BILLINGSLEY CREEK WMA	WMA	Spring and Seep Wetland - Invasive and Noxious Weed	Inter-Mountain Basins Foothill-Canyon Springs	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Common Reed Western North America Temperate Semi-natural Herbaceous Vegetation
BLACKFOOT RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Salix boothii / Carex utriculata Shrubland	Booth's Willow / Beaked Sedge Shrubland
BLACKFOOT RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Salix boothii / Poa pratensis Semi-natural Shrubland	Booth's Willow / Kentucky Bluegrass Semi-natural Shrubland
BLACKFOOT RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Salix geyeriana / Carex aquatilis Shrubland	Geyer's Willow / Aquatic Sedge Shrubland
BLACKFOOT RIVER WMA	WMA	Short-Willow and Bog Birch Shrublands	Rocky Mountain Alpine-Montane Wet Meadow	Salix wolfii / Carex aquatilis Shrubland	Wolf Willow / Aquatic Sedge Shrubland
BLACKFOOT RIVER WMA	WMA	Silver Sagebrush Mesic Shrublands	Rocky Mountain Subalpine-Montane Mesic Meadow	Artemisia cana (ssp. bolanderi, ssp. viscidula) / Poa pratensis Semi-natural Shrubland	(Bolander Silver Sagebrush, Mountain Silver Sagebrush) / Kentucky Bluegrass Semi-natural Shrubland
BLACKFOOT RIVER WMA	WMA	Vernal or Seasonal Pool	Rocky Mountain Subalpine-Montane Seasonally Flooded Pool	Eleocharis acicularis Herbaceous Vegetation	Needle Spikerush Vernal Pool Herbaceous Vegetation
BLACKFOOT RIVER WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex aquatilis Herbaceous Vegetation	Aquatic Sedge Herbaceous Vegetation
BLACKFOOT RIVER WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex simulata Herbaceous Vegetation	Analogue Sedge Herbaceous Vegetation
BLACKFOOT RIVER WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
BLACKFOOT RIVER WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Deschampsia caespitosa Herbaceous Vegetation	Tufted Hairgrass Herbaceous Vegetation
BLACKFOOT RIVER WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation

IDFG Property	Type	Habitat / Potential Map Unit	Ecological System Name	Plant Association Scientific Name	Plant Association Common Name
BOISE RIVER CONSERVATION EASEMENT - WARM SPRINGS	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lutea / Mesic Graminoids Shrubland	Yellow Willow / Mesic Graminoids Shrubland
BOISE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Salix exigua Forest	Black Cottonwood / Coyote Willow Forest
BOISE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Salix lutea Woodland	Black Cottonwood / Yellow Willow Woodland
BOISE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa Alluvial Bar Woodland	Black Cottonwood Alluvial Bar Woodland
BOISE RIVER WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
BOISE RIVER WMA	WMA	Coniferous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Pseudotsuga menziesii / Cornus sericea Woodland	Douglas-fir / Red-osier Dogwood Woodland
BOISE RIVER WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus tremuloides / Cornus sericea Forest	Quaking Aspen / Red-osier Dogwood Forest
BOISE RIVER WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix amygdaloides Woodland	Peachleaf Willow Woodland
BOISE RIVER WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Carex pellita Herbaceous Vegetation	Woolly Sedge Herbaceous Vegetation
BOISE RIVER WMA	WMA	Mesic Meadow	Rocky Mountain Montane-Foothill Ephemeral Moist Meadow	Deschampsia danthonioides Herbaceous Vegetation	Annual Hairgrass Herbaceous Vegetation
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Betula occidentalis / Cornus sericea Shrubland	Water Birch / Red-osier Dogwood Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Betula occidentalis / Philadelphus lewisii Shrubland	Water Birch / Lewis' Mock Orange Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Crataegus douglasii / Heraclium maximum Shrubland	Black Hawthorn / Cow-parsnip Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Crataegus douglasii / Rosa woodsii Shrubland	Black Hawthorn / Woods' Rose Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua / Mesic Forbs Shrubland	Coyote Willow / Mesic Forbs Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua Sand - Gravel Bar Shrubland	Coyote Willow Sand - Gravel Bar Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lasiolepis / Barren Ground Shrubland	Arroyo Willow / Barren Ground Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lasiolepis / Mesic Graminoids Shrubland	Arroyo Willow / Mesic Graminoids Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Cornus sericea Shrubland	Shining Willow / Red-osier Dogwood Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lutea - Salix exigua Shrubland	Yellow Willow - Sandbar willow Shrubland
BOISE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lutea Alluvial Bar Shrubland	Yellow Willow Alluvial Bar Shrubland
BOUNDARY CREEK WMA	WMA	Aquatic Bed	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh		
BOUNDARY CREEK WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Phalaris arundinacea Semi-natural Woodland	Black Cottonwood / Reed Canarygrass Semi-natural Woodland
BOUNDARY CREEK WMA	WMA	Bulrush Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation

IDFG Property	Type	Habitat / Potential Map Unit	Ecological System Name	Plant Association Scientific Name	Plant Association Common Name
BOUNDARY CREEK WMA	WMA	Cattail Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Cattail Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh		
BOUNDARY CREEK WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Dactylis glomerata Semi-natural Herbaceous Vegetation	Orchardgrass Semi-natural Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Agrostis (gigantea, stolonifera) Semi-natural Herbaceous Vegetation	(Giant Bentgrass, Spreading Bentgrass) Semi-natural Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Dactylis glomerata Semi-natural Herbaceous Vegetation	Orchardgrass Semi-natural Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Elymus repens Semi-natural Herbaceous Vegetation	Quackgrass Semi-natural Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Thinopyrum intermedium Semi-natural Herbaceous Vegetation	Intermediate Wheatgrass Semi-natural Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Mudflat	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Eleocharis acicularis Herbaceous Vegetation	Needle Spikerush Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Reed Canarygrass Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Crataegus douglasii / Symphoricarpos albus Shrubland	Black Hawthorn / Common Snowberry Shrubland
BOUNDARY CREEK WMA	WMA	Tall Emergent Marsh - Invasive and Noxious Weed	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Equisetum arvense Herbaceous Vegetation	Field Horsetail Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Wet Meadow - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Agrostis (gigantea, stolonifera) Semi-natural Herbaceous Vegetation	(Giant Bentgrass, Spreading Bentgrass) Semi-natural Herbaceous Vegetation
BOUNDARY CREEK WMA	WMA	Wet Meadow - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Elymus repens Semi-natural Herbaceous Vegetation	Quackgrass Semi-natural Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Carex praegracilis Herbaceous Vegetation	Clustered Field Sedge Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Leymus cinereus - Distichlis spicata Herbaceous Vegetation	Great Basin Lyme Grass - Saltgrass Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Mesic Meadow	Rocky Mountain Montane-Foothill Ephemeral Moist Meadow	Hordeum brachyantherum Herbaceous Vegetation	Meadow Barley Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Mesic Meadow	Rocky Mountain Montane-Foothill Ephemeral Moist Meadow	Leymus cinereus Bottomland Herbaceous Vegetation	Great Basin Lyme Grass Bottomland Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Mesic Meadow	Rocky Mountain Montane-Foothill Ephemeral Moist Meadow		
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Saltgrass Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Polygonum amphibium Herbaceous Vegetation	Water Smartweed Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh		

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CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Silver Sagebrush Mesic Shrublands	Columbia Plateau Silver Sagebrush Seasonally Flooded Shrub-Steppe	Artemisia cana ssp. bolanderi / Festuca idahoensis Shrubland	Bolander's Silver Sagebrush / Idaho Fescue Shrubland
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Silver Sagebrush Mesic Shrublands	Columbia Plateau Silver Sagebrush Seasonally Flooded Shrub-Steppe		
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex nebrascensis Herbaceous Vegetation	Nebraska Sedge Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex simulata Herbaceous Vegetation	Analogue Sedge Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Deschampsia caespitosa Herbaceous Vegetation	Tufted Hairgrass Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
CAMAS PRAIRIE CENTENNIAL MARSH WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow		
CAREY LAKE WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus tabernaemontani Temperate Herbaceous Vegetation	Softstem Bulrush Temperate Herbaceous Vegetation
CAREY LAKE WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
CAREY LAKE WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
CAREY LAKE WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
CAREY LAKE WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Polygonum amphibium Herbaceous Vegetation	Water Smartweed Herbaceous Vegetation
CAREY LAKE WMA	WMA	Tall Emergent Marsh	North American Arid West Emergent Marsh		
CARTIER SLOUGH WMA	WMA	Black Cottonwood Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Poa pratensis Semi-natural Woodland	Black Cottonwood / Kentucky Bluegrass Semi-natural Woodland
CARTIER SLOUGH WMA	WMA	Black Cottonwood Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Symphoricarpos albus Forest	Black Cottonwood / Common Snowberry Forest
CARTIER SLOUGH WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
CARTIER SLOUGH WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
CARTIER SLOUGH WMA	WMA	Deciduous Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Populus tremuloides / Cornus sericea Forest	Quaking Aspen / Red-osier Dogwood Forest
CARTIER SLOUGH WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
CARTIER SLOUGH WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Poa pratensis Semi-natural Seasonally Flooded Herbaceous Vegetation	Kentucky Bluegrass Semi-natural Seasonally Flooded Herbaceous Vegetation
CARTIER SLOUGH WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Cornus sericea Shrubland	Red-osier Dogwood Shrubland
CARTIER SLOUGH WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Crataegus douglasii / Rosa woodsii Shrubland	Black Hawthorn / Woods' Rose Shrubland
CARTIER SLOUGH WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix exigua / Mesic Forbs Shrubland	Coyote Willow / Mesic Forbs Shrubland
CARTIER SLOUGH WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix exigua / Poa pratensis Semi-natural Shrubland	Coyote Willow / Kentucky Bluegrass Semi-natural Shrubland
CARTIER SLOUGH WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix exigua Sand - Gravel Bar Shrubland	Coyote Willow Sand - Gravel Bar Shrubland

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CARTIER SLOUGH WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Poa pratensis Semi-natural Shrubland	Shining Willow / Kentucky Bluegrass Semi-natural Shrubland
CARTIER SLOUGH WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
CARTIER SLOUGH WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Polygonum amphibium Herbaceous Vegetation	Water Smartweed Herbaceous Vegetation
CARTIER SLOUGH WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex simulata Herbaceous Vegetation	Analogue Sedge Herbaceous Vegetation
CECIL D ANDRUS WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa - Alnus rhombifolia Forest	Black Cottonwood - White Alder Forest Black Cottonwood - White Alder Forest
CECIL D ANDRUS WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Acer glabrum Forest	Black Cottonwood / Rocky Mountain Maple Forest
CECIL D ANDRUS WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Alnus incana Forest	Black Cottonwood / Speckled Alder Forest
CECIL D ANDRUS WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Betula occidentalis Woodland	Black Cottonwood / Water Birch Woodland
CECIL D ANDRUS WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Cornus sericea Forest	Black Cottonwood / Red-osier Dogwood Forest
CECIL D ANDRUS WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Crataegus douglasii Forest	Black Cottonwood / Black Hawthorn Forest
CECIL D ANDRUS WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Philadelphus lewisii Woodland	Black Cottonwood / Lewis' Mock Orange Woodland
CECIL D ANDRUS WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Salix lutea Woodland	Black Cottonwood / Yellow Willow Woodland
CECIL D ANDRUS WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland		
CECIL D ANDRUS WMA	WMA	Coniferous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Pinus ponderosa / Betula occidentalis Forest	Ponderosa Pine / Water Birch Forest
CECIL D ANDRUS WMA	WMA	Coniferous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Pseudotsuga menziesii / Cornus sericea Woodland	Douglas-fir / Red-osier Dogwood Woodland
CECIL D ANDRUS WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus rhombifolia / Betula occidentalis Forest	White Alder / Water Birch Forest
CECIL D ANDRUS WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus rhombifolia / Cornus sericea Forest	White alder / Red-osier Dogwood Forest
CECIL D ANDRUS WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus rhombifolia / Crataegus douglasii Forest	White alder / Black Hawthorn Forest
CECIL D ANDRUS WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus rhombifolia / Philadelphus lewisii Forest	White Alder / Lewis' Mock Orange Forest
CECIL D ANDRUS WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus rhombifolia / Rosa woodsii Forest	White Alder / Woods' Rose Forest
CECIL D ANDRUS WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus tremuloides / Crataegus douglasii / Symphoricarpos albus Shrubland	Quaking Aspen / Black Hawthorn / Common Snowberry Shrubland
CECIL D ANDRUS WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus tremuloides / Symphoricarpos albus Forest	Quaking Aspen / Common Snowberry Forest
CECIL D ANDRUS WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland		
CECIL D ANDRUS WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Juglans (nigra, regia) Semi-natural Woodland	(Black Walnut, English Walnut) Semi-natural Woodland



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CECIL D ANDRUS WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Orchard - Relict Fruit Trees (Malus spp., Prunus spp., Pyrus spp.) Semi-natural Woodland	Orchard - Relict Fruit Trees (Apple, Apricot, Cherry, Pear, Plum) Semi-natural Woodland
CECIL D ANDRUS WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix (fragilis, alba) Semi-natural Woodland	(Crack Willow, White Willow) Semi-natural Woodland
CECIL D ANDRUS WMA	WMA	Mesic Meadow	Rocky Mountain Montane-Foothill Ephemeral Moist Meadow	Danthonia californica Herbaceous Vegetation	California Oatgrass Herbaceous Vegetation
CECIL D ANDRUS WMA	WMA	Mesic Meadow	Rocky Mountain Montane-Foothill Ephemeral Moist Meadow	Senecio hydrophiloides - Juncus nevadensis var. nevadensis Herbaceous Vegetation	Tall Groundsel - (Sierra Rush) Herbaceous Vegetation
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Philadelphus lewisii Intermittently Flooded Shrubland	Lewis' Mock Orange Intermittently Flooded Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Physocarpus malvaceus - Symphoricarpos albus Shrubland	Mallow-leaf Ninebark - Common Snowberry Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Physocarpus malvaceus Shrubland	Mallow-leaf Ninebark Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Prunus virginiana Shrubland	Chokecherry Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Rosa woodsii Shrubland	Woods' Rose Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus incana / Cornus sericea Shrubland	Speckled Alder / Red-osier Dogwood Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus incana Shrubland	Speckled Alder Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Betula occidentalis - Alnus incana Shrubland	Water Birch - Speckled Alder Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Betula occidentalis / Cornus sericea Shrubland	Water Birch / Red-osier Dogwood Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Betula occidentalis / Philadelphus lewisii Shrubland	Water Birch / Lewis' Mock Orange Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Cornus sericea Shrubland	Red-osier Dogwood Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Crataegus douglasii / Mesic Forbs Shrubland	Black Hawthorn / Mesic Forbs Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Crataegus douglasii / Rosa woodsii Shrubland	Black Hawthorn / Woods' Rose Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Crataegus douglasii / Symphoricarpos albus Shrubland	Black Hawthorn / Common Snowberry Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Crataegus douglasii Shrubland	Black Hawthorn Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lasiolepis Shrubland	Arroyo Willow Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Cornus sericea Shrubland	Shining Willow / Red-osier Dogwood Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland		Black Hawthorn Shrubland
CECIL D ANDRUS WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland		Speckled Alder Shrubland
CEDAR DRAW ACCESS SITE	ACCESS SITE	Spring and Seep Herbaceous Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Thousand Springs Aquatic Ecosystem	Thousand Springs Aquatic Ecosystem

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CEDAR DRAW ACCESS SITE	ACCESS SITE	Spring and Seep Scrub-Shrub Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Betula occidentalis / Mesic Forbs Shrubland	Water Birch / Mesic Forbs Shrubland
CHAMBERLAIN BASIN BACKCOUNTRY RANCHES	OTHER	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Salix boothii / Carex pellita Shrubland	Booth's Willow / Woolly Sedge Shrubland
CHAMBERLAIN BASIN BACKCOUNTRY RANCHES	OTHER	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Salix lemmonii / Mesic Graminoids Shrubland	Lemmon's Willow / Mesic Graminoids Shrubland
CHAMBERLAIN BASIN BACKCOUNTRY RANCHES	OTHER	Short-Willow and Bog Birch Shrublands	Rocky Mountain Subalpine-Montane Riparian Shrubland	Betula nana / Calamagrostis canadensis Shrubland	Swamp Birch / Bluejoint Shrubland
CHAMBERLAIN BASIN BACKCOUNTRY RANCHES	OTHER	Shrubby Cinquefoil Mesic Shrublands	Rocky Mountain Subalpine-Montane Mesic Meadow	Dasiphora floribunda / Festuca idahoensis Shrub Herbaceous Vegetation	Shrubby Cinquefoil / Idaho Fescue Shrub Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Muhlenbergia richardsonis Herbaceous Vegetation	Mat Muhly Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Poa juncifolia Herbaceous Vegetation	Alkali Bluegrass Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Spartina gracilis Herbaceous Vegetation	Alkali Cordgrass Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus tabernaemontani Temperate Herbaceous Vegetation	Softstem Bulrush Temperate Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Greasewood Alkaline Scrub-Shrub Wetland	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Leymus cinereus Shrubland	Black Greasewood / Great Basin Lyme Grass Shrubland
CHILLY SLOUGH WHA	WHA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex aquatilis Herbaceous Vegetation	Aquatic Sedge Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex nebrascensis Herbaceous Vegetation	Nebraska Sedge Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex simulata Herbaceous Vegetation	Analogue Sedge Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Deschampsia caespitosa Herbaceous Vegetation	Tufted Hairgrass Herbaceous Vegetation
CHILLY SLOUGH WHA	WHA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Schoenoplectus americanus Western Herbaceous Vegetation	Chairmaker's Bulrush Western Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Hordeum jubatum Herbaceous Vegetation	Foxtail Barley Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Leymus triticoides Herbaceous Vegetation	Beardless Lyme Grass Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Atriplex (micrantha, patula, prostrata) Semi-natural Herbaceous Vegetation	(Twoscale, Saltbush, Spear Saltbush, Triangle Orache) Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Iva axillaris Herbaceous Vegetation	Povertyweed Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation

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CJ STRIKE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Lepidium latifolium Semi-natural Herbaceous Vegetation	Perennial Pepperweed Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Leymus triticoides Herbaceous Vegetation	Beardless Lyme Grass Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Thinopyrum ponticum Semi-natural Herbaceous Vegetation	Tall Wheatgrass Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Alkaline Scrub-Shrub Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Tamarix (chinensis, parviflora, ramosissima) Semi-natural Shrubland	Tamarisk Semi-natural Shrubland
CJ STRIKE WMA	WMA	Aquatic Bed	North American Arid West Emergent Marsh	Potamogeton foliosus Herbaceous Vegetation	Narrowleaf Pondweed Herbaceous Vegetation
CJ STRIKE WMA	WMA	Aquatic Bed	North American Arid West Emergent Marsh	Ruppia cirrhosa Herbaceous Vegetation	Spiral Ditchgrass Herbaceous Vegetation
CJ STRIKE WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
CJ STRIKE WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation
CJ STRIKE WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
CJ STRIKE WMA	WMA	Greasewood Alkaline Scrub-Shrub Wetland	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Distichlis spicata Shrubland	Black Greasewood / Saltgrass Shrubland
CJ STRIKE WMA	WMA	Greasewood Alkaline Scrub-Shrub Wetland - Invasive and Noxious Weed	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Bromus tectorum Semi-natural Shrubland	Black Greasewood / Cheatgrass Semi-natural Shrubland
CJ STRIKE WMA	WMA	Greasewood Alkaline Scrub-Shrub Wetland - Invasive and Noxious Weed	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Distichlis spicata Shrubland	Black Greasewood / Saltgrass Shrubland
CJ STRIKE WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow		
CJ STRIKE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Bassia scoparia Semi-natural Herbaceous Vegetation	Burningbush Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Cirsium arvense Semi-natural Herbaceous Vegetation	Canada Thistle Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Thinopyrum ponticum Semi-natural Herbaceous Vegetation	Tall Wheatgrass Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Mudflat, Sand, and Cobble - Lake, Reservoir, and River	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Bromus tectorum Semi-natural Herbaceous Vegetation	Cheatgrass Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Peachleaf Willow Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix amygdaloides / Salix exigua Woodland	Peachleaf Willow / Coyote Willow Woodland
CJ STRIKE WMA	WMA	Peachleaf Willow Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix amygdaloides Woodland	Peachleaf Willow Woodland
CJ STRIKE WMA	WMA	Reed Canarygrass Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Russian Olive Forested Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Elaeagnus angustifolia / Tamarix (chinensis, parviflora, ramosissima) Semi-natural Shrubland	Russian Olive / Tamarisk Semi-natural Shrubland
CJ STRIKE WMA	WMA	Russian Olive Forested Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Elaeagnus angustifolia Semi-natural Woodland	Russian Olive Semi-natural Woodland
CJ STRIKE WMA	WMA	Saltgrass Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
CJ STRIKE WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Ribes aureum Shrubland	Golden Currant Shrubland

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CJ STRIKE WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix exigua Sand - Gravel Bar Shrubland	Coyote Willow Sand - Gravel Bar Shrubland
CJ STRIKE WMA	WMA	Scrub-Shrub Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix exigua - Tamarix spp. Semi-natural Shrubland	Coyote Willow - Tamarisk Species Semi-natural Shrubland
CJ STRIKE WMA	WMA	Scrub-Shrub Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix exigua / Mesic Forbs Shrubland	Coyote Willow / Mesic Forbs Shrubland
CJ STRIKE WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
CJ STRIKE WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus pungens Herbaceous Vegetation	Common Threesquare Herbaceous Vegetation
CJ STRIKE WMA	WMA	Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
CJ STRIKE WMA	WMA	Tall Emergent Marsh	North American Arid West Emergent Marsh		
CJ STRIKE WMA	WMA	Tall Emergent Marsh - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Common Reed Western North America Temperate Semi-natural Herbaceous Vegetation
CJ STRIKE WMA	WMA	Tall Willow Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix exigua / Barren Shrubland	Coyote Willow / Barren Shrubland
CJ STRIKE WMA	WMA	Wet Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Lepidium latifolium Semi-natural Herbaceous Vegetation	Perennial Pepperweed Semi-natural Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Aquatic Bed	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Nuphar lutea ssp. polysepala Herbaceous Vegetation	Yellow Pond-lily Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Alnus incana Forest	Black Cottonwood / Speckled Alder Forest
COEUR D ALENE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Calamagrostis canadensis Forest	Black Cottonwood / Bluejoint Forest
COEUR D ALENE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Cornus sericea Forest	Black Cottonwood / Red-osier Dogwood Forest
COEUR D ALENE RIVER WMA	WMA	Bulrush Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Cattail Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Deciduous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus rubra / Athyrium filix-femina - Asarum caudatum Forest	Red Alder / Common Ladyfern - Longtail Wild Ginger Forest
COEUR D ALENE RIVER WMA	WMA	Deciduous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Betula papyrifera / Symphoricarpos albus Woodland	Paper Birch / Common Snowberry Woodland
COEUR D ALENE RIVER WMA	WMA	Deciduous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus tremuloides / Spiraea douglasii Forest	Quaking Aspen / Rose Spiraea Forest
COEUR D ALENE RIVER WMA	WMA	Fen	Rocky Mountain Subalpine-Montane Fen	Carex lasiocarpa Herbaceous Vegetation	Wiregrass Sedge Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Fen	Rocky Mountain Subalpine-Montane Fen	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Fen	Rocky Mountain Subalpine-Montane Fen	Poor Fen Ecosystem	Poor Fen Ecosystem
COEUR D ALENE RIVER WMA	WMA	Fen	Rocky Mountain Subalpine-Montane Fen	Spiraea douglasii Shrubland	Douglas' Meadowsweet Shrubland
COEUR D ALENE RIVER WMA	WMA	Fen - Floating Mat	Rocky Mountain Subalpine-Montane Fen		
COEUR D ALENE RIVER WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Spiraea douglasii Shrubland	Douglas' Meadowsweet Shrubland
COEUR D ALENE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland		

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COEUR D ALENE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Spiraea douglasii Shrubland	Speckled Alder / Douglas' Meadowsweet Shrubland
COEUR D ALENE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland		
COEUR D ALENE RIVER WMA	WMA	Scrub-Shrub Swamp Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Lysichiton americanus Shrubland	Speckled Alder / Yellow Skunk-cabbage Shrubland
COEUR D ALENE RIVER WMA	WMA	Short Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Short Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Equisetum fluviatile Herbaceous Vegetation	Water Horsetail Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Short Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Sparganium eurycarpum Herbaceous Vegetation	Giant Bur-reed Herbaceous Vegetation
COEUR D ALENE RIVER WMA	WMA	Short Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh		
COEUR D ALENE RIVER WMA	WMA	Wet Meadow - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Alopecurus (arundinaceus, pratensis) Semi-natural Herbaceous Vegetation	(Creeping Meadow Foxtail, Meadow Foxtail) Semi-natural Herbaceous Vegetation
COPPER BASIN PATROL CABIN	OTHER	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex simulata Herbaceous Vegetation	Analogue Sedge Herbaceous Vegetation
CRAIG MOUNTAIN WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus rhombifolia / Betula occidentalis Forest	White Alder / Water Birch Forest
CRAIG MOUNTAIN WMA	WMA	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus rhombifolia / Philadelphus lewisii Forest	White Alder / Lewis' Mock Orange Forest
CRAIG MOUNTAIN WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus incana / Cornus sericea Shrubland	Speckled Alder / Red-osier Dogwood Shrubland
CROWN PACIFIC CONSERVATION EASEMENT - 1	CONSERVATION EASEMENT	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Athyrium filix-femina Forest	Western Red-cedar / Common Ladyfern Forest
DOG CR CAMPGROUND FISH WEIR	OTHER	Coniferous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Pinus ponderosa / Symphoricarpos albus Temporarily Flooded Woodland	Ponderosa Pine / Common Snowberry Temporarily Flooded Woodland
EAGLE HATCHERY	HATCHERY	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
EAGLE HATCHERY	HATCHERY	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Carex pellita Herbaceous Vegetation	Woolly Sedge Herbaceous Vegetation
EAGLE HATCHERY	HATCHERY	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Carex praegracilis Herbaceous Vegetation	Clustered Field Sedge Herbaceous Vegetation
EAGLE HATCHERY	HATCHERY	Short Emergent Marsh	North American Arid West Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
EAGLE SEWER DISTRICT CONSERVATION EASEMENT	CONSERVATION EASEMENT	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Alnus incana Forest	Black Cottonwood / Speckled Alder Forest
EAGLE SEWER DISTRICT CONSERVATION EASEMENT	CONSERVATION EASEMENT	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
EAGLE SEWER DISTRICT CONSERVATION EASEMENT	CONSERVATION EASEMENT	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix (fragilis, alba) Semi-natural Woodland	(Crack Willow, White Willow) Semi-natural Woodland
EAGLE SEWER DISTRICT CONSERVATION EASEMENT	CONSERVATION EASEMENT	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Carex pellita Herbaceous Vegetation	Woolly Sedge Herbaceous Vegetation
EAGLE SEWER DISTRICT CONSERVATION EASEMENT	CONSERVATION EASEMENT	Short Emergent Marsh	North American Arid West Emergent Marsh	Scirpus microcarpus Herbaceous Vegetation	Red-tinge Bulrush Herbaceous Vegetation
FARRAGUT WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana Shrubland	Speckled Alder Shrubland

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FORT BOISE WMA	WMA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Suaeda calceoliformis Herbaceous Vegetation	Pursh Seepweed Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Leymus cinereus Bottomland Herbaceous Vegetation	Great Basin Lyme Grass Bottomland Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Pascopyrum smithii Herbaceous Vegetation	Western Wheatgrass Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Atriplex (micrantha, patula, prostrata) Semi-natural Herbaceous Vegetation	(Twoscale, Saltbush, Spear Saltbush, Triangle Orache) Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Conium maculatum Semi-natural Herbaceous Vegetation	Poison Hemlock Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Lepidium latifolium Semi-natural Herbaceous Vegetation	Perennial Pepperweed Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Common Reed Western North America Temperate Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Thinopyrum ponticum - Lepidium latifolium Semi-natural Herbaceous Vegetation	Tall Wheatgrass - Perennial Pepperweed Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Thinopyrum ponticum Semi-natural Herbaceous Vegetation	Tall Wheatgrass Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Atriplex (micrantha, patula, prostrata) Semi-natural Herbaceous Vegetation	(Twoscale, Saltbush, Spear Saltbush, Triangle Orache) Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Alkaline Scrub-Shrub Wetland - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Chrysothamnus viscidiflorus / Distichlis spicata Shrubland	Green Rabbitbrush / Saltgrass Shrubland
FORT BOISE WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
FORT BOISE WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation
FORT BOISE WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
FORT BOISE WMA	WMA	Common Reed Tall Emergent Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Common Reed Western North America Temperate Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Fraxinus pennsylvanica Semi-natural Woodland	Green Ash Semi-natural Woodland
FORT BOISE WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus deltoides Semi-natural Woodland	Eastern Cottonwood Semi-natural Woodland
FORT BOISE WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus fremontii Semi-natural Woodland	Fremont Cottonwood Semi-natural Woodland
FORT BOISE WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Ulmus pumila Semi-natural Woodland	Siberian Elm Semi-natural Woodland
FORT BOISE WMA	WMA	Greasewood Alkaline Scrub-Shrub Wetland	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Distichlis spicata Shrubland	Black Greasewood / Saltgrass Shrubland
FORT BOISE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Thinopyrum ponticum Semi-natural Herbaceous Vegetation	Tall Wheatgrass Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Reed Canarygrass Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation

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FORT BOISE WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Russian Olive Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Elaeagnus angustifolia Semi-natural Woodland	Russian Olive Semi-natural Woodland
FORT BOISE WMA	WMA	Saltgrass Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
FORT BOISE WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland		
FORT BOISE WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua Sand - Gravel Bar Shrubland	Coyote Willow Sand - Gravel Bar Shrubland
FORT BOISE WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Mesic Forbs Shrubland	Shining Willow / Mesic Forbs Shrubland
FORT BOISE WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus pungens Herbaceous Vegetation	Common Threesquare Herbaceous Vegetation
FORT BOISE WMA	WMA	Tall Emergent Marsh - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Common Reed Western North America Temperate Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Tall Emergent Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Common Reed Western North America Temperate Semi-natural Herbaceous Vegetation
FORT BOISE WMA	WMA	Tall Willow Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lutea / Rosa woodsii Shrubland	Yellow Willow / Woods' Rose Shrubland
FOURTH OF JULY CREEK ACCESS SITE	ACCESS SITE	Black Cottonwood Forested Riparian Wetland	Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Salix lutea Woodland	Black Cottonwood / Yellow Willow Woodland
FOX CREEK EAST ACCESS SITE	ACCESS SITE	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
FREEMAN LAKE ACCESS SITE	ACCESS SITE	Aquatic Bed	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Brasenia schreberi Herbaceous Vegetation	Watershield Herbaceous Vegetation
FREEMAN LAKE ACCESS SITE	ACCESS SITE	Scrub-Shrub Swamp Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Lysichiton americanus Shrubland	Speckled Alder / Yellow Skunk-cabbage Shrubland
GEORGETOWN SUMMIT WMA	WMA	Mesic Meadow	Rocky Mountain Montane-Foothill Ephemeral Moist Meadow	Leymus cinereus Herbaceous Vegetation	Basin Wildrye Herbaceous Vegetation
HAGERMAN WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
HAGERMAN WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
HAGERMAN WMA	WMA	Deciduous Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix amygdaloides / Salix exigua Woodland	Peachleaf Willow / Coyote Willow Woodland
HAGERMAN WMA	WMA	Deciduous Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix amygdaloides Woodland	Peachleaf Willow Woodland
HAGERMAN WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Robinia pseudoacacia Semi-natural Woodland	Black Locust Semi-natural Woodland
HAGERMAN WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix amygdaloides - Elaeagnus angustifolia Semi-natural Woodland	Peachleaf Willow - Russian Olive Semi-natural Woodland
HAGERMAN WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Ulmus pumila Semi-natural Woodland	Siberian Elm Semi-natural Woodland
HAGERMAN WMA	WMA	Russian Olive Forested Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Elaeagnus angustifolia Semi-natural Woodland	Russian Olive Semi-natural Woodland
HAGERMAN WMA	WMA	Spring and Seep Herbaceous Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Thousand Springs Aquatic Ecosystem	Thousand Springs Aquatic Ecosystem

IDFG Property	Type	Habitat / Potential Map Unit	Ecological System Name	Plant Association Scientific Name	Plant Association Common Name
IDL LEASE M6020	OTHER	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Eleocharis rostellata Herbaceous Vegetation	Beaked Spikerush Herbaceous Vegetation
IDL LEASE M6020	OTHER	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Puccinellia (lemmonii, nuttalliana) Herbaceous Vegetation	(Lemmon's Alkaligrass, Nuttall's Alkaligrass) Herbaceous Vegetation
IDL LEASE M6020	OTHER	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
KAUFMAN ACCESS SITE	ACCESS SITE	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Muhlenbergia richardsonis Herbaceous Vegetation	Mat Muhly Herbaceous Vegetation
KAUFMAN ACCESS SITE	ACCESS SITE	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Poa juncifolia Herbaceous Vegetation	Alkali Bluegrass Herbaceous Vegetation
KAUFMAN ACCESS SITE	ACCESS SITE	Alkaline Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex simulata Herbaceous Vegetation	Analogue Sedge Herbaceous Vegetation
KAUFMAN ACCESS SITE	ACCESS SITE	Alkaline Spring and Seep Herbaceous Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Carex simulata Herbaceous Vegetation	Analogue Sedge Herbaceous Vegetation
KAUFMAN ACCESS SITE	ACCESS SITE	Fen	Rocky Mountain Subalpine-Montane Fen	Carex simulata Herbaceous Vegetation	Analogue Sedge Herbaceous Vegetation
KAUFMAN ACCESS SITE	ACCESS SITE	Fen	Rocky Mountain Subalpine-Montane Fen	Eleocharis quinqueflora Herbaceous Vegetation	Few-flower Spikerush Herbaceous Vegetation
KAUFMAN ACCESS SITE	ACCESS SITE	Greasewood Alkaline Scrub-Shrub Wetland	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Leymus cinereus Shrubland	Black Greasewood / Great Basin Lyme Grass Shrubland
KAUFMAN ACCESS SITE	ACCESS SITE	Shrubby Cinquefoil Mesic Shrublands	Inter-Mountain Basins Foothill-Canyon Springs	Dasiphora floribunda / Juncus balticus Shrubland	Shrubby Cinquefoil / Baltic Rush Shrubland
KAUFMAN ACCESS SITE	ACCESS SITE	Shrubby Cinquefoil Mesic Shrublands	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Dasiphora floribunda / Deschampsia caespitosa Shrubland	Shrubby Cinquefoil / Tufted Hairgrass Shrubland
KAUFMAN ACCESS SITE	ACCESS SITE	Shrubby Cinquefoil Mesic Shrublands	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Dasiphora floribunda / Juncus balticus Shrubland	Shrubby Cinquefoil / Baltic Rush Shrubland
KAUFMAN ACCESS SITE	ACCESS SITE	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Deschampsia caespitosa Herbaceous Vegetation	Tufted Hairgrass Herbaceous Vegetation
KAUFMAN ACCESS SITE	ACCESS SITE	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
KELLY CREEK PATROL CABIN	OTHER	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Athyrium filix-femina Forest	Western Red-cedar / Common Ladyfern Forest
KOOSKIA CHECK STATION	OTHER	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Alnus incana Forest	Black Cottonwood / Speckled Alder Forest
KOOSKIA CHECK STATION	OTHER	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix melanopsis Cobble Bar Shrubland	Dusky Willow Cobble Bar Shrubland
LQ DRAIN WHA	WHA	Aquatic Bed	North American Arid West Emergent Marsh	Potamogeton natans Herbaceous Vegetation	Floating Pondweed Herbaceous Vegetation
LQ DRAIN WHA	WHA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
LQ DRAIN WHA	WHA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
LQ DRAIN WHA	WHA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Carex pellita Herbaceous Vegetation	Woolly Sedge Herbaceous Vegetation
LQ DRAIN WHA	WHA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua / Phalaris arundinacea Semi-natural Shrubland	Coyote Willow / Reed Canarygrass Semi-natural Shrubland
MARKET LAKE WMA	WMA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Schoenoplectus americanus Western Herbaceous Vegetation	Chairmaker's Bulrush Western Herbaceous Vegetation
MARKET LAKE WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Carex praegracilis Herbaceous Vegetation	Clustered Field Sedge Herbaceous Vegetation



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MARKET LAKE WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Sporobolus airoides Northern Plains Herbaceous Vegetation	Alkali Sacaton Northern Plains Herbaceous Vegetation
MARKET LAKE WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
MARKET LAKE WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation
MARKET LAKE WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
MARKET LAKE WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
MARKET LAKE WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus pungens Herbaceous Vegetation	Common Threesquare Herbaceous Vegetation
MARKET LAKE WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex simulata Herbaceous Vegetation	Analogue Sedge Herbaceous Vegetation
MARKET LAKE WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
MCARTHUR LAKE WMA	WMA	Aquatic Bed	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Nuphar lutea ssp. polysepala Herbaceous Vegetation	Yellow Pond-lily Herbaceous Vegetation
MCARTHUR LAKE WMA	WMA	Cattail Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
MCARTHUR LAKE WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Asarum caudatum Forest	Western Red-cedar / Longtail Wild Ginger Forest
MCARTHUR LAKE WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Athyrium filix-femina Forest	Western Red-cedar / Common Ladyfern Forest
MCARTHUR LAKE WMA	WMA	Coniferous Forested Swamp Wetland	Northern Rocky Mountain Conifer Swamp	Thuja plicata / Lysichiton americanus Forest	Western Red-cedar / Yellow Skunk-cabbage Forest
MCARTHUR LAKE WMA	WMA	Fen	Rocky Mountain Subalpine-Montane Fen	Carex lasiocarpa Herbaceous Vegetation	Wiregrass Sedge Herbaceous Vegetation
MCARTHUR LAKE WMA	WMA	Fen	Rocky Mountain Subalpine-Montane Fen	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
MCARTHUR LAKE WMA	WMA	Fen	Rocky Mountain Subalpine-Montane Fen	Spiraea douglasii Shrubland	Douglas' Meadowsweet Shrubland
MCARTHUR LAKE WMA	WMA	Fen - Floating Mat	Rocky Mountain Subalpine-Montane Fen		
MCARTHUR LAKE WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
MCARTHUR LAKE WMA	WMA	Scrub-Shrub Swamp Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Lysichiton americanus Shrubland	Speckled Alder / Yellow Skunk-cabbage Shrubland
MIDGET CREEK PATROL CABIN	OTHER	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Abies grandis / Senecio triangularis Forest	Grand Fir / Arrowleaf Ragwort Forest
MIDGET CREEK PATROL CABIN	OTHER	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Athyrium filix-femina Forest	Western Red-cedar / Common Ladyfern Forest
MIKES PLACE ACCESS SITE	ACCESS SITE	Scrub-Shrub Riparian Wetland	Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Salix boothii / Carex utriculata Shrubland	Booth's Willow / Beaked Sedge Shrubland
MIKES PLACE ACCESS SITE	ACCESS SITE	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
MIKES PLACE ACCESS SITE	ACCESS SITE	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Scirpus microcarpus Herbaceous Vegetation	Red-tinge Bulrush Herbaceous Vegetation
MONTOUR WMA	WMA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Eleocharis rostellata Herbaceous Vegetation	Beaked Spikerush Herbaceous Vegetation
MONTOUR WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Carex praegracilis Herbaceous Vegetation	Clustered Field Sedge Herbaceous Vegetation
MONTOUR WMA	WMA	Aquatic Bed	North American Arid West Emergent Marsh	Potamogeton natans Herbaceous Vegetation	Floating Pondweed Herbaceous Vegetation

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MONTOUR WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Amorpha fruticosa Semi-natural Woodland	Black Cottonwood / False Indigo Bush Semi-natural Woodland
MONTOUR WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Crataegus douglasii Forest	Black Cottonwood / Black Hawthorn Forest
MONTOUR WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Phalaris arundinacea Semi-natural Woodland	Black Cottonwood / Reed Canarygrass Semi-natural Woodland
MONTOUR WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Rosa woodsii Forest	Black Cottonwood / Woods' Rose Forest
MONTOUR WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
MONTOUR WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus tabernaemontani Temperate Herbaceous Vegetation	Softstem Bulrush Temperate Herbaceous Vegetation
MONTOUR WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
MONTOUR WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Acer saccharinum Semi-natural Woodland	Silver Maple Semi-natural Woodland
MONTOUR WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus alba Semi-natural Woodland	White Poplar Semi-natural Woodland
MONTOUR WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Robinia pseudoacacia Semi-natural Woodland	Black Locust Semi-natural Woodland
MONTOUR WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Carex pellita Herbaceous Vegetation	Woolly Sedge Herbaceous Vegetation
MONTOUR WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
MONTOUR WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Alopecurus (arundinaceus, pratensis) Semi-natural Herbaceous Vegetation	(Creeping Meadow Foxtail, Meadow Foxtail) Semi-natural Herbaceous Vegetation
MONTOUR WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Bromus inermis Semi-natural Herbaceous Vegetation	Smooth Brome Semi-natural Herbaceous Vegetation
MONTOUR WMA	WMA	Reed Canarygrass Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
MONTOUR WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
MONTOUR WMA	WMA	Saltgrass Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
MONTOUR WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua / Mesic Graminoids Shrubland	Coyote Willow / Mesic Graminoids Shrubland
MONTOUR WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua / Phalaris arundinacea Semi-natural Shrubland	Coyote Willow / Reed Canarygrass Semi-natural Shrubland
MONTOUR WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua Sand - Gravel Bar Shrubland	Coyote Willow Sand - Gravel Bar Shrubland
MONTOUR WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Mesic Forbs Shrubland	Shining Willow / Mesic Forbs Shrubland
MONTOUR WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Mesic Graminoids Shrubland	Shining Willow / Mesic Graminoids Shrubland
MONTOUR WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Mesic Graminoids Shrubland	Shining Willow / Mesic Graminoids Shrubland
MONTOUR WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Carex nebrascensis Herbaceous Vegetation	Nebraska Sedge Herbaceous Vegetation

IDFG Property	Type	Habitat / Potential Map Unit	Ecological System Name	Plant Association Scientific Name	Plant Association Common Name
MONTOUR WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Carex vulpinoidea Herbaceous Vegetation	Fox Sedge Herbaceous Vegetation
MONTOUR WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
MONTOUR WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Juncus effusus Herbaceous Vegetation	Common Rush Herbaceous Vegetation
MONTOUR WMA	WMA	Tall Emergent Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Iris pseudacorus Semi-natural Herbaceous Vegetation	Paleyellow Iris Semi-natural Herbaceous Vegetation
MONTPELIER WMA	WMA	Deciduous Forested Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Woodland	Populus tremuloides / Cornus sericea Forest	Quaking Aspen / Red-osier Dogwood Forest
MONTPELIER WMA	WMA	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Betula occidentalis / Cornus sericea Shrubland	Water Birch / Red-osier Dogwood Shrubland
MONTPELIER WMA	WMA	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Cornus sericea / Heracleum maximum Shrubland	Red-osier Dogwood / Cow-parsnip Shrubland
MOOSE CREEK RESERVOIR ACCESS SITE	ACCESS SITE	Short-Willow and Bog Birch Shrublands	Rocky Mountain Subalpine-Montane Mesic Meadow	Vaccinium uliginosum Shrubland	Bog Blueberry Shrubland
MOOSE CREEK RESERVOIR ACCESS SITE	ACCESS SITE	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex aquatilis Herbaceous Vegetation	Aquatic Sedge Herbaceous Vegetation
MOYIE RIVER ACCESS SITE	ACCESS SITE	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Athyrium filix-femina Forest	Western Red-cedar / Common Ladyfern Forest
MOYIE RIVER ACCESS SITE	ACCESS SITE	Coniferous Forested Swamp Wetland	Northern Rocky Mountain Conifer Swamp	Thuja plicata - Tsuga heterophylla / Oplopanax horridus Rocky Mountain Forest	Western Red-cedar - Western Hemlock / Devil's-club Rocky Mountain Forest
MUD LAKE WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Bassia scoparia Semi-natural Herbaceous Vegetation	Burningbush Semi-natural Herbaceous Vegetation
MUD LAKE WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
MUD LAKE WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation
MUD LAKE WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
MUD LAKE WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
MUD LAKE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Cirsium arvense Semi-natural Herbaceous Vegetation	Canada Thistle Semi-natural Herbaceous Vegetation
MUD LAKE WMA	WMA	Reed Canarygrass Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
MUD LAKE WMA	WMA	Saltgrass Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
MUD LAKE WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland		
MUD LAKE WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Hippuris vulgaris Herbaceous Vegetation	Common Mare's-tail Herbaceous Vegetation
MUD LAKE WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow		
MYRTLE ACCESS SITE	ACCESS SITE	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua Sand - Gravel Bar Shrubland	Coyote Willow Sand - Gravel Bar Shrubland
NATURES WOOD DUCK ISLAND	CONSERVATION EASEMENT	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Alnus incana Forest	Black Cottonwood / Speckled Alder Forest
NATURES WOOD DUCK ISLAND	CONSERVATION EASEMENT	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa Alluvial Bar Woodland	Black Cottonwood Alluvial Bar Woodland

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NATURES WOOD DUCK ISLAND	CONSERVATION EASEMENT	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
NATURES WOOD DUCK ISLAND	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua Sand - Gravel Bar Shrubland	Coyote Willow Sand - Gravel Bar Shrubland
NATURES WOOD DUCK ISLAND	CONSERVATION EASEMENT	Short Emergent Marsh	Columbia Basin Foothill Riparian Woodland and Shrubland	Juncus effusus Herbaceous Vegetation	Common Rush Herbaceous Vegetation
NIAGARA SPRINGS ACCESS SITE	ACCESS SITE	Spring and Seep Herbaceous Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Thousand Springs Aquatic Ecosystem	Thousand Springs Aquatic Ecosystem
NIAGARA SPRINGS ACCESS SITE	ACCESS SITE	Spring and Seep Scrub-Shrub Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Betula occidentalis / Mesic Forbs Shrubland	Water Birch / Mesic Forbs Shrubland
NIAGARA SPRINGS WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
NIAGARA SPRINGS WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
NIAGARA SPRINGS WMA	WMA	Narrowleaf Cottonwood Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Populus angustifolia / Invasive Perennial Grasses Semi-natural Woodland	Narrowleaf Cottonwood / Invasive Perennial Grasses Semi-natural Woodland
NIAGARA SPRINGS WMA	WMA	Russian Olive Forested Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Elaeagnus angustifolia Semi-natural Woodland	Russian Olive Semi-natural Woodland
NIAGARA SPRINGS WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix exigua / Mesic Forbs Shrubland	Coyote Willow / Mesic Forbs Shrubland
PADDOCK VALLEY RESERVOIR ACCESS SITE	ACCESS SITE	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Dipsacus fullonum Semi-natural Herbaceous Vegetation	Fuller's teasel Semi-natural Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Schoenoplectus americanus Western Herbaceous Vegetation	Chairmaker's Bulrush Western Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Carex praegracilis Herbaceous Vegetation	Clustered Field Sedge Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Leymus triticoides Herbaceous Vegetation	Beardless Lyme Grass Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Pascopyrum smithii Herbaceous Vegetation	Western Wheatgrass Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Thinopyrum ponticum Semi-natural Herbaceous Vegetation	Tall Wheatgrass Semi-natural Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Alkaline Scrub-Shrub Wetland - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Chrysothamnus viscidiflorus / Distichlis spicata Shrubland	Green Rabbitbrush / Saltgrass Shrubland
PAYETTE RIVER WMA	WMA	Aquatic Bed	North American Arid West Emergent Marsh	Myriophyllum spicatum Semi-natural Herbaceous Vegetation	Eurasian watermilfoil Semi-natural Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Aquatic Bed	North American Arid West Emergent Marsh	Potamogeton natans - Potamogeton foliosus Herbaceous Vegetation	Floating Pondweed - Narrowleaf Pondweed Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Aquatic Bed	North American Arid West Emergent Marsh	Stuckenia pectinata Herbaceous Vegetation	Sago Pondweed Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Amorpha fruticosa Semi-natural Woodland	Black Cottonwood / False Indigo Bush Semi-natural Woodland
PAYETTE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Mixed Herbs Semi-natural Woodland	Black Cottonwood / Mixed Herbs Semi-natural Woodland
PAYETTE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Rosa woodsii Forest	Black Cottonwood / Woods' Rose Forest

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PAYETTE RIVER WMA	WMA	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Salix exigua Forest	Black Cottonwood / Coyote Willow Forest
PAYETTE RIVER WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus tabernaemontani Temperate Herbaceous Vegetation	Softstem Bulrush Temperate Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Acer saccharinum Semi-natural Woodland	Silver Maple Semi-natural Woodland
PAYETTE RIVER WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Fraxinus pennsylvanica Semi-natural Woodland	Green Ash Semi-natural Woodland
PAYETTE RIVER WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Rosa woodsii Forest	Black Cottonwood / Woods' Rose Forest
PAYETTE RIVER WMA	WMA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix (fragilis, alba) Semi-natural Woodland	(Crack Willow, White Willow) Semi-natural Woodland
PAYETTE RIVER WMA	WMA	Greasewood Alkaline Scrub-Shrub Wetland	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Distichlis spicata Shrubland	Black Greasewood / Saltgrass Shrubland
PAYETTE RIVER WMA	WMA	Greasewood Alkaline Scrub-Shrub Wetland	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Leymus triticoides Shrubland	Black Greasewood / Beardless Lyme Grass Shrubland
PAYETTE RIVER WMA	WMA	Greasewood Alkaline Scrub-Shrub Wetland - Invasive and Noxious Weed	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Bromus tectorum Semi-natural Shrubland	Black Greasewood / Cheatgrass Semi-natural Shrubland
PAYETTE RIVER WMA	WMA	Greasewood Alkaline Scrub-Shrub Wetland - Invasive and Noxious Weed	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Distichlis spicata Shrubland	Black Greasewood / Saltgrass Shrubland
PAYETTE RIVER WMA	WMA	Herbaceous Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Artemisia ludoviciana Herbaceous Vegetation	White Sagebrush Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Leymus triticoides Herbaceous Vegetation	Beardless Lyme Grass Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Annual Bromus (arvensis, tectorum) Semi-natural Herbaceous Vegetation	Annual Brome (Field Brome, Cheatgrass) Semi-natural Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Leymus triticoides Herbaceous Vegetation	Beardless Lyme Grass Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Poa pratensis Semi-natural Seasonally Flooded Herbaceous Vegetation	Kentucky Bluegrass Semi-natural Seasonally Flooded Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Thinopyrum ponticum Semi-natural Herbaceous Vegetation	Tall Wheatgrass Semi-natural Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Mudflat, Sand, and Cobble - Lake, Reservoir, and River	Columbia Basin Foothill Riparian Woodland and Shrubland	Portulaca oleracea Semi-natural Herbaceous Vegetation	Little Hogweed Semi-natural Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Mudflat, Sand, and Cobble - Lake, Reservoir, and River	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Bromus tectorum Semi-natural Herbaceous Vegetation	Cheatgrass Semi-natural Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Peachleaf Willow Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix amygdaloides / Phalaris arundinacea Semi-natural Woodland	Peachleaf Willow / Reed Canarygrass Semi-natural Woodland
PAYETTE RIVER WMA	WMA	Reed Canarygrass Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation

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PAYETTE RIVER WMA	WMA	Saltgrass Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix exigua Sand - Gravel Bar Shrubland	Coyote Willow Sand - Gravel Bar Shrubland
PAYETTE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lutea / Rosa woodsii Shrubland	Yellow Willow / Woods' Rose Shrubland
PAYETTE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Amorpha fruticosa - Salix exigua Semi-natural Shrubland	Desert False Indigo - Narrowleaf Willow Semi-natural Shrubland
PAYETTE RIVER WMA	WMA	Scrub-Shrub Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Amorpha fruticosa Semi-natural Shrubland	Desert False Indigo Semi-natural Shrubland
PAYETTE RIVER WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
PAYETTE RIVER WMA	WMA	Tall Willow Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Salix exigua Shrubland	Shining Willow / Coyote Shrubland
PEND OREILLE WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Alnus incana Forest	Black Cottonwood / Speckled Alder Forest
PEND OREILLE WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Cornus sericea Forest	Black Cottonwood / Red-osier Dogwood Forest
PEND OREILLE WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Crataegus douglasii Forest	Black Cottonwood / Black Hawthorn Forest
PEND OREILLE WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Phalaris arundinacea Semi-natural Woodland	Black Cottonwood / Reed Canarygrass Semi-natural Woodland
PEND OREILLE WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Spiraea douglasii Woodland	Black Cottonwood / Douglas' Meadowsweet Woodland
PEND OREILLE WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Symphoricarpos albus Forest	Black Cottonwood / Common Snowberry Forest
PEND OREILLE WMA	WMA	Cattail Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
PEND OREILLE WMA	WMA	Coniferous - Deciduous Mixed Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland		
PEND OREILLE WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Abies grandis / Clintonia uniflora Forest	Grand Fir / Bride's Bonnet Forest
PEND OREILLE WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Abies grandis / Symphoricarpos albus Forest	Grand Fir / Common Snowberry Forest
PEND OREILLE WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Picea engelmannii / Symphoricarpos albus Forest	Engelmann Spruce / Common Snowberry Forest
PEND OREILLE WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Aralia nudicaulis Forest	Western Red-cedar / Wild Sarsaparilla Forest
PEND OREILLE WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Asarum caudatum Forest	Western Red-cedar / Longtail Wild Ginger Forest
PEND OREILLE WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Athyrium filix-femina Forest	Western Red-cedar / Common Ladyfern Forest
PEND OREILLE WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland		
PEND OREILLE WMA	WMA	Coniferous Forested Swamp Wetland	Northern Rocky Mountain Conifer Swamp	Thuja plicata / Lysichiton americanus Forest	Western Red-cedar / Yellow Skunk-cabbage Forest
PEND OREILLE WMA	WMA	Deciduous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Betula papyrifera / Aralia nudicaulis Woodland	Paper Birch / Wild Sarsaparilla Woodland
PEND OREILLE WMA	WMA	Deciduous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Betula papyrifera / Symphoricarpos albus Woodland	Paper Birch / Common Snowberry Woodland

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PEND OREILLE WMA	WMA	Deciduous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus tremuloides / Spiraea douglasii Forest	Quaking Aspen / Rose Spiraea Forest
PEND OREILLE WMA	WMA	Deciduous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus tremuloides / Symphoricarpos albus Forest	Quaking Aspen / Common Snowberry Forest
PEND OREILLE WMA	WMA	Deciduous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland		
PEND OREILLE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Agrostis (gigantea, stolonifera) Semi-natural Herbaceous Vegetation	(Giant Bentgrass, Spreading Bentgrass) Semi-natural Herbaceous Vegetation
PEND OREILLE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Alopecurus (arundinaceus, pratensis) Semi-natural Herbaceous Vegetation	(Creeping Meadow Foxtail, Meadow Foxtail) Semi-natural Herbaceous Vegetation
PEND OREILLE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Danthonia spicata - Poa compressa Semi-natural Herbaceous Vegetation	Poverty Oatgrass - Canada Bluegrass Semi-natural Herbaceous Vegetation
PEND OREILLE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Elymus repens Semi-natural Herbaceous Vegetation	Quackgrass Semi-natural Herbaceous Vegetation
PEND OREILLE WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Festuca rubra Semi-natural Herbaceous Vegetation	Red Fescue Semi-natural Herbaceous Vegetation
PEND OREILLE WMA	WMA	Reed Canarygrass Mesic Meadow - Invasive and Noxious Weed	Rocky Mountain Subalpine-Montane Mesic Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
PEND OREILLE WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Spiraea douglasii Shrubland	Douglas' Meadowsweet Shrubland
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Mesic Graminoids Shrubland	Speckled Alder / Mesic Graminoids Shrubland
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Spiraea douglasii Shrubland	Speckled Alder / Douglas' Meadowsweet Shrubland
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Cornus sericea / Equisetum spp. Shrubland	Red-osier Dogwood / Horsetail spp. Shrubland
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Cornus sericea Shrubland	Red-osier Dogwood Shrubland
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Crataegus douglasii / Symphoricarpos albus Shrubland	Black Hawthorn / Common Snowberry Shrubland
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Salix bebbiana / Mesic Graminoids Shrubland	Bebb's Willow / Mesic Graminoids Shrubland
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Salix drummondiana / Mesic Graminoids Shrubland	Drummond's Willow / Mesic Graminoids Shrubland
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Salix exigua / Mesic Graminoids Shrubland	Coyote Willow / Mesic Graminoids Shrubland
PEND OREILLE WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland		
PEND OREILLE WMA	WMA	Scrub-Shrub Swamp Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Lysichiton americanus Shrubland	Speckled Alder / Yellow Skunk-cabbage Shrubland
PEND OREILLE WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh		
PEND OREILLE WMA	WMA	Short Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
PEND OREILLE WMA	WMA	Short Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Scirpus microcarpus Herbaceous Vegetation	Red-tinge Bulrush Herbaceous Vegetation
PEND OREILLE WMA	WMA	Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Scirpus cyperinus Herbaceous Vegetation	Woolgrass Herbaceous Vegetation

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PEND OREILLE WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
PEND OREILLE WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow		
PEND OREILLE WMA	WMA	Wet Meadow - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Agrostis (gigantea, stolonifera) Semi-natural Herbaceous Vegetation	(Giant Bentgrass, Spreading Bentgrass) Semi-natural Herbaceous Vegetation
PEND OREILLE WMA	WMA	Wet Meadow - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Elymus repens Semi-natural Herbaceous Vegetation	Quackgrass Semi-natural Herbaceous Vegetation
PEND OREILLE WMA	WMA	Wet Meadow - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Festuca rubra Semi-natural Herbaceous Vegetation	Red Fescue Semi-natural Herbaceous Vegetation
POLE CREEK DITCH	OTHER	Fen	Rocky Mountain Subalpine-Montane Fen	Carex cusickii Herbaceous Vegetation	Cusick's Sedge Herbaceous Vegetation
POLE CREEK DITCH	OTHER	Short-Willow and Bog Birch Shrublands	Rocky Mountain Alpine-Montane Wet Meadow	Salix wolfii / Carex utriculata Shrubland	Wolf Willow / Beaked Sedge Shrubland
POLE CREEK DITCH	OTHER	Short-Willow and Bog Birch Shrublands	Rocky Mountain Alpine-Montane Wet Meadow	Salix wolfii / Mesic Forbs Shrubland	Wolf Willow / Mesic Forbs Shrubland
POLE CREEK DITCH	OTHER	Short-Willow and Bog Birch Shrublands	Rocky Mountain Alpine-Montane Wet Meadow	Salix wolfii / Swertia perennis - Pedicularis groenlandica Shrubland	Wolf Willow / Felwort - Bull Elephant's-head Shrubland
POLE CREEK DITCH	OTHER	Short-Willow and Bog Birch Shrublands	Rocky Mountain Subalpine-Montane Riparian Shrubland	Betula nana - Lonicera caerulea / Packera pseudaurea var. pseudaurea Shrubland	Dwarf Birch - Sweetberry Honeysuckle / Falsegold Groundsel Shrubland
POLE CREEK DITCH	OTHER	Short-Willow and Bog Birch Shrublands	Rocky Mountain Subalpine-Montane Riparian Shrubland	Betula nana - Salix wolfii / Carex utriculata - Carex aquatilis Shrubland	Swamp Birch - Wolf Willow / Beaked Sedge - Aquatic Sedge Shrubland
POLE CREEK DITCH	OTHER	Shrubby Cinquefoil Mesic Shrublands	Rocky Mountain Subalpine-Montane Mesic Meadow	Dasiphora floribunda / Danthonia intermedia Shrubland	Shrubby Cinquefoil / Timber Oatgrass Shrubland
POLE CREEK DITCH	OTHER	Shrubby Cinquefoil Mesic Shrublands	Rocky Mountain Subalpine-Montane Mesic Meadow	Dasiphora floribunda / Poa pratensis Semi-natural Shrubland	Shrubby Cinquefoil / Kentucky Bluegrass Semi-natural Shrubland
POLE CREEK DITCH	OTHER	Silver Sagebrush Mesic Shrublands	Rocky Mountain Subalpine-Montane Mesic Meadow	Artemisia cana ssp. viscidula - (Salix spp.) / Festuca idahoensis Shrubland	Mountain Silver Sagebrush - (Willow species) / Idaho Fescue Shrubland
POLE CREEK DITCH	OTHER	Silver Sagebrush Mesic Shrublands	Rocky Mountain Subalpine-Montane Mesic Meadow	Artemisia cana ssp. viscidula / Festuca idahoensis Shrub Herbaceous Vegetation	Mountain Silver Sagebrush / Idaho Fescue Shrub Herbaceous Vegetation
POLE CREEK DITCH	OTHER	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
POLE CREEK DITCH	OTHER	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
PORTNEUF (LOWER) ACCESS SITE	ACCESS SITE	Scrub-Shrub Riparian Wetland	Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Salix exigua / Mesic Forbs Shrubland	Coyote Willow / Mesic Forbs Shrubland
PORTNEUF (UPPER) ACCESS SITE	ACCESS SITE	Scrub-Shrub Riparian Wetland	Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Salix lutea / Poa pratensis Semi-natural Shrubland	Yellow Willow / Kentucky Bluegrass Semi-natural Shrubland
PORTNEUF WMA	WMA	Deciduous Forested Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Woodland	Populus tremuloides / Cornus sericea Forest	Quaking Aspen / Red-osier Dogwood Forest
PORTNEUF WMA	WMA	Narrowleaf Cottonwood Forested Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Populus angustifolia / Betula occidentalis Woodland	Narrowleaf Cottonwood / Water Birch Woodland
PORTNEUF WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Betula occidentalis / Cornus sericea Shrubland	Water Birch / Red-osier Dogwood Shrubland
PUGMIRE PARK	OTHER	Spring and Seep Herbaceous Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Thousand Springs Aquatic Ecosystem	Thousand Springs Aquatic Ecosystem
RED RIVER HATCHING CHANNEL	OTHER	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Salix drummondiana - Salix boothii / Mesic Graminoids Shrubland	Drummond's Willow - Booth's Willow / Mesic Graminoids Shrubland
RED RIVER WMA	WMA	Aquatic Bed	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Ranunculus aquatilis Herbaceous Vegetation	Whitewater Crowfoot Herbaceous Vegetation



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RED RIVER WMA	WMA	Mesic Meadow	Rocky Mountain Subalpine-Montane Mesic Meadow	Danthonia californica Herbaceous Vegetation	California Oatgrass Herbaceous Vegetation
RED RIVER WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
RED RIVER WMA	WMA	Seasonal Pool	Rocky Mountain Subalpine-Montane Seasonally Flooded Pool	Eleocharis palustris Depressional Wetland Herbaceous Vegetation	Common Spikerush Depressional Wetland Herbaceous Vegetation
RED RIVER WMA	WMA	Vernal or Seasonal Pool	Rocky Mountain Subalpine-Montane Seasonally Flooded Pool	Carex vesicaria Herbaceous Vegetation	Inflated Sedge Herbaceous Vegetation
RED RIVER WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex aquatilis Herbaceous Vegetation	Aquatic Sedge Herbaceous Vegetation
RED RIVER WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Acer glabrum Forest	Black Cottonwood / Rocky Mountain Maple Forest
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Philadelphus lewisii Woodland	Black Cottonwood / Lewis' Mock Orange Woodland
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Black Cottonwood Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Rosa woodsii Forest	Black Cottonwood / Woods' Rose Forest
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Coniferous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Pseudotsuga menziesii / Acer glabrum Forest	Douglas-fir / Rocky Mountain Maple Forest
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Alnus rhombifolia / Philadelphus lewisii Forest	White Alder / Lewis' Mock Orange Forest
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus tremuloides / Acer glabrum Forest	Quaking Aspen / Rocky Mountain Maple Forest
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus tremuloides / Prunus virginiana Woodland	Quaking Aspen / Choke Cherry Woodland
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Deciduous Forested Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus tremuloides / Symphoricarpos albus / Elymus glaucus Woodland	Quaking Aspen / Common Snowberry / Blue Wild Rye Woodland
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Elymus glaucus Herbaceous Vegetation	Blue Wild Rye Herbaceous Vegetation
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Equisetum arvense Herbaceous Vegetation	Field Horsetail Herbaceous Vegetation
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Euthamia occidentalis Herbaceous Vegetation	Western Goldentop Herbaceous Vegetation
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Poa pratensis Semi-natural Seasonally Flooded Herbaceous Vegetation	Kentucky Bluegrass Semi-natural Seasonally Flooded Herbaceous Vegetation
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Philadelphus lewisii Intermittently Flooded Shrubland	Lewis' Mock Orange Intermittently Flooded Shrubland
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Prunus emarginata Shrubland	Bitter Cherry Shrubland
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Betula occidentalis / Philadelphus lewisii Shrubland	Water Birch / Lewis' Mock Orange Shrubland
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Crataegus douglasii / Mesic Forbs Shrubland	Black Hawthorn / Mesic Forbs Shrubland
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Crataegus douglasii / Rosa woodsii Shrubland	Black Hawthorn / Woods' Rose Shrubland
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lasiolepis / Mesic Graminoids Shrubland	Arroyo Willow / Mesic Graminoids Shrubland

IDFG Property	Type	Habitat / Potential Map Unit	Ecological System Name	Plant Association Scientific Name	Plant Association Common Name
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Columbia Basin Foothill Riparian Woodland and Shrubland	Salix lutea / Poa pratensis Semi-natural Shrubland	Yellow Willow / Kentucky Bluegrass Semi-natural Shrubland
ROCKING M CONSERVATION EASEMENT	CONSERVATION EASEMENT	Wet Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Lepidium latifolium Semi-natural Herbaceous Vegetation	Perennial Pepperweed Semi-natural Herbaceous Vegetation
ROSE LAKE - SPORTSMAN PARK ACCESS SITE	ACCESS SITE	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Spiraea douglasii Shrubland	Speckled Alder / Douglas' Meadowsweet Shrubland
ROSE LAKE - SPORTSMAN PARK ACCESS SITE	ACCESS SITE	Scrub-Shrub Swamp Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Lysichiton americanus Shrubland	Speckled Alder / Yellow Skunk-cabbage Shrubland
ROSWELL MARSH WHA	WHA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Distichlis spicata - (Scirpus nevadensis) Herbaceous Vegetation	Saltgrass - (Nevada Bulrush) Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Eleocharis rostellata Herbaceous Vegetation	Beaked Spikerush Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Hordeum jubatum Herbaceous Vegetation	Foxtail Barley Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Schoenoplectus americanus Western Herbaceous Vegetation	Chairmaker's Bulrush Western Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Suaeda calceoliformis Herbaceous Vegetation	Pursh Seepweed Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Hordeum jubatum Herbaceous Vegetation	Foxtail Barley Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Muhlenbergia asperifolia Herbaceous Vegetation	Alkali Muhly Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Atriplex (micrantha, patula, prostrata) Semi-natural Herbaceous Vegetation	(Twoscale, Saltbush, Spear Saltbush, Triangle Orache) Semi-natural Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Bassia scoparia Semi-natural Herbaceous Vegetation	Burningbush Semi-natural Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Lepidium latifolium Semi-natural Herbaceous Vegetation	Perennial Pepperweed Semi-natural Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Aquatic Bed	North American Arid West Emergent Marsh	Potamogeton foliosus - Zannichellia palustris Herbaceous Vegetation	Narrowleaf Pondweed - Horned pondweed Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Aquatic Bed	North American Arid West Emergent Marsh	Potamogeton foliosus Herbaceous Vegetation	Narrowleaf Pondweed Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Populus deltoides Semi-natural Woodland	Eastern Cottonwood Semi-natural Woodland
ROSWELL MARSH WHA	WHA	Greasewood Alkaline Scrub-Shrub Wetland	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Distichlis spicata Shrubland	Black Greasewood / Saltgrass Shrubland
ROSWELL MARSH WHA	WHA	Greasewood Alkaline Scrub-Shrub Wetland - Invasive and Noxious Weed	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Distichlis spicata Shrubland	Black Greasewood / Saltgrass Shrubland

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ROSWELL MARSH WHA	WHA	Reed Canarygrass Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Russian Olive Forested Riparian Wetland - Invasive and Noxious Weed	Columbia Basin Foothill Riparian Woodland and Shrubland	Elaeagnus angustifolia Semi-natural Woodland	Russian Olive Semi-natural Woodland
ROSWELL MARSH WHA	WHA	Russian Olive Forested Riparian Wetland - Invasive and Noxious Weed	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Elaeagnus angustifolia Semi-natural Woodland	Russian Olive Semi-natural Woodland
ROSWELL MARSH WHA	WHA	Saltgrass Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Tall Emergent Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Bassia scoparia Semi-natural Herbaceous Vegetation	Burningbush Semi-natural Herbaceous Vegetation
ROSWELL MARSH WHA	WHA	Tall Emergent Marsh - Invasive and Noxious Weed	North American Arid West Emergent Marsh	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Common Reed Western North America Temperate Semi-natural Herbaceous Vegetation
SAND CREEK WMA	WMA	Alkaline Marsh	Inter-Mountain Basins Alkaline Closed Depression	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
SAND CREEK WMA	WMA	Aquatic Bed	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Nuphar lutea ssp. polysepala Herbaceous Vegetation	Yellow Pond-lily Herbaceous Vegetation
SAND CREEK WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
SAND CREEK WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation
SAND CREEK WMA	WMA	Bulrush Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
SAND CREEK WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
SAND CREEK WMA	WMA	Cattail Tall Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
SAND CREEK WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Carex nebrascensis Herbaceous Vegetation	Nebraska Sedge Herbaceous Vegetation
SAND CREEK WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
SAND CREEK WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow		
SAND CREEK WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Agrostis (gigantea, stolonifera) Semi-natural Herbaceous Vegetation	(Giant Bentgrass, Spreading Bentgrass) Semi-natural Herbaceous Vegetation
SAND CREEK WMA	WMA	Mesic Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Poa pratensis Semi-natural Seasonally Flooded Herbaceous Vegetation	Kentucky Bluegrass Semi-natural Seasonally Flooded Herbaceous Vegetation
SAND CREEK WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix geyeriana / Carex utriculata Shrubland	Geyer's Willow / Beaked Sedge Shrubland
SAND CREEK WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix geyeriana / Poa palustris Semi-natural Shrubland	Geyer's Willow / Fowl Bluegrass Semi-natural Shrubland
SAND CREEK WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Mesic Forbs Shrubland	Shining Willow / Mesic Forbs Shrubland
SAND CREEK WMA	WMA	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix lucida ssp. caudata / Mesic Graminoids Shrubland	Shining Willow / Mesic Graminoids Shrubland
SAND CREEK WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
SAND CREEK WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh		

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SAND CREEK WMA	WMA	Short Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Eleocharis palustris Herbaceous Vegetation	Common Spikerush Herbaceous Vegetation
SAND CREEK WMA	WMA	Short Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh		
SAND CREEK WMA	WMA	Tall Emergent Marsh	North American Arid West Emergent Marsh	Glyceria grandis Herbaceous Vegetation	American Mannagrass Herbaceous Vegetation
SAND CREEK WMA	WMA	Vernal or Seasonal Pool	Inter-Mountain Basins Seasonally Flooded Pool	Artemisia ludoviciana Herbaceous Vegetation	White Sagebrush Herbaceous Vegetation
SAND CREEK WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex aquatilis Herbaceous Vegetation	Aquatic Sedge Herbaceous Vegetation
SAND CREEK WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex nebrascensis Herbaceous Vegetation	Nebraska Sedge Herbaceous Vegetation
SAND CREEK WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
SAND CREEK WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
SAND CREEK WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow		
SANDPOINT HATCHERY	HATCHERY	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Symphoricarpos albus Forest	Black Cottonwood / Common Snowberry Forest
SIKES ACT WHAS	WHAS	Spring and Seep Herbaceous Wetland	Inter-Mountain Basins Foothill-Canyon Springs	Thousand Springs Aquatic Ecosystem	Thousand Springs Aquatic Ecosystem
SIKES ACT WHAS	WHAS	Spring and Seep Scrub-Shrub Wetland	Inter-Mountain Basins Big Sagebrush Shrubland	Artemisia tridentata ssp. tridentata / Leymus cinereus Shrubland	Basin Big Sagebrush / Great Basin Lyme Grass Shrubland
SNAKE RIVER CONSERVATION EASEMENT MANAGER	CONSERVATION EASEMENT	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
SNOW PEAK WMA	WMA	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Thuja plicata / Athyrium filix-femina Forest	Western Red-cedar / Common Ladyfern Forest
SNOW PEAK WMA	WMA	Coniferous Forested Riparian Wetland	Rocky Mountain Subalpine Mesic-Wet Spruce-Fir Forest and Woodland	Tsuga mertensiana / Streptopus amplexifolius Forest	Mountain Hemlock / Claspig Twisted-stalk Forest
SNOW PEAK WMA	WMA	Coniferous Forested Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Woodland	Abies lasiocarpa - Picea engelmannii / Streptopus amplexifolius Forest	Subalpine Fir - Engelmann Spruce / Claspig Twisted-stalk Forest
SNOW PEAK WMA	WMA	Coniferous Forested Swamp Wetland	Northern Rocky Mountain Conifer Swamp	Thuja plicata - Tsuga heterophylla / Oplopanax horridus Rocky Mountain Forest	Western Red-cedar - Western Hemlock / Devil's-club Rocky Mountain Forest
ST MARIES WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Cornus sericea Forest	Black Cottonwood / Red-osier Dogwood Forest
ST MARIES WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Salix exigua Forest	Black Cottonwood / Coyote Willow Forest
ST MARIES WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Symphoricarpos albus Forest	Black Cottonwood / Common Snowberry Forest
ST MARIES WMA	WMA	Black Cottonwood Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa Alluvial Bar Woodland	Black Cottonwood Alluvial Bar Woodland
ST MARIES WMA	WMA	Deciduous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus tremuloides / Crataegus douglasii / Heraclium maximum Shrubland	Quaking Aspen / Black Hawthorn / Cow-parsnip Shrubland
ST MARIES WMA	WMA	Mesic Meadow	Rocky Mountain Montane-Foothill Ephemeral Moist Meadow	Pascopyrum smithii Herbaceous Vegetation	Western Wheatgrass Herbaceous Vegetation

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ST MARIES WMA	WMA	Reed Canarygrass Wet Meadow and Marsh - Invasive and Noxious Weed	Rocky Mountain Alpine-Montane Wet Meadow	Phalaris arundinacea Western Semi-natural Herbaceous Vegetation	Reed Canarygrass Western Semi-natural Herbaceous Vegetation
ST MARIES WMA	WMA	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Cornus sericea Shrubland	Red-osier Dogwood Shrubland
ST MARIES WMA	WMA	Short Emergent Marsh	Rocky Mountain Montane-Foothill Aquatic Bed and Emergent Marsh	Sparganium eurycarpum Herbaceous Vegetation	Giant Bur-reed Herbaceous Vegetation
STANLEY LAKE FISH BARRIER DAM	OTHER	Coniferous Forested Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Woodland	Pinus contorta / Vaccinium uliginosum Forest	Lodgepole Pine / Bog Blueberry Forest
STANLEY LAKE FISH BARRIER DAM	OTHER	Fen	Rocky Mountain Subalpine-Montane Fen	Eleocharis quinqueflora Herbaceous Vegetation	Few-flower Spikerush Herbaceous Vegetation
STANLEY LAKE FISH BARRIER DAM	OTHER	Fen	Rocky Mountain Subalpine-Montane Fen	Pinus contorta / Vaccinium uliginosum Forest	Lodgepole Pine / Bog Blueberry Forest
STANLEY LAKE FISH BARRIER DAM	OTHER	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
STANTON CROSSING ACCESS SITE	ACCESS SITE	Scrub-Shrub Riparian Wetland	Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Salix lutea / Carex utriculata Shrubland	Yellow Willow / Beaked Sedge Shrubland
STERLING WMA	WMA	Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Carex praegracilis Herbaceous Vegetation	Clustered Field Sedge Herbaceous Vegetation
STERLING WMA	WMA	Alkaline Scrub-Shrub Wetland	Inter-Mountain Basins Greasewood Flat	Allenrolfea occidentalis Shrubland	Iodinebush Shrubland
STERLING WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
STERLING WMA	WMA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation
STERLING WMA	WMA	Cattail Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia, angustifolia Western Herbaceous Vegetation	(Broadleaf Cattail, Narrowleaf Cattail) Western Herbaceous Vegetation
STERLING WMA	WMA	Mesic Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Meadow	Juncus balticus Herbaceous Vegetation	Baltic Rush Herbaceous Vegetation
STERLING WMA	WMA	Saltgrass Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation
STERLING WMA	WMA	Short Emergent Marsh	North American Arid West Emergent Marsh		
STERLING WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex nebrascensis Herbaceous Vegetation	Nebraska Sedge Herbaceous Vegetation
TALL PINE	OTHER	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Abies grandis / Alnus incana / Cornus sericea Forest	Grand Fir / Speckled Alder / Red-osier Dogwood Shrubland
TALL PINE	OTHER	Coniferous Forested Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Tsuga heterophylla / Athyrium filix-femina Forest	Western Hemlock / Common Ladyfern Forest
TALL PINE	OTHER	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Crataegus douglasii / Symphoricarpos albus Shrubland	Black Hawthorn / Common Snowberry Shrubland
TED TRUEBLOOD WHA	WHA	Alkaline Meadow - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Hordeum jubatum Herbaceous Vegetation	Foxtail Barley Herbaceous Vegetation
TED TRUEBLOOD WHA	WHA	Aquatic Bed	North American Arid West Emergent Marsh	Stuckenia pectinata - Potamogeton foliosus Herbaceous Vegetation	Sago Pondweed - Narrowleaf Pondweed Herbaceous Vegetation
TED TRUEBLOOD WHA	WHA	Aquatic Bed	North American Arid West Emergent Marsh	Stuckenia pectinata - Zannichellia palustris Herbaceous Vegetation	Sago Pondweed - Horned pondweed Herbaceous Vegetation
TED TRUEBLOOD WHA	WHA	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Typha latifolia - Schoenoplectus spp. Herbaceous Vegetation	Broadleaf Cattail - Bulrush Species Herbaceous Vegetation
TED TRUEBLOOD WHA	WHA	Greasewood Alkaline Scrub-Shrub Wetland	Inter-Mountain Basins Greasewood Flat	Sarcobatus vermiculatus / Distichlis spicata Shrubland	Black Greasewood / Saltgrass Shrubland
TED TRUEBLOOD WHA	WHA	Saltgrass Alkaline Meadow	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Distichlis spicata Herbaceous Vegetation	Saltgrass Herbaceous Vegetation

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TEX CREEK WMA	WMA	Mesic Meadow	Rocky Mountain Subalpine-Montane Mesic Meadow	Carex microptera Herbaceous Vegetation	Small-wing Sedge Herbaceous Vegetation
TEX CREEK WMA	WMA	Scrub-Shrub Riparian Wetland	Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Betula occidentalis / Cornus sericea Shrubland	Water Birch / Red-osier Dogwood Shrubland
TEX CREEK WMA	WMA	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Salix geyeriana / Carex utriculata Shrubland	Geyer's Willow / Beaked Sedge Shrubland
TEX CREEK WMA	WMA	Scrub-Shrub Riparian Wetland	Rocky Mountain Subalpine-Montane Riparian Shrubland	Salix geyeriana / Mesic Forbs Shrubland	Geyer's Willow / Mesic Forbs Shrubland
TEX CREEK WMA	WMA	Wet Meadow	Rocky Mountain Alpine-Montane Wet Meadow	Carex utriculata Herbaceous Vegetation	Beaked Sedge Herbaceous Vegetation
THREE ISLAND CROSSING ACCESS SITE	ACCESS SITE	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
THREE ISLAND CROSSING ACCESS SITE	ACCESS SITE	Scrub-Shrub Riparian Wetland	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland	Salix exigua Sand - Gravel Bar Shrubland	Coyote Willow Sand - Gravel Bar Shrubland
THREE ISLAND CROSSING ACCESS SITE	ACCESS SITE	Tall Emergent Marsh - Invasive and Noxious Weed	Inter-Mountain Basins Montane-Foothill Ephemeral Moist Alkaline Wetland	Phragmites australis Western North America Temperate Semi-natural Herbaceous Vegetation	Common Reed Western North America Temperate Semi-natural Herbaceous Vegetation
TOLO LAKE CONSERVATION EASEMENT MANAGER	CONSERVATION EASEMENT	Bulrush Tall Emergent Marsh	North American Arid West Emergent Marsh	Schoenoplectus acutus Herbaceous Vegetation	Hardstem Bulrush Herbaceous Vegetation
VANDERBILT CONSERVATION EASEMENT	CONSERVATION EASEMENT	Scrub-Shrub Riparian Wetland	Northern Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Alnus incana / Mesic Forbs Shrubland	Speckled Alder / Mesic Forbs Shrubland
WOOD RIVER DEER MIGRATION CORRIDOR	OTHER	Black Cottonwood Forested Riparian Wetland	Rocky Mountain Lower Montane Riparian Woodland and Shrubland	Populus balsamifera ssp. trichocarpa / Cornus sericea Forest	Black Cottonwood / Red-osier Dogwood Forest

**Table 3. Scientific names of plants referred to in text.**

Common Name	Scientific Name
<b>Trees</b>	
black cottonwood	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>
Douglas-fir	<i>Pseudotsuga menziesii</i>
grand fir	<i>Abies grandis</i>
narrowleaf cottonwood	<i>Populus angustifolia</i>
ponderosa pine	<i>Pinus ponderosa</i>
quaking aspen	<i>Populus tremuloides</i>
Russian olive	<i>Elaeagnus angustifolia</i>
western hemlock	<i>Tsuga heterophylla</i>
western red-cedar	<i>Thuja plicata</i>
<b>Shrubs</b>	
big sagebrush (Wyoming, basin, mountain subspecies)	<i>Artemisia tridentata</i> (ssp. <i>wyomingensis</i> , <i>tridentata</i> , <i>vaseyana</i> )
bitterbrush	<i>Purshia tridentata</i>
chokecherry	<i>Prunus virginiana</i>
Geyer's willow	<i>Salix geyeriana</i>
golden currant	<i>Ribes aureum</i>
greasewood	<i>Sarcobatus vermiculatus</i>
iodine bush	<i>Allenrolfea occidentalis</i>
rose spiraea	<i>Spiraea douglasii</i>
saltcedar	<i>Tamarix</i> spp.
serviceberry	<i>Amelanchier alnifolia</i>
snowberry	<i>Symphoricarpos</i> spp.
willow	<i>Salix</i> spp.
<b>Grasses and Grass-like Plants (e.g., sedges, rushes, spikerushes, etc.)</b>	
Baltic rush	<i>Juncus balticus</i>
barnyard grass	<i>Echinochloa crus-galli</i>
beardless wildrye	<i>Leymus triticoides</i>
bentgrass	<i>Agrostis</i> spp.
bluejoint	<i>Calamagrostis canadensis</i>
cattail	<i>Typha latifolia</i>
clustered field sedge	<i>Carex praegracilis</i>
common spikerush	<i>Eleocharis palustris</i>
hardstem bulrush	<i>Schoenoplectus acutus</i>
Indian Valley sedge	<i>Carex aboriginum</i>
intermediate wheatgrass	<i>Thinopyrum intermedium</i>
Kentucky bluegrass	<i>Poa pratensis</i>
Nevada bulrush	<i>Scirpus nevadensis</i>
oatgrass	<i>Danthonia</i> spp.
orchardgrass	<i>Dactylis glomerata</i>
reed canarygrass	<i>Phalaris arundinacea</i>
saltgrass	<i>Distichlis spicata</i>
sedge	<i>Carex</i> spp.

**Table 3 continued.**

smooth brome	<i>Bromus inermis</i>
tall wheatgrass	<i>Thinopyrum ponticum</i>
tufted hairgrass	<i>Deschampsia caespitosa</i>
<b>Forbs</b>	
beggartick	<i>Bidens</i> spp.
camas	<i>Camassia quamash</i>
floating pondweed	<i>Potamogeton natans</i>
goosefoot	<i>Chenopodium</i> spp.
leafy spurge	<i>Euphorbia esula</i>
red glasswort	<i>Salicornia rubra</i>
smartweed	<i>Polygonum</i> spp.
Ute ladies'-tresses	<i>Spiranthes diluvialis</i>
water smartweed	<i>Polygonum amphibium</i>



Sloped montane mesic meadow and wet meadow complex, Larabee Meadows, Craig Mountain WMA (photo by Chris Murphy).