



Partners for Fish and Wildlife Program Strategic Plan 2017-2021 *U.S. Fish and Wildlife Service Pacific Region~Region1*



Idaho~Oregon~Hawaii and the Pacific Islands~Washington





Ellsworth Creek, SW Washington (left), USFWS



Camas (*Camassia* sp) Black Mima Prairie
Glacial Heritage Preserve, (Ginger Phalen,USFWS)



Chinook Salmon, Elwha River, WA (2003),
(Roger Tabor USFWS)



Bull Trout, Gold Creek, Idaho, (USFWS Juliet Barenti)

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Cover photos:

Top left: Idaho landscape (USFWS photo)

Top right: Kalalau (Benton Pang, USFWS photo)

Bottom left: Headwaters Metolius River (Paula Golightly,USFWS photo)

Bottom right: Methow Basin (USFWS photo)

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MESSAGE FROM THE REGIONAL DIRECTOR, ROBYN THORSON

Partnerships and collaboration are essential to the success of the mission of the U.S. Fish and Wildlife Service in the Pacific Region. Working hand-in-hand with landowners and partners is what helps build long-term trust and relationships at the community level.

Nowhere is this relationship-driven collaboration more apparent than in our Partners for Fish and Wildlife Program. This program helps provide the money, technical assistance and boots on the ground that make conservation – and trust – happen across the Pacific Region.

I am pleased to present the U.S. Fish and Wildlife Service's Pacific Region Partners for Fish and Wildlife Strategic Plan for 2017-2021. The diversity of partners and habitats in the Pacific Region presents tremendous conservation opportunities. Faced with an abundance of choices, the Partners Program is using a strategic approach to focus on the highest priority resources while achieving the best conservation results.

This plan combines scientific data, a landscape-scale approach, and partner input to determine conservation priorities. The insight and dedication of our partners are apparent throughout and highlight the benefits of working together to advance a shared conservation vision.

We look forward to building on our record of collaborative conservation.

I. INTRODUCTION

Summary of 2012 – 2016 Accomplishments

The Partners for Fish and Wildlife (PFW) Program in Region 1 exceeded almost all planning goals set in the previous five-year Strategic Plan, as shown in the table below. The acres of uplands enhanced and fish passage projects exceeded the planning goals. Shoreline enhanced or restored were within a few miles of the five-year goal. Additionally, over this five-year period, Program biologists provided technical assistance to numerous partners for project planning, design, permitting, implementation, monitoring, and outreach.

2012-2016 Partners for Fish and Wildlife Program Planning Goals vs. Accomplishments		
<i>Conservation Metrics</i>	<i>Planning Goals</i>	<i>Actual Accomplishments</i>
Wetlands Enhanced or Restored	4,295 Acres	7,360 Acres
Uplands Enhanced or Restored	18,433 Acres	32,422 Acres
Stream/Shoreline Enhanced or Restored	135 Miles	127 Miles
Fish Passage Restoration Projects	80 Barriers	151 Barriers

The 2017 – 2021 Strategic Plan

The Pacific Region Partners for Fish and Wildlife (PFW) Program Strategic Plan for 2017 through 2021 covers Idaho, Oregon, the Pacific Islands and Washington. The plan is a subcomponent of a larger national strategic plan for the PFW Program. The three part plan includes the national PFW Program vision document which identifies the five national program goals, regional strategic work plans representing each of the eight administrative jurisdictions of the U.S. Fish and Wildlife Service (Service), and a summary document that integrates and summarizes information and objectives for all of the regional plans for the next five years.

Regional Overview and Area Description

The Pacific Region includes over 158 million acres (almost 247,000 square miles) of land base in the states of Idaho, Oregon, Washington, Hawai'i, and other Pacific Islands. Not only is this land base large in size, it also spread over an even larger area of marine habitat. The Hawai'i and Pacific Islands jurisdiction covers a geographic area larger than the continental United States, spanning 5 time zones and the International Date Line. The Pacific Islands Ecoregion includes the State of Hawai'i, the Commonwealth of the Northern Mariana Islands, the territories of American Samoa and Guam, unincorporated U.S. possessions like Palmyra Atoll and Midway Atoll, and independent nations with Compacts of Free Association with the U.S. such as the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands.

The Pacific Region encompasses extraordinary ecological diversity with habitats ranging from tropical forest and coral reefs in Micronesia, to temperate old-growth rainforests west of the Cascade mountain range in Oregon and Washington, high elevation lakes and streams in the Northern Cascades of Washington and Northern Rocky Mountains in Idaho, to arid shrub-steppe habitat in southern Idaho, eastern Oregon and eastern Washington. These habitats support over 450 endangered and threatened species, unique and endemic plant and animal communities, and a variety of economic and land-use considerations. The partners are diverse and include agricultural and natural resource dependent communities, rural and suburban interface landowners, Native American tribal governments, indigenous island communities, watershed councils, coral reef advisory groups, universities, land trusts, State, Federal, and local agencies, and many others.

II. PROGRAM FOUNDATIONS AND PRIORITIES

National Program Vision and Mission

The Service established the PFW Program in 1987 as recognition that conservation on private lands through voluntary partnerships was necessary to achieve landscape level benefits for migratory waterfowl populations using major flyways. Approximately 70% of the lands in the United States are in private ownership therefore it is essential that the Service and others work closely with private lands managers and landowners to achieve meaningful and lasting conservation of Federal trust resources. The mission and vision for the PFW Program are identified below.

Partners for Fish and Wildlife Program-Mission: To efficiently achieve voluntary habitat restoration on private lands through financial and technical assistance for the benefit of Federal trust species and their habitats for the continuing benefit of the American people.

Partners for Fish and Wildlife Program Vision: The Partners for Fish and Wildlife Program will be a national leader in voluntary private lands restoration to achieve sustainable populations of Federal trust species for the benefit of current and future generations.

Partners for Fish and Wildlife Program Priorities

The PFW Program staff work directly in their communities with landowners and a diversity of other partners to plan and implement projects that meet the landowner's land management objectives while also providing conservation benefits to fish and wildlife. Priority is given to projects that fit the following guidelines:

- Reestablish natural biological communities and ecological processes
- Promote citizen and community based stewardship efforts for fish and wildlife conservation
- Contribute to the recovery of at risk species
- Protect the integrity of and provide benefits to National Wildlife Refuges
- Contribute to the implementation of State Comprehensive Wildlife Conservation Strategies
- Partner to achieve the objectives of regionally based fish or bird conservation plans including Strategic Habitat Conservation Plans and landscape Conservation Design efforts.

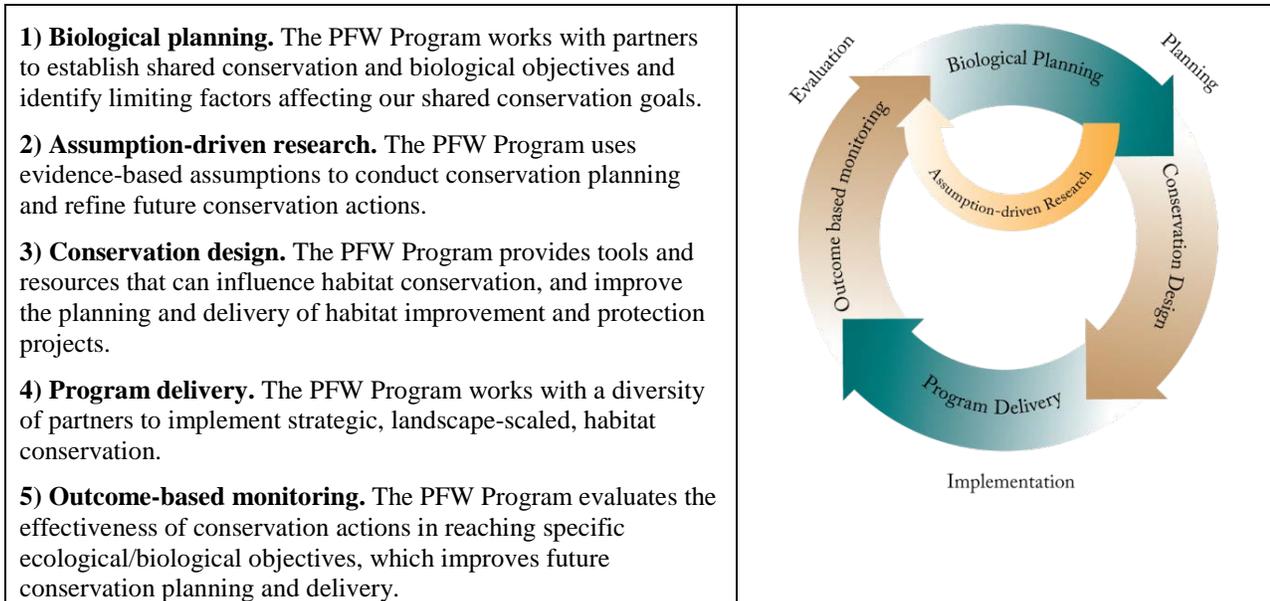
How the Partners for Fish and Wildlife Program Works

The Partners for Fish and Wildlife Program (PFW Program) is the Service's vanguard for working with private landowners to voluntarily restore and conserve fish and wildlife habitat. Using non-regulatory incentives, the PFW Program engages willing partners to conserve and protect valuable fish and wildlife habitat on their property and in their communities. This is accomplished by providing the funding, technical assistance and planning support needed to make on-the-ground conservation affordable, feasible, and effective.

Landowners including Tribes, non-profit organizations, businesses and corporations, cities, counties, soil/water conservation districts and schools who wish to improve habitat on private land property may request assistance at any time of the year. Landowners or organizations contact a local PFW Program representative in their area. The landowner and PFW Program representative work one-on-one to fund, design and implement a project as projects are developed and selected at the local level. A landowner agreement is developed between the Service and the landowner for a minimum of 10 years.

Strategic Approach to Habitat Conservation

The PFW Program is guided by the strategic habitat conservation approach (illustrated below) for the restoration and enhancement of habitats on private lands and works with partners to guide biological planning, conservation design and delivery, and ensure appropriate monitoring to assess project outcomes. Determining the best locations to invest staff time and resources is a significant challenge with declining budgets and the complexity of natural resource and conservation issues on the landscape. This plan highlights Focus Areas for conservation work developed as a part of the strategic planning process in the Pacific Region and identifies the rationale for selection of these areas. Projects developed and funded in the next 5 years will primarily be located in these Focus Areas.



In the Service's Region 1 office, the Assistant Regional Director for Ecological Services has oversight for the PFW Program. Our field presence is broad-based and involves coordination and involvement of many other Service programs including Ecological Services, National Wildlife Refuges, and Fisheries field stations working together to deliver PFW Program projects. The Migratory Bird program provides valuable technical support,

Regional Project Monitoring Protocol

Region 1 finalized and started using its project monitoring protocol for both the Partners for Fish and Wildlife and Coastal Programs in 2011. Three types of monitoring are conducted for habitat restoration projects:

- ***Implementation Monitoring*** for 100% of on-the-ground projects to verify that work was completed as described in the project scope of work.
- ***Effectiveness Monitoring*** for a subset of projects to determine whether the restoration action is resulting in the desired habitat response.
- ***Validation Monitoring*** for a small number of projects (often with assistance from outside groups) to assess the validity of assumptions about how novel conservation techniques contribute to desired biological outcomes.

Program Strategic Plan Goals

This Plan addresses each of five PFW Program goals identified below. Further descriptive information for the Pacific Region is provided for each of these goals along with the metrics that will be used to measure their success.

Goal 1: Conserve Habitat

Goal 2: Broaden and Strengthen Partnerships

Goal 3: Improve Information Sharing and Communication

Goal 4: Enhance Our Workforce

Goal 5: Increase Accountability

III. STRATEGIC PLAN GOALS AND OBJECTIVES

GOAL 1: CONSERVE HABITAT

A main focus of the PFW Program is to conserve habitat on private lands in collaboration with a diversity of partners. Section IV of this plan describes the Focus Areas in Region 1 by state and territory (Idaho, Oregon, Washington, Hawaii and Pacific Islands) where the majority of the work will occur. The Focus Area descriptions also describe the internal and external partners, the focus species and the scientific rationale for that focus area. Work outside of the Focus Areas can occur if new or unexpected conservation opportunities arise that provide connectivity to existing areas, if there are new partnerships that provide unforeseen conservation opportunities, or new Pacific Region or national Service priorities highlight a need to change existing emphases.

Focus Area Selection

Collectively 28 Focus Areas were selected as priority locations for the PFW Program in 2017 to 2021. The Idaho and Pacific Islands Fish and Wildlife Offices developed Strategic Habitat Conservation (SHC) Plans that encompassed all of the programs within those field offices including their PFW Programs. The PFW staffs in Idaho and Pacific Islands were asked by their leadership to include the priority landscapes highlighted in their SHC Plans as Focus Areas. In other states, selection of Focus Areas incorporated larger initiatives in the state including monarch conservation, resilient landscapes in fire adapted systems, and ongoing landscape conservation design efforts. Focus Area selection also involved input from other programs within the Service (Fisheries, Refuges, Endangered Species, Migratory Birds and others) and a variety of external partners as well. Appendix A, goes into more depth on the strategic and scientific approach each state or territory followed to establish the focus areas for the next five years.

In Oregon and Washington, the PFW Program and Coastal Program staff coordinated their Focus Area selection process and developed areas of program overlap to better address complex conservation challenges. During the next 5 years, the PFW and Coastal Programs will partner on different but related activities that are best suited to the particular programs but collectively achieve more holistic conservation.

The Focus Areas delineated in Section IV of this Plan (Figures 1 and 2) contain a mix of public and private ownership with approximately 53% of the land being held in private ownership and eligible for the PFW

Program with the remainder in State or Federal ownership. In Figures 1 and 2, the public lands within the Focus Areas are included on the maps. Their inclusion is to illustrate the landscape-scale restoration opportunities created by large contiguous blocks of public land and public-private checkerboard areas. The Service in collaboration with partners can develop broad conservation agreements, to achieve landscape-scale restoration. By working with key private landowners in a mixed ownership matrix, we have the opportunity to coordinate land use and management activities for both private and public landowners and increase our effectiveness in conserving ecological integrity of landscapes while balancing the economic needs of landowners.

Factors considered in development of Focus Areas included:

- Importance of the area from a landscape ecology perspective (e.g., does the Focus Area link or connect important habitat types and reduce fragmentation of habitat?),
- Areas that are adjacent to, encompass or connect with priorities to other programs within the Service (Refuges, Landscape Conservation Cooperatives, Endangered Species Recovery, Landscape Conservation Design efforts, important areas for migratory birds and the Migratory Bird Program, and priorities of the Fisheries Program,
- Areas that allow for recovery and restoration of multiple trust resources and habitats, “Recoverability” of ecosystems (can the threats be addressed?).
- Diversity, rarity, uniqueness, and health of the species and habitats present,
- State, national, and international designations (e.g. National Estuary Program, Wilderness, Biosphere Reserve, and Western Hemisphere Shorebird Reserve Network),
- Imminence of threat (e.g., due to development, extinction, invasive species),
- Ability of the Service and willing partners to successfully address the resource needs (partners have capacity to deliver projects and landowners are willing to participate),
- Presence and proximity of Service offices and biologists, to priority natural resources and partners,
- Areas that allow for people in urban areas to connect with the outdoors through the work of the PFW Program and other Service programs.

Each goal will have objectives that are specific, quantifiable, and realistic targets that will measure the accomplishment over our 5 year strategic work plan period. The targets for the main objective of goal 1 will be communicated as acres of upland and wetland habitat and miles of stream habitat restored or enhanced over a 5 year period through 2021.

OBJECTIVES
Number of Acres and Miles Conserved and Fish Passage Barriers Removed
Objective 1.1: Conserve 4,172 acres of wetlands, 29,130 acres of uplands, 120 acres of riparian/stream miles, and 69 fish passage barriers removed.

In Table 1, targets are listed for each Focus Area and organized by state and then totaled for the Region 1. The targets identified are based on the assumption of stable program budgets at Fiscal Year 2016 levels.

Table 1. Pacific Region-Region 1 PFW Program Focus Areas and Five Year Performance Targets 2017-2021.

Focus Areas and Five Year Performance Targets		Wetland Acres	Upland Acres	Instream/Riparian Miles	Number of Barriers Removed
PACIFIC ISLANDS					
1	Hawaii Island	5	2000	4	0
2	Kauai Island	10	1000	2	0
3	Oahu Island	2	500	1	0
4	Marianas	0	25	0	0
5	Maui Island	5	1000	4	0
6	Maui Nui Islands	5	1000	4	0
IDAHO					
7	Blue Mountains North	500	1000	4	0
8	Blue Mountains South	5	500	2	0
9	Bear River	100	500	4	4
10	Camas Big Wood River	5	500	3	0
11	Middle Rockies	300	2000	10	10
12	Owyhee	100	10,000	10	0
13	Selkirk	100	100	10	2
OREGON					
14	Closed Basin	5	600	2	2
15	Deschutes	5	5	5	2
16	John Day	5	0	8	6
17	Lower Columbia- North Oregon Coast	500	20	15	25
18	Rogue-Umpqua-Coquille	200	3000	10	3
19	Malhuer /Harney High Desert	20	800	0.5	2
20	Wallowa Mountains	5	300	1.5	2
21	Willamette Valley	1500	1900	4	2
WASHINGTON					
22	Channeled Scablands	500	700	0	0
23	Columbia Plateau	0	400	0.5	20 fence
24	Methow Basin	10	5	4	2
25	N Puget Sound Salmonid	150	10	3	3
26	Western Washington Prairie	0	1040	0	0
27	Western Washington Refuges	110	200	3.5	2
28	Yakima	25	25	5	2
TOTAL		4,172	29,130	120	89

GOAL 2: BROADEN AND STRENGTHEN PARTNERSHIPS

Strong partnerships are the foundation of successful conservation through the PFW Program. Meeting the goal and objectives in this section will ensure that we provide support to our partners inside and outside the Service and that we continue to leverage PFW Program funds with outside funding sources to accomplish specific project objectives and larger landscape level goals. In many cases, our most important conservation contributions come from building trust with diverse partners and their associated communities.

OBJECTIVES
<i>Number of Partnerships</i>
Objective 2.1: The PFW Program will partner with a region-wide total of 250 organizations for completed on-the-ground accomplishments over the next 5 years.
<i>Number of Private Landowner Agreements</i>
Objective 2.2: The PFW Program will develop an estimated 100 agreements with private landowners during the next 5 years.
<i>Percentage of Funds Leveraged for Projects</i>
Objective 2.3: Completed on-the-ground projects will achieve a regional, 5-year cost share percentage of 200% (i.e. \$2 of project partner funds for every \$1 of PFW Program funds)

GOAL 3: IMPROVE INFORMATION SHARING AND COMMUNICATION

Long-term program success requires that the public and project partners understand the PFW program and the conservation potential within the community. Likewise, successfully partnerships require that PFW program staff understand the goals and objectives of our Partners through building relationships within the community. Whenever possible, outreach will include sharing information with the public and involving them in hands-on conservation projects. Active involvement in the process of restoring habitats and recovering species with an emphasis on connecting youth to nature is a critical investment in long term conservation success and stewardship of natural resources.

OBJECTIVES
<i>Number of Congressional Outreach Activity</i>
Objective 3.1: In coordination with Headquarters and Regional Office outreach staff, the PFW Program will conduct one Congressional outreach activities per year.
<i>Number of Activities that Connect Youth to Nature</i>
Objective 3.2: The PFW Program will sponsor or participate in an annual, regional average of 3 activities per year for a total of 15 activities that connect youth to nature over the next 5 years.

GOAL 4: ENHANCE OUR WORKFORCE

The Pacific Region's PFW Program Team of staff in the field are the program's most important asset. Maintaining and increasing their professional skills are essential to continued program success and credibility with partners and the general public. This will be accomplished through formal training and other professional development opportunities.

OBJECTIVES
<i>Number of Annual Hours of Staff Training</i>
Objective 4.1: Full-time PFW Program staff will participate in 40-hours of annual training and professional development.

GOAL 5: INCREASE ACCOUNTABILITY

Accountability is an important responsibility for all Service programs. The Pacific Region's PFW Program will maintain accountability by ensuring consistency with national and regional policies.

OBJECTIVES
<i>Number of Regional Accomplishment Reports</i>
Objective 5.1: The Regional Coordinator will produce an annual program accomplishment report.
<i>Percentage of Projects Monitored for Implementation and Compliance</i>
Objective 5.2: Field staff will monitor 100% of completed on-the-ground projects for implementation and compliance as described in the Region 1 Monitoring Protocol for Coastal and PFW Programs.
<i>Number of Field Program Management Control Reviews</i>
Objective 5.3: The Regional Coordinator will conduct at least one management control review per year over the next 5 years.

IV. GEOGRAPHIC FOCUS AREAS AND DESCRIPTIONS

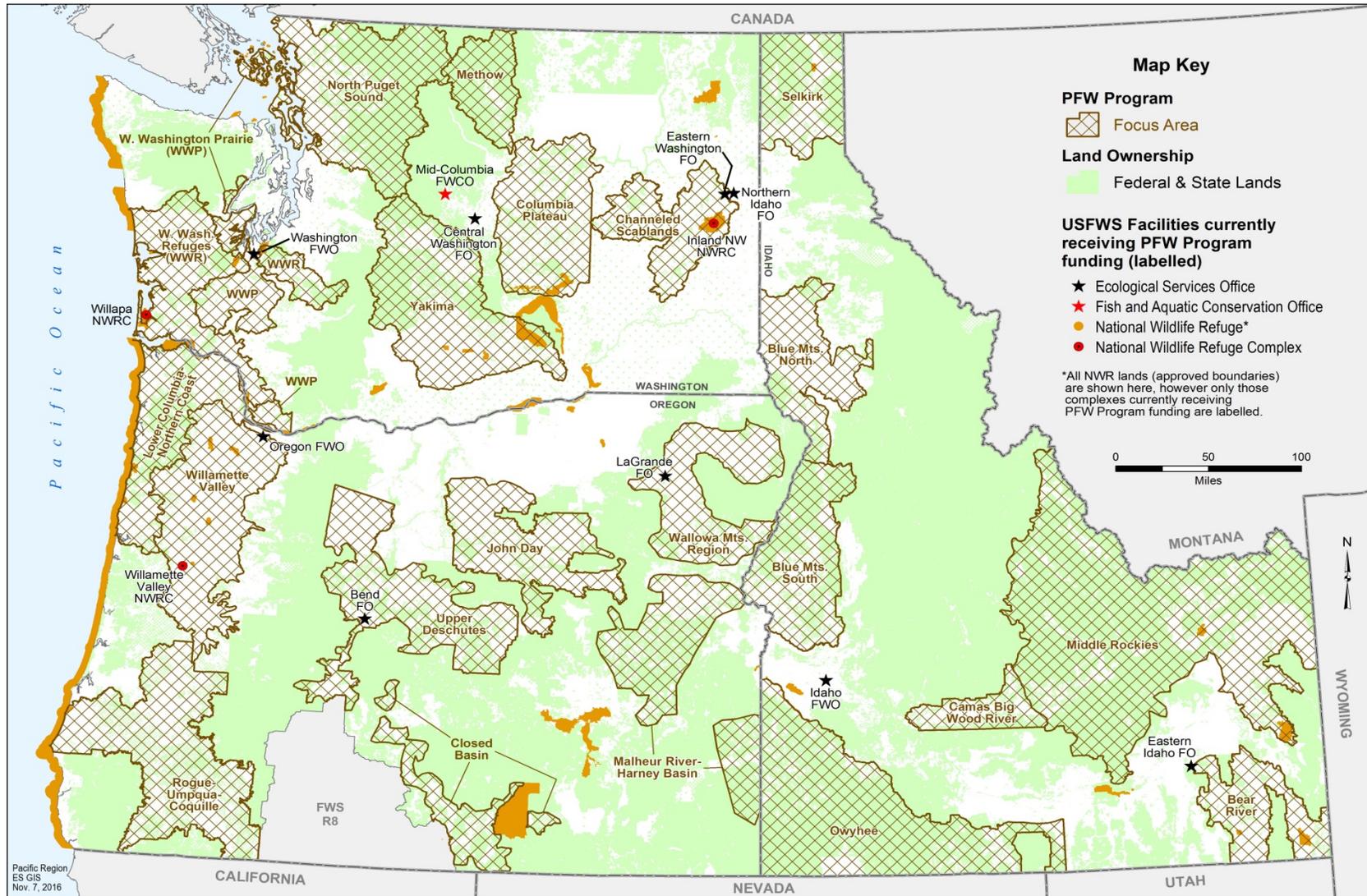


Figure 1. Focus Areas for Idaho, Oregon and Washington, Partners for Fish and Wildlife Program Strategic Plan 2017-2021

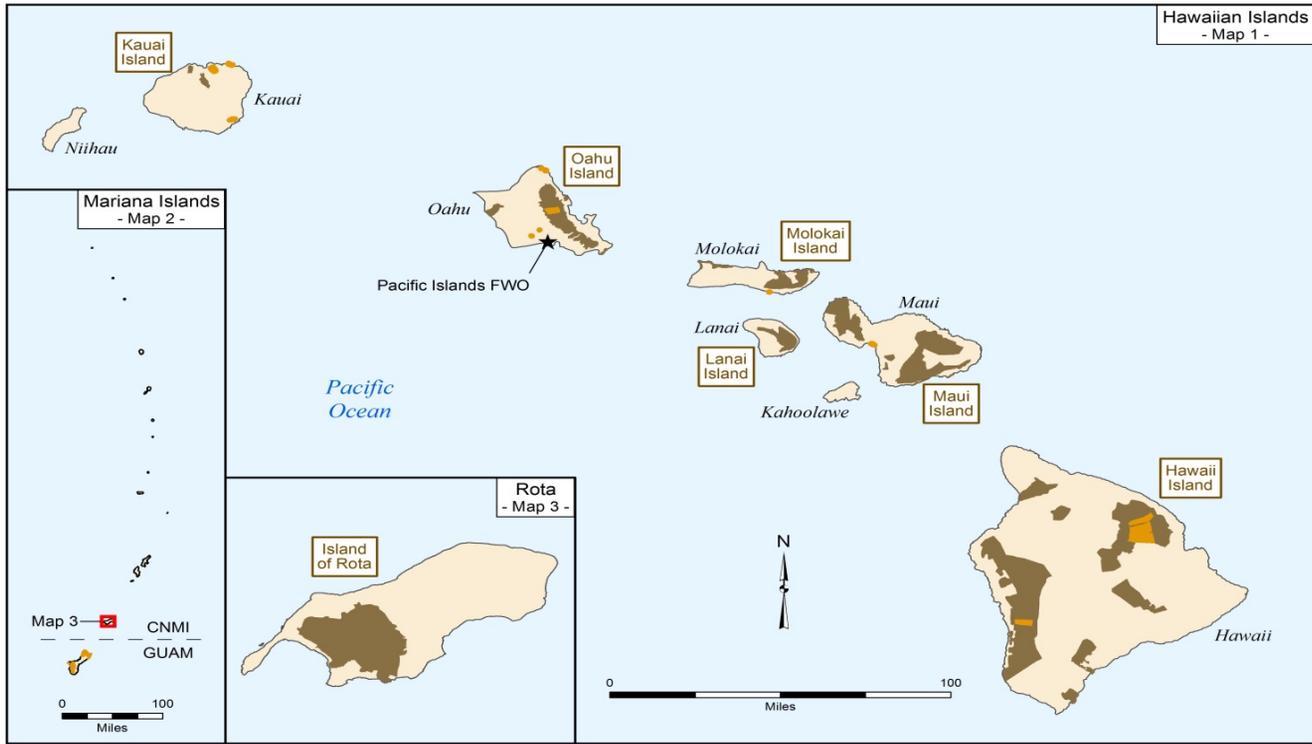
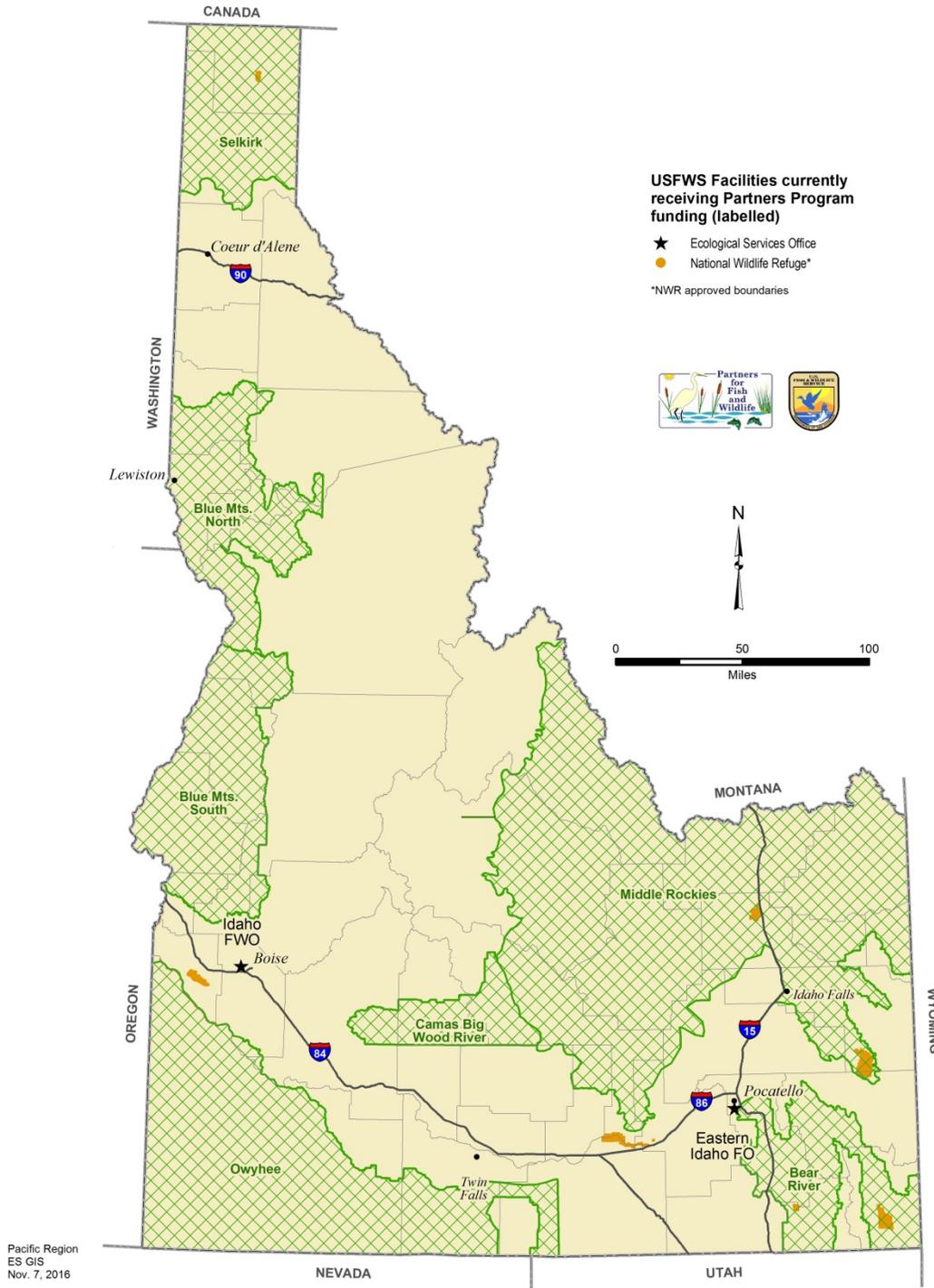


Figure 2. Focus Areas for the Pacific Islands-Partners for Fish and Wildlife Program Strategic Plan 2017-2021

IDAHO





Bear River Focus Area

Area Description: This area covers the Bear River watershed as well as the Portneuf River, Bannock Creek, and Rock Creek in southeastern Idaho. The area is generally characterized by forest-covered mountains, dissected by broad valleys which are dominated by shrub-steppe and native grassland, rangeland, and farmland. The mountain and arid rangeland areas are generally federal land, administered by the U.S. Forest Service or the U.S. Bureau of Land Management. The more productive rangeland and farmland are generally in private ownership. The Bear River watershed originates in Wyoming and flows north into Idaho to Bear Lake, and then turns west and south and flows into the Great Salt Lake in Utah. The area supports a variety of state and Federal agency sensitive species; it is also an important area for migratory birds. The area is over 1.6 million acres in size with 76% (1.2 million acres) private land, 16% federal land, and 6% state land.

Habitat Types: The focus area is characterized by wetland, wet-meadow, riparian, shrub-steppe, native grassland, and instream/aquatic habitats.

Conservation Issues: Native habitats in the area have been impacted by agriculture and water use activities such as livestock grazing, crop production, irrigation, water withdrawal, hydropower, and other activities. As a result, there has been considerable degradation of key habitats important to migratory birds and sensitive species. Active habitat restoration, enhancement and protection are needed on private lands in the area to conserve focus area fish and wildlife species and their habitats.

2017-2021 Objectives:

- 500 acres of upland habitat*
- 100 acres of wetland habitat*
- 4 miles of riparian habitat*
- 4 fish passage barriers*

Key Partners:

- Idaho Department of Fish and Game*
- Natural Resources Conservation Service*
- PacifiCorp Energy*
- Shoshone-Bannock Tribe*
- Sagebrush Steppe Land Trust*
- Pheasants Forever*
- Soil and Water Conservation Districts*
- Trout Unlimited*
- Multiple private landowners*

Conservation Strategies to Achieve Objectives

- ✓ *Work with PacifiCorp's Environmental Coordination Committee to prioritize and implement projects that will benefit focal species*
- ✓ *Develop partnerships among stakeholders and foster collaboration among interagency personnel to address threats to focal species*
- ✓ *Prioritize projects that can be connected to intact habitats or other projects to achieve landscape-scale results*

Scientific Rationale: Conservation plans with relevance to this area include the Coordinated Implementation Plan for Bird Conservation in Idaho developed by the Intermountain West Joint Venture, the Intermountain West Regional Shorebird Plan, the Idaho Comprehensive Wildlife Conservation Strategy, the Western Native Trout Initiative, and the Conservation Plan for the Greater Sage-Grouse in Idaho, the Bonneville cutthroat trout Management Plan and others. Species present include grassland, riparian and wetland dependent migratory birds, and sensitive species such as trumpeter swans, great blue herons, greater sandhill cranes, greater sage-grouse, Columbian sharp-tailed grouse, long-billed curlew, white-faced ibis, pygmy rabbits, Bonneville cutthroat trout, and bald eagles

Focal Species, Plans, and Conservation Strategies:

Focal Species (Common Name)	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Long-billed curlew <i>Numenius americanus</i>	MBTA	U.S. Shorebird Conservation Plan 2001 Idaho Dept. of Fish and Game – State Wildlife Action Plan	Work to restore habitats lost to historic changes in land use by: <ul style="list-style-type: none"> • Incentivize flood irrigation and other farming practices and infrastructure that can improve nesting and brood rearing habitat • improving mesic meadow and wetland habitats • improving and protecting intact blocks of native grasslands
Bonneville cutthroat trout <i>Oncorhynchus clarkii utah</i>	NA	Management Plan for the Conservation of Bonneville cutthroat trout in Idaho (2007)	Work to enhance aquatic habitat by: <ul style="list-style-type: none"> • Restore and maintain connectivity • Decrease sediment inputs • Restore riparian vegetation



2017-2021 Objectives:

1000 acres of upland habitat

500 acres of wetland habitat

4 miles of riparian habitat

Key Partners:

Idaho Department of Fish and Game

Natural Resources Conservation Service

Soil and Water Conservation Districts

Nez Perce Tribe

Palouse Land Trust

Blue Mountains North Focus Area

Area Description: The Blue Mountains North Focus Area is in northern Idaho and includes Palouse Prairie and Canyon Grassland ecosystems and portions of the Palouse and Clearwater Basins. Major land uses include agriculture, grazing and suburban development. There are two cities with populations over 10,000 and dozens of smaller communities. The focus area is over 2 million acres, with 76% (1.5 million acres) in private ownership, 5% tribal land, 8% state land, and 11% federal land.

Habitat Types Key habitats are prairie and canyon grasslands, wetlands, streams and riparian zones.

Conservation Issues: Nearly all Palouse and Nez Perce Prairie was converted to agriculture by the turn of the last century, but now human development and growth of urban areas are increasing threats to the remaining prairie. Additional threats include: habitat degradation due to invasive plants; and direct and indirect loss of native plant populations due to herbicide and habitat patch isolation. Aquatic threats that can be addressed on private land include poor water quality due to increased temperature and sedimentation, loss of seasonal wetlands, loss of in-stream habitat complexity, and habitat fragmentation.

Conservation Strategies to Achieve Objectives

- ✓ *Use results of landscape scale grassland assessments to prioritize projects for Spalding's catchfly*
- ✓ *Prioritize stream, wetland and riparian restoration projects that can be connected to other projects on private or federal land to achieve landscape-scale results*
- ✓ *Restore stream complexity and connectivity for aquatic Focal Species*
- ✓ *Add monarch butterfly habitat elements to native prairie projects*

Scientific Rationale: The Idaho Natural Heritage Program has identified this focus area as core habitat for an exceptional diversity of State Species of Greatest Conservation Need as part of their Wildlife Action Plan. Several high priority wetlands, important bird areas, and exceptional natural and rare wetland and prairie habitats have also been identified. The Nature Conservancy has identified multiple biodiversity hotspots in this focus area at high risk of disturbance. The Palouse Prairie is considered one of the most endangered ecosystems in the United States; several Palouse Prairie plant associations are considered globally imperiled (G1 or G2). The focus area includes portions of two recovery zones for Spalding's catchfly and bull trout. The southern portion of the focus area overlaps with the Blue

Mountains Priority Landscape as identified in the document titled “ Strategic Habitat Conservation in Idaho-Landscape Conservation

Strategy” developed by the Idaho Fish and Wildlife Office This priority area includes 11 focal species, some of which are listed below.

Focal Species, Plans, and Conservation Strategies:

Focal Species (Common Name)	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Westslope Cutthroat Trout <i>Oncorhynchus clarki lewisi</i>	NA	IDFG Management Plan for the Conservation of Westslope Cutthroat Trout in Idaho. 2013	Restore complexity and quality of occupied westslope cutthroat trout habitat by: <ul style="list-style-type: none"> • instream restoration of large woody debris • restore stream form and function • reconnect stream to floodplain • reforest riparian zones
Bull Trout <i>Salvelinus confluentus</i>	Threatened	USFWS Bull Trout Recovery Plan (2015), Columbia Headwaters Recovery Unit	Improve water quality in South Fork Clearwater River through tributary habitat restoration including: <ul style="list-style-type: none"> • livestock fencing • riparian reforestation • floodplain reconnection • wetland restoration
Monarch Butterfly <i>Danaus plexippus</i>	NA	Conservation Status and Ecology of the Monarch Butterfly in the United States (2015)	Restore native grassland prairies <ul style="list-style-type: none"> • plant a diversity of nectar plants for adult butterflies • plant milkweed for butterfly breeding
Spalding’s catchfly <i>Silene spaldingii</i>	Threatened	USFWS Spalding’s Catchfly Recovery Plan (2007)	Restore native grassland prairies in priority locations by: <ul style="list-style-type: none"> • Weed control • Plant native grasses and forbs • Plant Spalding’s catchfly in secure habitat • Converting CRP sites to native prairie

Blue Mountains South Focus Area

Area Description: The area includes the Weiser, Payette, Brownlee Reservoir, Little Salmon sub-basins, and the southern ends of the Hells Canyon and Lower Salmon sub-basins within west-central, Idaho. The northern area is characterized by steep topography, which is largely intact and uncultivated. The southern area is characterized by rolling sagebrush steppe terrain, native and non-native grasslands, and farmlands. The mountain and arid rangeland areas are generally federal land, administered by the U.S. Forest Service or the U.S. Bureau of Land Management. The more productive rangeland and farmland are generally in private ownership. Cities and towns are mostly rural farming and ranching communities, with increasing land fragmentation by “ranchette” subdivision developments. The area also hosts a suite of popular recreation and tourism activities, such as angling and whitewater rafting. The West Central Focus Area is over 2.5 million acres in size with 44% (1.1 million acres) in private ownership, 50% federal land, and 6% state land.

Habitat Types: Coniferous forests, deciduous shrublands, wetlands, mesic meadows, riverine-riparian forest and shrubland, sagebrush, and native grasslands.

Conservation Issues: The area has been heavily impacted from agriculture, mining, logging, water use and urbanization activities that have resulted in degradation of sagebrush, wetland, and riverine habitats. Numerous farmlands were historically removed from crop production due to highly erodible soils and enrolled in the Soil Bank or Conservation Reserve Programs administered by NRCS. These lands, originally planted to non-native monotypic grasslands with limited wildlife value, have the potential to be converted back to native sagebrush habitat. Invasive plant species, such as cheatgrass, are also a serious threat to native sagebrush habitat. Fire suppression in higher elevation coniferous forests has resulted in conifer encroachment in limited niche meadow habitats for the species like the northern Idaho ground squirrel.

Conservation Strategies to Achieve Objectives

- ✓ *Work with Farm Bill administrating agencies and State coordinators to promote the CRP-State Acres for Wildlife Enhancement Program*
- ✓ *Prioritize restoring and reconnecting formally suitable habitat patches to occupied habitats for focal species.*

Scientific Rationale: The northern portion of this Focus Area overlaps the Blue Mountain Priority Landscape which was selected as a high priority in the document titled “Strategic Habitat Conservation in Idaho-Landscape Conservation Strategy” developed by the Idaho Fish and Wildlife Office. The remaining southern portion of the Focus Area was selected because of several focal species and habitats uniquely linked to and influenced by a large proportion of lands under private ownership. Priority species in this



2017-2021 Objectives:

500 acres of upland habitat

5 acres of wetland habitat

2 miles of riparian habitat

Key Partners:

Idaho Department of Fish and Game

Idaho Governor’s Office of Species Conservation

Natural Resources Conservation Service (NRCS)

Pheasants Forever

Intermountain Bird Observatory

priority landscape include, flammulated owl, MacFarlane’s four-o’clock, mountain quail, Rocky Mountain tailed frog, northern Idaho ground squirrel, and willow flycatcher.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Northern Idaho Ground Squirrel <i>Urocitellus brunneus</i>	Threatened	Idaho Dept. of Fish and Game – State Wildlife Action Plan U.S. Fish and Wildlife Service. 2003. Recovery Plan for the Northern Idaho Ground Squirrel	Improve the health and connectivity of occupied, potential and corridor habitats by: <ul style="list-style-type: none"> • Restoring occupied or potential habitats by removing encroaching tree seedlings • Restoring diverse native grass and forb plant communities • Reintroducing fire as a means to restore and enhance habitat • Working with livestock operators to manage the timing, intensity and duration of livestock use within habitat • Control invasive and noxious weeds • Monitor effectiveness of habitat restoration actions
Columbian Sharp-Tailed Grouse <i>Tympanuchus phasianellus</i>	NA	Idaho Dept. of Fish and Game – State Wildlife Action Plan Guidelines for the management of Columbian sharp-tailed grouse populations and their habitats, WAFWA 2015	Work to restore habitats lost to historic changes in land use by: <ul style="list-style-type: none"> • Partnering with State Farm Bill Coordinators to promote expired CRP enrollment into continuous CRP-SAFE program • Improving expired-CRP monotypic non-native sod forming grass stands • Improving the resistance and resilience of native sagebrush steppe habitats to fire and invasive species threats through site specific conservation measures • Restoring and maintaining deciduous shrubland winter habitats

Camas-Big Wood River Focus Area

Area Description: The Camas- Big Wood River Focus Area is in central Idaho and includes the Camas sub-basin and portions of the S. Fork Boise, Big Wood, and Little Wood sub-basins. The area is characterized by forest-covered mountains, dissected by broad valleys dominated by sagebrush, native grasslands, and farmlands. The arid rangeland areas are administered by the U.S. Bureau of Land Management, and the more productive rangeland and farmland are generally in private ownership. Communities are mostly small and rural, but population and development is increasing. The larger population centers revolve around tourism associated with winter resort skiing and summer outdoor recreation. The Camas-Wood River Focus Area is over 845,000 acres in size with 57% (478,779 acres) in private ownership, 36% federal land, and 7% state land.

Habitat Types: Wetlands, mesic meadows, riverine-riparian forest and shrubland, sagebrush, and native grasslands.

Conservation Issues: Native habitats in the area have been impacted by historic livestock grazing and increases in land conversion to agriculture. Associated water use activities supported by modern farming and irrigation water conveyance technology have contributed to these impacts. The areas with the greatest impact to natural resources (valley bottoms) are primarily private land. Active habitat restoration and management are needed to conserve focal species and habitats.

Conservation Strategies to Achieve Objectives

- ✓ *Participate in coordinated monitoring and assess threats to focal species to support informed land management decisions*
- ✓ *Develop partnerships among stakeholders and foster collaboration among interagency personnel to address threats to focal species*
- ✓ *Prioritize projects that can be connected to intact habitats or other projects to achieve landscape-scale results*

Scientific Rationale: This Focus Area was selected because of several focal species and habitats uniquely linked to and influenced by a large proportion of lands under private ownership. The area contains proposed Critical Habitat for western yellow-billed cuckoo, in addition to Priority and Important Habitat Management Areas for the greater sage-grouse. A host of migratory water birds and waterfowl, such as the greater Sandhill crane, long-billed curlew, white-faced ibis, and trumpeter swan, are seasonally linked to this area due to the availability of natural and flood irrigation dependent wetlands. The area also supports healthy populations of other sagebrush obligate focal species such as pygmy rabbit, brewer's sparrow, and sage thrasher.



2017-2021 Objectives:

500 acres of upland habitat

5 acres of wetland habitat

3 miles of riparian habitat

Key Partners:

Idaho Department of Fish and Game

Idaho Governor's Office of Species Conservation

Natural Resources Conservation Service

The Nature Conservancy

Wood River Land Trust

Ducks Unlimited

Intermountain Bird Observatory

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Western Yellow-Billed Cuckoo <i>Coccyzus americanus</i>	Threatened	Idaho Dept. of Fish and Game – State Wildlife Action Plan	Restore the health and connectivity of multi-storied cottonwood riparian forest by: <ul style="list-style-type: none"> • Reconnecting riverine floodplains using stream restoration techniques to improve periodic flooding needed for cottonwood establishment and reproduction • Reintroducing cottonwood transplants in site specific locations • Creating riparian buffer zones using exclusion fencing where needed and assist livestock operators in creating riparian pasture systems to address the timing, intensity and duration of livestock use within riparian forests.
Long-Billed Curlew <i>Numenius americanus</i>	MBTA	U.S. Shorebird Conservation Plan 2001 Idaho Dept. of Fish and Game – State Wildlife Action Plan	Work to restore habitats lost to historic changes in land use by: <ul style="list-style-type: none"> • Incentivizing flood irrigation and other farming practices and infrastructure that can improve nesting and brood rearing habitat • improving mesic meadow and wetland habitats • improving and protecting intact blocks of native grasslands



Middle Rockies Focus Area

Area Description: This area includes most of the upper Salmon River and upper Snake River watersheds in Southeastern Idaho. The area is generally characterized by forest-covered mountains, dissected by broad valleys which are dominated by sagebrush steppe, native grassland, wetland and riparian habitats. The mountain and arid rangeland areas are generally federal land, administered by the U.S. Forest Service and the U.S. Bureau of Land Management. The area supports a variety of sensitive species; it is also an important area for migratory birds. The focus area is over 10 million acres in size with 25% (2.6 million acres) private land, 69% federal land, and 5% state land.

Habitat Types: The focus area is characterized by wetland, wet-meadow, riparian, sagebrush steppe, native grassland, and instream/aquatic habitats.

Conservation Issues: Native habitats in the area have been impacted by agriculture and water use activities such as livestock grazing, crop production, water withdrawal for irrigation, transportation, and other activities. The areas of greatest impact to natural resources (valley bottoms) are primarily private land. Habitat restoration, establishment and protection are needed on these private lands to conserve key species and habitats.

2017-2021 Objectives:

2000 acres of upland habitat

300 acres of wetland habitat

10 miles of riparian habitat

10 fish passage barriers

Key Partners:

Idaho Department of Fish and Game

Natural Resources Conservation Service

The Nature Conservancy

Shoshone-Bannock Tribe

Lemhi Regional Land Trust

Teton Regional Land Trust

Pheasants Forever

Soil and Water Conservation Districts

Trout Unlimited

Multiple private landowners

Conservation Strategies to Achieve Objectives

- ✓ *Work with watershed interagency/interdisciplinary teams to prioritize and implement projects to benefit focal species*
- ✓ *Develop partnerships among stakeholders and foster collaboration among interagency personnel to address threats to focal species*
- ✓ *Prioritize projects that can be connected to intact habitats or other projects to achieve landscape-scale results*

Scientific Rationale: Conservation plans with relevance to this area include the Coordinated Implementation Plan for Bird Conservation in Idaho developed by the Intermountain West Joint Venture, the Intermountain West Regional Shorebird Plan, the Idaho Comprehensive Wildlife Conservation Strategy, the Western Native Trout Initiative, and the Conservation Plan for the Greater Sage-Grouse in Idaho, and others. The focus area overlaps with the Middle Rockies Priority Landscape as identified in the document titled Strategic Habitat Conservation in Idaho-Landscape Conservation Strategy” developed by the Idaho Fish and Wildlife Office. Species present include grassland, riparian and wetland dependent migratory birds, and sensitive species such as bull trout, salmon, steelhead, Pacific lamprey, greater sage-grouse, long-billed curlew, great blue heron, trumpeter swans, greater sandhill cranes, Columbian sharp-tailed grouse, white-faced ibis, Ute ladies’ tresses, and pygmy rabbit.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plan etc.)	Strategies that Implement Applicable Plans
Bull trout <i>Salvelinus</i> <i>confluentus</i>	Threatened	USFWS Bull Trout Recovery Plan (2015), Columbia Headwaters Recovery Unit	Restore complexity of occupied Bull Trout habitat by: <ul style="list-style-type: none"> • instream restoration of large woody debris to the stream systems Restore connectivity between occupied and unoccupied Bull Trout streams by: <ul style="list-style-type: none"> • removing fish passage barriers • installing fish screens on irrigation ditches to eliminate entrainment
Monarch butterfly <i>Danaus plexippus</i>	NA	Conservation Status and Ecology of the Monarch butterfly in the United States (2015)	Restore native grassland prairies <ul style="list-style-type: none"> • plant a diversity of nectar plants and milkweed • establish partnerships to expand conservation activities
Greater sage-grouse <i>Centrocercus</i> <i>urophasianus</i>	NA	Idaho Dept. of Fish and Game – State Wildlife Action Plan 2006 Conservation Plan for the Greater sage-grouse in Idaho Idaho and Southwestern Montana Greater sage-grouse Approved Resource Management Plan Amendment Idaho State Board of Land Commissioners Greater sage-grouse Conservation Plan	Restore and maintain a resistant and resilient sagebrush landscape through active restoration by: <ul style="list-style-type: none"> • Minimizing the risk of catastrophic wildlife through actions that modify fire behavior, such as fuels breaks • Monitoring and controlling invasive species post-wildfire • Actively managing invasive annual grass species to limit presence • Re-establishing native perennial plant species post-wildfire • Restoring riparian, wetland and mesic meadow habitats to their proper functioning condition • Working with livestock operators to manage the timing, intensity and duration of livestock use through improved infrastructure and offsite water development.

Owyhee Focus Area

Area Description: The Owyhee Focus Area is located in the southwest corner of Idaho, bordering Oregon and Nevada. The area includes the Idaho Portions of the Middle Snake – Succor, Bruneau, Salmon Falls, Goose, Upper Owyhee, South Fork Owyhee, East Little Owyhee, and Middle Owyhee sub-basins. The area is generally characterized by forest-covered mountains and contiguous sagebrush steppe expanses, dissected by the Owyhee and Bruneau River Canyons. Much of this rural landscape is utilized by the livestock industry, with farming occurring on irrigable lands in close proximity to larger river systems. This area is mostly federal land administered by the U.S. Bureau of Land Management. The Owyhee Focus Area is over 5.4 million acres in size with 16% (840,888 acres) in private ownership, 75% federal land, 6% state land, and 3% Tribal land.

Habitat Types: sagebrush steppe, juniper woodlands, aspen, wetlands, mesic meadows, and riverine-riparian shrublands.

Conservation Issues: This Focus Area contains some of the most important sagebrush steppe habitat in the State, occupied by the highest density of Greater Sage-Grouse leks. This habitat type is threatened by the accelerated invasion of nonnative annual grasses and conifer encroachment. The threat of invasives, coupled with the effects of intensified drought and climate change, create conditions that lead to increased wildfire frequency and severity. Wetland, mesic meadow, and riparian habitats are also critical for multiple wildlife species across this water-scarce landscape, as they are naturally limiting and have experienced historical impacts by anthropogenic disturbances.

Conservation Strategies to Achieve Objectives

- ✓ *Participate in coordinated “All Hands, All Lands” conservation approach, given the primary composition of Federal Lands; State, Tribal, and private land interests must be considered in order to maintain the integrity and viability of the landscape*

Scientific Rationale: This Focus Area contains portions of the sagebrush ecosystem regarded as important to the conservation of the greater sage-grouse in the west, as well as supporting healthy populations of sagebrush obligates such as pygmy rabbit, Brewer’s sparrow, sagebrush sparrow, sage thrasher, and pronghorn antelope. Private lands are located in juxtaposition to the largest sagebrush habitat conservation efforts occurring in the State. In collaboration with State and Federal partners, these efforts are being promoted across all lands. This Focus Area also largely overlaps the Owyhee Uplands Priority Landscape which was selected as a high priority in the document titled “Strategic Habitat Conservation in Idaho- Landscape Conservation Strategy” developed by the Idaho Fish and Wildlife Office. This focus area also contains other focal species such as Columbia spotted frog, slickspot peppergrass, mule deer, aspen, American beaver, and the interior redband trout.



2017-2021 Objectives:

10,000 acres of upland habitat

100 acres of wetland habitat

10 miles of riparian habitat

Key Partners:

Idaho Department of Fish and Game

Idaho Governor’s Office of Species Conservation

Natural Resources Conservation Service

The Nature Conservancy

Owyhee Watershed Council

County Weed Management Associations

Owyhee County Cattlemen

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
<p>Greater Sage-Grouse <i>Centrocercus urophasianus</i></p>	<p>NA</p>	<p>Idaho Dept. of Fish and Game – State Wildlife Action Plan</p> <p>2006 Conservation Plan for the Greater Sage-grouse in Idaho</p> <p>Idaho and Southwestern Montana Greater Sage-Grouse Approved Resource Management Plan Amendment</p> <p>Idaho State Board of Land Commissioners Greater Sage-Grouse Conservation Plan</p>	<p>Restore and maintain a resistant and resilient sagebrush landscape through active restoration by:</p> <ul style="list-style-type: none"> • Minimizing the risk of catastrophic wildlife through actions that modify fire behavior, such as fuels breaks • Monitoring and controlling invasive species post-wildfire • Actively managing invasive annual grass species to limit presence • Re-establishing native perennial plant species post-wildfire • Prioritizing control of Phase I and Phase II juniper encroachment in proximity to breeding habitat • Restoring riparian, wetland and mesic meadow habitats to their proper functioning condition • Working with livestock operators to manage the timing, intensity and duration of livestock use through improved infrastructure and offsite water development.
<p>Columbia Spotted Frog (Great Basin DPS) <i>Rana luteiventris</i></p>	<p>NA</p>	<p>2010 draft Columbia Spotted Frog Great Basin Population Conservation Strategy</p> <p>Idaho Dept. of Fish and Game – State Wildlife Action Plan</p>	<p>Improve the health and connectivity of occupied and potential habitats by:</p> <ul style="list-style-type: none"> • Restoring riparian, wetland and mesic meadow habitats to their proper functioning condition • Using beaver dam analogues to encourage beaver dam building to restore floodplain connectivity • Working with livestock operators to manage the timing, intensity and duration of livestock use through improved infrastructure and offsite water development.

Selkirk Focus Area

Area Description: The Selkirk Focus Area is in northern Idaho and includes all of the Pend Oreille and Kootenai sub-basins that are in Idaho. This is a mountainous area with many glacial lakes, rivers, and streams. Rivers and streams are rapid, especially during spring runoff. Lake Pend Oreille and Priest Lake are major water bodies. Communities are mostly small and rural, but human population and development have been greatly increasing in recent years. Summer residences are common on lakes and large river systems. Participation in outdoor recreation is also increasing rapidly. Forestry, livestock grazing, mining, and localized agriculture are principal land uses. The Selkirk Focus Area is over 1.8 million acres in size with 32% in private ownership (609,564 acres), 47% federal land, 14% state land, 6% open water and about 100 acres Tribal land.

Habitat Types: Key habitats are wetlands, streams, and riparian zones.

Conservation Issues: Threats that can be addressed on private land include invasive alien plant and animal species, fish passage barriers, poor water quality due to increased temperature and sedimentation, loss of seasonal wetlands, loss of in-stream and riparian habitat complexity, and habitat fragmentation.

Conservation Strategies to Achieve Objectives

- ✓ *Work with an interagency interdisciplinary team to conduct watershed assessments, and prioritize and implement projects identified in the assessments*
- ✓ *Prioritize stream, wetland and riparian restoration projects that can be connected to other projects on private or federal land to achieve landscape-scale results*
- ✓ *Restore stream complexity and connectivity for aquatic Focal Species*

Scientific Rationale: The Idaho Natural Heritage Program has identified this focus area as core habitat for bull trout, westslope cutthroat trout, bald eagles, grizzly bears and an exceptional diversity of State Species of Greatest Conservation Need as part of their State Wildlife Action Plan. They have also identified 32 high priority wetlands, 10 important bird areas, and exceptional natural and rare wetland habitats. The Bull Trout Recovery Plan identifies this area as core habitat. There are also two grizzly bear recovery zones in this focus area with significant private land. USGS research has shown that even with high risk climate change factors influencing frequency of forest fires and stream flow changes, a majority of the westslope cutthroat and bull trout populations in the Pend Oreille Basin will persist in the long term. The focus area overlaps with the Selkirk Cabinet-Yaak Priority Landscape as identified in the document titled



2017-2021 Objectives:

100 acres of upland habitat

100 acres of wetland habitat

10 miles of riparian habitat

2 fish passage barriers

Key Partners:

Idaho Department of Fish and Game

Natural Resources Conservation Service

Soil and Water Conservation Districts

Kalispel and Kootenai Tribes

Priest Community Forest Connections

Vital Ground Foundation

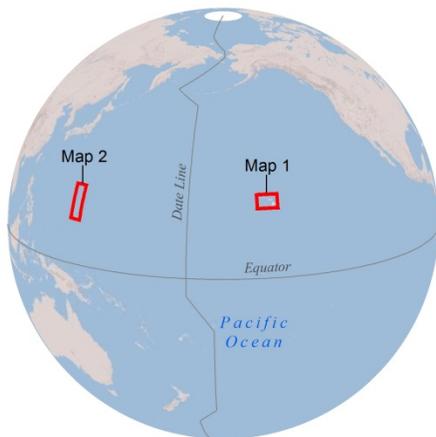
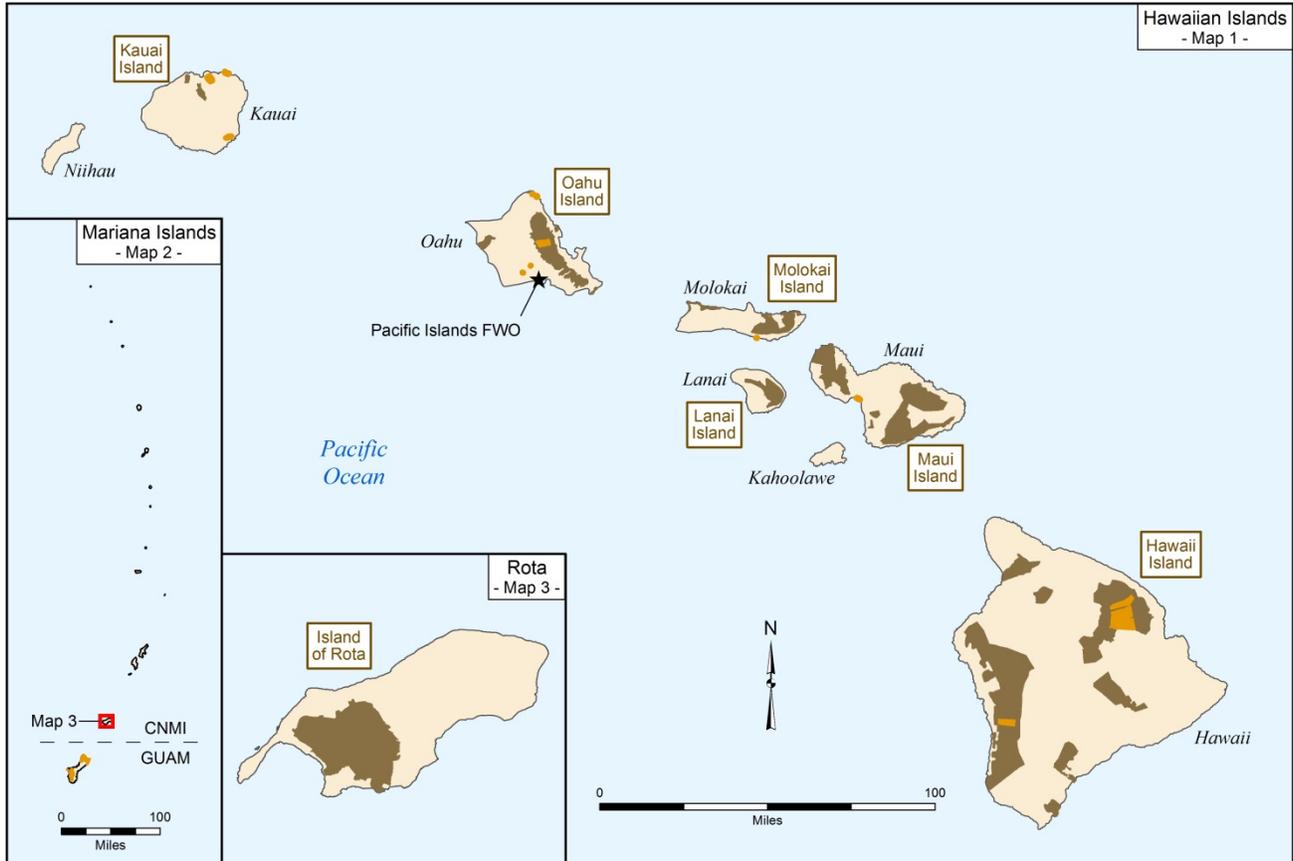
Priest Community Forest Connections

“Strategic Habitat Conservation in Idaho Landscape Conservation Strategy” developed by the Idaho Fish and Wildlife Office. This priority landscape includes 14 focal species, some of which are listed below.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Bull Trout <i>Salvelinus</i> <i>confluentus</i>	Threatened	USFWS Bull Trout Recovery Plan (2015), Columbia Headwaters Recovery Unit	Restore complexity and quality of occupied bull trout habitat by: <ul style="list-style-type: none"> • instream restoration of large woody debris • restore stream form and function • reconnect stream to floodplain • reforest riparian zones Restore connectivity between occupied and unoccupied bull trout streams by: <ul style="list-style-type: none"> • removing fish passage barriers
Westslope Cutthroat Trout <i>Oncorhynchus</i> <i>clarki lewisi</i>	NA	IDFG Management Plan for the Conservation of Westslope Cutthroat Trout in Idaho. (2013)	Restore complexity and quality of occupied cutthroat trout habitat by: <ul style="list-style-type: none"> • instream restoration of large woody debris • restore stream form and function • reconnect stream to floodplain • reforest riparian zones
Lewis Woodpecker Willow Flycatcher <i>Melanerpes lewis</i> <i>Empidonax traillii</i>	NA	Strategic Habitat Conservation in Idaho	Restore riparian and floodplain forests <ul style="list-style-type: none"> • Plant native trees and shrubs along streams

PACIFIC ISLANDS



Map Key

PFW Program



USFWS Facilities currently receiving PFW Program funding (labeled*)

- ★ Ecological Services Office
- National Wildlife Refuge

*All NWR lands (approved boundaries) within the scope of Maps 1 & 2 are shown, however, the only FWS facility currently receiving PFW Program funding is the Pacific Islands FWO (Honolulu, HI).

Hawaii Island Focus Area

Area Description: The island of Hawaii is the largest, highest, and youngest in the Hawaiian Archipelago. It has two mountains over 4,000 meters (13,000 ft.), three active volcanoes, and twice the area of all the other islands combined. Wet forests are home to a spectacular radiation of endemic birds as well as many unique invertebrates such as happy-face spiders and carnivorous caterpillars. Most of the original lowland habitat on the island has been transformed by human habitation, and whole suites of bird and snail species have been extirpated and are known only from fossils. In 2014, there were 194,190 residents on the island centered in Hilo and Kailua-Kona with additional concentrations in Waimea and Puna. Tourism, agriculture, and government services are the main economic drivers. Daily visitor population is about 29,255 with over 1.5 million people visiting the Hawaii Volcanoes National Park in 2013. The Hawaii Island Focus Area is over 517,000 acres in size with 63% in private ownership, 8% federal land, and 28% state land.

Habitat Types: Major native habitat types on the island include wet montane forest, mesic montane forest, subalpine mesic forest and shrubland. Additional, but smaller areas, support dry montane and dry lowland forests, wet lowland forest, coastal forest and coastal shrub and grasslands.

Conservation Issues: Threats that can be addressed on private land include invasive alien grass in former dry forest and coastal areas, uncontrolled populations of feral sheep-mouflon hybrids (*Ovis aries-Ovis musimon*) at high elevations on Mauna Loa and on Hualalai. These feral sheep threaten native vegetation and regeneration. Other major threats that cannot be addressed solely on private land are the *Ceratocystis* wilt of Ohia Lehua (*Metrosideros polymorpha*) trees (aka “Rapid Ohia Death”) which has killed large numbers of mature trees in Puna and Hilo districts. Additionally, marine debris and wetland restoration remains a conservation issue in coastal areas.

Conservation Strategies to Achieve Objectives

- ✓ Increase fencing to exclude ungulate and small mammal populations and protect native species.
- ✓ Restore native dry forest species such as sandalwood (*Santalum ellipticum*)
- ✓ Reduce marine debris in coastal areas and restore with native plants
- ✓ Increase food availability for endangered waterbirds

Scientific Rationale: The focus area is based on the management boundaries of the Three Mountain Alliance and the Pacific Islands Fish and Wildlife Office (PIFWO) Strategic Plan. The PIFWO Strategic Plan is a compilation of areas identified as essential or critical to the conservation of terrestrial and aquatic species. These were identified as priority landscapes. The areas identified included designated critical habitat (USFWS 2003; 2006; 2008; 2010; 2012a,b,c), proposed critical habitat (USFWS 2005), Hawaii plant essential habitat (HPPRCC 1998), recovery areas identified in published recovery plans (USFWS 2005, 2006), native dominated coastal habitats



2017-2021 Objectives:

2000 acres of upland habitat

5 acres of wetland habitat

4 miles of riparian habitat

Key Partners:

Kamehameha Schools

Queen Emma Land Company

The Nature Conservancy

Natural Resources Conservation Service

Three Mountain Watershed Alliance

(Warshauer 2008), important stream habitat, and important marine habitat. The total sum of each of the areas identified above was considered the boundary of each priority landscape.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies That Implement Applicable Plans
Alala <i>Corvus hawaiiensis</i>	Endangered	Revised Recovery Plan for the Alala (<i>Corvus hawaiiensis</i>), State Wildlife Action Plan (2015)	Restore habitat: Koa (<i>Acacia koa</i>) restoration <ul style="list-style-type: none"> • Increase fencing, ungulate and small mammal control • Restore native forest species
Uhiuhi <i>Mezouneuron kavaiense</i>	Endangered	Recovery Plan for the Big Island Plant Cluster (1996), Tri Mountain Alliance Watershed Partnership Management Plan	Restore habitat: <ul style="list-style-type: none"> • Remove/control invasive plants such as lantana (<i>Lantana camara</i>), fountaingrass (<i>Pennisetum setaceum</i>) and Christmasberry (<i>Schinus terebinthifolius</i>) • Increase fencing, and ungulate control in dry forest areas • Restore native dry forest species such as sandalwood (<i>Santalum ellipticum</i>)
Hawksbill Turtle <i>Eretmochelys imbricata</i>	Endangered	Recovery Plan for the U.S. Populations of the Hawksbill Sea Turtle (1998), State Wildlife Action Plan (2015)	<ul style="list-style-type: none"> • Decrease artificial lighting in sandy beach areas • Reduce marine debris in coastal areas and restore with native plants • Prevent dogs, cats, and pigs from entering nesting sites
Hawaiian Duck <i>Anas wyvilliana</i> , Hawaiian Gallinule <i>Gallinula chloropus sandvicensis</i> Hawaiian Coot <i>Himantopus mexicanus knudseni</i> Hawaiian Stilt <i>Fulica alai</i>	Endangered Endangered Endangered Endangered	Pacific Coast Joint Venture Hawaii Strategic Plan for Wetland Conservation in Hawaii (2006), Recovery Plan for Hawaiian Waterbirds, 2 nd ed. (2012)	<ul style="list-style-type: none"> • Increase food availability for endangered waterbirds by removing invasive species such as <i>Casuarina</i> spp., and <i>Pluchea</i> spp. • Construct predator-proof fence • Establish native shrub barriers on beach side of coastal wetland



Above: *Alala*
©Gregory Koob

Right: *Hawaiian Stilt*
©Gregory Koob



Below: *Hawaiian Coot*
©Gregory Koob



Kauai Island Focus Area

Area Description: The Kauai Island Focus Area is located on the northernmost and oldest of the eight Main Hawaiian Islands and is characterized by deep eroded canyons and valleys and steep cliffs. There is a wide diversity of unique ecosystems, from montane bogs, montane wet forest, lowland mesic forest, lava tube caves, long stretches of sandy beach, and many stream and rivers. Because of the age of the island and its relative isolation, levels of endemism are higher on Kauai than elsewhere in the state. Most residents live in towns around the perimeter of the island, primarily along the east and south sides of Kauai, with smaller populations living in towns on the north shore. The principal economic driving forces are tourism, agriculture, and defense expenditures. The Kauai Island Focus Area comprises 5,600 acres of private land.

Habitat Types: Key habitats are montane lowland wet forest, lowland mesic forest, coastal zones and caves which support the endangered *Charpentiera densiflora*, Kauai blind amphipod and cave wolf spider, koloa duck and other endangered wetland dependent migratory birds.

Conservation Issues: Threats that can be addressed on private land include invasive alien plant and animal species, loss of seasonal wetlands, loss of in-stream habitat complexity, and habitat fragmentation. Other major threats that cannot be addressed solely on private land are the influx of ungulates from adjacent public hunting areas, fire, and the potential for new invasive species being introduced through tourism and military activities.

Conservation Strategies to Achieve Objectives

- ✓ *Implement fencing, predator control, ungulate control and weed control*
- ✓ *Protect coastal habitats and native strand vegetation*
- ✓ *Construct gates in caves to prevent human disturbance of cave ecosystems*
- ✓ *Restore wetlands to benefit Hawaii's 4 endangered waterbirds*
- ✓ *Work with private landowners to ensure the control of the*

Scientific Rationale: The focus area was determined by willing landowners and the Pacific Islands Fish and Wildlife Office (PIFWO) Strategic Plan. The PIFWO Strategic Plan is a compilation of areas identified as essential or critical to the conservation of terrestrial and aquatic species. These were identified as priority landscapes. The areas included designated critical habitat (USFWS 2003; 2006; 2008; 2010; 2012a,b,c), proposed critical habitat (USFWS 2005), Hawaii plant essential habitat (HPPRCC 1998), recovery areas identified in published recovery plans (USFWS 2005, 2006), native dominated coastal habitats (Warshauer 2008), important stream habitat, and important marine habitat. The total sum of each area identified above was considered the boundary of a priority landscape.



2017-2021 Objectives:

1000 acres of upland habitat

10 acres of wetland habitat

2 miles of riparian habitat

Key Partners:

Grove Farm

Kamehameha Schools

Kauai Watershed Alliance

National Tropical Botanical Gardens

The Nature Conservancy

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Papala kepau <i>Charpentiera densiflora</i>	Endangered	Kauai Island Recovery Plan (draft) 2016, Kauai Watershed Alliance Management Plan 2005	Ungulate control (goats, pigs and deer) <ul style="list-style-type: none"> Construct and maintain fenced enclosures Invasive plant control <ul style="list-style-type: none"> control established ecosystem-altering nonnative invasive plant species Reintroduction/translocation of rare species within fenced enclosures in the valley
Kauai blind amphipod <i>Spelaeorchestia koloana</i>	Endangered	Kauai Island Recovery Plan (draft) 2016, Hawaii State Wildlife Action Plan (2015)	<ul style="list-style-type: none"> Protect caves from human disturbance Restore vegetation above caves
Kauai cave wolf spider <i>Adelocosa anops</i>	Endangered		
Hawaiian Duck , <i>Anas wyvilliana</i>	Endangered	Pacific Coast Joint Venture Hawaii Strategic Plan for Wetland Conservation in Hawaii (2006), Recovery Plan for Hawaiian Waterbirds, 2 nd ed. (2012)	<ul style="list-style-type: none"> Increase food availability for endangered waterbirds by removing invasive species such as <i>Casuarina</i> spp., and <i>Pluchea</i> spp. Construct predator-proof fence Establish native shrub barriers on beach side of coastal wetlands
Hawaiian Moorhen , <i>Gallinula chloropus sandvicensis</i> ,	Endangered		
Hawaiian Coot <i>Fulica alai</i> ,	Endangered		
Hawaiian Stilt <i>Himantopus mexicanus knudseni</i>	Endangered		



Biologists surveying for
Kauai cave amphipod
and Kauai cave wolf
spider
© USFWS

Mariana Islands Focus Area



2017-2021 Objectives:

25 acres of upland habitat

Key Partners:

Commonwealth of the Northern Mariana Islands, Division of Forestry and Wildlife

Natural Resources Conservation Service

Stan Taisacan, landowner

Guam Plant Extinction Prevention Program

University of Guam

Area Description: Rota is the fourth largest island in the Mariana archipelago and is the southernmost island in the Commonwealth of the Northern Mariana Islands (CNMI). Rota is approximately 20 km (12 mi) long and 6 km (4 mi) wide with a land area of approximately 85 km² (33 mi²). The Sabana region, a 12 km² (5 mi²) plateau 450 m (1,476 ft) in elevation, dominates the western half of the island. The island is 85 km² (32 mi²) in area and comprises 18% of the total area of the Northern Mariana Islands. Its maximum elevation is 496 m (1627 ft). Approximately 67% of the island of Rota is forested (eg., 12,801 acres) and it is one of the most diverse forests left in the CNMI. The population of Rota is 2,527 and the primary economic activities are agroforestry, fishing, and tourism. The majority of high elevation forests along the upper plateau of Rota have not been threatened by development or clearing because of their rugged topography. However, these high elevation areas have been exposed to the force of numerous typhoons. The Marianas Focus Area is 4,937 acres and a mix CNMI government (55%) and private lands (45%).

Habitat Types: The vegetation on Rota includes primary and secondary limestone forest, atoll forest, agricultural forest, coconut plantations, Formosan koa (*Acacia confusa*) forest, secondary vegetation, open fields, grassland and urban vegetation. Cut bench platforms, which are common features along the rocky shorelines are relatively narrow erosional platforms cut into limestone or volcanic rocks.

Conservation Issues: Threats that can be addressed on private land include invasive alien plant and animal species such as ungulates, which graze native vegetation, spread invasive plant seeds and cause erosion. Other major threats that cannot be addressed solely on private land are the potential introduction of the brown treesnake (*Boiga irregularis*) which has decimated native bird species on the island of Guam, feral cats which threaten Mariana crow habitat, and typhoons.

Conservation Strategies to Achieve Objectives

- ✓ *Controlling feral cats near crow nesting sites*
- ✓ *Control feral ungulates within the Sabana forest*
- ✓ *Expand populations of Serianthes nelsonii and Osmoxylon mariannense within forest habitats*
- ✓ *Expand populations of Nesogenes rotensis within coastal rocky shorelines.*

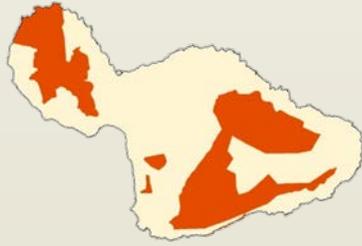
Scientific Rationale: The Mariana Islands focus area is based on the Pacific Islands Fish and Wildlife Office (PIFWO) Strategic Plan. The PIFWO Strategic Plan is a compilation of areas identified as essential or critical to the conservation of terrestrial and aquatic species. These were identified as priority landscapes. The areas identified included designated critical habitat (USFWS 2003; 2006; 2008; 2010; 2012a,b,c), proposed critical habitat (USFWS 2005), recovery areas identified in published recovery plans (USFWS 2005, 2006), native dominated coastal habitats (Warshauer 2008), important stream habitat, and important marine habitat. The total sum of each area identified above was considered the boundary of a priority landscape.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies That Implement Applicable Plans
Aga <i>Corvus kubaryi</i>	Endangered	Wildlife Action Plant for the Commonwealth of the Northern Mariana Islands, 2015-2025 (2015)	<ul style="list-style-type: none"> • Controlling feral cats near crow nesting sites • Control feral ungulates within the Sabana forest • Protecting existing native limestone forests
No Common Name(NCN) <i>Serianthes nelsonii</i>	Endangered	USFWS Recovery Plan for Three Plants from Rota (2007)	<ul style="list-style-type: none"> • Control feral ungulates within the Sabana forest • Expand populations of <i>Serianthes nelsonii</i>, <i>Osmoxylon mariannense</i> within forest habitats through outplanting • Expand populations of <i>Nesogenes rotensis</i> within coastal rocky shorelines.
NCN <i>Osmoxylon mariannense</i>	Endangered		
NCN <i>Nesogenes rotensis</i>	Endangered		



Nesogenes rotensis
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2017-2021 Objectives:

1000 acres of upland habitat

5 acres of wetland habitat

4 miles of riparian habitat

Key Partners:

Maui Land and Pineapple Company

Ulupalakua Ranch

Haleakala Ranch

Maui County Board of Water Supply

The Nature Conservancy

Tri-Isle RC&D Council, Inc.

Maui Island Focus Area

Area Description: Maui is the second largest island in the State of Hawaii. Thirty percent of the island is dominated by native vegetation with most of this habitat is in east Maui. Three notable areas contain continuous native vegetation spanning a range of habitats, forming a landscape with a high diversity of total species: summit and leeward west Maui, windward east Maui, and leeward east Maui. Estimated human population on Maui is 144,000 with most of the island's population located in central, south, and west Maui. The average daily visitor population is approximately 45,000. Major industries are tourism, agriculture, and technology. The Maui Island Focus Area is over 157,400 acres in size with 63% in private ownership, 3% federal land, 31% state land, and 3% county land.

Habitat Types: Key habitats are lowland wet montane forests, dry shrublands, subalpine shrublands, riparian streams, coastal beaches, and wetlands that support rare species such as: *Flueggea neowawraea*, *Bonamia menziesii*, the dark rumped petrel (*Pterodroma sandwicensis*), Maui Parrotbill (*Pseudonestor xanthophrys*), Blackburn's Sphinx Moth (*Manduca blackburni*), Newcomb's tree snail (*Newcombia cumingi*), and green sea turtles.

Conservation Issues: Threats that can be addressed on private land include invasive alien plant and animal species (i.e. axis deer, goats, etc.), loss of seasonal wetlands, loss of in-stream habitat complexity, habitat fragmentation and permitted take of endangered species from wind energy projects.

Conservation Strategies to Achieve Objectives

- ✓ Forest restoration through fencing and feral ungulate removal within focus areas
- ✓ Invasive plant removal in priority management units
- ✓ Restore wet forest habitat for tree snails such as Newcomb's tree snail
- ✓ Restore forest connectivity from coast to summit

Scientific Rationale: The Maui Island focus area is based on the management boundaries of the West Maui Mountains Watershed Partnership, the East Maui Watershed Partnership and the Leeward Haleakala Restoration Watershed Partnership, along with the Pacific Islands Fish and Wildlife Office (PIFWO) Strategic Plan. The PIFWO Strategic Plan is a compilation of areas identified as essential or critical to the conservation of terrestrial and aquatic species. The areas identified included designated critical habitat (USFWS 2003; 2006; 2008; 2010; 2012a, b, c), proposed critical habitat (USFWS 2005), Hawaii plant essential habitat (HPPRCC 1998), recovery areas identified in published recovery plans (USFWS 2005, 2006), native dominated coastal habitats (Warshauer 2008), important stream habitat, and important marine habitat. The total sum of each of the areas identified above was considered the boundary of each priority landscape.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies That Implement Applicable Plans
Maui Parrotbill <i>Pseudonestor xanthophrys</i> No Common Name (NCN) <i>Bonamia menziesii</i>	Endangered	Revised Recovery Plan for Hawaiian Forest Birds (2006), Recovery Plan for the Maui Plant Cluster (2015), State Wildlife Action Plan (2015)	Restore complexity of occupied habitat by: <ul style="list-style-type: none"> • Forest restoration through fencing and feral ungulate removal of core management areas Restore forest connectivity between mauka (mountain) and Makai (seaward): <ul style="list-style-type: none"> • Fencing and feral ungulate removal • Native species reintroduction
Blackburn’s Sphinx Moth <i>Manduca blackburni</i>	Endangered	Recovery Plan for Blackburn’s Sphinx Moth (2005), State Wildlife Action Plan (2015), Leeward Haleakala Watershed Restoration Partnership Management Plan (2006)	<ul style="list-style-type: none"> • Fencing and feral ungulate removal in priority habitats identified by the Leeward Haleakala Watershed Restoration Partnership • Invasive plant removal
Newcomb’s Tree Snail <i>Newcombia cumingi</i>	Endangered	West Maui Mountains Watershed Partnership (WMWP) Management Plan (2013), State Wildlife Action Plan (2015)	<ul style="list-style-type: none"> • Fencing and feral ungulate removal in Puu Kukui Watershed Partnership • Invasive plant removal in Puu Kukui Watershed Partnership • Manage habitat for invasive snails and slugs



Bonamia menziesii
© Gregory Koob

Maui Nui Islands Focus Area

Area Description: The Maui Nui Islands Focus Area combines the island of Molokai and Lanai. Molokai is the fifth largest of the Main Hawaiian Islands, supporting a wide range of native habitats and a diversity of native wildlife. The mountains of eastern Molokai are cut into deep valleys by perennial streams, and due largely to their inaccessibility, these valleys contain high-quality native habitat for stream fauna, forest birds, montane-nesting seabirds, and native snails and insects. The coastal strand along the island's northwest coast contains one of the state's last intact dune systems and is important to nesting seabirds and marine animals. Total resident population on the island is 7,345 with an average daily visitor count of about 1,000. A majority of the resident population is centered in the Kaunakakai and Hoolehua areas in central Molokai. The major industries are agriculture, ranching, and flower cultivation. Lanai is the third smallest of the Main Hawaiian Islands. Because of the history of overgrazing by cattle, goats, and axis deer, much of the island has suffered from extensive soil erosion and few native-dominated natural communities remain. The resident population is 3,193 with a majority of the population centered in Lanai City. The island has remained privately owned and was recently purchased by business entrepreneur, Larry Ellison of Oracle Inc. in 2012. The Maui Nui Focus Area is 23,782 privately owned acres on the island of Lanai, and 35,376 acres on the island of Molokai with 87% in private ownership and 13% state land.

Habitat Types: *Molokai:* montane wet forests, shrublands, coastal systems (including dunes and grasslands), dry shrublands. *Lanai:* Lowland dry communities (lama/olopua forest), native lowland mesic forests (Lanai tree snail (*Partulina* spp.).

Conservation Issues: Threats that can be addressed on private land include invasive alien plant and animal species, loss of seasonal wetlands, and habitat fragmentation. Other major threats that cannot be addressed solely on private land are the effects increase of ungulates entering from public hunting areas, ungulates and the potential for new invasive species being introduced through tourism.

Conservation Strategies to Achieve Objectives

- ✓ Ungulate fencing of upland wet and dry forests
- ✓ Remove invasive plants and animals
- ✓ Replace weather-damaged deer-proof fencing
- ✓ Expand predator-proof fencing

Scientific Rationale: The Maui Nui Islands focus area is based on the management boundaries of the East Molokai Watershed Partnership and the Pacific Islands Fish and Wildlife Office (PIFWO) Strategic Plan. The PIFWO Strategic Plan is a compilation of areas identified as essential or critical to the conservation of terrestrial and aquatic species. These were identified as priority landscapes. The areas identified included designated critical habitat (USFWS 2003; 2006; 2008; 2010; 2012a,b,c), proposed critical habitat (USFWS 2005), Hawaii plant essential habitat (HPPRCC 1998), recovery

2017-2021 Objectives:

1000 acres of upland habitat

5 acres of wetland habitat

4 miles of riparian habitat

Key Partners:

The Nature Conservancy

Molokai Land Trust

Kawela Plantation

Kapualei Ranch

Kamehameha Schools

Molokai-Lanai Soil and Water Conservation District

Pulama Lanai

areas identified in published recovery plans (USFWS 2005, 2006), native dominated coastal habitats (Warshauer 2008), important stream habitat, and important marine habitat. The total sum of each of the areas identified above was considered the boundary of each priority landscape. The Moomomi area on northwestern Molokai overlaps the focus area of the Pacific Islands Coastal Program Strategic Plan, 2017-2022.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies That Implement Applicable Plans
No Common Name (NCN) <i>Phyllostegia mannii</i>	Endangered	Recovery Plan for the Molokai Plant Cluster (1996), East Molokai Watershed Partnership Management Plan, Kamakou Preserve, Long Range Management Plan 2001-2006.	<ul style="list-style-type: none"> • Fence priority Management Units identified by the East Molokai Watershed Partnership • Remove invasive plants and animals
Wedge-tailed Shearwater <i>Puffinus pacificus</i> NCN <i>Tetramalopium rockii</i>	Endangered Endangered	Recovery Plan for the Molokai Plant Cluster (1996), Regional Seabird Conservation Plan (2005), State Wildlife Action Plan (2015), Moomomi Preserve Long Range Management Plan 2001-2006, Coastal Program Strategic Plan (draft)	<ul style="list-style-type: none"> • Control priority nonnative species in coastal dune ecosystems • Expand predator proof fencing • Reestablish native coastal species
Lanai Sandalwood <i>Santalum freycinetianum</i> var. <i>lanaiense</i>	Endangered	Long-range Management Plan for Natural Area Partnership Preserve: Kanepuu Preserve (2010), Lanai Plant Cluster Recovery Plan (1995), Final Designation of Critical Habitat for three plant species from the island of Lanai (2003)	<ul style="list-style-type: none"> • Complete removal of all axis deer from Kahue and Kanepuu Preserve Units • Replace weather-damaged deer-proof fencing • Reestablish native dry forest species
Lanai Tree Snails <i>Partulina</i> spp Hawaiian petrel <i>Pterodroma sandwichensis</i>	Endangered Endangered	State Wildlife Action Plan (2015), MOU between Lanai Resorts LLC and USFWS (2015)	<ul style="list-style-type: none"> • Control rats, cannibal snails (<i>Euglandina rosea</i>) and chameleons (<i>Chamaeleo jacksonii</i>) within fenced management units • Expand predator-proof fencing • Reestablish native forest species

Oahu Island Focus Area

Area Description: The Oahu Island Focus Area comprises the Koolau Mountain Range covering nearly 100,000 acres, the coastal dunes of Kahuku Point, the coastal shrublands of Hanauma Bay and the valley of Makaha in the Waianae Mountain Range. These areas include wet forests, streams, remote summits, coastal dunes, and dry forests each with its own suite of endangered species, some of which are found nowhere else on Earth. Being the most populous of the islands (population=953,000) communities include the state capitol of Honolulu, cities, towns, and a few agricultural areas. Development has been greatly increasing in recent years, especially in the southern city of Kakaako. Tourism is the largest industry here and nearly a million visitors flock to many famous destinations on the island including Waikiki, Pearl Harbor, Diamond Head, Hanauma Bay and the North Shore. The Oahu Island Focus Area is over 76,400 acres in size with 44% in private ownership, 15% federal land, 29% state land, and 11% county land.

Habitat Types: Key habitats are wet and mesic forests, streams, and riparian zones that support 37 species endemic to the Koolau Mountains, the dry forests of Makaha with its endangered Elepaio bird, and *Achatinella* snails, the Hanauma Bay dry shrublands and ephemeral wetland with the endangered *Marselia vilosa* fern, and the coastal dunes of Kahuku with its endangered ohai plants and rare *Hylaeus* bees.

Conservation Issues: Threats that can be addressed on private land include invasive alien plant and animal species, loss of seasonal wetlands, and habitat fragmentation. Other major threats that cannot be addressed solely on private land are the large number of non-native ungulates such as goats and pigs roaming the Koolau mountain range, invasive honeybees at Kahuku point and fire threats in Makaha Valley.

Conservation Strategies to Achieve Objectives

- ✓ *Work with watershed partnerships to install ungulate fencing*
- ✓ *Prioritize invasive species (plant and animal) species removal that can be connected to other projects on private or federal land to achieve landscape-scale results*
- ✓ *Restore coastal habitat connectivity for endangered coastal plants, seabirds and native *Hylaeus* bees*
- ✓ *Expand predator proof fencing in coastal areas for seabirds and wet forests for tree snails*

Scientific Rationale: The focus area is based on the management boundaries of the Waianae Mountains Watershed Partnership, the Koolau Mountains Watershed Partnership, the Pacific Islands Fish and Wildlife Office (PIFWO) Strategic Plan and the PIFWO Coastal Strategic Plan, 2017-2022. The PIFWO Strategic Plan is a compilation of areas identified as essential or critical to the conservation of terrestrial and aquatic species. These were identified as priority landscapes. The areas identified included designated critical habitat (USFWS 2003; 2006; 2008; 2010; 2012a,b,c), proposed critical habitat (USFWS 2005), Hawaii plant essential habitat (HPPRCC 1998), recovery



2017-2021 Objectives:

500 acres of upland habitat

2 acre of wetland habitat

1 miles of riparian habitat

Key Partners:

Hawaii Division of Forestry and Wildlife

Natural Resources Conservation Service

Koolau Mountains Watershed Partnership

Waianae Mountains Watershed Partnership

City and County of Honolulu

Kualoa Ranch

areas identified in published recovery plans (USFWS 2005, 2006), native dominated coastal habitats (Warshauser 2008), important stream habitat, and important marine habitat. The total sum of each of the areas identified above was considered the boundary of each priority landscape.

Focal Species, Plans, and Conservation Strategies:

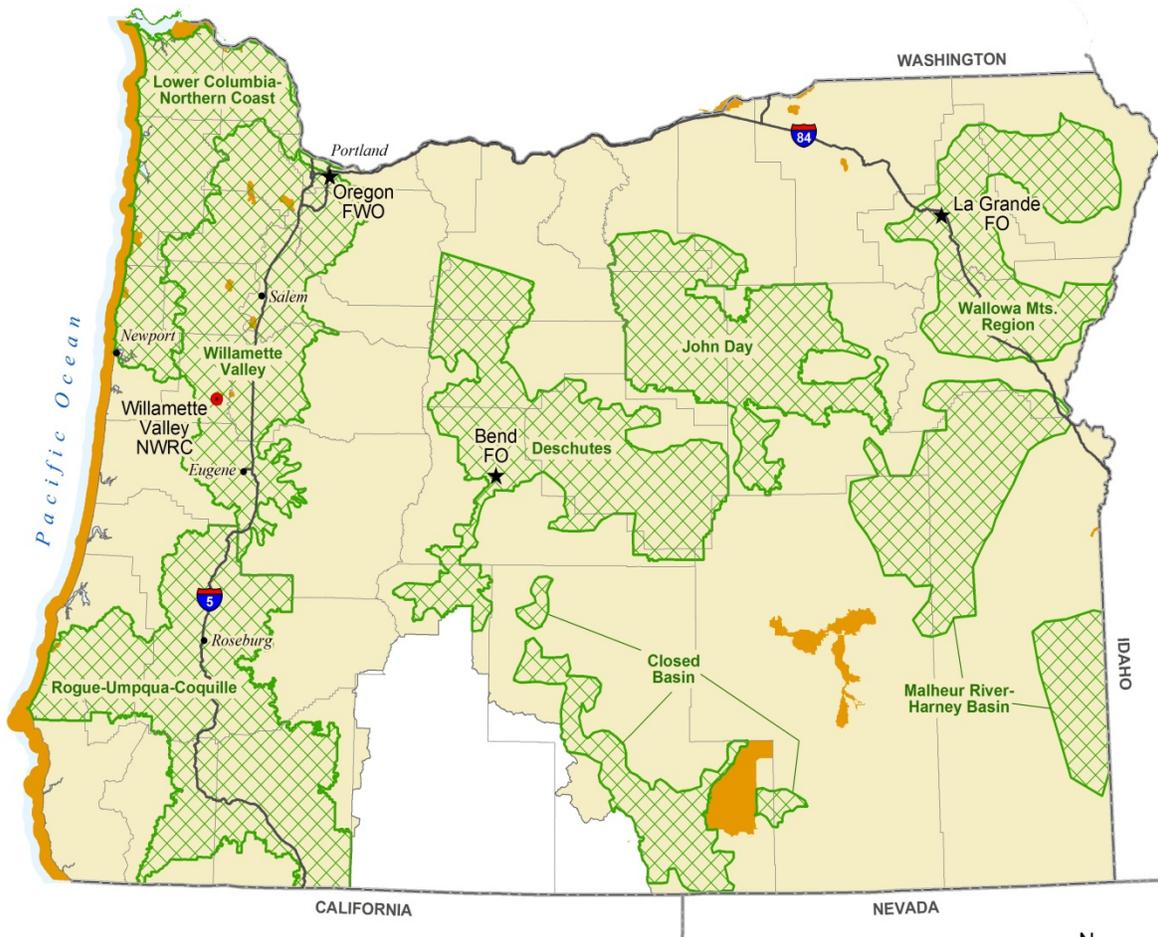
Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies That Implement Applicable Plans
Oahu Elepaio <i>Chasiempis ibidis</i>	Endangered	USFWS Revised Hawaiian Forest Birds Recovery Plan (2006), Hawaii State Wildlife Action Plan (2015), Koolau Mountain Watershed Partnership Management Plan (2002)	Restore Oahu elepaio habitat by: <ul style="list-style-type: none"> • Expanding control of mammalian predators (e.g., feral cats, rats)
Hawaiian lobelia <i>Cyanea truncata</i>	Endangered	Recovery Plan for the Oahu Plants (1998), Koolau Mountain Watershed Partnership Management Plan (2002)	Restore Hawaiian lobelia habitats by: <ul style="list-style-type: none"> • Constructing ungulate fencing • Controlling rats in outplanting areas • Preventing slugs predation upon seedlings in the wild
Marsilea vilosa <i>Marsilea villosa</i>	Endangered	Recovery Plan for the <i>Marsilea vilosa</i> (2010), Coastal Strategic Plan (draft)	<ul style="list-style-type: none"> • Protect remaining intact wetland habitat, and coastal areas from development through a combination of acquisition, conservation easements, or cooperative agreements with landowners
Oahu Tree Snails <i>Achatinella mustelina</i>	Endangered	Draft Recovery Plan for the Oahu Tree Snails of the Genus <i>Achatinella</i> (1992), Hawaii State Wildlife Action Plan (2015), DOFAW Snail Extinction Prevention Program Strategic Plan: 2015-2019 (2014)	<ul style="list-style-type: none"> • Evaluate costs, maintenance requirements, and efficacy of “predator proof fencing” in relation to other predator control tools



*Oahu Tree Snail (Achatinella spp.)
and
Marselia vilosa,
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OREGON



USFWS Facilities currently receiving Partners Program funding (labelled)

- ★ Ecological Services Office
- National Wildlife Refuge*
- National Wildlife Refuge Complex

*All NWR lands (approved boundaries) are shown here, however only those complexes currently receiving Partners Program funding are labelled.



Pacific Region
ES GIS
November 7, 2016

Rogue-Umpqua-Coquille Focus Area

Area Description: Combinations of topography, geology, soils, and climatic influences have resulted in an array of habitats including late successional Douglas-fir forests, oak savannah, fresh water wetlands, vernal pools, wet meadows, alluvial valleys and estuary. The Coquille portion of this Focus Area is within the conifer-dominated Coast Range, which



contains the highest density of streams in the state. The Rogue and Umpqua areas are part of the Klamath Mountains Ecoregion. Both support some of the highest diversity of species in Oregon, particularly plants, many of which are endemic to the region. Predominant land uses in this Focus Area include logging, grazing, farming, and mining. This focus Area is over 4.2 million

acres in size with 69% in private ownership and 31% in public (federal/state owned) land.

Habitat Types: Vernal pools, wet meadows, oak woodlands/savannas, and old growth Douglas fir habitats. In particular, the oak habitats here support a variety of oak obligate neo-tropical migratory birds, such as the acorn woodpecker. Key habitats in the Coquille are those that support aquatic and wetland associated species. This focus area has some of the highest concentrations of milkweed (*Asclepias* spp) and breeding monarch butterflies in the state.



Conservation Issues: In the Rogue basin, vernal pools and wet meadows are impacted by development pressures that eliminate wetlands altogether or affect their hydrological function through impacts to surrounding upland areas. These habitats contain threatened vernal pool fairy shrimp, endangered large-flowered meadowfoam, and endangered Cook's lomatium. Development, agricultural land conversion, and fire suppression has led to the loss of oak savannah habitat and declines in Kincaid lupine, Gentner's fritillary, and rough popcorn flower. Years of ongoing timber harvest in late



successional Douglas fir habitat have led to precipitous declines in the federally listed northern spotted owl and marbled murrelet. For the western population of monarch butterflies, loss of habitat in their summer breeding grounds has been a key factor that contributes to their decline. Other key wildlife species in this focus area include the de-

listed distinct population segment of Columbian white-tailed deer, the western pond turtle, and neo-tropical migratory birds. Wetland and riparian habitats in the Coquille have been impacted by past logging practices including stream cleaning, splash damming, removal of streamside vegetation, and road building. In the Coquille's alluvial valleys, fresh and estuarine wetlands have been drained, diked and converted to pasturelands, and the river has been dredged to improve navigation.



2017 - 2021 Objective:

3000 acres of upland habitat

200 acres of wetland habitat

10 miles of riparian habitat

3 fish passage barriers

Key Partners:

Lomakatsi Restoration Project

Natural Resources Conservation Service

Klamath Bird Observatory

Coquille Watershed Association, Partnership for the Umpqua Rivers, Illinois Valley, Rogue River and Siuslaw Watershed Councils

Douglas, Illinois Valley, and Jackson County Soil and Water Conservation Districts

The Nature Conservancy

Southern Oregon Monarch Advocates

Areas within the Klamath Mountain Ecoregion have the second largest growth rate in the state and development pressure on private lands threatens many unique habitats that support many endemic and federally listed species. Fire suppression has altered disturbance regimes leading to the loss of early successional and fire-dependent habitats, particularly in oak savannah and meadow habitats. In the Coquille Watershed, current populations of Oregon coast coho, chum, spring Chinook, and sea-run coastal cutthroat trout are only a small fraction of the stock sizes that existed before 1900. Future potential adverse effects of climate change will likely have an all-encompassing effect on estuarine wetlands, with increased sediment loads, stream velocities, and changes to riparian vegetation.

Conservation Strategies to Achieve Objectives

- ✓ *Interagency collaboration to evaluate, prioritize, and implement the highest habitat value oak habitat restoration projects identified (ie Klamath-Siskiyou Oak Network Working Group; NRCS Regional Conservation Planning Program)*
- ✓ *Work with existing collaborators to prioritize stream, wetland and riparian restoration projects that can be connected to other projects on private or federal land to achieve landscape-scale results (ie Coquille Watershed Analysis; Rogue Basin Partnership, Ashland Forest All-Lands Resiliency Project)*
- ✓ *Work with USFWS Coastal Program and others to increase adult nectar and larval host plant availability for monarchs (ie Southwest Oregon Pollinator Collaborative)*

Scientific Rationale: The Oregon Conservation Strategy notes that the Klamath Mountains Ecoregion boasts some of the highest rates of species diversity within the state, including many species found only locally. Additionally, the Klamath-Siskiyou region was included in the World Wildlife Fund’s assessment of the 200 locations most important for species diversity world-wide. The region is particularly rich in plant species, including many pockets of endemic communities and some of the most diverse plant communities in the world. In all, there are about 4000 native plants in Oregon, and about half of these are found in the Klamath Mountains ecoregion. The ecoregion is noted as an Area of Global Botanical Significance (one of only seven in North America) and a world “Centre of Plant Diversity” by the World Conservation Union. The area’s oak habitats rate as one of the most ecologically diverse oak habitats in the Pacific Northwest able to support unique avifauna with a high degree of habitat specialization.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
<p>Coho salmon [<i>Oregon Coast and Southern Oregon / Northern California Evolutionarily Significant Units (ESU)]</i> <i>Oncorhynchus kisutch</i></p>	Threatened	<p>Oregon Coast Coho Salmon Recovery Plan (NMFS 2015) AND Final Recovery Plan for the S. Oregon/N. California Coast ESU of Coho Salmon (NMFS 2014)</p> <p>Oregon Coast Coho Conservation Plan for the State of Oregon (ODFW 2007) AND The Oregon Plan for Salmon and Watersheds (Oregon Coastal Salmon Restoration Initiative 1997)</p> <p>Coquille Watershed Association’s Action Plan (2003) AND Rogue Restoration Action Plan (2015)</p> <p>The Oregon Conservation Strategy (ODFW 2006)</p>	<p>Restore connectivity of coho salmon streams by:</p> <ul style="list-style-type: none"> • Removing partial or complete artificial obstructions • Restoring de-watered stream channels <p>Increase miles of high quality habitat (Capable of producing >2800 smolts/mile)</p> <ul style="list-style-type: none"> • Improving instream channel structure/morphology and complexity through restorative actions such as instream restoration/augmentation of large woody debris • Increase floodplain connectivity and function. Increase off-channel rearing opportunities for juveniles • Improving riparian condition and bank stabilization • Increase sediment routing (fine and coarse sediment and sand)
<p>Monarch butterfly <i>Danaus plexippus</i></p>	NA	<p>Monarch Conservation Implementation Plan (Monarch Joint Venture 2016)</p>	<p>Create, restore, enhance, and maintain habitat on private lands:</p> <ul style="list-style-type: none"> • Augment existing populations of, or plant new populations of, native geographically appropriate <i>Asclepias</i> spp. milkweeds for monarch egg laying and larval development <p>Increase nectaring plant availability for adult monarchs:</p> <ul style="list-style-type: none"> • Incorporate early, mid, and late season nectar plants into new & existing habitat restoration actions.



2017-2021 Objectives:

5 acres of wetland habitat

*8 miles of riparian habitat or
Instream habitat improved*

6 fish passage barriers

Key Partners:

*Bonneville Power
Administration*

*Confederated Tribes of the
Warm Springs*

*Grant County Soil and Water
Conservation District*

*Oregon Department of Fish
and Wildlife*

*Wheeler County Soil and
Water Conservation District*

*Monument Soil and Water
Conservation District*

*South Fork John Day
Watershed Council*

Bureau of Reclamation

John Day Focus Area

Area Description: The John Day River is the second longest free-flowing stream in the United States, running nearly 300 hundred miles. The country is characterized by steep basalt canyon walls, juniper, and sagebrush dotted hills, and mixed ponderosa pine forest. This is one of the most culturally rich river corridors in the state with human presence in the system spanning more than 10,000 years. The John Day has historically diverse anadromous fish runs of Steelhead and is famous for Columbia River Chinook salmon which reached over 100 pounds. The system has one of the last all-wild runs of anadromous fish east of the Cascade Mountains. It has no major dams and supports one of the largest and most viable runs of wild steelhead in the Northwest. This river is a particularly important resource for the recovery of wild salmon runs since it has never had any hatchery operations. Bull trout, Pacific lamprey, redband trout, Columbia spotted frog, and westslope cutthroat trout are also important species in the John Day Focus Area, that will benefit from the continued support of the Fish and Wildlife Service. This focus Area is over 2.6 million acres in size with 79% in private ownership and 21% in public (federal/state owned) land.

Habitat Types: Key habitats are wetlands, streams, rivers, and riparian zones.

Conservation Issues: The primary conservation issues that are to be addressed in the John Day Focus Area are related to the success of migration, spawning and rearing of salmonids. The species that is found throughout the basin is Middle Columbia River Steelhead, and the limiting factors that face this species often are a limiting factor for other species. The most critical issue is access to habitat; this includes access to spawning habitat as well as access to rearing habitat. Therefore the Partners Program in the John Day will be addressing fish passage issues. Additionally, the paucity of rearing habitat for juvenile salmonids is an issue throughout the basin. To enhance and restore juvenile habitat the Partners Program will look for opportunities to increase habitat complexity, including side channel habitat, floodplain connectivity, and instream habitat diversity.



Conservation Strategies to Achieve Objectives

- ✓ *Seek collaborative opportunities to manage water for multiple uses in the face of changing climates*
- ✓ *Prioritize stream, wetland and riparian restoration projects that can be connected to other projects on private or federal land to achieve landscape-scale results*
- ✓ *Restore aquatic habitat resilience, complexity and connectivity for Focal Species*

This focus area is important to the conservation of several salmonid species including Middle Columbia River Steelhead, Chinook salmon, and bull trout. Additionally Pacific Lamprey is an important ecological and cultural species in the John Day River Basin. Actions that benefit salmonids can often have associated benefits to lamprey, redband trout, and even Columbia Spotted frogs. Restoring passage using natural channel simulations benefits passage of all aquatic species regardless of jumping abilities. Riparian restoration, floodplain connectivity, and side channel activation benefits salmonids, amphibians and lamprey, and as a result, restoration actions that are undertaken for an umbrella species commonly benefit multiple species.



Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Middle Columbia River Steelhead <i>Oncorhynchus mykiss</i>	Threatened	Conservation and Recovery Plan for Oregon Steelhead Populations in the Middle Columbia River Steelhead Distinct Population Segment (2009) Middle Columbia River Steelhead Distinct Population Segment ESA Recovery Plan (2009) John Day Basin Partnership – Strategic Action Plan (2015) ODFW Conservation and Recovery Plan for Oregon Steelhead Populations in the Middle Columbia River Steelhead Distinct Population Segment (2010)	<ul style="list-style-type: none"> • Improve passage at irrigation diversions. • Improve passage at road crossings. • Create/enhance/or restore juvenile rearing habitat. • Enhance habitat complexity. • Reconnect streams and river floodplains where practicable. • Restore healthy and functional riparian areas.
Columbia Spotted Frog <i>Rana luteiventris</i>	NA	ODFW Oregon Conservation Strategy (2015) USFWS 12-Month Finding on Petition to List (2015)	<ul style="list-style-type: none"> • Restore wetland and riparian habitats • Improve floodplain connectivity • Re-activate and create side channel habitats • Restore beaver habitat • Address invasive flora & fauna



Malheur/Harney High Desert Focus Area

Area Description: This eastern Oregon focus area spans parts of Malheur and northern Harney counties. It is a sparsely populated, arid region dominated by sagebrush steppe habitat interspersed with river valleys that support irrigated pasturelands. Cattle ranching are the primary land use in the area. The Middle and North Forks of the Malheur River are sizeable rivers that flow out of the Strawberry Mountains through the area and provide much of the region's water supply. These ribbons of perennial water and lush vegetation provide vital habitat for wildlife and humans alike in the high desert. This focus Area is over 2.8 million acres in size with 36% in private ownership and 64% in public (federal/state owned) land.

Habitat Types: This focus area targets some of the highest quality sage grouse habitat in Oregon that is also largely on private land. It encompasses six Priority Areas for Conservation (PACs) as designated in the 2015 Oregon Sage-Grouse Action Plan. The Middle and North Forks of the Malheur River support ESA-listed bull trout, redband trout, and riparian dependent migratory birds.

Conservation Issues: A multipronged effort is currently underway to conserve the Greater Sage-Grouse. The State-led Sage Grouse Conservation Partnership (SageCon), the NRCS-led Sage Grouse Initiative (SGI), and County-led Candidate Conservation Agreements with Assurances (CCAAs) all provide strategies for habitat improvement. We are working with landowners on juniper removal, enhancement of wet meadows to improve brood-rearing habitat, controlling the spread of invasive annual grasses such as medusahead rye, and installing reflective markers on fences in areas where collision risk is high.



Malheur River restoration efforts have focused on improving fish passage primarily by modifying irrigation diversions to deliver agricultural water in a manner that does not block fish passage or result in loss of fish in ditches, and to improve riparian habitat through revegetation and riparian pasture management. The Burns-Paiute Tribe is also spearheading efforts to remove non-native brook trout.

Conservation Strategies to Achieve Objectives

- ✓ *Collaborate with the NRCS-led Sage Grouse Initiative and other private land focused funding sources to expedite delivery of high priority projects for sage grouse conservation.*
- ✓ *Assist landowners enrolled in Sage-Grouse CCAAs to implement the conservation measures identified in Site Specific Plans.*
- ✓ *Prioritize Malheur River restoration projects that improve fish passage and connect to other projects on private or public lands to achieve landscape-scale results*

2017 – 2021 Objectives:

- 800 acres of upland habitat*
- 20 acres of wetland habitat*
- 0.5 miles of riverine habitat*
- 2 fish passage improvements*

Key Partners:

- Harney & Malheur SWCDs*
- Malheur Watershed Council*
- Oregon Dept. of Fish & Wildlife*
- Burns Paiute Tribe*
- Ducks Unlimited*
- Natural Resources Conservation Service (NRCS)*

Scientific Rationale: The Oregon Sage-Grouse Action Plan (SageCon 2015) was used to identify Sage Grouse PACs. This plan also contains a thorough review of the current state of the science regarding sage grouse habitat conservation and provides extensive guidance on assessing and addressing threats to sage grouse. Materials developed through the NRCS SGI effort also provide useful information on identifying and implementing habitat improvement projects to benefit sage grouse.

Guidance on needed recovery actions is contained in the Bull Trout Recovery Plan (USFWS 2015). Sections of the Middle and North Forks of the Malheur River are included in the final rule designating critical habitat for this species (USFWS 2010).

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Greater Sage Grouse <i>Centrocercus urophasianus</i>	NA	Site Specific Plans for Sage Grouse CCAAs Oregon Sage-Grouse Action Plan (SageCon 2015) NRCS Sage Grouse Initiative (SGI)	Use referenced plans to prioritize conservation actions within Sage Grouse PACs, including: <ul style="list-style-type: none"> • Control juniper encroachment • Wet meadow enhancement • Control invasive annual grasses & restore native perennial grasses, forbs, and shrubs • Reduce fence collision risk
Bull Trout <i>Salvelinus confluentus</i>	Threatened	Bull Trout Recovery Plan (USFWS 2015), Upper Snake Recovery Unit Bull Trout Critical Habitat Final Rule (USFWS 2010)	Reduce mortality and restore connectivity between occupied and unoccupied bull trout streams by: <ul style="list-style-type: none"> • removing fish passage barriers • install fish screens on irrigation ditches to eliminate entrainment Restore occupied Bull Trout habitat by: <ul style="list-style-type: none"> • brook trout removal • instream habitat restoration

Willamette Valley Focus Area

Area Description: The Willamette Valley Focus Area is approximately 3.3 million acres and home to more than 70% of Oregon's citizens. Greater than 90% of this large, diverse landscape is in private ownership. This rich landscape still supports globally imperiled oak savanna, wetlands, prairies, and floodplain habitats which in turn provide habitat for several dozen at risk species, including 14 federally listed as threatened or endangered. These declining habitat types support this unique and significant natural heritage, yet over 95% of potential and existing habitats are in private ownership in a matrix of both ecologically and economically valuable lands and waters.

Habitat Types: Focal habitats within this landscape are upland prairie oak savanna, oak woodland, wet prairie, hardwood riparian forest, wetland, and riverine and low elevation non-industrial mixed forest. These habitats support Federal Trust Species including ESA listed species and migratory birds.

Conservation Issues: Population growth and accelerating development pressure continues to put rare and declining habitats and associated fish, wildlife, and plant species at increasing risk in the Willamette Valley. Urban development, expansion of the viticulture and Christmas tree industries, and altered forest successional patterns due to loss of historic disturbance regimes continue to jeopardize remaining Oregon white oak habitats. These habitats are critical to recovery of listed plant and invertebrate species as well as sustaining native pollinators and migratory songbirds. Impaired water quality, altered flow regimes, loss of channel complexity, fish passage barriers, and lack of floodplain connectivity are primary threats to species dependent on aquatic systems in the Willamette River Basin.



A recent success resulting from implementation of the previous Willamette Valley Partners for Fish & Wildlife Program (PFW Program) Focus Area Strategy was the recovery of the Oregon chub. De-listing occurred in 2014 as a result of implementing recovery plan actions largely on private lands through public/private partnerships. Endemic to the Willamette Valley, the Oregon chub is the first fish species ever to be recovered under the ESA. This same collaborative approach is being used to implement recovery actions for the Fender's blue butterfly, Kincaid's lupine, Willamette daisy, Bradshaw's desert parsley, and Nelson's checkermallow as identified in the Recovery Plan for the Prairie Species of Western Oregon and Southwestern Washington. Based on current private landowner and partner requests to participate in the PFWP, several of these species have an excellent chance of meeting down-listing or de-listing criteria within the next five years.



2017 – 2021 Objectives:

1,900 acres of upland habitat

1,500 acres of wetland habitat

4 miles of riparian habitat

2 fish passage barriers

Key Partner:

Private Landowners

Natural Resources Conservation Service

Oregon Department of Fish and Wildlife

The Nature Conservancy

Local Land Trusts

Soil and Water Conservation Districts

Watershed Councils

Three Confederated Tribes

The Institute for Applied Ecology

Conservation Strategies to Achieve Objectives

- ✓ *Collaborate with private landowners, NGO's, and other agencies to develop, fund, and implement proactive conservation practices within the Willamette Valley Focus Area*
- ✓ *Continue to access and utilize the best available science to inform and guide conservation delivery and implementation*
- ✓ *Work at the landscape scale consistent with the principles of landscape conservation design and the myriad conservation plans which identify the Willamette Valley as ecologically significant for numerous Service Trust resources.*
- ✓ *Work to maximize climate resiliency across latitudinal, elevation, and aspect parameters throughout the Focus Area.*

Scientific Rationale: The PFW Program in the Willamette Valley is part of a landscape scale restoration initiative that has broad-based public support. The PFW Program staff is involved with a broad array of stakeholder groups and conservation partners and the program's focus will remain on providing technical, biological and financial assistance to those partners. Key partnerships with ODFW and NRCS are facilitated through agreements with each of these agencies. These agreements increase the PFW program's capability to leverage additional conservation funding and in-kind work to deliver restoration projects to private landowners.

Over the past five years (2011-2016), several important land-scale conservation planning efforts have been completed which provide sound scientific basis for the Partners program. The Willamette Valley Surrogate Species Project documented this focus area to be the region's pilot project for a "surrogate species" approach to Strategic Habitat Conservation. With input from external partners, ten species were chosen as focal species representing the main habitat types in the Willamette Valley. A second study providing rationale for this focus area, the Willamette Valley Conservation Study, utilizes a Marxan analysis of the Willamette Valley Focus Area as a means to identify areas with the highest known concentrations of Service Trust resources. Lastly, a key document for this focus area, the Oregon Conservation Strategy, is currently undergoing an update and information is being gathered from nearly 200 technical experts from various agencies, non-governmental organizations, and tribal representatives.



Prescribed fire on NRCS conservation easement in Polk County to promote rare and declining prairie habitat including federally threatened Neslon's Checkermallow (*Sidalcea nelsoniana*).
Photo by Chris Seal, Oct 2015

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Fender’s blue butterfly <i>Icaricia icarioides fenderi</i>	NA	Recovery Plan for the Prairie Species of Western Oregon and Southwestern Washington (USFWS 2010)	Preserve, restore, and manage populations and habitat for Fender’s blue butterfly: <ul style="list-style-type: none"> • Set back succession and reduce competition from non-native plants • Prescribed fire • Mowing • Restore native prairie species, with an emphasis on larval host plants and adult nectar sources
Slender-billed (white- breasted) nuthatch <i>Sitta carolinensis aculeata</i>	NA	Willamette Valley Surrogate Species Pilot Project (USFWS 2014)	Protect and manage oak woodland habitat: <ul style="list-style-type: none"> • Set back succession (e.g. conifer encroachment) to restore more open structured oak woodlands • Thinning/brush management • Mowing • Managed grazing
Western Meadowlark <i>Sturnella neglecta</i>	NA	The Oregon Conservation Strategy (ODFW 2005 – update in progress, due 2016)	Maintain grasslands/oak savannahs: <ul style="list-style-type: none"> • Prescribed burning • Mowing • Weed/invasive species control • Forb augmentation

Lower Columbia-North Oregon Coast Focus Area



2017 – 2021 Objectives:

- 20 Acres of upland habitat*
- 500 acres of wetland habitat*
- 15 miles of riparian, instream or shoreline habitat*
- 25 fish passage barriers removed/improved*

Key Partners:

Columbia River Estuary Study Taskforce

Ducks Unlimited

Lower Columbia Estuary Partnership

Natural Resource Conservation Service

NOAA Restoration Center

Oregon Department of Fish and Wildlife

Oregon Watershed Enhancement Board

The Nature Conservancy

Tillamook Estuaries Partnership

Trout Unlimited

Area Description: The Lower Columbia River estuary and north coast of Oregon is a biologically rich and diverse area critical for the conservation and recovery of numerous Pacific Salmon species and Service species of concern Coastal Cutthroat Trout, Pacific Lamprey, Western Brook Lamprey, migratory birds, amphibians, reptiles, and endangered Columbian White-tailed Deer. The land-base is primarily in private ownership, providing strong opportunity and need for the Partners for Fish & Wildlife Program (PFW Program) to continue fully engaging with local communities and project partners to provide technical project design input, local capacity building, and help select key local resource priorities to catalyze conservation. This focus Area is over 2.26 million acres in size with 65% in private ownership and 35% in public (federal/state owned) land.



Habitat Types: Key habitats include tidal wetland, riverine, riparian, and floodplain, forests, oak woodland and grasslands.

Conservation Issues: Partners program project design techniques and strategies strategically increase system-wide resilience and connectivity to provide a full range of habitat conditions to meet the natural life history variations and adaptive strategies inherent in healthy target populations for Salmonids and Lampreys, Columbia White-tailed Deer, and migratory birds. Climate change considerations that our project designs target include: a) amelioration of potential higher summer stream temperatures and movement corridor fragmentation by floodplain road removal and riparian establishment to provide multi-species benefits via green corridors that serve as fringing wetland, shade, and foraging and cover for deer movement; b) address increased peak flows and increased frequency and intensity of flooding by re-connecting floodplains via instream complexity, road removal, providing off channel habitat to reduce flood flow velocity and creating flow refugia; c) reduced aquatic migratory corridors and habitat connectivity are addressed via systematic removal of instream barriers (perched culverts, small dams, and other instream constrictions) to ensure that fish upstream and downstream movement corridors are accessible for all life history forms in a broad variety of flow regimes throughout the year.



Conservation Strategies to Achieve Objectives

- ✓ *Emphasize restoration actions that both improve habitat conditions and work within natural watershed processes*
- ✓ *Focus on recovery of riparian canopies, addressing constrictions that limit species movement and stream processes, securing headwater wood and substrate recruitment corridors, instream wood placement, road assessment/removal, easement acquisition and cooperative planning strategies. Restore stream complexity and connectivity for aquatic Focal Species*

Scientific Rationale: The watersheds within this focus area include two designated estuaries of national significance and some of the richest salmon and steelhead recovery potential anywhere in the lower 48 states, with diverse and relatively healthy salmonid populations that quickly respond to increased access and improved habitat. Restoration project funding and development will be based on identified limiting factors for focal species while considering limitations in partner capacity, funding, and a need to establish willing landowners as restoration partners. Limiting factors analyses performed at the sub-watershed level, using multiple analyses documents as a ‘road map’ to prioritize key life history bottlenecks, target locations, and identify restoration actions needed that best address them. Overall, watershed planning documents are nested within state-wide and regional conservation strategies and bio-diversity analyses. These watershed plans contribute to a landscape scale conservation strategy which provides a systematic approach to development of a network of restoration sites that consider habitat and species linkages, juxtaposition among sites with the concept of decreasing habitat fragmentation and isolation of focal species. The focus area is encompassed in a Service led Landscape Conservation Design area; the ‘Columbia Coast Conservation Blueprint’.



Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
<p>Pacific Salmon:</p> <p>Coho <i>Oncorhynchus kisutch</i></p> <p>Steelhead <i>Oncorhynchus mykiss ssp</i></p> <p>Chinook <i>Oncorhynchus tshawytscha</i></p> <p>Chum <i>Oncorhynchus keta</i></p> <p>Coastal Cutthroat Trout <i>Oncorhynchus clarki clarki</i></p> <p>Pacific Lamprey <i>Lampetra tridentat</i></p> <p>Western Brook Lamprey <i>Lampetra richardsonii</i></p> <p>Columbian White-tailed Deer <i>Odocoileus virginianus leucurus</i></p>	<p>Threatened</p> <p>NA</p> <p>Threatened and Endangered (depends on DPS)</p> <p>Threatened</p> <p>NA</p> <p>NA</p> <p>NA</p> <p>Threatened</p>	<p>Oregon Conservation Plan: Oregon Coast Coho Status of Oregon Coast Coho Oregon Conservation Strategy Coast Range Subbasin Fish Management Plan Draft Pacific NW Coast Conservation Blueprint Lower Columbia River Restoration Prioritization Framework Regional Framework for Climate Adaptation: Clatsop & Tillamook Counties Coastal and Estuarine Land Conservation Plan Joint Venture Implementation Plan: Lower Columbia River Joint Venture Implementation Plan: Northern Oregon Coast Withdrawal of Proposed Rule To List the Southwestern Washington/Columbia River Distinct Population Segment of the Coastal Cutthroat Trout as Threatened</p> <p>Nehalem Conservation Action Plan Nestucca-Neskowin Barrier Assessment Lower Nehalem Barrier Assessment Tillamook Basin Barrier Assessment</p>	<p>Restore aquatic connectivity and hydrologic and sediment transport processes by:</p> <ul style="list-style-type: none"> • remove fish passage barriers • replacing needed road crossings with structures designed a minimum of 1.5X bankfull width • remove floodplain infrastructure (roads, fill, etc) • install fish screens on irrigation intakes to eliminate entrainment <p>Improve floodplain and water quality:</p> <ul style="list-style-type: none"> • increase riparian canopy cover density • increase diversity of native riparian corridors to include native conifer & hardwood overstory and native shrub sub-canopy • assess and address sources of fine sediment input • work with local communities on stormwater management, pollution runoff management, and incorporating smart planning elements into siting of waste water treatment plants and other facilities <p>Restore complexity of instream habitat by:</p> <ul style="list-style-type: none"> • instream restoration of large woody debris and habitat complexity to the stream systems



2017-2021 Objectives:

600 acres of upland habitat

5 acres of wetland habitat

2 miles of riparian habitat

2 fish passage barriers

Key Partners:

Lake County Watershed Council

Lakeview Soil and Water Conservation District

Oregon Department of Fish and Wildlife

Sheldon and Hart National Wildlife Refuges

Natural Resource Conservation Service

Bureau of Land Management

Closed Basin Focus Area

Area Description: This focus area encompasses the closed stream systems of Summer Lake, Chewaucan River to its terminus in Lake Abert, Honey, Twentymile, and Deep Creeks, and the Warner Lakes. The topography is rocky, rugged with steep canyon headwaters, streams flow from dry forest headwaters to flat high esert terminal lakes. Irrigation is prevalent with complex ditch systems. Wetland habitats and seasonal meadows persist in the lowlands and along the margins of the lakes. Seasonally available water results in abundant spring migrant bird habitat in playas, meadows, marshes, and alkali flats. Uplands are characterized by expansive sage brush communities, including a significant portion of the sage grouse range in Oregon. This focus Area is over 1.3 million acres in size with 39% in private ownership and 61% in public (federal/state owned) land.

Habitat Types: Focus habitats include streams and rivers, terminal lakes, sage steppe, wetlands, and mesic meadows.

Conservation Issues: The greater sage grouse is the largest North American grouse species and one of only two sage grouse species in the world. Sage-grouse have declined across their range due to a variety of causes and now occupy 56 percent of their historic range. Loss and fragmentation of habitat are a primary reason for the decline. Successful sage steppe restoration in the Closed Basin will include restoration of degraded wet meadows, control/removal of invasive annual grasses to minimize wildfire risk, decreasing conifer encroachment and working with ranchers to improve or employ compatible livestock management practices. This focus area also encompasses the entire range of the Warner sucker. The Warner sucker was listed as threatened due to loss and fragmentation of habitat. Successful recovery of the Warner sucker rests with improving stream passage and screening at diversions. The Closed Basin serves as an important migratory bird corridor where many bird species pass through this focus area, part of the Southern Oregon Northeastern California (SONEC) area of the Pacific Flyway. Many of the lake basins in this area are extremely important migratory habitat for shorebirds and waterfowl. Lastly, interior redband trout are present in many of the different drainages in the Warner Mountains and the Chewaucan Watershed and breeding monarch butterflies have been documented at Summer Lake and incorporating actions to support pollinators will be encouraged.



Conservation Strategies to Achieve Objectives

- ✓ *Seek opportunities for multiple species benefits, by restoring riparian and meadow habitats for both aquatic and avian species.*
- ✓ *Work with multiple agencies and partners to develop restoration projects that are holistic, restoring multiple ecosystem components, while balancing diverse land management issues.*
- ✓ *Continue to seek out opportunities for landowners to be involved with projects so that their stewardship helps to maintain the project long-term.*

Scientific Rationale:

This focus area includes a major portion of Preliminary Priority Habitat and Preliminary General Habitat for a



number of Greater sage grouse populations, as documented in the Greater Sage- Grouse Conservation Assessment and Strategy for Oregon. Within these landscapes, the ranchers and landowners who have undertaken voluntary conservation actions from enrolling in Candidate Conservation Agreements with Assurances (CCAA) have all played a major role in the determination to not list the Greater sage grouse. The Partners Program will continue to play an important role in assisting these landowners with their conservation efforts.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
<p>Warner Sucker <i>atostomus warnerensis</i></p> <p>Redband Rainbow trout <i>Oncorhynchus mykiss newberrii</i></p>	<p>Threatened</p> <p>Threatened</p>	<p>2014 Rangelwide Conservation Agreement for the Conservation and Management of Interior Redband Trout</p> <p>1998 Recovery Plan for the Native Fishes of the Warner Basin and Alkali Subbasin: Warner Sucker, Hutton Tui Chub, Foskett Speckled Dace.</p> <p>2010 The Potential Influence of Changing Climate on the Persistence of Inland Native Salmonids; USGS, TU and USFS.</p> <p>2014 Draft Warner Sucker Strategic Plan Updated: 5/5/14</p>	<ul style="list-style-type: none"> • Improve habitat connectivity • Improve water quality • Improve watershed function • Improve habitat resiliency • Restore floodplain connectivity • Improve water temperature • Collaborate to improve water delivery for landowners while providing for aquatic needs
<p>Monarch butterfly <i>Danaus plexippus</i></p>	<p>NA</p>	<p>Monarch Conservation Implementation Plan (Monarch Joint Venture 2016)</p>	<p>Create, restore, enhance, and maintain habitat on private lands:</p> <ul style="list-style-type: none"> • Augment existing populations of, or plant new populations of, native geographically appropriate <i>Asclepias</i> spp. milkweeds for monarch egg laying and larval development <p>Increase nectar plant availability for adult monarchs:</p> <ul style="list-style-type: none"> • Incorporate early, mid, and late season nectar plants into new & existing habitat restoration actions.

Deschutes Focus Area

Area Description: This area includes the upper Deschutes and lower Crooked River subbasins. The majority of the land is in Federal ownership and is comprised of a diverse landscape with deep canyons, high mountain meadows and arid deserts. The reintroduction of anadromous species above the Pelton Round Butte Complex was enabled in 2009 with the completion of the Selective Water Withdrawal at Round Butte Dam. This structure allowed downstream passage of smolts for the first time since the 1960s. Anadromous species, including steelhead, fall Chinook, and sockeye, have recently been reintroduced into the upper basins providing an opportunity for the Partners Program to participate with a broad coalition of stakeholders to open up and improve habitat for reintroduced anadromous salmonid species.

Wetland habitats along rivers provide important functions for water quality, aquatic habitat and provide migratory bird habitat, as well as supporting critical populations of federally listed threatened Oregon spotted frog. Uplands in this focus area are widely varying, from forests of conifers at the upper elevations and by expansive sage brush communities at the lower elevations. The sagebrush communities in eastern Crook and southeastern Deschutes have important sage grouse habitat.

Habitat Types: Wetlands, streams, rivers, riparian zones, and sage steppe uplands.

Conservation Issues: One of the defining issues of the Deschutes basin over the past decade is the efforts to reintroduce steelhead and chinook into the basin upstream of the Pelton Round Butte Dam complex. To achieve this, partners, agencies, and private landowners need to pool resources to restore fish passage in the rivers and tributaries, as well as to improve habitat conditions, which potentially will result in successful wild reproduction of many of these reintroduced salmonids. Additionally, the recently listed Oregon Spotted frog is a key factor in working with private landowners in the upper basin to restore floodplains wetlands and connectivity of these habitats. The Greater sage grouse inhabits parts of Crook and Deschutes counties, and while no longer a candidate for listing, it has seen major portions of its habitat altered by encroaching western juniper, invasion of nonnative weeds, and loss or degradation of wet meadow (brood rearing) habitats. Central Oregon, and particularly the Deschutes basin, serves as an important brood rearing area for Monarch butterflies. Providing additional milkweed and nectar plants will help maintain local populations from late spring to early fall.



2017-2021 Objectives:

5 acres of upland habitat

5 acres of wetland habitat

5 miles of riparian habitat

2 fish passage barriers

Key Partners:

*Natural Resource
Conservation Service*

*Bureau of Land
Management*

Deschutes Land Trust

*Oregon Department of
Fish and Wildlife*

*Crooked River & Upper
Deschutes Watershed
Councils*

*Crook & Deschutes
County Soil and Water
Conservation Districts*

The Nature Conservancy

*Oregon Natural Desert
Association*

*Monarch Advocates of
Central Oregon*

Conservation Strategies to Achieve Objectives

- ✓ *Seek opportunities for multiple species benefit, for example, riparian and meadow restoration can benefit both aquatic and avian species.*
- ✓ *Work with multiple agencies and partners to provide restoration that is holistic, restoring multiple ecosystem components, while addressing management concerns.*
- ✓ *Continue to seek out opportunities for landowners to be involved with projects so that their ownership helps to maintain the project over the long-term*
- ✓ *Engaging students and local community where possible in projects to build local knowledge base and support for restoration in the community.*

Scientific Rationale: This focus area is important to the conservation of several salmonid species including Middle Columbia River Steelhead, Chinook salmon, and bull trout, and has been documented in many plans and conservation strategies. By restoring passage using natural channel simulations, as well as increasing riparian restoration, floodplain connectivity, and side channel activation, many salmonids and amphibians benefit from those activities. Voluntary restoration of sage steppe upland/mesic meadows/wetlands habitats that have been degraded on private lands is very well documented as a reason to not list the Greater sage grouse recently. The Oregon spotted frog is a highly aquatic species, and requires good connectivity between their overwintering and breeding habitats. Maintaining and improving this connectivity is as important as creating or restoring resilient breeding habitats that are inundated during spawning and rearing timeframes.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Oregon Spotted Frog <i>Rana pretiosa</i>	Threatened	2016 Designation of Critical Habitat for the Oregon Spotted Frog; Final Rule 2007 A Conservation Assessment fo the Oregon Spotted Frog (<i>Rana pretiosa</i>)	<ul style="list-style-type: none"> • Restore wetland and riparian habitats • Improve floodplain connectivity • Re-activate and create side channel habitats • Restore beaver habitat
Greater Sage Grouse <i>Centrocercus urophasianus</i>	Endangered	2015 USGS Restoration Handbook for Sagebrush Steppe Ecosystems with Emphasis on Greater Sage-Grouse Habitat. 2015 ODFW Sage Grouse Action Plan 2014 Greater Sage-Grouse Programmatic Candidate Conservation Agreement with Assurances for Private Rangelands in Crook and Deschutes Counties	Restore Protect and enhance habitat on private lands <ul style="list-style-type: none"> • Remove invasive plants and restore native assemblages. • Restore mesic meadows and wetlands. • Improve livestock management.

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Middle Columbia River Steelhead <i>Oncorhynchus mykiss</i>	Threatened	2009 Conservation and Recovery Plan for Oregon Steelhead Populations in the Middle Columbia River Steelhead Distinct Population Segment 2009 Middle Columbia River Steelhead Distinct Population Segment ESA Recovery Plan 2010 ODFW Conservation & Recovery Plan for Oregon Steelhead Populations in the Middle Columbia River	<ul style="list-style-type: none"> • Improve passage at irrigation diversions. • Improve passage at road crossings. • Create/enhance/or restore juvenile rearing habitat. • Enhance habitat complexity. • Reconnect streams and river floodplains where practicable. • Restore healthy and functional riparian areas.
Monarch butterfly <i>Danaus plexippus</i>	NA	Monarch Conservation Implementation Plan (Monarch Joint Venture 2016)	Create, restore, enhance, and maintain habitat on private lands: <ul style="list-style-type: none"> • Augment existing populations of, or plant new populations of, native geographically appropriate <i>Asclepias</i> spp. milkweeds for monarch egg laying and larval development Increase nectar plant availability for adult monarchs: <ul style="list-style-type: none"> • Incorporate early, mid, and late season nectar plants into new & existing habitat restoration actions.

Wallowa Mountains Region Focus Area

Area Description: Surrounding the granite peaks and conifer forests of northeast Oregon's Wallowa Mountains is a diverse landscape with Palouse prairie to the north, sagebrush-steppe rangelands to the south, and broad irrigated valleys sustained by major rivers flowing out of the mountains. This rural, agricultural region that spans Wallowa, Union, and Baker counties is a rich area for partnering with private landowners to restore fish and wildlife habitat. Ranching, farming, forestry, and outdoor recreation (primarily hunting and fishing) are the backbone of the economy in this area. This focus Area is over 2.35 million acres in size with 78% in private ownership and 22% in public (federal/state owned) land.



2017 – 2021 Objectives:

300 acres of upland habitat

5 acres of wetland habitat

1.5 miles of riverine habitat

2 fish passage improvements

Key Partners:

Baker, Eagle Valley, Keating,
Union, & Wallowa SWCDs

Grande Ronde Model
Watershed

Powder Basin Watershed
Council

Oregon Dept. of Fish &
Wildlife

Umatilla & Nez Perce Tribes

Wallowa Resources

Wallowa Land Trust

The Nature Conservancy



Habitat Types: This focus area targets several rivers that are vitally important for Chinook salmon, steelhead, and bull trout recovery.

On the north side of the Wallowas, the Imnaha, Wallowa, and Grande Ronde rivers support all three of these threatened fish. To the south, the Powder River, Eagle Creek, and Pine Creek support the federally listed bull trout. Further south, the focus area transitions to high desert and includes the Baker Sage Grouse Priority Area for Conservation (PAC) a critical area identified in the 2015 Oregon Sage Grouse Action Plan. This focus area also supports



Columbia sharp-tailed grouse.

seasonal wetlands in the Baker Valley that support a rare endemic plant, the threatened Howell's spectacular thelypody. On the north end, the Zumwalt Prairie supports a large intact remnant of Palouse Prairie habitat that is utilized by

Conservation Issues: The Grande Ronde River and two of its large tributaries, Catherine Creek and the Wallowa River, are the focus of extensive restoration efforts for Chinook salmon recovery, with Bonneville Power Administration (BPA) and Bureau of Reclamation (BOR) providing most of the funding for those efforts. A mix of entities are helping fund habitat restoration in Eagle and Pine Creeks where bull trout occur, but not salmon or steelhead. The focus is on improving conditions on private lands where rivers have historically been straightened and heavily diverted for agriculture by: (1) restoring pool-riffle complexes, side channels, and large wood to reaches that have the greatest potential to provide lower river refugia for migrating and overwinter salmonids; (2) reducing summer water temperatures by augmenting streamflows through more efficient use of irrigation water, restoring riparian forests, and other means; and (3) improving fish passage conditions by removing man-made barriers and modifying irrigation diversions to make them more fish friendly. For sage grouse, the State-led Sage Grouse Conservation Partnership (SageCon), the NRCS-led Sage Grouse Initiative (SGI), and County-led Candidate Conservation Agreements with Assurances (CCAAs) all provide strategies for habitat improvement projects working with landowners. These projects include removing



the invasive juniper, wet meadow enhancement, invasive annual grass control, and installing reflective markers on fences in areas where collision risk for sage grouse is high.

Wetland restoration is progressing in the Grande Ronde and Powder River valleys in river floodplain areas that historically supported this habitat. In the Powder River Valley, recovery actions for the threatened Howell's thelypody are being incorporated into these restoration projects. On Zumwalt Prairie, The Nature Conservancy is an important partner with their efforts to restore native bunchgrasses and hardwood stands.

Conservation Strategies to Achieve Objectives

- ✓ *Collaborate with our key partners and other private land focused funding sources to expedite delivery of high priority projects.*
- ✓ *Assist landowners enrolled in Sage-Grouse CCAAs to implement the conservation measures identified in Site Specific Plans.*
- ✓ *Prioritize river restoration projects in priority areas for bull trout and that connect to other projects on private or public lands to achieve landscape-scale results*

Scientific Rationale: The Wallowa Mountains are higher in elevation than other mountain ranges in the region and the cold-water streams that originate in them are predicted to be more resilient to the rising temperature trajectory associated with climate change. The BPA and BOR funded assessments and monitoring programs have identified priority areas for river restoration for salmonids in the Grande Ronde River and Catherine Creek. Idaho Power is currently conducting assessments in Pine Creek to determine restoration priorities for bull trout in that system. These efforts have greatly improved opportunities to target restoration work in areas where the greatest benefits are more likely to occur.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Greater Sage Grouse <i>Centrocercus urophasianus</i>	Endangered	Site Specific Plans for Sage Grouse CCAAs Oregon Sage-Grouse Action Plan (SageCon 2015) NRCS Sage Grouse Initiative (SGI)	Use referenced plans to prioritize conservation actions within Sage Grouse PACs, including: <ul style="list-style-type: none"> • Control juniper encroachment • Wet meadow enhancement • Control invasive annual grasses & restore native perennial grasses, forbs, and shrubs • Reduce fence collision risk
Bull Trout <i>Salvelinus confluentus</i>	Endangered	Bull Trout Recovery Plan (USFWS 2015), Mid-Columbia Recovery Unit Bull Trout Critical Habitat Final Rule (USFWS 2010)	Reduce mortality and restore connectivity between occupied and unoccupied bull trout streams by: <ul style="list-style-type: none"> • removing fish passage barriers • install fish screens on irrigation ditches to eliminate entrainment Restore occupied Bull Trout habitat by: <ul style="list-style-type: none"> • instream habitat restoration

WASHINGTON



USFWS Facilities currently receiving Partners Program funding (labelled)

- ★ Ecological Services Office
- △ Fish and Aquatic Conservation Office
- National Wildlife Refuge*
- National Wildlife Refuge Complex

*All NWR lands (approved boundaries) are shown here, however only those complexes currently receiving Partners Program funding are labelled.



Pacific Region
ES GIS
November 7, 2016

Columbia Plateau Focus Area

Area Description: The Columbia Plateau Focus Area (2,680,479 ac.) is primarily arid, low elevation desert, and contains unique habitat types. Land ownership is primarily private (77%), with a few large State and Federal areas managed for wildlife refuge and recreation (22%). Precipitation ranges from 10 to 15 inches annually. The semi-arid climate of the Columbia Plateau supports native shrub-steppe vegetation as well as other drought-tolerant plant communities. Events and processes associated with ice-age glacial recession and subsequent flooding have created unique topographical features such as coulees, channeled scablands, boulder fields, glacial erratics, moraines, potholes, and large fertile plains.

Habitat Types: Key habitats are big sagebrush, three-tip sagebrush, and bitterbrush shrub-steppe, ponderosa pine inclusions, wetlands, springs, and their associated riparian zones. These habitats support ESA-listed Columbia basin pygmy rabbit, greater sage grouse, Washington ground squirrel and other shrub-steppe dependent species.

Conservation Issues: The impact of human activity is high here: more than half of the shrub-steppe has been converted to agriculture while other areas have been altered by development and infrastructure. The remaining native habitat is often fragmented and on shallower soils less amenable to agriculture. Threats that can be addressed on private land are: habitat loss, isolation, and fragmentation due to agricultural and industrial development; wildfire; and invasive species. Together, these threats contribute to the lack of migratory corridors for terrestrial species between and within fragments of healthy shrub-steppe habitat.

Conservation Strategies to Achieve Objectives

- ✓ *Work with key partners to identify areas that will aid in the establishment of functional migratory corridors at the landscape scale*
- ✓ *Prioritize projects that restore high quality shrub steppe habitat, control and prevent the spread of invasive species, promote rapid recovery from wildfire, remove movement barriers and limit loss of seasonal wetlands*

Scientific Rationale: A multi-stakeholder group of public, private and tribal representatives has implemented a Landscape Conservation Design process to develop shared conservation priorities for the Columbia Plateau ecoregion. This process has identified areas within the focus area that can provide significant conservation benefits and serve as the foundation for adaptation to changing climate conditions at the local and landscape scale. These shared conservation priorities also provide the opportunity to strengthen and increase partnerships and leverage funding to conserve and restore a viable, well connected shrub-steppe ecosystem.



2017-2021 Objectives:

400 Upland Acres Improved

20 Miles Fencing Removed

*0.5 Riparian, Instream or
Shoreline Miles Improved*

Key Partners:

The Nature Conservancy

Chelan-Douglas Land Trust

*Arid Lands Initiative Work
Group*

*Washington Department of
Fish and Wildlife*

*Washington Greater Sage
Grouse Working Group*

*Natural Resource
Conservation Service*

*Bureau of Land
Management*

Yakima Nation

*Foster Creek Conservation
District*

*Private Stewards and
Landowners*

Focal Species, Plans, and Conservation Strategies

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Pygmy Rabbit <i>Brachylagus</i> <i>idahoensis</i>	Endangered	Recovery Plan for the Columbia Basin Distinct Population of the Pygmy Rabbit (USFWS 2012)	Promote resistance and resilience of shrub- steppe habitat to rangeland fires by: <ul style="list-style-type: none"> reducing invasive annual grasses Reduce fragmentation of shrub-steppe habitat by: <ul style="list-style-type: none"> establishing patches of native vegetation within agricultural lands
Greater Sage- Grouse <i>Centrocercus</i> <i>urophasianus</i>	NA	Greater Sage-Grouse Recovery Plan (WDFW 2004) Greater Sage-Grouse Comprehensive Conservation Strategy (WAFWA 2006)	Restore degraded shrub-steppe habitat by: <ul style="list-style-type: none"> restoring former agricultural fields to native vegetation communities enhancing native bunchgrass and forb communities to improve nesting and brood rearing habitat establishing water developments to improve livestock distribution controlling invasive weed populations Restore connectivity of shrub-steppe habitat patches by: <ul style="list-style-type: none"> removing movement barriers (fencing) establishing patches and corridors of native vegetation within agricultural lands



Columbia Plateau Shrub Steppe
Habitat

Photo by Ferdi Businger



2017-2021 Objectives:

10 acres of wetland habitat

4 miles of instream/riparian habitat

2 fish passage barriers

5 acres of upland habitat

Key Partners:

Methow Restoration Council

Methow Salmon Recovery Foundation

Cascade Columbia RFEG

Methow Conservancy

Bureau of Reclamation

Colville Nation

Yakama Nation

US Forest Service

WA Dept. of Fish and Wildlife

Okanogan County

Bonneville Power Administration

Methow Basin Focus Area

Area Description: The Methow Basin is a spectacular landscape that extends from the Canadian border in the north to the confluence of the Columbia River in Pateros, WA in the south. The watershed has its origins in the glacial streams and highlands which feed the Twisp River, Lost River, Early Winters Creek, and the Chewuch River. These watersheds provide clean, cold water and are the lifeblood of this otherwise arid environment. The climate is characterized by cold, snowy winters and hot, dry summers. The mountains receive over 40 feet of snow each year while the lowlands often exceed 100 degrees in summer. The subbasin is over 1.1M acres but many of the highest-value anadromous habitats are in the lower elevation valleys. Although private lands comprise only 11% of the watershed, they contain most of the priority habitats which are the focus of current conservation efforts.

Habitat Types: Key habitats are wetlands, streams, and riparian zones that support ESA-listed bull trout, Upper Columbia River steelhead, and spring Chinook.

Conservation Issues: While much of the watershed is federally designated Wilderness, the ecologically critical valley-bottoms are privately-owned and under intense residential and agricultural development pressure. Efforts are underway to permanently protect these habitats, often in conjunction with restoration activities, before they are developed. Despite the abundance of winter precipitation, water availability for spawning fishes is a considerable limitation during the dry summer months when human demand is greatest. Climate change is expected to greatly reduce average winter snowpacks, increase the frequency and intensity of storm events, and reduce summer baseflows. Recent large wildfires continue to pose a challenge to fish recovery although their ongoing effects can be ameliorated through habitat restoration. Many mainstem fish passage barriers have now been addressed but a considerable amount of private land habitat remains degraded. Numerous fish passage barriers still exist upstream on National Forest lands, along with some degraded habitats from historical logging and grazing. Work will focus on reconnecting floodplains, increasing habitat complexity, reconstructing severely degraded channels, removing fish passage barriers and/or improving fish passage, screening diversions, and increasing the quality and quantity of riparian areas.

Conservation Strategies to Achieve Objectives

- ✓ *Work with partners through the Methow Restoration Council*
- ✓ *Work on large, reach-scale projects which have the greatest biological returns*
- ✓ *Restore and enhance priority cold-water habitats to buffer the worsening effects of climate change*
- ✓ *Utilize PFW technical assistance resources to work across the public-private landscape to achieve conservation success for priority species*

Scientific Rationale: Watershed planning for the Upper Columbia River was completed in 2007 and finer-resolution tributary and stream reach assessments have subsequently been completed throughout most of the Basin. These documents form the scientific basis for restoration priorities and the biological benefits which accrue from them. A multi-stakeholder monitoring effort is underway to broadly determine the effectiveness of restoration activities at multiple spatial and temporal scales. Funding for bull trout-specific restoration and monitoring activities has been limited among anadromous-focused groups but recent pressure to additionally support such projects has been successful. This should provide additional opportunities for collaboration and adaptive implementation in the next five years, particularly where steelhead co-utilize these cold, headwater habitats as climate change warms downstream reaches past thermal optima.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Federal Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
<p>Bull Trout <i>Salvelinus confluentus</i></p>	<p>Threatened</p>	<p>Recovery Plan for the Coterminous United States Population of Bull Trout (<i>Salvelinus confluentus</i>) (USFWS 2015)</p> <p>Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan (Upper Columbia Salmon Recovery Board, 2007)</p> <p>Methow Sub-basin Plan (Northwest Power and Conservation Council, 2004</p>	<p>Restore complexity of occupied Bull Trout habitat by:</p> <ul style="list-style-type: none"> • instream restoration of large woody debris, beaver reintroduction, beaver dam analogue installation <p>Restore connectivity between occupied and unoccupied Bull Trout streams by:</p> <ul style="list-style-type: none"> • removing fish passage barriers • installing fishways to safely pass fish away from irrigation diversions
<p>Upper Columbia River Steelhead <i>Oncorhynchus mykiss</i></p> <p>Upper Columbia Spring Chinook <i>Oncorhynchus tshawytscha</i></p>	<p>Threatened</p> <p>Threatened</p>	<p>Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan (Upper Columbia Salmon Recovery Board, 2007)</p> <p>Methow Sub-basin Plan (Northwest Power and Conservation Council, 2004</p>	<p>Restore complexity of occupied habitat by:</p> <ul style="list-style-type: none"> • large woody debris installation, channel reconstruction, levee removal, beaver reintroduction, beaver dam analogue installation, riparian planting and protection



2017-2021 Objectives:

25 acres of upland habitat

25 acres of wetland habitat

5 miles of instream/riparian habitat enhanced

2 fish passage barriers

Key Partners:

Yakima Integrated Plan Partners

Yakima Fish and Wildlife Board

Yakima Tributary Access & Habitat Program

Mid-Columbia Fisheries Enhancement Group

Kittitas Conservation Trust

Conservation Districts – Kittitas, North Yakima, & Benton

Yakima County

The Yakama Nation

Yakima Basin Focus Area

Area Description: The Yakima Basin Focus Area is located in south central Washington. The Yakima River and its tributaries drain a 6,150 square mile watershed that runs from the crest of the Cascade Mountains (elevation +8,000 ft.) to the Columbia River (elevation 390 ft.). Precipitation in the basin ranges from over 120 inches in the mountains to approximately 7 inches in the lower Yakima Valley. Due to the diversity of elevation and precipitation, the watershed contains diverse habitat types including: lodgepole pine, aspen, mixed conifer forest, ponderosa pine/oak forest, and shrub-steppe and lower elevation herbaceous and riparian wetland habitats. The Focus Area is 3,936,000 acres and includes parts of Kittitas, Yakima, and Benton counties and most of the Yakama Nation Reservation. There are 2,086,000 acres of private ownership (31%). The Yakama Nation owns approximately 22%, State lands are 9% and Federal lands are about 33%. Land use includes irrigated agriculture (16%), forest and rangelands (over 80%), and commercial and residential development. Agriculture is the primary economic activity and irrigated agriculture is supported by several water storage reservoirs.

Habitat Types: Key habitats are wetlands, streams, and riparian zones that support ESA-listed bull trout and Mid-Columbia Steelhead, westslope cutthroat trout, and wetland and riparian dependent migratory birds as well as shrub-steppe habitats that support sage grouse.

Conservation Issues: Reservoir and diversion dams prevent fish passage into headwaters and flow management has significantly altered the Yakima Basin's hydrograph, impacting instream and floodplain habitats. Land use activities have disconnected shrub-steppe and floodplain habitats. Threats that can be addressed on private land include, fish passage barriers, poor water quality due to increased temperature and sedimentation, loss of seasonal wetlands, in-stream habitat complexity, and functioning floodplain and habitat fragmentation. Other major threats that cannot be addressed solely on private land are the large number of non-native fish throughout the basin (e.g. bass, brook trout etc.), and fish passage at reservoir dams.

Conservation Strategies to Achieve Objectives

- ✓ *Work with community-based conservation teams to prioritize, develop and implement protection and restoration projects.*
- ✓ *Restore and enhance priority cold-water habitat to buffer the effects of climate change.*
- ✓ *Restore stream floodplains and instream habitat complexity and connectivity.*

Climate change is expected to alter the basin’s hydraulic cycle including a significant reduction in snowpack, an increase in the frequency and intensity of storm events, both will lead to reduced summer base flows and higher stream temperatures. It is also expected that there will be an increased chance of catastrophic wildfires, with potential to impact designated critical habitats.

Scientific Rationale: Recovery plans for Bull trout, Mid-Columbia steelhead, and salmon (spring, summer and fall Chinook, coho, and sockeye salmon) along with watershed plans, and fish and wildlife sub-basin planning have been completed and identify restoration actions and priorities. These documents form the scientific basis for restoration priorities and identify the biological benefits from project implementation. Climate change studies and evaluations conducted by researchers at the University of Washington and Bureau of Reclamation and Washington State Department of Ecology show that the Yakima Basin Focus Area will be heavily impacted by changes in precipitation, stream flows & temperature, and vegetation patterns. Projects that buffer these impacts (e.g. floodplain enhancement) have been identified and will be vital to the maintenance and recovery of the focus species and habitats. Work of the PFW Program in the focus are will follow recommendations and guidance in these plans.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>)	Species Federal Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Bull Trout <i>Salvelinus confluentus</i>	Threatened	Recovery Plan for the Coterminous United States Population of Bull Trout (<i>Salvelinus confluentus</i>) (USFWS 2015)	Restore complexity of occupied habitats by: <ul style="list-style-type: none"> • restore of levels of large woody debris to the stream systems • remove artificial channel constrictions (e.g. levees) • restore channel and floodplain shape, pattern, and functions • restore instream flow and temperature • restore riparian vegetation Restore connectivity between occupied and unoccupied streams by: <ul style="list-style-type: none"> • removing fish passage barriers • installing fish screens on irrigation ditches to eliminate entrainment
Mid-Columbia Steelhead <i>Oncorhynchus mykiss</i>	Threatened	Yakima Basin Bull Trout Action Plan (Reiss, 2012)	
Upper Columbia Spring Chinook <i>Oncorhynchus tshawytscha</i>	Endangered	Middle Columbia River Steelhead Recovery Plan (NMFS 2009)	
Westslope Cutthroat Trout <i>Oncorhynchus clarki lewisi</i>	NA	Yakima Sub-basin Plan (Northwest Power and Conservation Council, 2004)	



2017-2021 Objectives:

700 acres of upland habitat

500 acres of wetland habitat

Key Partners:

Intermountain West Joint
Venture

Ducks Unlimited

Washington Department of
Fish and Wildlife

The Nature Conservancy

Inland Northwest Land Trust

The Lands Council

Trust for Public Lands

Spokane and Kalispel Tribes

Natural Resource
Conservation Service

Eastern Washington
University

Spokane and Lincoln
Counties, and Palouse
Conservation District

Channeled Scablands Focus Area

Area Description: The focus area is characterized by the Channeled Scablands of Eastern Washington, the result of glacial floods during the Pleistocene that deeply eroded the basalt plateau, leaving giant gravel bars, alluvial aprons, and ephemeral lake deposits. The Scablands wetland basin densities rival those of the upper Midwest's Prairie Potholes. The juxtaposition of upland forests, grassland and shrub-steppe, wetland and riparian habitats unique to the Channeled Scablands creates exceptional wildlife and plant diversity. The focus area is nearly 2 million acres in size and is 80% privately owned.

Habitat Types: Key habitats in priority order are wetlands, riparian zones, steppe-grasslands, sagebrush steppe, and ponderosa pine woodlands. These areas support ESA-listed Spalding's catchfly, water howellia, and pygmy rabbits, and several priority migratory birds.

Conservation Strategies to Achieve Objectives

- ✓ *Work with partners to conduct landscape assessments, and prioritize and implement identified projects to benefit focal species, increase connectivity, and improve climate change resiliency.*
- ✓ *Restore altered wetland hydrology and species and structural diversity in riparian zones.*
- ✓ *Restore and enhance native grass and shrub habitats to benefit focal species through invasive species control, native plant restoration, and improved livestock management*

Conservation Issues: Agriculture, timber harvest, grazing activity, and rural and urban development have resulted in the conversion, degradation and fragmentation of the key habitats in the focus area. Historical agricultural practices and overgrazing were the primary causes for listing Spalding's catchfly (*Silene spaldingii*) as federally threatened. Impacts from these activities contributed to the federal listing of the pygmy rabbit, and the state listing of the ferruginous hawk, sharp-tailed grouse, greater sage grouse and burrowing owl, all once present throughout the focus area. Major drainage efforts throughout the Channeled Scablands altered over 70% of the wetlands, resulting in rapid drying and increased susceptibility to drought and projected climate change. Re-establishing historic hydrology and water levels will increase the resilience of these wetlands and their associated wildlife species to drought and the effects of climate change. The Palouse-steppe vegetation community is recognized at the state and national level as a critically endangered ecosystem (Noss et. al. 1995). Agricultural conversion of over 90% of the Palouse-steppe has resulted in only a few intact islands of this once abundant ecosystem. Restoration and improvement of the remnant Palouse-steppe ecosystem will require control of non-native plants and reseeding with native grass and forb species.

Scientific Rationale: Several ecoregional assessments and planning documents have been developed that highlight the importance of the Channeled Scablands. These documents identify priority habitats and species within the focus area, and outline conservation strategies to meet specific goals. Recently the Arid Lands Initiative, a partnership of several federal and state agencies, tribes, and non-profit organizations completed a Landscape Conservation Design spatial analysis that identified priority conservation areas and linkages for the entire Columbia Plateau. Several of these priority areas fall within the Channeled Scablands Focus Area. These shared conservation priorities provide the opportunity to strengthen and increase partnerships and leverage funding to conserve and restore a viable, well-connected ecosystem.

Focal Species, Plans, and Conservation Strategies

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Spalding's catchfly <i>Silene spaldingii</i>	Threatened	Recovery Plan for <i>Silene spaldingii</i> (USFWS 2007) Turnbull National Wildlife Refuge Comprehensive Conservation Plan (USFWS 2007)	Conserve, identify, and expand <i>Silene spaldingii</i> populations and habitat within the Channeled Scablands <ul style="list-style-type: none"> • Conduct further surveys to identify, or work to create at least one new population and key conservation area • Conserve and protect smaller populations within the Channeled Scablands Focus Area • Control and manage invasive, non-native plant species
Wetlands Northern Pintail Redhead Riparian Willow Flycatcher Yellow Warbler Grasslands Grasshopper Sparrow Sharp-tailed Grouse Sagebrush Steppe Brewers Sparrow Greater Sage Grouse Ponderosa Pine Woodlands Pygmy Nuthatch Western Bluebird	MBTA	Spatial Conservation Priorities in the Columbia Plateau Ecoregion (Arid Lands Initiative 2014) Coordinated Implementation Plan for Bird Conservation in Eastern Washington (IWJV 2005) Washington's State Wildlife Action Plan (WDFW 2015) Conservation Strategy for Landbirds in the Columbia Plateau of eastern Oregon and Washington (Altman, 2000)	Work with private landowners to: <ul style="list-style-type: none"> • Identify incentives, technical and financial assistance programs. • Assist with restoration design, permits and project implementation. • Provide personnel and equipment for restoration activities. • Develop proposals for landscape assessments and conservation delivery on private lands (RCPP, NAWCA, and IWJV Grants). Develop strategies for adapting to climate change impacts.



2017-2021 Objectives:

1,040 acres of upland habitat including:

900 acres of prairie habitat

65 acres of oak habitats

75 acres of prior agricultural lands converted to prairie

Key Partners:

Center for Natural Lands Management

Natural Resources Conservation Service

US Army/Air Force Joint Base Lewis McChord

Pacific Rim Institute

Whidbey Camano Land Trust

San Juan Preservation Trust

San Juan County Landbank

Capitol Land Trust

Private Landowners

Washington Departments of Fish and Wildlife & Natural Resources

Western Washington Prairie Focus Area

Area Description: The Western Washington Prairie Focus Area includes coastal prairies in the north Puget Sound, glacial outwash prairies in the south Puget Sound, and Willamette Valley wet and dry prairies where they extend into southwest Washington. This area of western Washington is part of the larger Willamette Valley, Puget Trough-Georgia Basin ecoregion and includes upland and wet prairies, oak savanna and woodlands, and associated wetlands and streams throughout western Washington. Communities in this region range from small and rural in the north and southwest, to rapid population development in the south and north Puget Sound, with ever increasing demands for development. The total acreage of this focus area is just over three million acres, with nearly 72% being held privately.

Habitat Types: Upland and wet prairies, oak savanna and woodlands, and associated wetlands and streams throughout western Washington support ESA-listed Oregon spotted frog, Taylor’s checkerspot butterfly, Mazama pocket gopher, streaked horned lark, golden paintbrush, and prairie and oak dependent migratory birds.

Conservation Issues: Threats that can be addressed on private land include invasive plant species, grazing impacts, and some areas of habitat conversion resulting in habitat fragmentation. Other major threats that cannot be addressed solely on private land are restrictions on implementation of prescribed fire (fire exclusion) and habitat fragmentation. Landscape conservation and species recovery planning is underway with partners in the Joint Base Lewis McChord Sentinel Landscape Workgroup and Army Compatible Use Buffer Program, including The Natural Resources Conservation Service, Washington Department of Fish and Wildlife, and multiple local land trusts, landowners and other conservation groups . A number of species are dependent upon prairie habitats in the focus area, including the federally endangered Taylor’s checkerspot butterfly (*Euphydryas editha taylori*), and federally threatened golden paintbrush (*Castilleja levisecta*), Mazama pocket gopher (*Thomomys mazama*), streaked horned lark (*Eremophila alpestris strigata*), and Oregon spotted frog (*Rana pretiosa*).

Conservation Strategies to Achieve Objectives

- ✓ *Work with north and south Puget Sound Prairie Work Groups to prioritize and implement projects*
- ✓ *Work with workgroups and working lands partners to assure that projects achieve landscape-scale benefits*
- ✓ *Work with species recovery teams to achieve recovery goals where possible on private lands.*

Scientific Rationale: The Washington State Comprehensive Wildlife Conservation Strategy and the Washington State Natural Heritage Plan recommend actions to restore and conserve wildlife in the Puget-Trough

Georgia Basin ecoregion, including protection and restoration of grasslands and oak woodlands and their associated rare species. The Nature Conservancy’s *Conservation Action Planning Report for South Puget Sound Prairies* identifies south Puget Sound prairies as one of the most significant conservation areas within the region. The Pacific Bird Habitat Joint Venture has identified grassland and oak as priority habitats for landbirds in the Puget Lowlands ecoregion. The Service is an active member of the North and South Puget Sound Prairie and Oak Woodland Working Group(s) which offer an eco-regional approach to restoring this rare and declining ecosystem.

Focal Species, Plans, and Conservation Strategies:

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies That Implement Applicable Plans
Golden Paintbrush <i>Castilleja levisecta</i>	Threatened	Recovery Plan for the Golden Paintbrush (USFWS 2000) Reintroduction Plan for Golden Paintbrush (USFWS 2004)	<ul style="list-style-type: none"> • Promote key occurrences on private lands • Augment existing populations to support populations of sufficient size and extent to be viable. • Establish new populations of <i>Castilleja levisecta</i> within the historic range of the species.
Taylor’s Checkerspot butterfly <i>Euphydryas editha taylori</i>	Endangered	Taylor’s Checkerspot Butterfly Action Plan (CNLM 2013)	<ul style="list-style-type: none"> • Enhance habitat by controlling/removing invasive species and enhancing larval food and nectar plants.
Mazama Pocket Gopher <i>Thomomys mazama</i>	Threatened	Mazama pocket gopher Action Plan (CNLM 2013)	<ul style="list-style-type: none"> • Enhance habitat by controlling/removing invasive species, modifying grazing regime, and enhancing food plants.



Taylor’s checkerspot butterfly USFWS



Golden paintbrush USFWS



2017-2021 Objectives:

- 200 Upland Acres Improved*
- 110 Wetland Acres Improved*
- 3.5 Riparian, Instream or Shoreline Miles Improved*
- 2 Fish Passage Barriers Removed, Installed or Modified*

Key Partners:

- The Nature Conservancy*
- Columbia, Nisqually, and Chehalis Basin Land Trusts*
- Cascade Land Conservancy*
- Nisqually River Council*
- Willapa Bay Regional Fisheries Enhancement Group*
- Natural Resources Conservation Service*
- U.S. Army Corps of Engineers*
- Shoalwater Bay, Nisqually, and Chehalis Indian Tribes*
- Quinault Indian Nation*
- Washington Departments of Fish and Wildlife, Agriculture, Natural Resources, Ecology and Transportation*
- County Noxious Weed Boards*

Western Washington Refuge Focus Area

Area Description: The Western Washington Refuge Focus Area (3,044,510 ac.) includes lands neighboring the Willapa, Nisqually, and Ridgefield National Wildlife Refuge (NWR) Complexes. Major waterbodies include Willapa Bay, Grays Harbor and the Columbia River. The majority of landownership is private (71%), interspersed with Federal (15%), State (11%), Tribal (0.03%) and local government (0.02%) lands. Land use includes commercial timber production, commercial fishing and mariculture, agriculture and recreation.

Habitat Types: Key habitats are wetlands and coastal habitats that encompass the Willapa Hills, Willapa Bay, Grays Harbor, the Lower Chehalis and Lower Columbia rivers, as well as the Nisqually and Black River watersheds, in south Puget Sound. These watersheds have networks of rivers and streams with large to small river deltas that open to the Pacific Ocean, estuarine bays, or the Columbia River. The surrounding Coast Range supports dense conifer forests, and the lowlands are a mosaic of mixed forests, riparian areas, marshes, tidal mudflats and upland, wet and oak savanna native prairie ecosystems. The low-lying coastline has barrier beaches and coastal dunes.

Conservation Issues: The diverse habitats in this focus area are essential to federally threatened and endangered species including: marbled murrelet, northern spotted owl, Oregon silverspot butterfly, western snowy plover, streaked horned lark, Columbian white-tailed deer, Oregon spotted frog, salmonid species; and many species of concern. Due to land use, less than 1% of old-growth/late successional forest habitat still exists; and forests are extensively fragmented by networks of logging roads. Native prairies and coastal barrier dunes have been lost to conversion, development and invasion of non-native species. The conservation and restoration of these habitats is important to buffer these systems from the expected effects of climate change, including sea-level rise and altered patterns of precipitation.

Conservation Strategies to Achieve Objectives

- ✓ *Work with an interagency team to conduct watershed assessments, and prioritize and implement projects identified in the assessments*
- ✓ *Prioritize forest, stream, riparian, estuarine wetland and coastal dune restoration projects that provide connectivity to achieve landscape-scale results*
- ✓ *Restore stream complexity and connectivity for important aquatic species*

Scientific Rationale: The guiding plans and documents are listed in the table below. The Western Washington Refuges Focus Area encompasses the majority of the proposed area of the Lower Columbia River and Outer Coast Landscape Conservation Design (LCR-LCD). The work is

supported by the North Pacific Landscape Conservation Cooperative, and the LCR-LCD is in the preliminary phase of identifying stake-holders and sharing biological, strategic and spatial priorities. As the LCD moves forward, The PFW Program will use information generated to define high priority areas and leverage actions to restore ecological function, protect and restore coastal habitats, and maintain and re-establish wildlife corridors.

Focal Species, Plans, and Conservation Strategies

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Coho Salmon <i>Oncorhynchus kisutch</i> <i>O. keta</i>	NA	Lower Columbia River Salmon Recovery Plan for Salmon & Steelhead (NOAA 2013)	Restore, protect, and enhance riparian habitat function and large wood to stream systems.
Chum Salmon <i>Oncorhynchus keta</i>	NA	Willapa and Nisqually Nation Wildlife Refuge Comprehensive Conservation Plans (USFWS 2005/2011) Nisqually Watershed Stewardship Plan (Nisqually River Council 2009)	Restore connectivity and ecosystem function in aquatic systems by removing fish passage barriers and installation of fish screens on irrigation ditches to eliminate entrainment.
Western Snowy Plover <i>Charadrius alexandrinus nivosus</i>	Threatened	Recovery Plan for the Pacific Coast Population of the Western Snowy Plover (USFWS 2007)	Restore coastal dunes to provide breeding, nesting and foraging habitat by: <ul style="list-style-type: none"> • treatment and removal of invasive non-native plants • creating native habitat corridors to connect existing habitat
Streaked Horned Lark <i>Eremophila alpestris strigata</i>	Threatened	Range-wide Streaked Horned Lark Assessment and Preliminary Conservation Strategy (Pearson 2005)	
Columbian White-tailed Deer <i>Odocoileus virginianus leucurus</i>	Threatened	Columbia River DPS of the Columbian White-tailed Deer 5-Year Review (USFWS 2015) Lewis and Clark NWR/Julia Butler Hansen Refuge for Columbian White-tailed Deer CCP (USFWS 2010)	Protect and restore riparian riverside habitat: <ul style="list-style-type: none"> • Restore floodplain and tidal spruce habitat with densely forested swamps covered with tall shrubs and scattered spruce, alder, cottonwood and willows; • control invasive plant species • protect existing habitat and create migration corridors

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Marbled Murrelet <i>Brachyramphus marmoratus</i>	Threatened	Recovery Plan for the Threatened Marbled Murrelet (USFWS 1997) South Willapa Bay Conservation Area: Forest Landscape Restoration Plan (Churchill et al., 2007)	Restore connectivity in forest ecosystems by: <ul style="list-style-type: none"> • Decommission logging roads and restore natural hill-slope • Selective thinning of forest stands to promote diversity, and create trajectory to late-successional forest habitat



2017-2021 Objectives:

10 acres of upland habitat

150 acres of wetland habitat

3 miles of riparian habitat

3 fish passage barriers

Key Partners:

Nooksack Indian Tribe

Lummi Indian Nation

Tulalip Tribes

*Skagit River System
Cooperative*

*Nooksack Salmon
Enhancement Association*

*Skagit Fisheries
Enhancement Group*

The Nature Conservancy

*Washington Department of
Fish and Wildlife*

North Puget Sound Salmonid Focus Area

Area Description: The North Puget Sound Salmonid Focus Area has been identified as a high priority for recovery and restoration of Pacific salmon and bull trout. It includes populations of listed threatened Puget Sound Chinook salmon identified as essential for recovery of the species and supports the most robust population of bull trout in Puget Sound. Estuaries, uplands, and, riparian areas associated with four river basins (Nooksack, Skagit, Stillaguamish and Snohomish) comprise this focus area located in North Puget Sound, Washington. The fish-bearing stream miles in the focus area totals over 3,600 miles. The focus area lies between the crest of the Cascade Mountains and Puget Sound in northwest Washington. The area consists of U-shaped valleys and cirques carved by glaciers. Rivers begin as high-elevation, steep gradient-streams and end in wide, low-elevation valleys before meeting Puget Sound. Elevation ranges from zero to greater than 7,000 feet above sea level. The North Puget Sound Salmonid Focus Area is over 8.5 million acres in size with 45% in private ownership, 54% federal land, and 0.6% state land. This focus area overlaps with the Puget Sound Coastal Program North Puget Sound Focus Area. The PFW Program will emphasize restoration work in upper watersheds further inland. The programs will coordinate efforts in watersheds where they overlap and may work together on projects throughout the focus area.

Habitat Types: Diverse fish and wildlife habitats within the focus area include coniferous and mixed forests, rivers and associated riparian areas, wetlands, and estuaries.

Conservation Strategies to Achieve Objectives

- ✓ *Work with private landowners, tribes, and conservation organizations to plan and implement restoration projects that benefit salmonids and are also beneficial to Oregon spotted frogs.*
- ✓ *Provide USFWS technical assistance to reduce impacts from non-native invasive species.*
- ✓ *Work with partners to identify opportunities to support recovery actions for Oregon spotted frog.*

Conservation Issues: Major land uses in the focus area are cropland, forestland, and urban development. Focal species include the Federally threatened Coastal-Puget Sound bull trout, Puget Sound Chinook salmon, and Puget Sound steelhead. Non-salmonid focal species include the federally threatened Oregon spotted frog which occurs in the lowlands, sometimes sympatric with some of the salmonid species. Fish and wildlife populations and habitat in the focus area have been negatively impacted by human population growth and urban development; forestry practices; agricultural impacts; impacts from invasive species such as knotweed; and water quality degradation. Major threats include stream bank erosion, impaired water quality,

instream artificial barriers, channel instability, invasive plants, and urban encroachment.

Scientific Rationale: The focus area includes the largest watershed in Puget Sound (Skagit) and has been identified as a high priority for recovery and restoration of Pacific salmon and bull trout through the *Puget Sound Chinook Salmon Recovery Plan* (NMFS 2007) and *Recovery Plan for Bull Trout* (USFWS 2015). The two recovery plans identify specific recovery actions to be implemented in each recovery area. Watershed-based recovery plans with potential restoration projects have been completed for all four watersheds.

Focal Species, Plans, and Conservation Strategies

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Coastal-Puget Sound bull trout <i>Salvelinus confluentus</i>	Threatened	Recovery Plan for the Coterminous United States Population of Bull Trout (USFWS 2015) Puget Sound Salmon Recovery Plan (NMFS 2007)	<ul style="list-style-type: none"> • Restore and protect riparian areas • Restore and protect estuaries • Nearshore and shoreline habitat restoration and protection • Indirect improvement of water temperature
Puget Sound Chinook salmon <i>Oncorhynchus tshawytscha</i>	Threatened	Puget Sound Salmon Recovery Plan (Shared Strategy/NMFS, 2007)	<ul style="list-style-type: none"> • Restore and protect riparian areas • Restore and protect estuaries • Nearshore and shoreline habitat restoration and protection • Indirect improvement of water temperature
Puget Sound steelhead <i>Oncorhynchus myskiss</i>	Threatened	Federal Recovery Outline Puget Sound Steelhead Distinct Population Segment (NMFS 2013) Puget Sound Steelhead Foundations: A Primer for Recovery Planning (WDFW 2011)	<ul style="list-style-type: none"> • Restore and protect riparian areas • Restore and protect estuaries • Nearshore and shoreline habitat restoration and protection • Indirect improvement of water temperature

Focal Species Common Name <i>Scientific Name</i>	Species Status	Applicable Plans (NFHAP, CCP, Recovery Plans, etc.)	Strategies that Implement Applicable Plans
Oregon Spotted Frog <i>Rana pretiosa</i>	Threatened	Threatened Status for Oregon Spotted Frog: Final Rule (USFWS 2014) Designation of Critical Habitat for the Oregon Spotted Frog: Final Rule (USFWS 2016) DRAFT Washington State Oregon Spotted Frog Recovery Plan (Hallock 2013)	<ul style="list-style-type: none"> • Restore or maintain early succession vegetation structure at breeding areas • Restore or maintain connectivity between breeding areas and permanent water • Avoid management activities that enhance habitat for nonnative plants or nonnative aquatic predators

V. LITERATURE CITED

Altman, B., and A. Holmes. 2000. Conservation Strategy for Land Birds in the Columbia Plateau of Eastern Oregon and Washington. Prepared for Oregon and Washington Partners in Flight. Oregon. 144 pp.

Arid Lands Initiative. 2014. Spatial Conservation Priorities in the Columbia Plateau Ecoregion: Methods and data used to identify collaborative conservation priority areas for the Arid Lands Initiative. Available at <https://www.sciencebase.gov/catalog/folder/52050595e4b0403aa6262c64>.

Battelle Memorial Institute 2006. Lower Columbia River Restoration Prioritization Framework Prepared for the Lower Columbia River Estuary by Partnership Battelle Memorial Institute, Pacific Northwest Division, Richland, Washington 99352 2006.

Caldwell, Wendy. 2016. 2016 Monarch Conservation Implementation Plan. Monarch Joint Venture. (A derivation from the June 2008 North American Monarch Conservation Plan, Commission for Environmental Cooperation. Montreal, Quebec, Canada).

Caplow, F. 2004. Reintroduction Plan for Golden Paintbrush (*Castilleja levisecta*). Washington Department of Natural Resources. Prepared for U. S. Fish and Wildlife Service. 87 pp.

Center for Natural Lands Management. 2013. Taylor's Checkerspot Butterfly (*Euphydryas editha taylori*) 2013 Action Plan Summary. Prepared for U. S. Fish and Wildlife Service and Washington Department of Fish and Wildlife. 1 pp.

Center for Natural Lands Management. 2015. South Puget Sound Mazama Pocket Gopher (*Thomomys mazama*) 2015-16 Action Plan Summary. Prepared for the U. S. Fish and Wildlife Service and Washington Department of Fish and Wildlife. 1 pp.

Commonwealth of the Northern Mariana Islands. Wildlife Action Plan for the Commonwealth of the Northern Mariana Islands, 2015-2022. Division of Fish and Wildlife. Saipan. MP. 292 pp.

Churchill, D., A. Larsen, K. Cedar, D. Rolph, and T. Kollasch. 2007. South Willapa Bay Conservation Area: Forest Landscape Restoration Plan. A Joint Project of The Nature Conservancy of Washington and Willapa Bay National Wildlife Refuge. Illwaco, Washington. vi + 137 pp.

Cushman, K.A. and Pearl, C.A.. 2007. A Conservation Assessment for the Oregon Spotted Frog (*Rana pretiosa*). A report for the USDA Forest Service Region 6 and the Bureau of Land Management, Oregon and Washington

Haak, A.L., Williams, J.E., Isaak, D., Todd, A., Muhlfeld, C., Kershner, J.L., Gresswell, R., Hostetler, S., and Neville, H.M., 2010, The Potential Influence of Changing Climate on the Persistence of Salmonids of the Inland West U.S. Geological Survey Open-File Report 2010-1236. U.S. Geological Survey, Prepared in cooperation with Trout Unlimited and the U.S. Forest Service, 74 p.

Hallock, L. 2013. DRAFT State of Washington Oregon Spotted Frog Recovery Plan. Washington Department of Fish and Wildlife. Olympia, Washington. 106 pp.

Hawaii Pacific Plant Recovery Coordinating Committee. 1998. Habitat Essential to the Recovery of Hawaiian Plants. Honolulu, Hawaii.

- Henry, A.O. 2005. Pacific Coast Joint Venture Hawaii” Strategic Plan for Wetland Conservation in Hawai’i Review (Draft). Pacific Coast Joint Venture, Hawaii
- Hoffman, R. W., K. A. Griffin, J. M. Knetter, M. A. Schroeder, A. D. Apa, J. D. Robinson, S. P. Espinosa, T. J. Christiansen, R. D. Northrup, D. A. Budeau, and M. J. Chutter. 2015. Guidelines for the management of Columbian sharp-tailed grouse populations and their habitats. Sage and Columbian Sharp-tailed Grouse Technical Committee, Western Association of Fish and Wildlife Agencies, Cheyenne, Wyoming, USA.
- Intermountain West Joint Venture. 2005. Coordinated Implementation Plan for Bird Conservation in Eastern Washington. Washington Steering Committee. Spokane, Washington. 40 pp.
- Jepsen, S., D.F. Schweitzer, B. Young, N. Sears, M. Ormes, and S.H. Black. 2015. Conservation Status and Ecology of the Monarch Butterfly in the United States. 36pp. NatureServe, Arlington, Virginia, and the Xerces Society for Invertebrate Conservation, Portland, Oregon
- Kaua’i Watershed Alliance. 2012. Kauai Watershed Alliance Management Plan Update. 9 pp.
- Leeward Haleakala Watershed Restoration Partnership. 2006. Leeward Haleakala Watershed Restoration Partnership Management Plan. 65 pp.
- Lower Nehalem Watershed Council. Various years. Lower Nehalem Barrier Assessment. Lower Nehalem Watershed Council, 278 Rowe Street, Suite 220, Wheeler, OR 97147
- Multiple Parties. 2014 Rangewide Conservation Agreement for the Conservation and Management of Interior Redband Trout
- National Marine Fisheries Service. 2009. Middle Columbia River Steelhead Distinct Population Segment ESA Recovery Plan. National Marine Fisheries Service Northwest Region.
- National Marine Fisheries Service. 2009. Middle Columbia River Steelhead Distinct Population Segment ESA Recovery Plan. Prepared by the Northwest Region. Portland, Oregon. 260 pp.
- National Marine Fisheries Service. 2013. ESA Recovery Plan for Lower Columbia River Coho Salmon, Lower Columbia River Chinook Salmon, Columbia River Chum Salmon, and Lower Columbia River Steelhead. Prepared by the Northwest Region. Portland, Oregon. 503 pp.
- National Marine Fisheries Service. 2013. Federal Recovery Outline for Puget Sound Steelhead Distinct Population Segment. Prepared by the Northwest Region. Portland, Oregon. 22 pp.
- National Marine Fisheries Service. 2014. Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (*Oncorhynchus kisutch*). National Marine Fisheries Service. Arcata, CA.
- Natural Resources Conservation Service. 2010. Sage Grouse Initiative.
- Nisqually River Council. 2009. Nisqually Watershed Stewardship Plan. Olympia, Washington.
- Northwest Power and Conservation Council. 2004. Methow Subbasin Plan. Portland, Oregon. 849 pp.
- Northwest Power and Conservation Council. 2004. Yakima Subbasin Plan. Portland, Oregon. 80 pp.
- Noss, R.F., E.T. LaRoe III, and J.M. Scott. 1995. Endangered ecosystems of the United States: A preliminary assessment of loss and degradation. Biological Report 28, USDI National Biological Service, 58 pp.

- Oregon Department of Fish and Wildlife. 1992. Coast Range Subbasin Fish Management Plan
- Oregon Department of Fish and Wildlife. 2007. Oregon Coast Coho Conservation Plan for the State of Oregon. Oregon Department of Fish and Wildlife. Salem, OR.
- Oregon Department of Fish and Wildlife. 2009, 2010. Conservation and Recovery Plan for Oregon Steelhead Populations in the Middle Columbia River Steelhead Distinct Population Segment (Oregon Mid-Columbia plan). Oregon Department of Fish and Wildlife. Salem, OR.
- Oregon Department of Fish and Wildlife. 2005, 2006, 2015. The Oregon Conservation Strategy. Oregon Department of Fish and Wildlife. Salem, OR.
- Oregon Wetlands Joint Venture. 1994. Joint Venture Implementation Plan: Lower Columbia River. Prepared for the Pacific Coast Joint Venture. West Linn, OR
- Oregon Wetlands Joint Venture. 1994. Joint Venture Implementation Plan: Northern Oregon Coast Prepared for the Pacific Coast Joint Venture. West Linn, OR
- Pearson, S.F., and B. Altman. 2005. Range-wide Streaked Horned Lark (*Eremophila alpestris strigata*) Assessment and Preliminary Conservation Strategy. Washington Department of Fish and Wildlife, Olympia, WA. 25 pp.
- Pyke, D.A., Chambers, J.C., Pellant, M., Knick, S.T., Miller, R.F., Beck, J.L., Doescher, P.S., Schupp, E.W., Roundy, B.A., Brunson, M., and McIver, J.D., 2015, Restoration handbook for sagebrush steppe ecosystems with emphasis on greater sage-grouse habitat—Part 1. Concepts for understanding and applying restoration: U.S. Geological Survey Circular 1416, 44 p.
- Reiss, Y., J. Thomas, E. Andersen, and J. Cummins. 2012. Yakima Bull Trout Action Plan. Yakima Basin Fish and Wildlife Recovery Board. Yakima, Washington. 424 pp.
- Rogue Basin Partnership. 2015. Rogue Restoration Action Plan. Rogue Basin Partnership, P.O Box 1214, Medford, OR 97501.
- Sage-Grouse Conservation Partnership. 2015. The Oregon Sage-Grouse Action Plan. Governor's Natural Resources Office. Salem, Oregon.
- Shared Strategy for Puget Sound and National Marine Fisheries Service. 2007. Puget Sound Salmon Recovery Plan. Submitted to and approved by NMFS by the Shared Strategy for Puget Sound. Seattle Washington. 503 pp.
- State of Oregon Governor's Office. 1997. Oregon Coastal Salmon Restoration Initiative. State of Oregon Independent Multidisciplinary Science Team. Salem, OR.
- State of Hawaii. 2015. Hawai'i's State Wildlife Action Plan. October 1, 2015. Department of Land and Natural Resources. Honolulu, Hawaii 885pp.
- Stinson, D. W., D. W. Hays, and M. A. Schroeder. 2004. Washington State Recovery Plan for the Greater Sage-Grouse. Washington Department of Fish and Wildlife, Olympia, Washington. 109 pp.
- Stiver, S.J., A.D. Apa, J.R. Bohne, S.D. Bunnell, P.A. Deibert, S.C. Gardner, M.A. Hilliard, C.W. McCarthy, and M.A. Schroeder. 2006. Greater Sage-grouse Comprehensive Conservation Strategy. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming.

The Nature Conservancy of Washington. 2007. Conservation Action Planning Report for the South Puget Sound Prairies. DRAFT for Internal Use Only. Seattle, Washington. 26 pp.

The Nature Conservancy. 2011. Kamakou Preserve: Draft Long-Range Management Plan, Fiscal Years 2013-2018. Honolulu, Hawaii. 56 pp.

Tillamook Estuaries Partnership. 2006. Nestucca-Neskowin Barrier Assessment. Prepared for the Bureau of Land Management, by the Tillamook Estuaries Partnership, 613 Commercial Street, PO Box 493, Garibaldi, Oregon 97118

Tillamook Estuaries Partnership. 2012. Culvert Assessment and Prioritization Plan for Fish Passage in the Tillamook Bay Watershed, Tillamook County, Oregon – Version 1.1. Tillamook Estuaries Partnership, PO Box 493, 613 Commercial Street, Garibaldi, Oregon 97118

Upper Columbia Salmon Recovery Board. 2007. Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan. Washington. 352 pp.

Upper Nehalem Watershed Council. 2011. Voluntary Conservation Action Plan for Nehalem River Watershed. Upper Nehalem Watershed Council, 1201 Texas Ave. Suite A, Vernonia, OR 97064

U.S. Fish and Wildlife Service. 1997. Recovery Plan for the Threatened Marbled Murrelet (*Brachyramphus marmoratus*) in Washington, Oregon, and California. Portland, Oregon. 203 pp.

U.S. Fish and Wildlife Service. 2000. Recovery Plan for the Golden Paintbrush (*Castilleja levisecta*). Portland, Oregon. 51 pp.

U. S. Fish and Wildlife Service. 2003. Endangered and Threatened Wildlife and Plants; Final Designations or Nondesignations for 101 Plant Species from the Island of Oahu: Final Rule. 68 FR 36349-36398 [June 17, 2003].

U. S. Fish and Wildlife Service. 2005. Nisqually National Wildlife Refuge Final Comprehensive Conservation Plan. Portland, Oregon. 304 pp.

U. S. Fish and Wildlife Service. 2006. Revised Recovery Plan for Hawaiian Forest Birds. Region 1, Portland, OR. 622pp.

U.S. Fish and Wildlife Service. 2007. Recovery Plan for *Silene spaldingii* (Spalding's Catchfly). Portland, Oregon. xiii + 187 pp.

U. S. Fish and Wildlife Service. 2007. Recovery Plan for the Pacific Coast Population of the Western Snowy Plover (*Charadrius alexandrinus nivosus*). In 2 volumes. Sacramento, CA xvi + 751 pp.

U. S. Fish and Wildlife Service. 2007. Turnbull National Wildlife Refuge Comprehensive Conservation Plan. Portland, Oregon. 355 pp.

U.S. Fish and Wildlife Service. 2007. Recovery Plan for *Silene spaldingii* (Spalding's Catchfly). U.S. Fish and Wildlife Service, Portland, Oregon. xiii + 187 pages.

U. S. Fish and Wildlife Service. 2008. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for 12 Species of Picture-Wing Flies from the Hawaiian Islands: Final Rule. 73 FR 73794-73895 [December 5, 2008].

U.S. Fish and Wildlife Service. 2010. Revised Designation of Critical Habitat for Bull Trout in the Coterminous United States; Final Rule. Federal Register, Vol. 75, No. 200

U.S. Fish and Wildlife Service. 2010. Recovery Plan for the Prairie Species of Western Oregon and Southwestern Washington. U.S. Fish and Wildlife Service, Portland, Oregon. xi + 241 pp.

U.S. Fish and Wildlife Service. 2010. Withdrawal of Proposed Rule To List the Southwestern Washington/Columbia River Distinct Population Segment of the Coastal Cutthroat Trout as Threatened. Proposed Rule, Withdrawn. Federal Register, Vol. 75, No. 8621

U. S. Fish and Wildlife Service. 2010. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for 48 Species on Kauai and Designation of Critical Habitat: Final Rule. 75 FR 18960-19165 [April 13, 2010].

U.S. Fish and Wildlife Service. 2010. Recovery Outline for the Kauai Ecosystem. June 2010. 41 pp.

U. S. Fish and Wildlife Service. 2011. Willapa National Wildlife Refuge Final Comprehensive Conservation Plan and Environmental Impact Statement. In 2 volumes. Portland, Oregon. 1057 pp.

U. S. Fish and Wildlife Service. 2012. Endangered and Threatened Wildlife and Plants; Endangered Status for 23 Species on Oahu and Designation of Critical Habitat for 24 Species: Final Rule. 77 FR 57648-57862 [September 18, 2012].

U. S. Fish and Wildlife Service. 2012. Endangered and Threatened Wildlife and Plants; Listing 15 Species on Hawaii Island as Endangered and Designating Critical Habitat for 3 Species; Proposed Rule. 77 FR 63928-64018 [October 17, 2012].

U. S. Fish and Wildlife Service. 2012. Endangered and Threatened Wildlife and Plants; Listing 28 Species on Molokai, Lanai, and Maui as Endangered and Designating Critical Habitat on Molokai, Lanai, Maui, and Kahoolawe for 135 Species; Proposed Rule. 77 FR 34464-34774 [June 11, 2012].

U.S. Fish and Wildlife Service. 2012. Recovery Plan for the Columbia Basin Distinct Population Segment of the Pygmy Rabbit (*Brachylagus idahoensis*). Portland, Oregon. ix + 109 pp.

U.S. Fish and Wildlife Service. 2013. Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report, U.S. Fish and Wildlife Service, Denver, CO. February 2013.

U. S. Fish and Wildlife Service. 2013. Memorandum of Agreement between Lanai Resorts LLC, Castle and Cooke Properties, Inc. and the U.S. Fish and Wildlife Service. Honolulu, Hawaii. 7 pp.

U. S. Fish and Wildlife Service. 2014. Endangered and Threatened Wildlife and Plants; Threatened Status for Oregon Spotted Frog (*Rana pretiosa*): Final Rule. 79 FR 51657-51710 [August 29, 2014].

U.S. Fish and Wildlife Service. 2015. Columbia Headwaters Recovery Unit Implementation Plan for Bull Trout. Appendix D in: Recovery plan for the coterminous United States population of bull trout (*Salvelinus confluentus*). Portland, Oregon. xii + 179 pages.

U.S. Fish and Wildlife Service. 2015. Recovery Plan for the Coterminous United States Population of Bull Trout (*Salvelinus confluentus*). Portland, Oregon. xii + 179 pp.

U.S. Fish and Wildlife Service. 2015. Endangered and Threatened Wildlife and Plants; 12-Month Findings on Petitions To List 19 Species as Endangered or Threatened Species. U.S. Fish and Wildlife Service

U.S. Fish and Wildlife Service. 2015. Greater Sage-Grouse Programmatic Candidate Conservation Agreement with Assurances for Private Rangelands in Crook and Deschutes Counties.

U.S. Fish and Wildlife Service. 2015. Greater Sage-Grouse Programmatic Candidate Conservation Agreement with Assurances for Private Rangelands in Lake County.

U. S. Fish and Wildlife Service. 2016. Designation of Critical Habitat for the Oregon Spotted Frog (*Rana pretiosa*): Final Rule. 81 FR 29335-29396 [May 11, 2016].

U.S. Fish and Wildlife Service (North Pacific Landscape Conservation Cooperative). 2016. Pacific Northwest Coast Landscape Conservation Design.

Warshauer, F.R., J.D. Jacobi, and J.B. Price. 2008. Native Coastal Flora and Plant Communities in Hawai'i: Their Composition, Distribution, and Status. DRAFT Technical Report HCSU-000. Hawaii Cooperative Studies Unit. Hilo, Hawaii. 55 pp.

Washington Department of Fish and Wildlife. 2011. Puget Sound Steelhead Foundations: A Primer for Recovery Planning. Olympia, Washington. 218 pp.

Washington Department of Fish and Wildlife. 2015. Washington's State Wildlife Action Plan: 2015 Update. Olympia, Washington.

Washington Department of Natural Resources. 2007. State of Washington Natural Heritage Plan. 2007. Olympia, Washington. 100 pp.

Weber, Jeffrey A. 2015. Regional Framework for Climate Adaptation: Clatsop & Tillamook Counties. Oregon Coastal Management Program, Oregon Department of Land Conservation and Development, Salem, OR

West Maui Mountains Watershed Partnership. 2013. West Maui Mountains Watershed Management Plan. Ka'anapali, Maui. 113 pp.

APPENDIX A

Focus Area Selection Process and Criteria

Washington State Partners for Fish and Wildlife Program Strategic Planning Process

1) Focus Area Selection-Description:

Building upon the success of the program in Washington State, and using lessons learned throughout the years of the Partners for Fish and Wildlife Program (PFW) Strategic Plan development, the team of biologists in Washington Focus Areas (FA), reviewed the previous goals and objectives set forth for each FA, and conducted an outreach and re-evaluation process, at the state-wide and FA level. During this review, we came to the conclusion that the Washington PFW Program could not support the nine FAs identified in the 2012-2016 Strategic Plan, and decisions were made to reduce the number of FAs. The seven FAs all have a biologist or team of biologists associated with them, and will continue to work with partners to address important conservation needs at a local and state-wide level.

Our science-based approach continues to use a strategic framework that includes biological planning, conservation design, conservation delivery, and outcome-based monitoring. To lead and support our FA selection, we continue to use information from documents available for Washington State, including state-wide conservation planning documents, state and federal recovery planning documents for priority listed species, Comprehensive Conservation Plans for National Wildlife Refuges (NWR), and a good understanding of staff skills.

New information incorporated into our planning process for the 2017 strategic plan update includes the recently completed Arid Lands Initiative Landscape Conservation Design (ALI-LCD), led by the USFWS. Using information from this effort, we found that our Columbia Plateau FA and portions of the Channeled Scablands FA were inclusive of areas identified as key ecological attributes in the ALI-LCD. We will continue to use information from the ALI-LCD as we work together with ALI partners to develop habitat restoration projects into the future. Additionally, a new LCD effort for the Lower Columbia River is just starting. As this effort moves forward, it will provide more direct information for selecting and implementing actions in the Western Washington Refuge FA.

Our internal and external outreach included broad distribution of information to state and local level partners and interested parties. This included a joint briefing on PFW and Coastal Program FAs with Washington Department of Fish and Wildlife staff on statewide priorities. We conducted targeted outreach and contact with partners in the Palouse Prairie and Pend Oreille FAs in eastern Washington where we proposed to discontinue the PFW Program in those areas. The Kalispel Indian Tribe expressed concern for our continued participation in the Pend Oreille FA; and the Palouse Land Trust expressed concern for our continued participation in the Palouse Prairie FA. We worked with these entities directly to help them understand that our decision was due to the lack of funding and staffing available to adequately cover the FAs with the PFW Program; however, other USFWS programs and staff would be available to continue to work with these partners on important fish and wildlife habitat issues, and ecosystem planning and restoration and recovery efforts.

2) Connections to Existing and Future Landscape Level Conservation Efforts:

North Puget Sound actions will continue to be influenced by the work of the Puget Sound Nearshore Ecosystem Restoration Project (PSNERP). Opportunities for projects that complement PSNERP are particularly relevant in the Skagit and Nooksack watersheds, systems critical to recovery of Puget Sound Chinook and steelhead populations. Where the Puget Sound Coastal Program will focus on river deltas and estuaries in North Puget Sound, PFW will focus on riverine, riparian, and wetland ecosystem restoration. We envision an integration of USFWS restoration programs in these key watersheds, working with diverse local partners to advance shared recovery objectives.

For information about FA connections to LCD work, please see information under question 1.

3) List and briefly describe anticipated or potential benefits to species and habitats from a statewide or even multi-state or island perspective.

As active participants in larger state-led efforts, we have implemented planning, restoration and recovery projects that support ecosystem restoration and recovery for listed bull trout and salmonids in the Yakima, Methow, and North Puget Sound FAs. Although there are many more regional and state-wide actions that will need to happen within and outside of these FAs to meet salmon and bull trout recovery goals, we continue to provide expertise at the local level in these FAs to move recovery efforts forward. In North Puget Sound, our work targets improving watershed health to advance salmon recovery objectives. Target species include listed salmonids (Chinook, steelhead, and bull trout), as well as the non-listed species (coho, chum) limited by aquatic and riparian habitat quantity and quality. Samish and Nooksack watersheds may also provide opportunities for actions that benefit extant populations of Oregon spotted frogs.

In the Puget Sound Trough, we continue efforts internally with the Recovery Program and with external partners including non-profit conservation groups, the Washington Department of Fish and Wildlife and Natural Resources, Joint Base Lewis McChord Army Compatible Use Buffer Program, and other Sentinel Landscapes partners to identify and plan strategic habitat conservation efforts for conservation and restoration of Puget Sound prairie ecosystems and recovery of listed prairie species. Previously, we successfully secured and are working towards the goals of a Cooperative Recovery Initiative grant to delist golden paintbrush, (*Castilleja levisecta*). Once all the information is in hand, the Recovery Program will evaluate a possible de-listing proposal for golden paintbrush in FY2017-2018. The habitat restoration and species recovery efforts conducted under this grant could also assist with future recovery efforts for recently listed Taylor's checkerspot butterfly. The prairie ecosystem recovery efforts in the Puget Trough are well coordinated with ongoing PFW, NWR and Recovery Program efforts in the Lower Columbia River and Willamette Valley in Oregon. The PFW program will continue to play a key role working with partners in restoration and recovery of the prairie ecosystems well into the future with the long-term goal of a sustainable ecosystems and species recovery.

On the Washington Coast, with the Western Washington Refuge FA, we continue to work on efforts to restore ecosystems and habitats to assist with recovery of western snowy plover, and recently listed streaked horned lark and Oregon spotted frog. The Washington Fish and Wildlife Office and the Willapa NWR successfully competed for a FY2016 Cooperative Recovery Initiative Grant to assist with recovery actions for Recovery Unit 1 for western snowy plover, and to prevent extirpation of streaked horned lark along the southwest Washington Coast. We will continue this work into the future, and engage in strategic habitat conservation planning efforts for the Oregon spotted frog.

In the Columbia Plateau FA, our recent efforts have been working with NRCS, Washington Department of Fish and Wildlife, and other partners to restore habitat and migratory corridors for greater sage grouse. Greater sage grouse populations in Washington are small and disjunct, and there is continued opportunity to work with partners to restore and conserve habitat and migratory corridors for greater sage grouse, and work towards stabilizing the populations.

In the Channeled Scablands FA, we work with many partners to reduce the impacts from non-native invasive weeds, and to restore impacted wetland habitat to benefit migratory birds and other wildlife. In the future, the Washington Fish and Wildlife Office and the Inland Northwest NWR Complex may work together to develop recovery actions for Spalding's catchfly (*Silene spaldingii*), and apply for a Cooperative Recovery Initiative grant to further support recovery efforts.

4) Summarize.

Through our Strategic Habitat Conservation planning efforts, we have been able to prioritize and support actions that improve ecosystem processes, functions and habitat. Many of our short-term five-year strategic plan goals

and objectives are focused on supporting ecosystem restoration and species recovery for federally listed species. We know that we will be working on these issues over the long-term, past a five-year planning horizon. Given the limited resources of the PFW program and the FWS, our priority for the PFW program is to support and work with partners to assist with recovery of ecosystems and listed species in Washington State, and we find that we can accomplish much more by leveraging the resources of others to assist with this effort.

In Washington State we have PFW programs in Ecological Service offices, Fisheries Resource Offices and at National Wildlife Refuges. We have all worked together to identify priority FAs. We selected some FAs that are solely focused on restoration of aquatic ecosystems to assist with recovery of listed bull trout and salmonids. This will be a long-term effort, in which we play a key role in providing technical assistance to plan, design and develop projects. In other FAs, we are committed to assisting with recovery of listed species and the ecosystems they depend on for the long-term, and will continue to use our limited PFW program resources, and partner with other FWS and partner programs to move towards achieving these goals. We work with others on ecosystem and species conservation teams to develop strategic implementation plans, and identify research needs; we work directly with landowners, non-profit conservation groups, and partner up with other federal or state agencies to join funding resources and work together to achieve on-the-ground habitat restoration that supports these goals.

Oregon Partners for Fish and Wildlife Program-Strategic Planning Process for FY 2017-2021

1) Focus Area Selection-Description:

Oregon Partners program staff work in a variety of target habitats within the State. Each focus area has been identified based upon a number of conservation issues and targets, all conforming to Partners Program (and Service) trust resources – Federally listed T&E species habitats, habitats supporting inter-jurisdictional fisheries, migratory bird habitats, and key habitats on adjacent privately held/owned lands habitats that would further support refuge (or other publicly owned land) conservation management.

At the onset of the Strategic Plan process, the State Coordinator visited with each of the Partners Program biologists regarding program successes with each existing focus area and queried about future potentials within each area. Topics such as new Service priorities, landscape conservation design, and species conservation (such as new species listings or marked/notable declines) were discussed, which evolved into a discussion about the potential of adding new (or subtracting, if warranted) or modifying existing focus areas. Each focus area biologist then contacted existing and potential new partners within each designated focus area. Other Service state office staff and regional office program were also contacted to provide additional feedback. Conservation partners provided each focus area biologist any new/updated planning documents as they pertain to the designated focus areas.

Three existing Oregon Partners Program focus areas (Lower Columbia/North Coast, Closed Basin and Willamette Valley) are included within the scope of recent Landscape Conservation Design efforts that have recently been completed. The resultant LCD outputs (strategies) relative to habitat restoration efforts (identification/selection, and subsequent implementation) will be employed in the next 5 years, as voluntary restoration opportunities present themselves. Secondly, our focus area biologists are collaborating with a number of conservation partners through a number of NRCS Regional Conservation Partnership Program (RCPP) efforts, which has resulted in several millions of additional conservation dollars coming to the state of Oregon. Lastly, additional local level collaborations exist throughout the state (ie OWEB, NRCS local level working groups, etc.) that assist in helping to convene partners and directing funding more strategically to achieve the best benefit.

Many external partners are also undertaking their own strategic planning processes, so knowing that our program was undertaking this process, it helped both us and them better understand where each side was positioned with strategic plan framework and how best to incorporate concepts within each other's plans. Internally, it helped to understand what new "drivers" were front and center with each of the different programs and how we could best incorporate those into our plans.

2) Connections to Existing and Future Landscape Level Conservation Efforts:

Future landscape level conservation efforts played a role in the selection of at least 5 of our focus areas. Service efforts in the sage grouse arena play a big role in at least 3 of our Eastern and Southeastern Oregon focus areas (Closed Basin, Malheur/Harney, and Wallowa Mts. Identifying efforts within the new monarch butterfly initiative played an important role for two other focus areas in the PFW Program (Rogue/Umpqua/Coquille, Willamette Valley) and posed an opportunity for the PFW program to work directly with the Coastal Program on restoration targets.

Oregon PFW biologists been in conversations with PFW program biologists in neighboring states (ID, NV, CA, and WA) as well as cross-regional efforts (ie Klamath) to better connect habitats, landscapes and potential flyways with the habitat work we do. Using oak habitat as an example, the PFW program is doing its part in Oregon working with landowners and other conservation partners undertaking habitat restoration work sufficient to provide a segment of highly functioning oak habitat that stretches the oak habitat connectivity from California through Oregon/Washington, and on up into Canada. Examples of habitat based partnering efforts include the regional Klamath-Siskiyou Oak Network (KSON) in SW Oregon and the greater Cascadia Prairie Oak

Partnership (CPOP) that covers Oregon, Washington, and goes up into Canada. These frameworks have helped identify restoration potential, identify funding sources as well as provide other necessary services to facilitate restoration actions (ie streamlined consultation – ESA, NHPA, NEPA; provide IDIQ; MOU’s for framework, etc.).

A second up and coming effort for the next few year will be the Greater Sheldon Hart Resilient Landscapes Collaborative, formed in 2015, with personnel from USFWS and DOI, working together with other state, tribal and local level partners and landowners. At that time, the Department of Interior made Resilient Landscapes funding available through their Office of Wildland Fire via a competitive Request for Proposals process. A working group made up of Service refuge and Partners Program staff, as well as Bureau of Land Management personnel, developed a 5 year proposal that targets specific facets of sage grouse habitat improvement activities on public and privately owned lands in SE Oregon to make those sage steppe lands more fire resilient. Initial progress towards that effort is currently underway. A complementary Landscape Conservation Design effort is also underway through the Great Basin LCC in the same area and we hope to benefit from the results of that effort once it has progressed more.

In southwest Oregon, the Partners Program is working collaboratively with the Service’s Coastal Program, the US Forest Service, the Bureau of Land Management and local monarch focused NGO’s in an “all lands, all hands” approach to identify habitat restoration opportunities to increase habitat availability for the western population of monarch butterflies. From this approach, the Southwestern Oregon Pollinator Collaborative (SWOPC) formed, and has since had a number of phone and in person meetings to outline restoration strategies across identified public and privately held lands in Southwestern Oregon. Utilizing a Service-produced “heat map” of known milkweed (*Asclepias spp*) patches, which suggest a higher likelihood of monarch occupation, the groups participants provided existing restorative activities that each has currently underway. These restoration “hotspots” were then targeted for milkweed augmentation. A theoretical “monarch migration map” between the hotspots, using both transportation corridors (ie interstates, highways) and waterways (ie Rogue River) has been developed and will serve as an implementation guidance as funding comes available, either through grant sources (ie NFWF) or through traditional agency funding options.

3) List and briefly describe anticipated or potential benefits to species and habitats from a statewide or even multi-state or island perspective.

A number of Oregon’s PFW program focus areas are “aquatic” species/habitat based (ie salmonids) (7 FA’s), and as such, one of the restoration focuses is to open up additional spawning and rearing habitat by removing fish passage issues. By creating additional access to areas blocked off, it is anticipated that a number of federally listed aquatic species will have greater access to better spawning/nursery areas higher in many of the drainages. Working with state partner Oregon Department of Fish and Wildlife (ODFW) in the next 5 years, we plan to identify a number of higher ranked “offending” passage issues and address them either by full removal or by creating effective bypasses to increase identified critically important adult salmonid spawning and juvenile rearing habitat opportunities. Species such as bull trout (USFWS ESA listed), Southern Oregon/Northern California and Coastal coho salmon (NMFS ESA) and a number of federally listed chinook and steelhead Evolutionary Significant Units (NMFS ESA) inhabit many of our program’s focus areas and will benefit from removal of passage issues as well as improvements to instream habitat and riparian areas. Within the next 5 years, we anticipate undertaking removal of at least 3 structures that currently rank in ODFW’s “top 100” list of offending blockages, and complementary instream and riparian habitat work, sufficient enough to demonstrate notable increases in adult spawning and juvenile rearing habitats, identified criteria for NMFS/USFWS delisting/downlisting.

In an effort to work across geopolitical (ie state, Service region) boundaries, in the southeast portion of the state (Closed Basin & Malheur/Harney FA’s), the Oregon Partners program is working with Partners program staff in both Idaho and Nevada to identify new opportunities to work with ranchers to improve sage steppe habitats for the benefit of sage grouse and other sage steppe fauna. This private lands effort complements similar sage steppe restoration actions currently being employed by refuge staff at Sheldon and Hart National Wildlife

Refuges and the Bureau of Land Management and will greatly improve the habitat's fire resiliency through the removal of invasive juniper and non-native invasive grasses and also serve to improve brood rearing water sources that predominately occur on privately owned ranch land. Through this multifaceted restoration approach, it is anticipated that we will slow the population decline of sage grouse and other unique sage steppe obligates and provide highly important brood rearing refugia that currently exists in degraded states. Additionally, we're also working with many ranchers who have been able to attain regulatory coverage through Candidate Conservation Agreements with Assurances (CCAA) by employing proactive restoration practices on their lands that assist sage grouse survival. We anticipate working with at least 3 enrolled ranchers per year for 5 years for a total of 15 enrolled properties.

4) Summarize. During the past five years, the Partners Program in Oregon, working in consultation with the Endangered Species program at the Oregon Fish & Wildlife Office, played an intricate role in a number of ESA species habitat accomplishments, including playing a substantial role in the delisting of the Oregon chub (Willamette Valley FA), the first fish species delisted from the ESA due to recovery by working with a number of private individuals to secure adequate spawning and rearing habitat sufficient for the fish to thrive and propagate.

Active work towards restoring and conserving oak habitat on private lands in the Rogue/Umpqua/Coquille FA also played a notable role that lead to the delisting of a Distinct Population Segment of Columbian white-tailed deer, tied to additional oak habitat efforts in the Lower Columbia/North Coast FA, are playing a vital role in the potential for complete delisting of CWTD altogether. Utilizing new Service supported efforts, such as the Willamette Valley Synthesis/LCD and the Willamette Valley Surrogate Species Pilot, the Partners program there is undertaking a multitude of oak savanna and prairie restoration actions with landowners, in conjunction with Service Refuges, NGO's and other agencies, to help stabilize populations of Fender's blue butterfly, Kincaid's lupine, and streaked horn lark, with anticipation that those species will begin to see marginal increases directly attributed to aforementioned PFW actions. Proactive work on oak habitats within our focus areas are also helping to stabilize a number of oak obligate neotropical migratory bird species.

In an effort to show similar success, it is anticipated that within the next 5 years, the Partners program will work collaboratively with enough landowners, NGO's, local agencies, and NRCS, to combine those efforts with work being accomplished on neighboring publicly held lands (ie BLM, USFS) to significantly increase the amount of available monarch butterfly habitat through milkweed and pollinating plant augmentation on existing and new projects. Working with monarch collaborators, it is anticipated that several new monarch "waystations" will be deployed throughout various locations in Oregon, starting with SW Oregon, and working northward to the Willamette Valley and Central Oregon (Rogue/Umpqua/Coquille, Upper Deschutes, Willamette Valley FA's), with efforts concentrating to Schoolyard Habitat and Connecting People with Nature Programs.

Hawaii-Partners for Fish and Wildlife Program-Strategic Planning Process for FY 2017-2021

1) Focus Area Selection-Description:

Focus areas were selected based upon the Pacific Islands FWO (PIFWO) biodiversity hot spot maps developed in 2014 as part of the PIFWO Strategic Plan. The PIFWO biodiversity hot spot maps included critical habitat (USFWS 2003; 2006; 2008; 2010; 2012a, b, c), proposed critical habitat (USFWS 2005), Hawaii plant essential habitat (HPPRCC 1998), recovery areas identified in published recovery plans (USFWS 2005, 2006), native dominated coastal habitats (Warshauer 2008), important stream habitat, and important marine habitat. Wildlife and habitats were also considered from consultation with wildlife contacts with our State and territory partners. From these layers, lands designated “privately owned”, county, and Hawaiian Homelands were highlighted. These layers were then compared with existing partners or partners who have indicated a willingness to work with the Partners for Fish and Wildlife Program. An additional consideration was given to Coastal Program focus areas and where private lands were considered, those focus areas were also included as Partners for Fish and Wildlife focus areas. The total sum area of each of these areas identified above was considered the boundary of each focus area.

FWS staff provided input on conservation strategies and focal species. Private lands were added after discussions with new landowners who expressed interest in the Partners for Fish and Wildlife Program.

2) Connections to Existing and Future Landscape Level Conservation Efforts:

Focus areas were compared with climate change maps and datasets from the Pacific Islands Climate Change Cooperative, in particular, “Modeling Climate-Driven Changes to Dominant Vegetation”, “Habitat Quality Maps”, and “Future Climate Envelope for All Native Hawaiian Plants”.

As mentioned above, particular attention was given to proposed Coastal Program focus areas. When private lands were identified in the Coastal Strategic Plan, the lands were also identified as focus areas in the Partners Strategic Plan. Some large landscape areas which overlapped federal and state lands of Hawaii State Watershed Partnerships were kept, knowing that Partners funding will only be provided to non-federal and non-State lands within the Partnership.

3) List and briefly describe anticipated or potential benefits to species and habitats from a statewide or even multi-state or island perspective.

Staff from PIFWO are executive board members for the Three Mountain Alliance Watershed Partnership, the Koolau Mountains Watershed Partnership and the Waianae Mountains Watershed Partnership. Watershed partnerships serve as one example of a trend toward greater community involvement in ecosystem management. Private landowners, non-governmental organizations, and state and federal agencies across Hawaii have formed partnerships in an effort to conserve and better manage the state’s valuable forested watersheds. Upland forested watersheds are vast reservoirs of biological diversity and recharge of critical underground aquifers, and supply billions of gallons of surface water to agricultural, residential and commercial sectors each year.

The Three Mountain Alliance (TMA) on the island of Hawaii is comprised of nearly 85% native habitat and contains some of the largest expanses of intact native forest remaining in the Hawaiian Islands. Due to the variations in elevation, climate, and vegetation, the TMA is home to thousands of native species as well as rare and threatened or endangered species (many of which are endemic to the island of Hawaii).

The Koolau Mountains Watershed Partnership (KMWP) spans nearly 100,000 acres of land on the island of Oahu, Hawaii’s most populous island. Ungulate fencing, rare plant monitoring and weed control of invasive plants are some of the main projects which benefit private landowners, ensuring freshwater resources for the island, and conservation of native habitats.

The Waianae Mountains Watershed Partnership was formed in 2010 by seven public and private landowners to protect 46,518 acres of lands in the western mountain range of the island of Oahu. The mission of the WMWP is to create programs for ungulate control, ecosystem protection fencing, weed control, restoration of rare species and education. The Waianae Mountains is home to the largest number of endangered species on Oahu. Of all the Hawaiian Islands, Oahu has the most endangered dry forests which contain less than 0.2% of native dry forest and has less than 30% protected in preserves. Nearly 45% of the species found in dry forests on Oahu are found in the Waianae Mountains.

PIFWO is also working jointly with the Pacific Islands Area office of NRCS to develop a Working Lands for Wildlife proposal for 5 species which occur in the Hawaiian Islands, the Territories of Guam and Samoa and the Commonwealth of the Northern Mariana Islands. An approved Working Lands for Wildlife proposal will enhance the Partners program's ability to aid working farmers and ranchers protect endangered species habitats.

4) Summarize.

Using principles of Strategic Habitat Conservation, we have been able to prioritize and support conservation actions which improve native ecosystems for the benefit of rare and endangered species in the Hawaiian Islands and the Commonwealth of the Northern Mariana Islands. Focus areas were chosen based on the willingness of private landowners, potential of restoration success, future climate change and recovery habitat. Efficiencies were considered with the inclusion of Coastal Area focus areas on private lands. We feel confident that our milestones can be achieved in the next 5 years and contribute to building partnerships for the Partners for Fish and Wildlife Program, the Coastal Program, and the Pacific Islands Fish and Wildlife Office.

Idaho State-Partners for Fish and Wildlife Program Strategic Planning Process FY 2017-2021 and Landscape Conservation

Focus Area Selection Process

Building upon the success of the PFW program in Idaho and using lessons learned from implementation of the PFW strategic plan, the team of PFW biologists in Idaho used our existing focus areas that were established in the 2011 PFW strategic plan as a starting point for our review of the 2016 PFW strategic plan. During this review process, we refined the focus areas based upon those areas that we and our partners have identified with the most opportunity for conservation success. Each focus area is assigned a PFW biologist who will continue to work with partners to address important conservation needs at a local, landscape and statewide level.

At the same time that the PFW biologists were evaluating the focus areas, the Idaho Fish and Wildlife Office was engaged in developing a statewide Landscape Conservation Plan (Plan) to implement the FWS's Strategic Habitat Conservation (SHC) policy. During Idaho's process in developing the Plan, priority landscapes were delineated where staff felt that statewide conservation efforts should be focused and prioritized. We have consolidated our PFW focus areas into the priority landscapes identified through the SHC process. Existing PFW focus areas that were outside of the Idaho's priority landscapes were evaluated for their unique conservation values. Bear Lake, Camas-Wood River, and Clearwater/Palouse Focus areas are not located within a priority landscape but still have tremendous partner and species opportunities. These focus areas were decreased in size to better reflect where we have been working and where the best conservation opportunities exist.

Idaho's Strategic Habitat Conservation Process and Priority Landscapes

The Draft Priority Landscapes were identified as part of the process of developing a statewide strategic habitat conservation plan. All IFWO staff were engaged in developing this plan through multiple workshops and subgroups. Topics addressed in each of these workshops included: 1) developed state-wide conservation goals and objectives; 2) identifying priority species; and 3) identifying priority landscapes. Development of these three planning components were based on the collective expertise of IFWO biologists and managers.

Identifying Goals and Objectives

In broad terms, the objectives developed by IFWO staff sought to: 1) protect or restore habitats or populations at sufficient sizes to ensure their viability and resilience; 2) build connectivity (habitat and genetic) into the landscape design; 3) address habitat and species-specific threats within selected landscapes; and 4) develop monitoring efforts sufficient to measure results and adjust management as needed.

Selecting Priority Species

The initial list of potential priority species drafted by IFWO staff, drew heavily from lists of Federal Trust species, protected, sensitive, or indicator species developed by other state and federal agencies as well as working groups and NGOs. Federal Trust species are migratory birds, threatened and endangered species, inter-jurisdictional fish, bald and golden eagles, marine mammals, and other species of concern. Numerous Idaho endemic species, game, and furbearers are not regarded as Federal Trust resources. However, the Service's SHC approach emphasized the need to include additional species from other State and Federal species lists: IDFG Species of Greatest Conservation Need (2005); U.S. Forest Service Sensitive Species, Regions 1 & 4; Bureau of Land Management Sensitive Species; Idaho Native Plant Society Rare Plants (2013); Fish and Wildlife Service Birds of Conservation Concern Regions 9 & 10, 2008. Many of the identified priority species in this Plan are not Federal Trust resources and their inclusion represents their value as habitat indicators, landscape icons, or keystone components of their community.

Selecting Priority Landscapes

Identification of potential priority landscapes under Idaho's Landscape Conservation Plan process was done by teams with expertise Idaho's ecoregions. Priority landscapes typically were based on major drainage systems or mountain ranges, the range of high profile species, proximity to wilderness areas, major conservation initiatives, or active partnering efforts for those initiatives. The delineation of landscape boundaries was subjective and left up to the best professional judgment of the IFWO's ecoregions teams. These teams identified multiple landscapes within the ecoregions and then ranked to ensure that those landscapes with the highest conservation value were considered.

Designation of the final 4 priority landscapes was determined by IFWO leadership with input from ecoregion team leads. Final design of priority landscapes was based on multiple factors including the rankings and rationales provided by the ecoregion teams, considering ecological integrity across ecoregion boundaries as well as state or country borders, and high profile partnerships or initiatives.

IFWO staff continue to meet with agencies, NGOs, and other partners within and adjacent to Idaho to provide outreach on the Idaho Landscape Conservation Plan in the hope of gaining partner support in implementing the Plan. The current PFW focus areas were sent out to a broad distribution of partners that included state agencies, NGOs, and Tribes. Comments were very supportive of the PFW program in Idaho.

Summary

In Idaho, Partner's biologists work closely with other Service staff in the Idaho Fish and Wildlife Office (IFWO) where conservation efforts with many partners have resulted in important successes. The growing human population in Idaho, along with changes in land use and other threats requires a strategic and proactive approach in planning and implementing conservation. Therefore, to effectively guide conservation in Idaho, the Partner's biologists have collaborated with other IFWO staff to develop a Landscape Conservation Strategy (<https://www.fws.gov/idaho/>), to coordinate among Service programs for the greatest long-term conservation benefits in Idaho. The IFWO is currently seeking stakeholder feedback on our Draft Landscape Conservation Strategy; changes based on that feedback will further inform changes to the Partners Strategic Plan.

The IFWO's Draft Landscape Conservation Strategy identifies Priority Landscapes, each with a suite of Priority Species. These Priority Landscapes encompass important biological and ecological resources where all IFWO programs, including the Partner's program, will focus conservation efforts and seek willing partners to maintain or improve those resources. The IFWO's Landscape Conservation Strategy is a comprehensive plan that forms the foundation of the Partner's Strategic Plan. The Partner's program and on-the-ground funding will be a key component of successful implementation of the IFWO's Landscape Conservation Strategy. The IFWO maintains Partner's biologists in our Boise, Spokane, and Chubbuck field offices who are active members of and fully-integrated into the IFWO Priority Landscape teams. They work with landowners, their fellow team members, and other partners to create projects that will benefit habitat for fish, plants and wildlife, while ensuring that landowners have a vested interest in the long-term success of the project. Partner's biologists are actively involved with watershed councils, Soil and Water Conservation Districts, watershed committees, and any group that has involvement with private land habitat enhancement. These important groups pool resources and expertise to connect wildlife corridors, expand populations, enhance habitat, eliminate barriers, and provide connectivity in streams.

Prioritization of Partner's Projects

In Idaho, there is no application deadline, or formal ranking process for Partner's projects. Each Partner's biologist works closely with their IFWO Priority Landscape teams, external partners and cooperators to develop projects that will benefit prioritized species and habitats. Partner's biologists consider the project benefits and cost, number of partners, landowner contribution, and species/habitat benefit. Projects will be prioritized for funding based on the potential benefit to the focus resources as outlined in the Landscape Conservation Strategy as well as the Partner's Strategic Plan. Complexity of projects (i.e., timing) may affect prioritization decisions. Once the Partner's biologist, in coordination with the landowner/cooperator, has developed a project description, the project is ready for funding and implementation. The IFWO Partner's program annual budget is dispersed among the three IFWO offices. At least 60 percent of available funding will be directed to projects within the Priority Landscapes, with at least 10 percent allotted to each individual Priority Landscape.

APPENDIX B

Focus Area Partners for 2017-2021

Partners Program staff in field offices collaborate on projects with numerous partners including private landowners, non-profit organizations, tribes, conservation districts, and federal, state and local agencies. Many of these partners were engaged during the strategic planning process which determined the Focus Areas for 2017-2021. A list of current Partners is presented below, however this list is dynamic and new partnerships will be engaged whenever possible by PFW staff.

IDAHO

County Weed Management Associations
Ducks Unlimited
Idaho Department of Fish and Game
Idaho Governor's Office of Species Conservation
Intermountain Bird Observatory
Kalispel and Kootenai Tribes
Lemhi Regional Land Trust
Natural Resources Conservation Service
Owyhee County Cattlemen
Owyhee Watershed Council
PacifiCorp Energy
Pheasants Forever
Pheasants Forever
Priest Community Forest Connections
Sagebrush Steppe Land Trust
Shoshone-Bannock Tribe
Shoshone-Bannock Tribe
Soil and Water Conservation Districts
Soil and Water Conservation Districts
Teton Regional Land Trust
The Nature Conservancy
Trout Unlimited
Trout Unlimited
Vital Ground Foundation
Wood River Land Trust

HAWAII

City and County of Honolulu
Commonwealth of the Northern Mariana Islands, Division of Forestry and Wildlife
Grove Farm
Guam Plant Extinction Prevention Program
Haleakala Ranch
Hawaii Division of Forestry and Wildlife
Kamehameha Schools

Kauai Watershed Alliance
Klamath Bird Observatory
Koolau Mountains Watershed Partnership
Kualoa Ranch
Lomakatsi Restoration Project
Maui County Board of Water Supply
Maui Land and Pineapple Company
National Tropical Botanical Gardens
Natural Resources Conservation Service
Queen Emma Land Company
Southern Oregon Monarch Advocates
Stan Taisacan, landowner
The Nature Conservancy
Three Mountain Watershed Alliance
Tri-Isle RC&D Council, Inc.
Ulupalakua Ranch
University of Guam
Waianae Mountains Watershed Partnership

OREGON

Illinois Valley, Rogue River and Siuslaw Watershed Councils
Baker, Eagle Valley, Keating, Union, & Wallowa SWCDs
Bonneville Power Administration
Bureau of Land Management
Bureau of Reclamation
Burns Paiute Tribe
Columbia River Estuary Study Taskforce
Confederated Tribes of the Grande Ronde Community
Confederated Tribes of the Coos, Lower Umpqua and Siuslaw
Confederated Tribes of the Siletz
Confederated Tribes of the Warm Springs
Coquille Watershed Association,
Crook & Deschutes County Soil and Water Conservation Districts
Crooked River & Upper Deschutes Watershed Councils
Deschutes Land Trust
Douglas, Illinois Valley, and Jackson County Soil and Water Conservation Districts
Ducks Unlimited
Grande Ronde Model Watershed
Grant County Soil and Water Conservation District
Harney & Malheur SWCDs
Klamath Bird Observatory
Lake County Watershed Council
Lakeview Soil and Water Conservation District
Local Land Trusts

Lomakatsi Restoration Project
Lower Columbia Estuary Partnership
Malheur Watershed Council
Monarch Advocates of Central Oregon
Monument Soil and Water Conservation District
Natural Resources Conservation Service
NOAA Restoration Center
NOAA Restoration Center
Oregon Department of Fish and Wildlife
Oregon Natural Desert Association
Oregon Watershed Enhancement Board
Partnership for the Umpqua River,
Powder Basin Watershed Council
Private Landowners
Sheldon and Hart National Wildlife Refuges
Soil and Water Conservation Districts (Douglas, Illinois Valley, and Jackson County)
South Fork John Day Watershed Council
Southern Oregon Monarch Advocates
The Institute for Applied Ecology
The Nature Conservancy
The Nature Conservancy
Three Confederated Tribes
Tillamook Estuaries Partnership
Trout Unlimited
Trout Unlimited
Umatilla & Nez Perce Tribes
Wallowa Resources
Watershed Councils
Wheeler County Soil and Water Conservation District

WASHINGTON

Arid Lands Initiative Work Group
Arid Lands Initiative Work Group
Bonneville Power Administration
Bureau of Land Management
Bureau of Reclamation
Capitol Land Trust
Cascade Columbia RFEG
Cascade Land Conservancy
Center for Natural Lands Management
Chelan-Douglas Land Trust
Columbia, Nisqually, and Chehalis Basin Land Trusts
Colville Nation
Conservation Districts – Kittitas, North Yakima, & Benton

County Noxious Weed Boards
Ducks Unlimited
Eastern Washington University
Foster Creek Conservation District
Inland Northwest Land Trust
Intermountain West Joint Venture
Kittitas Conservation Trust
Lummi Indian Nation
Methow Conservancy
Methow Restoration Council
Methow Salmon Recovery Foundation
Mid-Columbia Fisheries Enhancement Group
Natural Resources Conservation Service
Nisqually River Council
Nooksack Indian Tribe
Nooksack Salmon Enhancement Association
Okanogan County
Pacific Rim Institute
Quinault Indian Nation
San Juan County Landbank
San Juan Preservation Trust
Shoalwater Bay, Nisqually, and Chehalis Indian Tribes
Skagit Fisheries Enhancement Group
Skagit River System Cooperative
Spokane and Kalispel Tribes
Spokane and Lincoln Counties, and Palouse Conservation District
The Lands Council
The Nature Conservancy
The Yakama Nation
Trust for Public Lands
Tulalip Tribes
U.S. Army Corps of Engineers
US Army/Air Force Joint Base Lewis McChord
US Forest Service
WA Dept. of Fish and Wildlife
Washington Department of Fish and Wildlife
Washington Greater Sage Grouse Working Group
Whidbey Camano Land Trust
Willapa Bay Regional Fisheries Enhancement Group
Yakama Nation
Yakima County
Yakima Fish and Wildlife Board
Yakima Integrated Plan Partners
Yakima Tributary Access & Habitat Program

