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Chapter 1 Introduction and Background

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1.1 Introduction

Grays Harbor National Wildlife Refuge (Refuge, NWR) and the Black River Unit (Unit) of Billy Frank Jr. Nisqually National Wildlife Refuge were established in the Chehalis River watershed in Washington State to protect fragile and unique natural habitats and their wildlife resources. Grays Harbor Refuge lies at the end of the Chehalis River watershed within the Grays Harbor estuary and was set aside to protect globally important shorebird habitat and conserve fish and wildlife populations at the estuary. The Black River Unit was set aside to protect, conserve, and manage fish and wildlife resources. Grays Harbor Refuge and the Black River Unit are part of Nisqually National Wildlife Refuge Complex (Refuge Complex) in Olympia, Washington (see Map 1).

This document is a comprehensive conservation plan (CCP), a management plan for the next 15 years or until it is revised; it will guide management and project development for the Refuge and the Unit as funding is made available. The planning team has carefully considered the critical resources, public use issues, and public input to design a plan that can best meet the resource conservation and visitor services challenges of the coming years.

Nisqually National Wildlife Refuge was redesignated as Billy Frank Jr. Nisqually National Wildlife Refuge (Refuge) in December 2015. A CCP for the then-named Nisqually National Wildlife Refuge was completed in 2005; this CCP addresses management of the Black River Unit but not Billy Frank Jr. Nisqually National Wildlife Refuge.

1.2 Significance of the Refuges

1.2.1 Grays Harbor National Wildlife Refuge

The freshwater of the Chehalis, Humptulips, Hoquiam, Elk, and Johns Rivers combine with the saltwater of the Pacific Ocean to create the Grays Harbor estuary. The estuary's 94 square miles of open water, saltmarshes, and mudflats provide crucial habitat for a variety of wildlife and aquatic species, including hundreds of thousands of shorebirds during spring migrations. The Refuge encompasses a small area of the estuary, located on the northeastern edge of Grays Harbor. Overall, the Refuge occupies only 2 percent of the estuary land base, yet has hosted up to 50 percent of the migrating shorebirds.

Grays Harbor estuary is one of four major staging areas for migrating shorebirds in North America and hosts one of the largest concentrations of shorebirds on the Pacific coast. In 1996, it was designated as a Western Hemisphere Shorebird Reserve Network Site of Hemispheric Significance and a Washington Important Bird Area (see Section 1.8). Within the greater Grays Harbor estuary, the mudflats of the Refuge are some of the last to flood at high tide, drawing high densities of foraging and resting shorebirds.

Shorebird species using the Refuge include large numbers of western sandpiper, dunlin, semi-palmated plover, black-bellied plover, least sandpiper, short- and long-billed dowitchers, and red knot. Common raptors include osprey, bald eagle, northern harrier, red-tailed hawk, peregrine falcon,

and merlin. In winter, a few thousand dunlin, some black-bellied plovers, and large concentrations of wintering waterfowl and waterbirds use the greater Grays Harbor estuary and Refuge. Neotropical songbirds use these areas on their north and south migrations while some are residents throughout the year. Estuarine conditions support dense populations of benthic invertebrates, macroinvertebrates, and many species of fish, including salmonids and federally threatened bull trout, green sturgeon, and eulachon (smelt).

Refuge habitats include tidal open water, intertidal mudflats, tidal salt and brackish marshes, and forest (see Map 2). The approved Refuge boundary encompasses 1,851 acres of estuary and uplands in Grays Harbor County, Washington; the Service owns approximately 1,408 acres and leases 64 acres from the Port of Grays Harbor (see Map 3).

1.2.2 Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge

The Unit is southwest of Olympia, Washington (see Map 4). The Black River is an important tributary of the Chehalis River, the second largest watershed in Washington State. The Unit boundary encompasses the northern portion of the Black River, the most intact lowland river system left in western Washington.

The Unit consists of a large, complex mosaic of wetland, riparian, and some upland habitats surrounding the low-lying river. The Unit's diverse habitats include river and tributary channels, bog, shrub swamp, riparian forest, emergent marsh, seasonally flooded nonnative grassland, dry nonnative grassland, and mixed forest (see Map 5). Bog habitat is considered locally rare.

Both the upper Black River and associated wetlands are some of the last remaining lowland wide floodplain systems in the Puget Sound Trough/Willamette Valley Ecoregion. The Unit contains spawning and rearing habitat and migration corridors for steelhead and cutthroat trout and Coho and Chinook salmon. At least 150 species of migratory birds, including waterfowl and neotropical songbirds, use the wetland and riparian habitats.

The Olympic mud minnow, a State-endemic and State species of concern, is found in the Unit. The Unit is one of only three sub-basins in Washington to support the federally threatened and State-listed as endangered Oregon spotted frog. The complex system of wetlands within the Unit supports two major areas of frog activity, and drainages into the river support other frog activity areas.

Management programs on the Unit are focused on protecting and enhancing the unique habitats for fish and wildlife, including rare or declining species, migratory birds, anadromous salmonids, amphibians, and other wildlife. Land areas within the Unit are closed to public access. The river bed is State-owned aquatic land managed by the Washington State Department of Natural Resources (WDNR). The river itself is open to the public by boat only, with boat access at one location on county land.

1.3 Proposed Action

We, the U.S. Fish and Wildlife Service (Service), manage national wildlife refuges as part of the National Wildlife Refuge System (Refuge System). We propose to adopt and implement a CCP for Grays Harbor National Wildlife Refuge and the Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge. This document is the draft CCP. A CCP sets forth management guidance

for a refuge for a period of 15 years, as required by the National Wildlife Refuge System Administration Act (16 U.S.C. 688dd–688ee, et seq.) (Refuge Administration Act), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57). The Refuge Administration Act requires CCPs to identify and describe:

- the purposes of the refuge(s);
- the fish, wildlife, and plant populations, their habitats, and the archaeological and cultural values found on the refuge;
- significant problems that may adversely affect wildlife populations and habitats and ways to correct or mitigate those problems;
- areas suitable for administrative sites or visitor facilities and opportunities for fish and wildlife-dependent recreation.

Refuge System planning policy (Service Manual Part 602, 602 FW3, June 21, 2000) states that the purpose of CCPs is to "describe the desired future conditions of a refuge and provide long-range guidance and management direction to achieve refuge purposes; help fulfill the Refuge System mission; maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System; . . . and meet other mandates."

The proposed action in the draft CCP and environmental assessment (EA) is to implement Alternative 2, which is the Service's preferred alternative for the Refuge and the Unit. The Service has developed and examined two alternatives for the Refuge and two alternatives for the Unit. Chapter 6 describes anticipated effects for each alternative, pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321–4347).

The preferred alternative may be modified between the draft and final documents depending upon comments received from the public or other agencies and organizations. The Service's Regional Director for the Pacific Region will decide which alternative will be implemented. For details on the specific components and actions comprising the range of alternatives, see Chapter 2.

1.4 Purpose and Need for Action

The purpose of developing the CCP is to provide the Refuge manager and the Unit manager with a 15-year management plan for the conservation of fish, wildlife, and plant resources and their related habitats, while providing opportunities for compatible wildlife-dependent recreational uses. The CCP, when fully implemented, should achieve Refuge purposes; help fulfill the Refuge System mission; maintain and, where appropriate, restore the ecological integrity of the Refuge, the Unit, and the Refuge System; help achieve the goals of the National Wilderness Preservation System; and meet other mandates. The CCP must be specific to the planning unit and identify the overarching wildlife, public use, or management needs for the Refuge and the Unit. The need for the CCP is derived from the overall Refuge System mission, goals, and policies, as described in or promulgated by the Refuge Administration Act (602 FW 3.4C1d).

1.5 Legal and Policy Guidance

1.5.1 The U.S. Fish and Wildlife Service

All national wildlife refuges are managed by the U.S. Fish and Wildlife Service, an agency within the Department of the Interior (DOI). The Service is the principal Federal agency responsible for conserving, protecting, and enhancing the Nation's fish and wildlife populations and their habitats.

The mission of the Service is "working with others to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people." National natural resources entrusted to the Service for conservation and protection include migratory birds, endangered and threatened species, inter-jurisdictional fish, wetlands, and certain marine mammals. The Service also manages national fish hatcheries, enforces Federal wildlife laws and international treaties on importing and exporting wildlife, assists with state fish and wildlife programs, and helps other countries develop wildlife conservation programs.

1.5.2 National Wildlife Refuge System

Grays Harbor National Wildlife Refuge and the Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge are part of the National Wildlife Refuge System, which is governed by a framework of legal and policy guidelines. The Refuge System is the world's largest network of public lands and waters set aside specifically for conserving wildlife and protecting ecosystems.

Refuges are guided by various Federal laws and Executive orders, Service policies, and international treaties. Fundamental are the mission and goals of the Refuge System and the designated purposes of the refuge unit as described in establishing legislation, Executive orders, or other documents establishing, authorizing, or expanding a refuge.

Key concepts and guidance of the Refuge System derive from the National Wildlife Refuge System Administration Act of 1966 as amended (16 U.S.C. 688dd–688ee) (Refuge Administration Act), the Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4), as amended, Title 50 of the Code of Federal Regulations (CFR), and the Fish and Wildlife Service Manual (FW). The Refuge Administration Act is implemented through regulations covering the Refuge System, published in Title 50, subchapter C, of the CFR. These regulations govern general administration of units of the Refuge System.

1.5.3 National Wildlife Refuge System Mission and Goals

The mission of the Refuge System is "to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" (National Wildlife Refuge System Administration Act of 1966, as amended)(16 U.S.C. 668dd et seq.)

The goals of the Refuge System, as articulated in the mission goals and purposes policy (601 FW 1) are:

- conserve a diversity of fish, wildlife, plants, and their habitats, including species that are endangered or threatened with becoming endangered;
- develop and maintain a network of habitats for migratory birds, anadromous and inter-jurisdictional fish, and marine mammal populations that is strategically distributed and carefully managed to meet important life history needs of these species across their ranges;
- conserve those ecosystems, plant communities, wetlands of national or international significance, and landscapes and seascapes that are unique, rare, declining, or underrepresented in existing protection efforts;
- provide and enhance opportunities to participate in compatible wildlife-dependent recreation (hunting, fishing, wildlife observation and photography, and environmental education and interpretation);
- foster understanding and instill appreciation of the diversity and inter-connectedness of fish, wildlife, plants and their habitats.

1.5.4 National Wildlife Refuge System Administration Act

Of all the laws governing activities on national wildlife refuges, the Refuge Administration Act exerts the greatest influence. The National Wildlife Refuge System Improvement Act (Improvement Act) amended the Refuge System Administration Act in 1997 (USFWS 1997) by including a unifying mission for all national wildlife refuges as a system, a new process for determining compatible uses on refuges, and a requirement that each refuge be managed under a comprehensive conservation plan, developed in an open, public process.

The Refuge Administration Act states that the Secretary of the Interior shall provide for the conservation of fish, wildlife, plants, and their habitats within the Refuge System as well as ensure that the biological integrity, diversity, and environmental health (BIDEH) of the Refuge System are maintained. House Report 105-106 accompanying the Improvement Act states ‘‘… the fundamental mission of our System is wildlife conservation: wildlife and wildlife conservation must come first.’’ BIDEH are critical components of wildlife conservation. As later made clear in the Biological Integrity, Diversity and Environmental Health Policy (601 FW 3) “the highest measure of biological integrity, diversity, and environmental health is viewed as those intact and self-sustaining habitats and wildlife populations that existed during historic conditions.”

Under the Refuge Administration Act, each refuge must be managed to fulfill the Refuge System mission as well as the specific purposes for which the refuge was established. The Refuge Administration Act requires the Service to monitor the status and trends of fish, wildlife, and plants in each refuge.

Additionally, the Refuge Administration Act identifies six priority wildlife-dependent recreational uses for the Refuge System. These uses are hunting, fishing, wildlife observation and photography, and environmental education and interpretation. Under the Refuge Administration Act, the Service is to grant these six wildlife-dependent public uses special consideration in the planning for, management of, and establishment and expansion of units of the Refuge System. The overarching goal of wildlife-dependent public use programs is to enhance opportunities and access to quality wildlife-dependent visitor experiences on refuges while managing refuges to conserve fish, wildlife, plants, and their habitats. When determined compatible on a refuge-specific basis, these six uses

assume priority status among all uses of the refuge. The Service is to make extra efforts to facilitate priority wildlife-dependent public use opportunities.

When preparing a CCP, refuge managers must re-evaluate all general public, recreational, and economic uses (even those occurring to further refuge habitat management goals) proposed or occurring on a refuge for appropriateness and compatibility. No refuge use may be allowed or continued unless it is determined to be appropriate and compatible. Generally, an appropriate use is one that contributes to fulfilling the refuge purposes, the Refuge System mission, or goals or objectives described in a refuge management plan. A compatible use is a use that in the sound professional judgment of the refuge manager will not materially interfere with or detract from the fulfillment of the mission of the Refuge System or the purposes of the refuge. Updated appropriate use and compatibility determinations for existing and proposed uses for the Refuge and the Unit can be found in Appendices A and B.

The Refuge Administration Act also requires that in addition to formally established guidance, the CCP must be developed with the participation of the public. Issues and concerns identified by the public help prepare alternatives considered during the development of the CCP, and together with the formal guidance, form the basis for selection of the preferred alternative. It is Service policy that CCPs are developed in an open, public process, and we are committed to securing public input throughout the CCP process. Public involvement details can be found in Appendix J.

1.5.5 Other Laws and Mandates

Many other Federal laws, Executive orders, Service policies, and international treaties govern the Service and Refuge System lands. Examples include the Migratory Bird Treaty Act of 1918 (MBTA), Refuge Recreation Act of 1962, National Historic Preservation Act of 1966 (NHPA), and the Endangered Species Act of 1973 (ESA). For additional information on laws and other mandates, a list and brief description of Federal laws pertinent to the Service can be found in the laws digest at http://www.fws.gov/laws/Lawsdigest.html.

In addition, we have developed or revised numerous policies and Director's orders to reflect the mandates and intent of the Refuge Administration Act. Some of these key policies include the Biological Integrity, Diversity, and Environmental Health Policy (601 FW 3); the Compatibility Policy (603 FW 2); the Comprehensive Conservation Planning Policy (602 FW 3); Mission, Goals, and Purposes (601 FW 1); Appropriate Refuge Uses (603 FW 1); Wildlife-Dependent Public Uses (605 FW 1); wilderness-related policies (610 FW 1–5) and the Director's Order for Coordination and Cooperative Work with State Fish and Wildlife Agency Representatives on Management of the National Wildlife Refuge System. These policies and others in draft or under development can be found at http://refuges.fws.gov/policymakers/nwrpolicies.html.

In developing a CCP, refuges must consider these broader laws and policies as well as Refuge System and ecosystem goals and visions. The CCP must be consistent with these and also with the refuge purpose(s).

1.6 Refuge Establishment and Purposes

1.6.1 Legal Significance of the Refuge Purpose

The purpose(s) for which a refuge was established or acquired is of key importance in refuge planning. Purposes must form the foundation for management decisions. The refuge purposes are the driving force in the development of the refuge vision statements, goals, objectives, and strategies in a CCP and are critical to determining the compatibility of existing and proposed refuge uses.

The purpose(s) of a refuge are specified in or derived from the law, proclamation, Executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge subunit.

Unless the establishing law, order, or other document indicates otherwise, purposes dealing with the conservation, management, and restoration of fish, wildlife, plants, and the habitats on which they depend take precedence over other purposes in the management and administration of any unit. Where a refuge has multiple purposes related to fish, wildlife, and plant conservation, the more specific purpose will take precedence in instances of conflict.

When an additional unit is acquired under an authority different from the authority used to establish the original unit, the addition takes on the purpose(s) of the original unit, but the original unit does not take on the purpose(s) of the newer addition. When a conflict exists between the Refuge System mission and the purpose of an individual refuge, the refuge purpose may supersede the Refuge System mission.

1.6.2 Grays Harbor National Wildlife Refuge Purposes and History

Purposes for Establishing Grays Harbor National Wildlife Refuge in 1990:

- conserve fish and wildlife populations and their habitats, including those of western sandpiper, dunlin, red knot, long-billed dowitcher, short-billed dowitcher, other shorebirds, and other migratory birds, including birds of prey;
- fulfill international treaty obligations of the United States with regard to fish and wildlife and their habitats;
- conserve those species known to be threatened with extinction;
- provide an opportunity, consistent with the purposes set forth in paragraphs (1), (2), and (3), for wildlife-oriented recreation, education, and research. 102 Stat. 1041 (Act to establish the Grays Harbor National Wildlife Refuge);
- "... for the development, advancement, management, conservation, and protection of fish and wildlife resources ..." 16 U.S.C. § 742f(a)(4);
- "... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude ..." 16 U.S.C. § 742f(b)(1) (Fish and Wildlife Act of 1956).

Supporting Documentation for Establishing Grays Harbor National Wildlife Refuge:

The first evidence of interest in protecting the mudflat habitat in Bowerman Basin came in 1985 at the International Association of Fish and Wildlife Agencies Conference. There was a proposal to establish a Western Hemisphere Sister Reserve System to Protect Shorebird Populations. The concept was developed to identify essential migratory shorebird habitats in the western hemisphere supporting 48 species with an estimated population of 10 to 20 million birds. Bowerman Basin at Grays Harbor, Washington, was among the sites proposed for inclusion in the Sister Reserve System.

At that time, Bowerman Basin was administered by the Port of Grays Harbor, which was developing a Grays Harbor Estuary Management Plan that included measures to protect wildlife habitat. In a consolidated grassroots effort, private citizens working together developed and pursued the vision to create the Refuge. With strong congressional support, Bill S.1979 was introduced to the Senate in December 1987. After passing both houses, it was presented to the President for signature. On August 19, 1988, President Ronald Reagan signed Public Law 100-406: the Grays Harbor National Wildlife Refuge Act, which authorized the establishment of Grays Harbor National Wildlife Refuge. The Act provides clear management priorities and guidance for the Refuge. The Refuge was established with the first parcel included in the Refuge in 1990 (see Table 1-2).

1.6.3 Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge Purposes and History

Purposes for Establishing the Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge in 1998:

- for use as an inviolate sanctuary, or for any other management purpose, for migratory birds. 16 U.S.C. § 715d (Migratory Bird Conservation Act);
- "... for the development, advancement, management, conservation, and protection of fish and wildlife resources ..." 16 U.S.C. § 742f (a)(4) (Fish and Wildlife Act of 1956);
- "... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude ..." 16 U.S.C. § 742f (b)(1) (Fish and Wildlife Act of 1956).

Supporting Documentation for Establishing the Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge:

In 1980 a Service wetland inventory program identified the Black River wetland system as an important habitat in Washington State (USFWS 1980). Though little was known at the time, this intact low-lying river system retained unique wetland bogs in a mosaic of natural wetland habitats. Thurston County identified and designated this area as "natural" in the Shoreline Management Plan.

Identified in the Service's Black River Swamp Preserve Design (Caicco 1992), a clear description of the habitats describes the unique, relatively wild character and natural features of the wetlands south of the Black Lake. The document begins the discussion of habitat protection and management opportunities for the area. In an early land acquisition effort to protect the river corridor and surrounding floodplain wetlands, The Nature Conservancy (TNC) acquired 320 acres in 1993 to manage the land as a nature preserve. The following year, the Pacific Coast Joint Venture (PCJV,

now known as the Pacific Birds Habitat Joint Venture) identified portions of the Black River in need of protection in their annual Strategic Plan. Members of the public and nongovernmental organizations (NGOs), such as TNC and PCJV, advocated for the establishment of a refuge. A preliminary project proposal (USFWS 1993) was developed by the Service outlining habitat protection options and proposing an acquisition boundary. The Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge was authorized in 1996 (USFWS 1996) and the Unit was established with the purchase of the first parcel of land in 1998 (see Table 1-3). Community outreach efforts with landowners and willing sellers in the area continue today.

1.6.4 Refuge and Unit Ownership and Land Status

Tables 1-1, 1-2, 1-3, and Maps 3 and 4 show the lands associated with the Refuge and the Unit. The acreage figures for fee title properties are based on realty deeds. The approved Refuge and Unit boundaries indicate boundaries approved by the national or regional U.S. Fish and Wildlife Service Director for potential acquisition of lands by the Service.

Geographic information system (GIS) acres can vary by a certain amount from realty acres, which are based on survey or deed records. Realty acres should be viewed as the most accurate source. However, a variety of analyses (habitat acres, river miles) were conducted utilizing GIS mapping during the CCP process.

Quantitative analysis in the CCP is based on GIS estimates, which may slightly over- or underestimate actual acres or lengths.

Table 1-1. Land Ownership Status

	Approved Refuge Boundary Acres(1)	Acres Owned in Fee(2)	Acres in Easements, Agreement, or Lease(2)
Grays Harbor NWR	1,851 acres	1,408	64
Black River Unit	3,873 acres	1,566	11

(1) Acres generated from GIS, rounded to the nearest acre.
(2) Acres from realty data, rounded to the nearest acre (USFWS 2015)

Land acquisition using funding from the Land and Water Conservation Fund (LWCF) is under the acquisition authority of the Fish and Wildlife Act of 1956, as amended (16 U.S.C. 742a–742j). Acquisitions using funding from the Migratory Bird Conservation Fund (MBCF) are under the acquisition authority of the Migratory Bird Conservation Act of 1929.

Grays Harbor National Wildlife Refuge

Table 1-2. Grays Harbor NWR - Land Acquisition/Funding Authorities

Date	Legal Document	Direction
08/19/1988	Public Law 100-406 August 19,1988	100th Congress of the United States and signed by the President under the Authority: An Act, To establish the Grays Harbor National Wildlife Refuge Public Law 100-406, August 19, 1988

Date	Legal Document	Direction
08/29/1990	Lease	Tract 4LS-1, leased with LWCF funds
08/29/1990	Deed	Tracts 4a (5.80 acres) and 4 (63 acres) purchased with LWCF funds
09/17/1990	Lease	Tract 4LS-2, leased with LWCF funds (Note Deed signed 9/17/1990 improvement costs: expires 12/31/2043)
08/31/1994	Lease	Tract 5LS, (63.61 acres) purchased with LWCF funds
02/27/1995	Deed	Tract 5, (1,338.97 acres) purchased with LWCF funds

Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge

Unit authority and management extends across all lands owned by the Unit, except that the aquatic bed of the river within that ownership (approximated by the area that is within "bank to bank" of the river) is under the jurisdiction of WDNR (see also Chapter 2.3.1 Features Common to All Alternatives).

Table 1-3. Black River Unit - Land Acquisition/Funding Authorities

Date	Legal Document	Direction
02/13/1998	Deed	Tracts 569, 569a, (31.6 acres) purchased with LWCF funds
09/02/1999	Easement	Tract 525R, donation of easement (.26 acres)
09/02/1999	Deed	Tract 525e, donation (25.46 acres)
12/15/1999	Easement	Tract 545R, purchased (wetlands) easement (.25 acres) with LWCF funds
12/15/1999	Deed	Tract 545, purchased (9.59 acres) with LWCF funds
03/20/2000	Deed	Tracts 525a, 525b, 525c, 525d, purchased (149.44 acres) with LWCF funds
03/20/2000	Easement	Tract 525R-1, donation of easement (3.21 acres)
06/06/2000	Deed	Tract 552, 552a, donation (73 acres)
08/31/2000	Deed	Tracts 547, 547a, 547b, purchased (41.91 acres) with LWCF funds
09/28/2000	Deed	Tracts 574, 574a, purchased (64.6 acres) with LWCF funds
11/09/2000	Deed	Tracts 575, 575a, 575b, purchased (29.1 acres) with LWCF funds
11/09/2000	Easement	Tract 575R-1, donation of easement (1.12 acres)
05/24/2001	Deed	Tract 553, purchased (23.73 acres) with LWCF funds
09/14/2001	Deed	Tract 525p, purchased (160 acres) with MBCF funds
09/24/2001	Deed	Tracts 525f, 525g, 525h, 525i, 525j, purchased (109.75 acres) with LWCF funds
10/05/2001	Deed	Tract 573, purchased (9.47 acres) with LWCF funds

Date	Legal Document	Direction
06/11/2002	Deed	Tract 546, 546a, donation (19.5 acres)
06/11/2002	Easement	Tract 546R, donation of (.30 acre) easement
09/03/2002	Deed	Tract 526c, purchased (89 acres) with LWCF funds
09/05/2002	Deed	Tract 525k, purchased (20 acres) with MBCF funds
09/30/2002	Deed	Tract 551, purchased (6.22 acres) with LWCF funds
12/19/2002	Deed	Tracts 584, 584a, purchased (5.07 acres) with LWCF funds
12/19/2002	Easement	Tracts 584R, 584M, donation (4 acres)
05/16/2003	Deed	Tract 525m, purchased (13.3 acres) with MBCF funds
08/15/2003	Deed	Tract 526a, purchased (21.09 acres) with LWCF funds
09/04/2003	Deed	Tract 548, purchased (80 acres) with LWCF funds
10/22/2004	Deed	Tract 514, purchased (10 acres) with LWCF funds
10/22/2004	Easement	Tract 514R, purchased easement (.16 acres) with LWCF funds
04/13/2005	Deed	Tract 525n, 525q, purchased (328 acres) with LWCF funds
10/04/2007	Deed	Tract 513c, purchased (34.50 acres) with LWCF funds
09/23/2009	Deed	Tract 541, purchased (19.77 acres) with LWCF funds
08/27/2010	Deed/Easement	Tract 571, 571R purchased (14.46 acres) with LWCF funds
08/18/2011	Deed	Tracts 567, 567a, 567b, 568, purchased (37.08 acres) with LWCF funds
08/18/2011	Easement	Tracts 567R, 568R, purchased easement (2.06 acres) with LWCF funds
11/03/2011	Deed	Tracts 544, 544a, purchased (19.65 acres) with LWCF funds
01/05/2012	Deed/Easement	Tracts 525r, 525R-2, purchased (65.83 acres) with LWCF funds
05/24/2012	Deed	Tract 523, purchased (38.68 acres) with LWCF funds
05/08/2015	Deed	Tracts 538c, 538d, purchased (16 acres) with LWCF funds

1.7 Relationship to Other Planning Efforts

When developing a CCP, we consider the goals and objectives of existing national, regional, state, and ecosystem plans and/or assessments. The CCP is expected to be consistent, as much as possible, with existing plans and to assist in meeting their conservation goals and objectives (602 FW 3). This section summarizes some of the key plans reviewed by members of the core team while developing the CCP.

1.7.1 Previous Refuge Plans

Grays Harbor National Wildlife Refuge

- Grays Harbor NWR Management and Development Plan (USFWS 1990)
- Wildland Fire Management Plan for Nisqually NWR Complex (USFWS 2003)
- Flight Safety Plan for Nisqually NWR Complex (USFWS 2016a)
- Safety Plan for Nisqually NWR Complex (Comprehensive) (USFWS 2012a)
- Draft Nisqually NWR Complex H5N1 Avian Influenza Disease Contingency Plan (USFWS 2007)

Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge

- Wildland Fire Management Plan for Nisqually NWR Complex (USFWS 2003)
- Flight Safety Plan for Nisqually NWR Complex (USFWS 2016a)
- Float Plan for Nisqually NWR Complex (USFWS 2016b)
- Safety Plan for Nisqually NWR Complex (Comprehensive) (USFWS 2012a)
- Draft Nisqually NWR Complex H5N1 Avian Influenza Disease Contingency Plan (USFWS 2007)

1.7.2 Future Planning

The CCP will be revised every 15 years or earlier if monitoring and evaluation determine that changes are needed to achieve the refuge purposes, vision, goals, or objectives. The CCP provides guidance in the form of goals, objectives, and strategies for refuge program areas but may lack some of the specifics needed for implementation. Step-down management plans will therefore be developed for individual program areas as needed, following completion of the CCP. Step-down plans may require additional NEPA compliance.

1.7.3 Migratory Bird Conservation and Plans

Birds of Management Concern (BMC)

BMC is a subset of all species protected by the MBTA (50 CFR 10.13) and includes those which pose special management challenges due to a variety of factors (e.g., too few, too many, conflicts with human interests, or societal demands) (USFWS 2012b). BMC comprises both game birds below their desired condition and nongame birds.

BMC species, subspecies, or populations are divided into four categories:

(a) birds listed as endangered or threatened under the ESA (USFWS 1973);
(b) nongame MBTA-protected birds that have been determined to be of conservation concern (as published in *Birds of Conservation Concern 2008;* 247 including all National, regional, and Bird Conservation Region species*)*;
(c) birds that are considered overabundant in part or all of their range and thus potentially damaging to natural ecosystems or human interests;
(d) high-priority migratory game birds, as determined by factors such as their population

status, their socio-economic value, and our ability to manage them based on sound information.

BMCs are also:

(a) protected by the MBTA (USFWS 1918);
(b) regularly found in the continental U.S., Hawaiian and U.S. Pacific Islands, Puerto Rico, or the U.S. Virgin Islands;
(c) regular breeders or winter residents in one of the above geographical areas;
(d) hunted species that are not currently hunted for sport under provisions established by the MBTA.

The Refuge and the Unit provide breeding, wintering, and stopover habitat for some birds identified as BMCs with primary importance in the region and includes those species that can usually be observed using Refuge and Unit habitats. Some of these species are greater white-fronted goose (Pacific population), cackling and Pacific populations of Canada goose, gadwall, American wigeon, mallard (western population), northern shoveler, northern pintail, American green-winged teal, greater and lesser scaup, surf scoter, double-crested cormorant, bald eagle, peregrine falcon, Virginia rail, red knot (roselaari), dunlin, short-billed dowitcher, Caspian tern, and rufous hummingbird. Uncommon or occasionally observed birds are dusky goose, Pacific black brant, common goldeneye, horned grebe, western grebe, pelagic cormorant, whimbrel, and marbled godwit (see Appendix E).

Focal Species of Birds

To better measure its success in achieving its bird conservation priorities and mandates, the Service's Migratory Bird Program initiated a focal species strategy for migratory birds (USFWS 2011, 2012c). The focal species strategy involves campaigns for selected species to provide explicit, strategic, and adaptive sets of conservation actions required to return the species to healthy and sustainable levels.

The goal of the focal species strategy is to measure the success in achieving bird conservation and to increase accountability. The Service remains committed to landscape-scale, integrated bird conservation for the full array of species of management concern. The focal species approach is just one component of the Migratory Bird Program and complements other work on migratory birds and their habitats.

To select focal species, the Service's Migratory Bird Program identifies species from the BMC that need investment because they (1) have high conservation need, (2) are representative of a broader group of species sharing the same or similar conservation needs, (3) act as a potential unifier for partnerships, or (4) have a high likelihood that factors affecting status can be realistically addressed.

Birds of Conservation Concern (BCC)

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the Service to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973." The publication *Birds of Conservation Concern 2008* (BCC) is the most recent effort to carry out this mandate (USFWS 2008). BCC identifies the migratory and nonmigratory bird species, beyond those already designated as federally threatened or endangered, that represent the Service's highest conservation priorities. BCC species are a select group of birds appearing on the BMC list.

Grays Harbor Refuge

Eleven BCC species regularly occur at Grays Harbor Refuge: western grebe, bald eagle, northern harrier, peregrine falcon, whimbrel, red knot, dunlin, short-billed dowitcher, Caspian tern, rufous hummingbird, and willow flycatcher. Birds that occasionally are observed include dusky Canada goose, pelagic cormorant, lesser yellowlegs, long-billed curlew, and marbled godwit (see Appendix E).

Black River Unit

Four BCC species regularly occur on the Unit: mourning dove, rufous hummingbird, willow flycatcher, and purple finch. Birds that occasionally are seen or are thought to use Unit habitats include bald eagle, peregrine falcon, and solitary sandpiper.

Partners in Flight (PIF)

PIF is an international coalition of government agencies, conservation groups, academic institutions, private organizations, and citizens dedicated to the long-term maintenance of healthy populations of native landbirds. The goal of PIF's landbird conservation plans is to focus resources on improving inventory and monitoring, research, management, and education programs involving birds and their habitats. PIF's strategy is to stimulate cooperative public- and private-sector efforts in North America and the neotropics to meet these goals.

Grays Harbor Refuge

While most of the focus of the Refuge is on shorebirds and other water-associated birds, over 25 species of PIF-identified birds, including perching or landbirds, use Refuge habitats. These species generally use forest and salt or brackish marsh habitats.

Black River Unit

The Unit is important to perching birds and landbirds. The regional PIF plans applicable to the Unit include *The Conservation Strategy for Landbirds in Lowlands and Valleys of Western Oregon and Washington* (Altman 2000) and *Conservation Strategy for Landbirds in Coniferous Forests of Western Oregon and Washington* (Altman and Alexander 2012). The lowlands and valleys plan identifies over 46 bird species and 2 priority habitats. Many forest conditions (seedlings to mature trees) identified in the coniferous forest plan are found within the Unit boundary. The 11 focal species of this plan include 4 species of warbler (orange-crowned, black-throated gray, Wilson's, and Townsend's), 3 species of flycatcher (olive-sided, Hammond's, and Pacific-slope), winter wren, varied thrush, brown creeper, and pileated woodpecker.

Northern Pacific Coast Regional Shorebird Management Plan (NPCRSMP)

This regional plan is part of the national U.S. Shorebird Conservation Plan, which is intended to provide an overview of the current status of shorebirds, the conservation challenges facing them, current opportunities for integrated conservation, broad goals for the conservation of shorebird species and subspecies, and specific programs necessary to meet the overall vision of restoring stable and self-sustaining populations of all shorebirds.

Grays Harbor Refuge

The NPCRSMP identifies the importance of Grays Harbor and the Refuge as a wintering area for shorebirds that breed in the arctic and temperate zones; it is also important during migration, particularly for arctic breeding species. There are also important breeding locations and breeding shorebird populations in the region. The plan includes several conservation priorities that are relevant to the Refuge because it provides approximately 497 acres of tidal mudflat habitat and 156 acres of estuarine salt marsh habitat in southwestern Washington. The plan's goals include restoring tidal flats and estuarine marshes to benefit shorebirds, enhancing tidal action in existing wetlands through the removal and maintenance of introduced cordgrass, managing a sufficient amount of shallow open water habitat to support shorebird populations, and limiting human disturbance to shorebirds in all seasons. The Refuge-specific recommendation is to reduce potentially deleterious silt that accumulates in marsh and mud flats.

Of the 20 species of highest concern for which coastal habitats in the Northern Pacific Coast Region are especially important, 10 species, including black-bellied plover, killdeer, greater yellowlegs, whimbrel, marbled godwit, red knot, sanderling, dunlin, short-billed dowitchers, and western sandpiper, are supported on this Refuge.

North American Waterbird Conservation Plan (NAWCP)

An independent partnership of individuals and organizations with a shared concern for waterbird conservation developed a plan to sustain or restore the distribution, diversity, and abundance of breeding, migratory, and nonbreeding waterbirds of North and Central America and the Caribbean regions (Kushlan et al. 2002). The primary goal of the partnership was to develop and facilitate implementation of the NAWCP. Completed in 2002, the NAWCP outlines a continental-scale strategy for conserving and managing over 200 aquatic bird species. The NAWCP identifies vulnerabilities and threats to species and their habitats. Habitat and site-based conservation actions throughout the Americas and the North Pacific are promoted by the NAWCP. Conservation priorities, information needs, resources, and infrastructure are identified at regional and local levels in a step-down process through regional working groups.

Grays Harbor Refuge

Waterbirds are those birds that depend on wetland conditions but do not include shorebirds or waterfowl. The Refuge provides habitat for over 15 of these species, including loon, grebe, pelican, heron; secretive birds such as sora, bittern, and rail; and gulls, terns, coots, and cranes.

Black River Unit

The Black River Unit is an important location for waterbirds; its extensive mosaic of wetlands provides habitats for approximately eight waterbird species, including pied-billed grebe, American coot, great blue and green heron, and secretive birds such as sora, bittern, and rail.

North American Waterfowl Management Plan (NAWMP)

This plan, first formulated in 1986, provides a strategy to protect North America's remaining wetlands and to conserve waterfowl populations through protecting, restoring, and enhancing habitat. The plan was updated in 2004 with an emphasis on strengthening the biological foundation, using a

landscape approach, and expanding partnerships (North American Waterfowl Management Plan Committee 2004).

Grays Harbor Refuge

The goals of the plan are to provide habitat for breeding and wintering waterfowl. The late fall season brings a large flush of waterfowl (ducks and geese) to the estuary, including the Refuge, as they begin to migrate from northern latitudes. Large numbers of many duck species stop, forage, and wait in the estuary for the seasonal rains to refill local land depressions with surface water. As more freshwater habitat becomes available with lowland flooding, many of the birds move out of the estuary to more wind-protected locations. Over 25 species of waterfowl are known to visit the Refuge.

Black River Unit

A small number of individual ducks or geese from approximately 11 species identified in the NAWMP have been observed using Black River habitat.

Pacific Flyway Management Plan (PFMP)

The Pacific Flyway Council is an administrative body that forges cooperation among public wildlife agencies for the purpose of protecting and conserving migratory game birds in western North America. The council is generally composed of one member from the public wildlife agency in each state and province in the western United States, Canada, and Mexico. Biologists from state, Federal, and provincial wildlife and land-management agencies, university students and faculty, and others develop management plans for the cooperative management of migratory game bird populations in the Pacific Flyway. Biologists from the Central Flyway, Canada, Mexico, and Russia contribute to these plans.

Grays Harbor Refuge

The PFMP addresses specific plans for many species of birds. Management plans for birds that regularly use Grays Harbor Refuge are for many subspecies of Canada geese, including cackling, dusky, Aleutian, lesser, Taverner's, and western geese, and double-crested cormorants. Management plans for birds that occasionally use the Refuge include greater white-fronted geese, black brant, and lesser snow geese.

Black River Unit

Management plans for birds that may use the Black River Unit include cackling geese and some subspecies of Canada geese, such as lesser, Taverner's, and western geese, as well as Pacific coast band-tailed pigeons and the western management unit population of mourning doves.

Seabird Conservation Plan (SCP)

The Pacific Coast supports some of the most diverse seabird populations in the United Sates, including 60 species that use the coastal waters around Grays Harbor. The Refuge's estuarine habitat supports the growth of potential food sources for these birds.

The purpose of the SCP is to identify priorities for managing seabirds, monitoring research, outreach, planning, and coordination with partners (USFWS 2005). The SCP provides guidance and recommendations for conservation actions for a prioritized group of species occurring at a regional scale.

Grays Harbor Refuge

Specific information on ecology, population, status, distribution, threats, and conservation needs is provided for species that may be found near Grays Harbor Refuge. The SCP addresses over seven species found on the Refuge, among them cormorants, gulls, and Caspian terns.

Although the Refuge does not manage seabird breeding habitats, many species of marine birds occur in the surrounding coastal waters.

1.7.4 State Plans

Washington Comprehensive Wildlife Conservation Strategy (CWCS)/Washington Wildlife Action Plan (WAP)

In response to two Federal programs—the Wildlife Conservation and Restoration Program and the State Wildlife Grant Program—the Washington Department of Fish and Wildlife (WDFW) prepared a number of important documents to help guide State resource management.

The driving force behind CWCS is the Washington Species of Greatest Conservation Need list. The list builds on current efforts to protect fish and wildlife species, including those listed on State and Federal endangered, threatened, and sensitive species lists, as well as species not yet listed but for which conservation actions or additional information is needed.

WAP is part of the CWCS (WDFW 2015). WAP includes information on the distribution and abundance of State priority wildlife and habitats, provides strategies for conserving and monitoring wildlife and habitat, and provides for coordination with Federal, State, Tribal, and local agencies, and the public. WAP emphasizes proactive measures to conserve declining species and habitats and to maintain the status of common species, and is helpful to Refuge staff in making biological and management decisions.

Washington Natural Heritage Plan (WNHP)

WNHP (WDNR 2011) is a product of the Washington Natural Heritage Program (in the Department of Natural Resources), whose mission is to conserve the full range of Washington's native plants, animals, and ecosystems through voluntary and cooperative actions. The program uses science to identify high-quality and representative examples of native Washington habitats and species and works to protect these natural treasures through voluntary and cooperative habitat conservation agreements.

Areas of critical environmental concern, wilderness areas, national monuments, and other public lands with management plans that adequately protect Washington's natural heritage include research natural areas (RNAs) as providing complete or partial protection for some ecosystems and species. For Refuges, the WNHP plan recommends that RNAs be established to protect natural areas of

exceptional value, particularly those areas that are unique and have no similar examples protected elsewhere.

Priority Habitats and Species (PHS)

WDFW has identified those fish and wildlife resources that are a priority for managing and conserving. Priority habitats are those habitat types with unique or significant value to many fish or wildlife species. Priority species are those fish and wildlife species requiring special efforts to ensure their perpetuation because of their low numbers, sensitivity to altered habitat, tendency to form vulnerable aggregations, or because they are of commercial, recreational, or tribal importance. Descriptions of those habitats and species designated as priority were published as individual documents on habitats, birds (WDFW 2004), fish, invertebrates (WDFW 1995), amphibians and reptiles (WDFW 1997), and mammals (draft), and as a summary report (WDFW 2008), and the online Priority Habitats and Species (PHS) Lists (continually updated).

1.7.5 Other Natural Resource Plans or Guidance Documents

Chehalis River Basin Action Plan (CRBAP)

The purpose and mission of the action plan is to, "Develop a dynamic plan that will improve surface water and ground water quality in the Chehalis River Basin, including the Chehalis River, Grays Harbor, and their tributaries, by reducing nonpoint source pollution in accordance with Federal, State and local guidelines. The CRBAP will foster opportunities for organizations and individuals to work together to prevent future pollution of the waters of the Chehalis River Basin. While achieving water quality goals, we recognize the need to maintain the viability of existing industries. All goals are of equal importance." This action plan also includes information on Chehalis tributaries, including the Black River (Chehalis River Council 1992).

Chehalis Basin Watershed Management Plan (CBWMP)

The plan is adapted from the CRBAP (Chehalis River Council 1992) with additional information incorporated from the Chehalis Basin Level 1 Assessment. It outlines the status and needs to restore and conserve the waters of the Chehalis Basin, which Grays Harbor and Grays Harbor Refuge depend upon (Chehalis Basin Partnership 2004).

Grays Harbor Estuary Management Plan (GHEMP)

The GHEMP is a long-range, coordinated, comprehensive plan to guide land and water use activities in the greater Grays Harbor estuary. It is an older, comprehensive guiding document that was and is being implemented through individual local shoreline master programs, ordinances, State and Federal regulations, and permits (Grays Harbor Estuary Management Task Force 1989).

Washington State Coastal Zone Management Section 309 Assessment and Strategy, 2011–2015

The Washington State Coastal Zone Management Plan (CZMP), approved in 1976, applies to 15 coastal counties, including Grays Harbor (NOAA 1987). The CZMP is authorized to fund specific improvements along the coast (WDOE 2010).

Grays Harbor Geographic Response Plan (GRP)

This Department of Ecology (WDOE 2013) plan was written as guidance to prioritize resources to be protected in the event of an emergency contaminant spill and allows for immediate and proper action by early responders and coordinators.

The Pacific Northwest Coast Ecoregional Assessment

This report (Vanderschaaf 2006) addresses the most important places for conserving native species and ecosystems in the Pacific Northwest. Using this assessment, TNC selected target species and communities that represented various habitat types. This assessment is a guide for providing the most conservation benefit for the lowest cost.

Wetlands in Washington State, Volume 1 and Volume 2

Volume 1 is a synthesis of science, reviewing the components of freshwater wetlands and the effects of changes on the wetlands. Volume 2 provides guidance on managing and protecting wetlands. Both volumes are from Department of Ecology and they provide guidance in understanding the wetland ecology of the Black River Unit and Grays Harbor Refuge (Granger et al. 2005, Sheldon et al. 2005).

Black River Conservation Area Plan

This TNC plan pulls together information regarding the Black River Watershed, its history, uses, special habitats, threats, and needs from the headwaters to the confluence with the Chehalis River. The purpose of the Black River Conservation Area Plan (TNC 2005) is to highlight the uniqueness of the Black River in the Puget Trough, to identify the species and communities within the watershed that are representative of the ecological region, and to emphasize the need to protect, restore, and link the diverse habitats found in the Black River watershed— habitats upon which the biodiversity and ecological functioning of this Puget Trough landscape are dependent.

1.8 Special Designation Lands

1.8.1 Western Hemisphere Shorebird Reserve Network Site of Hemispheric Significance

In 1996, the greater Grays Harbor estuary (including Grays Harbor Refuge) was designated as a Western Hemisphere Shorebird Reserve Network (WHSRN) Site of Hemispheric Significance in the Pacific Flyway. The relatively undisturbed estuary habitats were identified as subtidal (open water), intertidal (mudflat), rocky shore (harbor mouth) intertidal emergent (salt marsh), intertidal emergent (scrub/shrub), palustrine forested (forested wetland/willow), palustrine emergent, and palustrine emergent spoil (fill). To receive WHSRN designation, the site must support over 500,000 shorebirds during a year (WHSRN 2009). Counts from various sources report that an estimated 300,000+ shorebirds were observed during an aerial survey of Grays Harbor in April 1993; during that same time, ground counts on Bowerman Basin (which became Grays Harbor Refuge) on April 26 and 27, 1993, indicated about 150,000 and 125,000 shorebirds, respectively. The greater estuary and the Refuge provide spring and fall stopover habitat where shorebirds can forage on abundant invertebrates and rest during migration. The site also provides habitat and food for wintering

shorebirds. Most of the shorebirds identified in the NPCRSMP as having primary importance within the region use the greater Grays Harbor estuary as well as the Refuge.

1.8.2 Important Bird Areas (IBA)

There are two Important Bird Area (IBA) programs. The American Bird Conservancy's (ABC) IBA program concentrates on a global effort to identify the most important areas for maintaining bird populations and focus conservation efforts on protecting those sites. The National Audubon Society's (NAS) IBA program focuses on working within each state to identify a network of sites that provide critical habitat for birds. Both programs recognize that habitat loss and fragmentation are the most serious threats to birds across North America and around the world and they have become components of many bird conservation efforts.

Grays Harbor Refuge was designated by an IBA by Washington Audubon, the state office of the NAS (Cullinan 2001). Recently 10 coastal IBAs, including Grays Harbor and Willapa Bay, were combined into one regional IBA called Washington Coastal Estuaries IBA (Bayard, T. 2013, pers. comm.).

1.9 Planning Process and Issue Identification

1.9.1 Planning Process

The CCP planning process for Grays Harbor Refuge and the Black River Unit began in 2010. A core team and an expanded team were formed to develop the CCP. The core planning team consists of the project leader, deputy project leader, visitor services manager, wildlife biologist, and conservation planner. The extended team consists of biologists from the Service, WDFW, and WDNR. The extended team assisted in the development of this draft CCP, particularly in providing comments and information at milestones in the planning process. A full list of the plan contributors and their roles is provided in Appendix I.

Early in the planning process, we developed a list of preliminary issues, concerns, and opportunities for the CCP. These planning issues were initially presented to the public in Planning Update 1 in May 2011 and at two local public scoping meetings on May 18 and 19, 2011. A Notice of Intent to prepare a CCP and associated NEPA document was published in the Federal Register on June 8, 2011 (76 FR 33339).

Public outreach continued with the distribution of three planning updates to our mailing list and meetings with stakeholder groups. The comments and suggestions made through this process helped further develop and refine the issues and management alternatives for the CCP, including the preferred alternative. This draft CCP will result in additional comments, which will be evaluated by the planning team. Additional detailed information on public involvement can be found in Appendix J.

1.9.2 Key Issues Addressed in the CCP

The CCP planning team evaluated the issues and concerns raised both by staff and the public during public scoping, as well as throughout the multi-year planning process. Issues are defined as matters of controversy, dispute, or general concern over resource management activities, the environment,

land uses, or public use activities. Issues are important to the planning process because they identify topics to address in the CCP, pinpoint the types of information to gather, and help define alternatives for the CCP. Although CCPs are comprehensive plans, no single plan can cover all issues. It is the Service's responsibility to focus planning and the analysis on the major issues. Major issues typically suggest different actions or alternative solutions, are within the Refuge's jurisdiction, and have a positive or negative effect on the resource. Major issues influence the alternatives proposed in the draft CCP. Key issues, concerns, and opportunities analyzed in the draft CCP are presented below (also see Appendix J).

Grays Harbor Refuge

- *Habitat Management and Restoration.* What actions are needed to sustain and restore priority species and habitats over the next 15 years? How is sedimentation impacting shorebird habitat quality? What will the effects of climate change and sea level rise have on Refuge habitats and species?

- *Invasive Species Control.* Invasive plant species degrade habitat quality for shorebirds, migratory birds, fish, and wildlife. Invasive animals may compete with native fish and wildlife for limited resources. How can we reduce the incidence and spread of invasive species?

- *Visitor Services and Education Opportunities.* Wildlife observation, photography, interpretation, and environmental education are provided at Grays Harbor Refuge. How can we improve these services and programs? What visitor services facilities are needed or planned? What volunteer programs and partnerships can be developed or strengthened to improve outreach and education? What can be done to reduce trespassing, vandalism, and other illegal activities and improve wildlife and habitat protection? Are there opportunities to provide hunting and/or fishing at Grays Harbor Refuge?

- *Contaminants***.** What can be done to address potential sources and impacts of contaminants on and around the Refuge?

Black River Unit

- *Land and Water Protection.* What actions are needed to sustain and restore priority species and habitats over the next 15 years? How can we improve habitat protection and connectivity and reduce habitat fragmentation? How can we improve water quality and quantity in the Black River system for fish and wildlife?

- *Habitat Management and Restoration.* Most habitats have been altered by human actions and are in need of management and restoration to increase value as fish and wildlife habitat. What actions will help provide important information on key species, habitat composition, and the management prescription needed for the Black River Unit? What will the effects of climate change and sea level rise have on Unit habitats and species? How can we enhance Oregon spotted frog recovery?

- *Invasive Species Control.* Invasive plant species degrade habitat quality for migratory birds, fish, amphibians, and many other forms of fish and wildlife. Nonnative animals may compete

with native fish and wildlife for limited resources. How can we reduce the incidence and spread of invasive species?

- *Visitor Services and Education Opportunities.* The Black River Unit has remained largely closed because of the fragmented nature of current land ownership. How can we reduce trespassing, vandalism, and other illegal activities and improve wildlife habitat and protection? What wildlife-dependent priority public uses should be considered at the Black River Unit, where should they be allowed, and how should they be conducted? What opportunities are there for improving access to Black River, boat launching, and parking on the Unit? How can partnerships and volunteers be developed to support visitor service programs?

- *Conservation Partnership*. How can the Service develop a coordinated approach with other groups and agencies to plan and manage for the protection, restoration, and interpretation of lands and waters within the Black River corridor?

1.10 Refuge Visions and Goals

1.10.1 Grays Harbor National Wildlife Refuge Vision

The Refuge is recognized internationally for its significance to shorebirds as part of the Grays Harbor Western Hemisphere Shorebird Reserve Network. Each year, shorebirds make a seemingly impossible journey along the Pacific coast, traveling thousands of miles southward in the fall to reach their wintering areas as distant as South America. The following spring they return to their nesting grounds in Alaska and Canada.

To achieve this feat, thousands of shorebirds require key rest areas. Grays Harbor National Wildlife Refuge plays an important role in this respect: twice a day the tides recede, providing a vast expanse of mudflat habitat where migrating birds forage and rest during their long journey. This spectacular natural phenomenon provides visitors and students alike an opportunity to observe, photograph, and learn about these shorebirds and other local wildlife in their native habitats.

The Refuge works in partnership with others to protect and enhance the biological integrity and natural functions of the estuary for migratory birds and other native fish and wildlife, using adaptive management to respond to changing environmental and climatic conditions. Located in a gateway community of the Olympic Peninsula, the Refuge provides opportunities for adults and children to enjoy the outdoors, observe wildlife, and foster a lifelong connection with nature.

1.10.2 Grays Harbor National Wildlife Refuge Goals

1) Protect, maintain, and restore estuarine habitats representative of the Grays Harbor ecosystem for the benefit of shorebirds, other migratory birds, fish, and a diverse assemblage of other native species.

2) Protect and maintain upland habitat representative of the Grays Harbor ecosystem for the benefit of migratory passerines and other wildlife.

3) Contribute to the protection and long-term environmental health of the Refuge and greater Grays Harbor estuary and ecosystem.

4) Collect scientific information (inventories, monitoring, and research) necessary to support adaptive management decisions.

5) Provide quality opportunities for visitors to observe and photograph a diversity of wildlife and habitats to enhance visitors' understanding and appreciation of the Refuge's natural resources and to foster a connection with nature.

6) Provide environmental education opportunities that initiate a sense of wonder and foster a connection with nature and the Refuge for students both on and off the Refuge.

7) Support and strengthen an active volunteer work force and Friends Groups to assist in providing quality visitor services programs and outreach.

1.10.3 Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge Vision

The waters of the Black River flow almost imperceptibly from Black Lake south to the Chehalis River. Meandering through a complex mosaic of wetlands, riparian forest, shrub swamp, and bogs, this area is considered the most intact low-lying river system remaining in western Washington. The Unit protects some of the most expansive and remote wetlands, sustaining a truly wild place.

The Unit provides a diverse community of fish and wildlife, large populations of once rare species such as the Oregon spotted frog, salmon, and unique bog, plants, and animals now flourish in the healthy wetland habitats.

Unit visitors will explore the quiet waterway, paddling canoes through the narrow river channel to fish and observe wildlife. Exploration of the native habitats offers opportunities to catch a glimpse of secretive wading birds, river otter, beaver, Roosevelt elk, and other wildlife, providing visitors with a sense of stewardship for the Unit.

Together, community members and partners, in concert with the Unit, protect and enhance the Black River, promoting biodiversity and natural ecological functions to benefit native fish, wildlife, and plant communities in wetland and upland habitats.

The Unit continues to build strong partnerships to protect and maintain the solitude, wild character, and health of the Black River so future generations can experience being a part of this very special place.

1.10.4 Black River Unit of Billy Frank Jr. Nisqually National Wildlife Refuge Goals

1) Protect, maintain, and enhance aquatic habitats characteristic of the upper Black River Watershed while maintaining historical characteristics of the north Puget Trough Lowlands for the benefit of native fish, amphibians, migratory birds, and a diverse assemblage of other native species.

2) Protect and maintain upland habitats characteristic of the upper Black River watershed.

3) Contribute to the protection and long-term environmental health of the greater Black River watershed and ecosystem.

4) Gather scientific information (inventories, monitoring, and research) to support adaptive management decisions.

5) Provide quality opportunities for visitors to experience a diversity of wildlife and habitats to enhance their understanding and appreciation of the Unit's natural resources and to foster a connection with nature.

6) Support and develop an active volunteer program and partnerships to assist in providing quality visitor services programs and outreach.

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