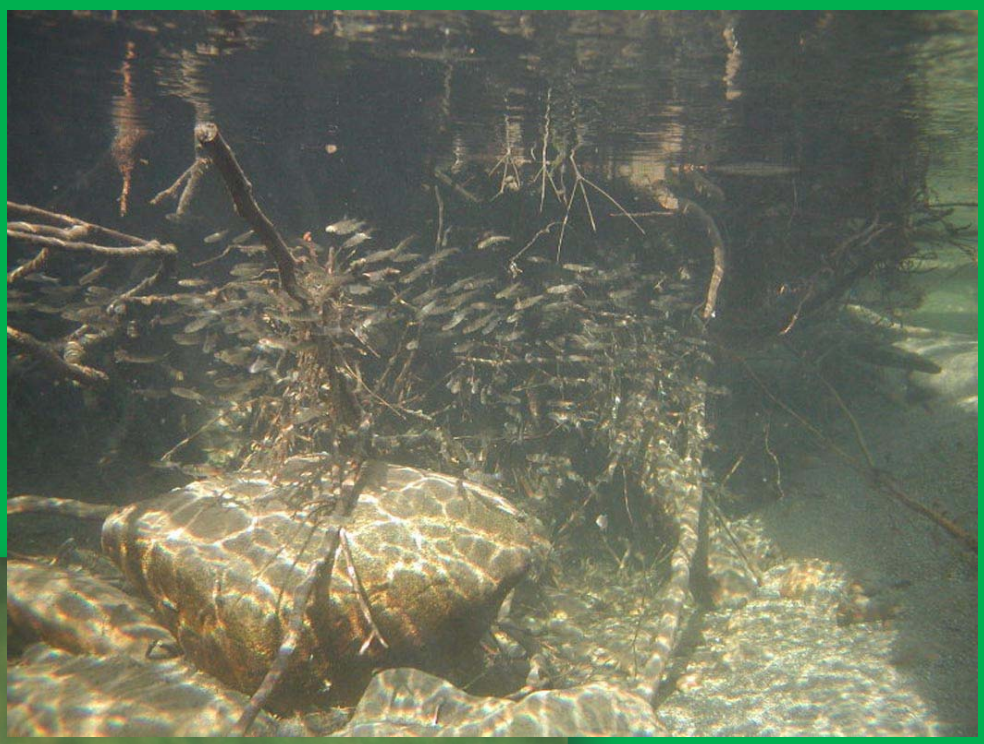
Chapter 1. Introduction and Background



The Lewis and Clark National Wildlife Refuge was established to preserve the vital fish and wildlife habitat of the Columbia River estuary.
Photo: Coho salmon stilly / USFWS

The Julia Butler Hansen Refuge for the Columbian White-tailed Deer was established to protect and manage the endangered Columbian white-tailed deer.
Photo: Columbian white-tailed deer buck / USFWS

Chapter 1. Introduction and Background

1.1 Introduction

From its origin in the Canadian Rockies, the Columbia River flows 1,200 miles through forests, fields, and mountains until meeting the Pacific Ocean near Astoria, Oregon. The river's significance to this country is far-reaching. Native Americans have fished its waters and lived near its shores for thousands of years. In 1805, the Lewis and Clark expedition journeyed down the river, seeking a route to the Pacific Ocean. This exploration opened the vast, uncharted territory of the Columbia River Basin to a westward migration that continues even today. The grandeur and abundance of the Columbia River are revealed in many ways. Its natural beauty defines much of who we are in the Pacific Northwest and we are drawn to it for recreation and renewal. Millions of people depend on the river for employment in water-related industries, for commerce, and for transportation. Wildlife species also depend upon the river. Thousands of species swim in its waters, dwell along its banks, and fly and nest in the surrounding heights (LCREP 1999).

The lower Columbia River estuary is formed where the Columbia River meets the Pacific Ocean. An estuary is the area where the freshwater of a river meets the saltwater of an ocean. In the Columbia River system, this occurs in the lower 35 river miles. In an estuary, the river has a direct, natural connection with the open sea. This transition from freshwater to saltwater creates a special environment that supports unique communities of plants and animals, specially adapted for life at the margin of the sea. Estuarine environments are considered among the most productive ecosystems on earth (LCREP 1999).

It is within the lower Columbia River estuary that the Julia Butler Hansen Refuge for the Columbian White-tailed Deer (refuge) and the Lewis and Clark National Wildlife Refuge (refuge or collectively refuges), become intertwined with the Columbia River. Both refuges are located in the lower reach of the Columbia River with lands and waters in southwest Washington (Wahkiakum County) and northwest Oregon (Clatsop and Columbia Counties) (Map 1). Since the early 1970s, both refuges have played important roles in the protection, conservation, and management of natural resources in an ecologically significant area.

The U.S. Fish and Wildlife Service (Service), an agency of the Department of the Interior (DOI), is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Service manages the refuges as part of the National Wildlife Refuge System (Refuge System), which is comprised of 150 million acres managed on 550 national wildlife refuges and other units of the Refuge System, plus 37 wetland management districts.

The Lewis and Clark Refuge's approved acquisition boundary encompasses approximately 33,000 acres of the Columbia River estuary, including 18 named islands and numerous sand bars, mud flats, unnamed intertidal marshes, and areas of open water in northern Clatsop County, Oregon (Map 2). The refuge also includes three small parcels in Oregon on the mainland at Tongue Point, Emerald Heights, and Brownsmead. The Service has acquired 12,167 acres of

land within the refuge's approved boundary; the State of Oregon also owns land within the refuge boundary.

Julia Butler Hansen Refuge was established in 1971 and contains more than 6,000 acres of pastures, Sitka spruce swamps, brushy woodlots, marshes, and sloughs, in both Washington and Oregon (Map 3). As the refuge's name implies, this refuge was set aside specifically to protect the endangered Columbian white-tailed deer (CWT deer) and its habitat.

1.2 Proposed Action

The Service proposes to develop and implement comprehensive conservation plans for both refuges. As part of a single planning process, this Draft Comprehensive Conservation Plan and Environmental Impact Statement (Draft CCP/EIS) covers both refuges. The final documentation will be separated into individual CCPs for each refuge at the conclusion of this planning process. The CCPs will set forth management guidance for the refuges for a period of 15 years, as required by the National Wildlife Refuge System Administration Act of 1966, as amended (16 U.S.C. 688dd-688ee), which mandates the Service to address "…significant problems that may adversely affect the populations and habitats of fish, wildlife and plants and the actions necessary to correct or mitigate such problems."

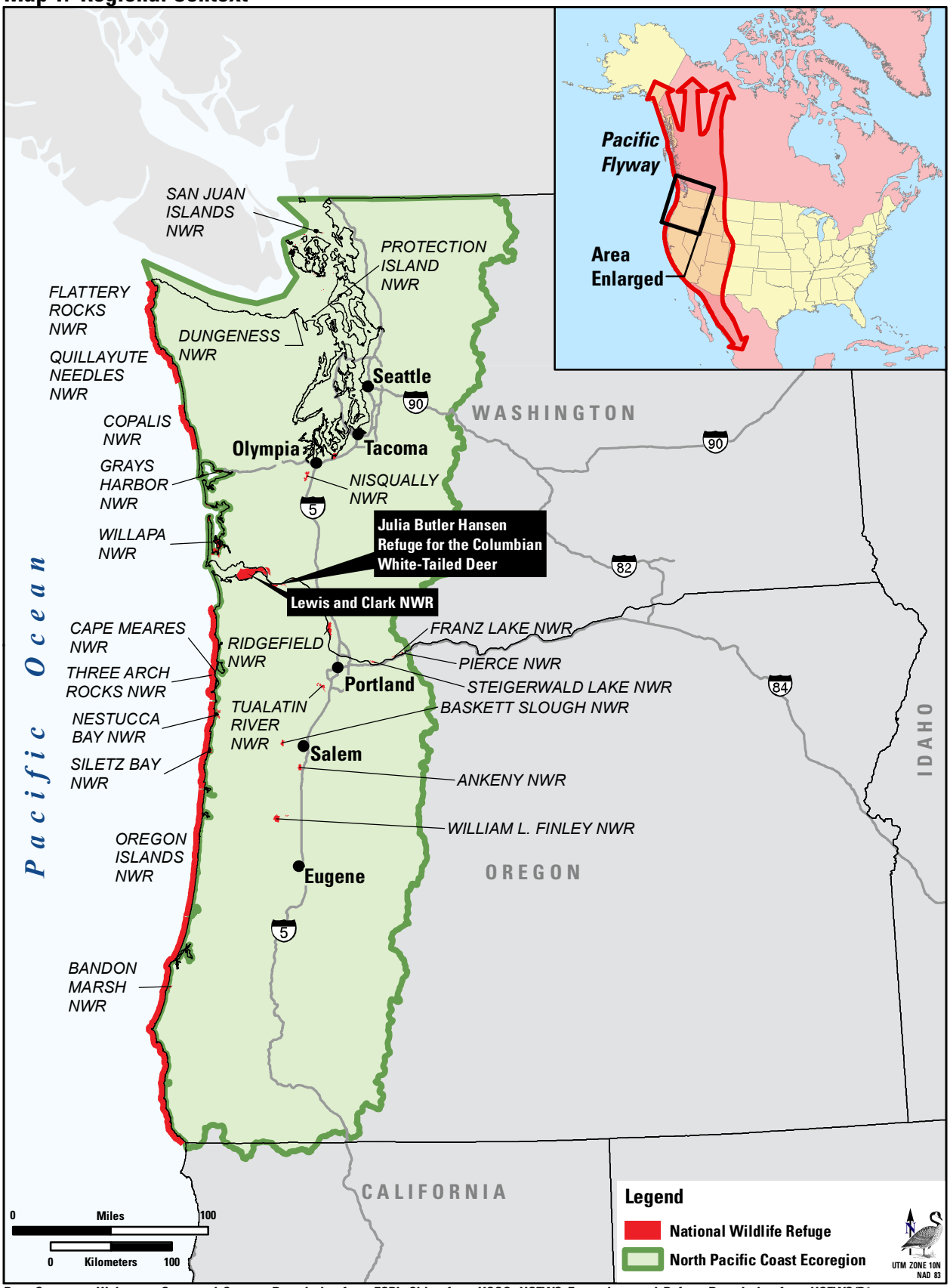
We have developed and analyzed draft alternatives for managing the refuges. The alternatives address the major issues and relevant mandates identified in the CCP process and are consistent with principles of sound fish and wildlife management. The Service evaluated two draft alternatives for the Lewis and Clark Refuge and has identified Alternative 2 as the preferred alternative. The Service evaluated three draft alternatives for Julia Butler Hansen Refuge and identified Alternative 2 as the preferred alternative.

The draft preferred alternatives represent the best balanced approach for achieving the refuges' purposes, visions, and goals; contributing to the Refuge System mission; and addressing relevant issues and mandates consistent with sound principles of fish and wildlife management. However, the draft preferred alternatives may be modified between the draft and final documents depending upon comments received from the public or other agencies and organizations. The Service's Pacific Region Regional Director will decide which alternatives will be adopted for implementation. For details on the specific components and actions comprising the range of alternatives, see Chapter 2.

1.3 Purpose and Need for the CCP

The purpose of the CCP is to provide the Service, the Refuge System, our partners, and the public with a management plan for improving fish and wildlife habitat conditions and refuge infrastructure, for wildlife and public use on the Lewis and Clark and Julia Butler Hansen Refuges over a period of 15 years. An approved CCP will ensure that the Service manages these refuges to achieve the individual refuges' purposes, visions, goals, and objectives to help fulfill the mission of the Refuge System.

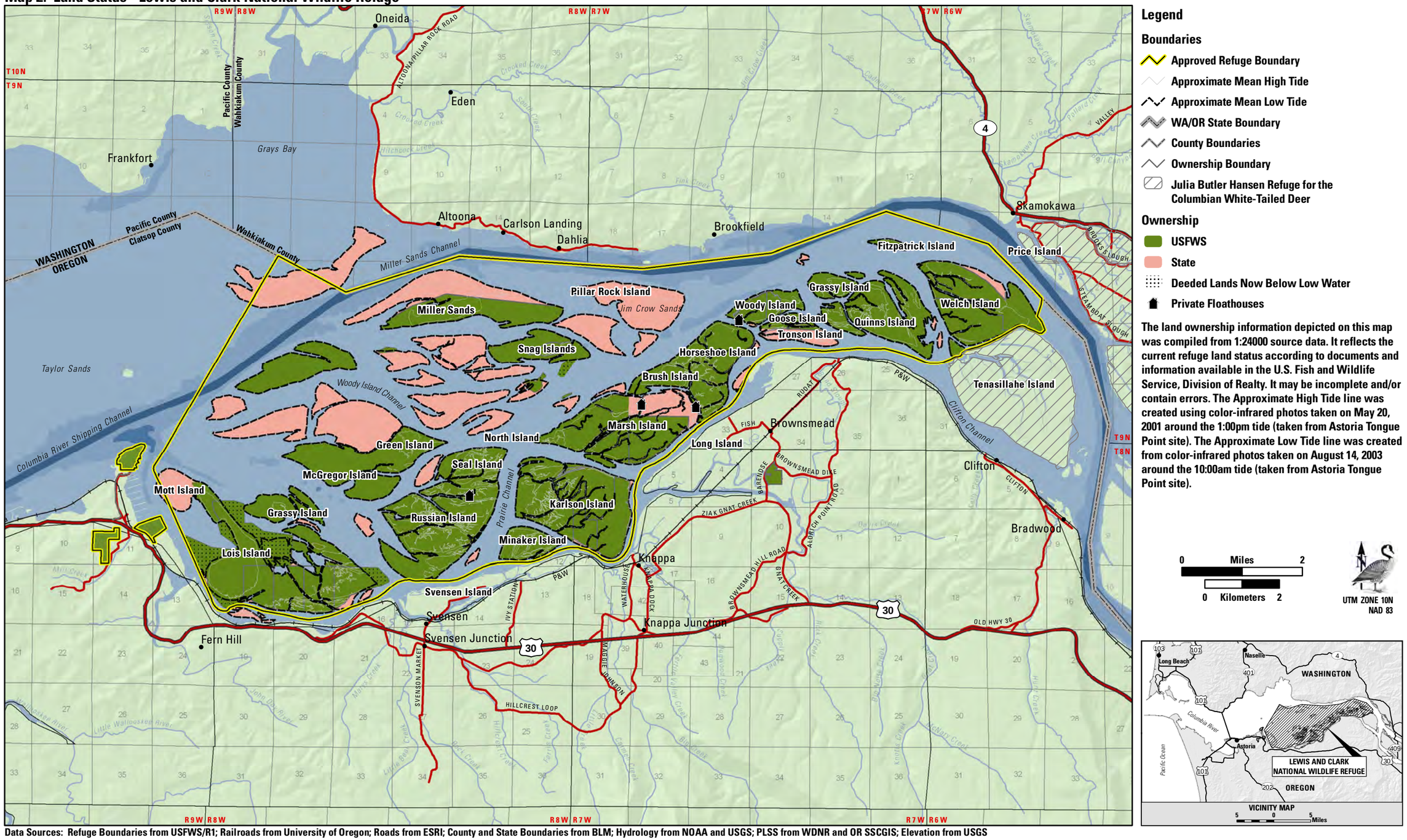
Map 1. Regional Context



Data Sources: Highways, State and Country Boundaries from ESRI; Cities from USGS; USFWS Ecoregions and Refuge Boundaries from USFWS/R1

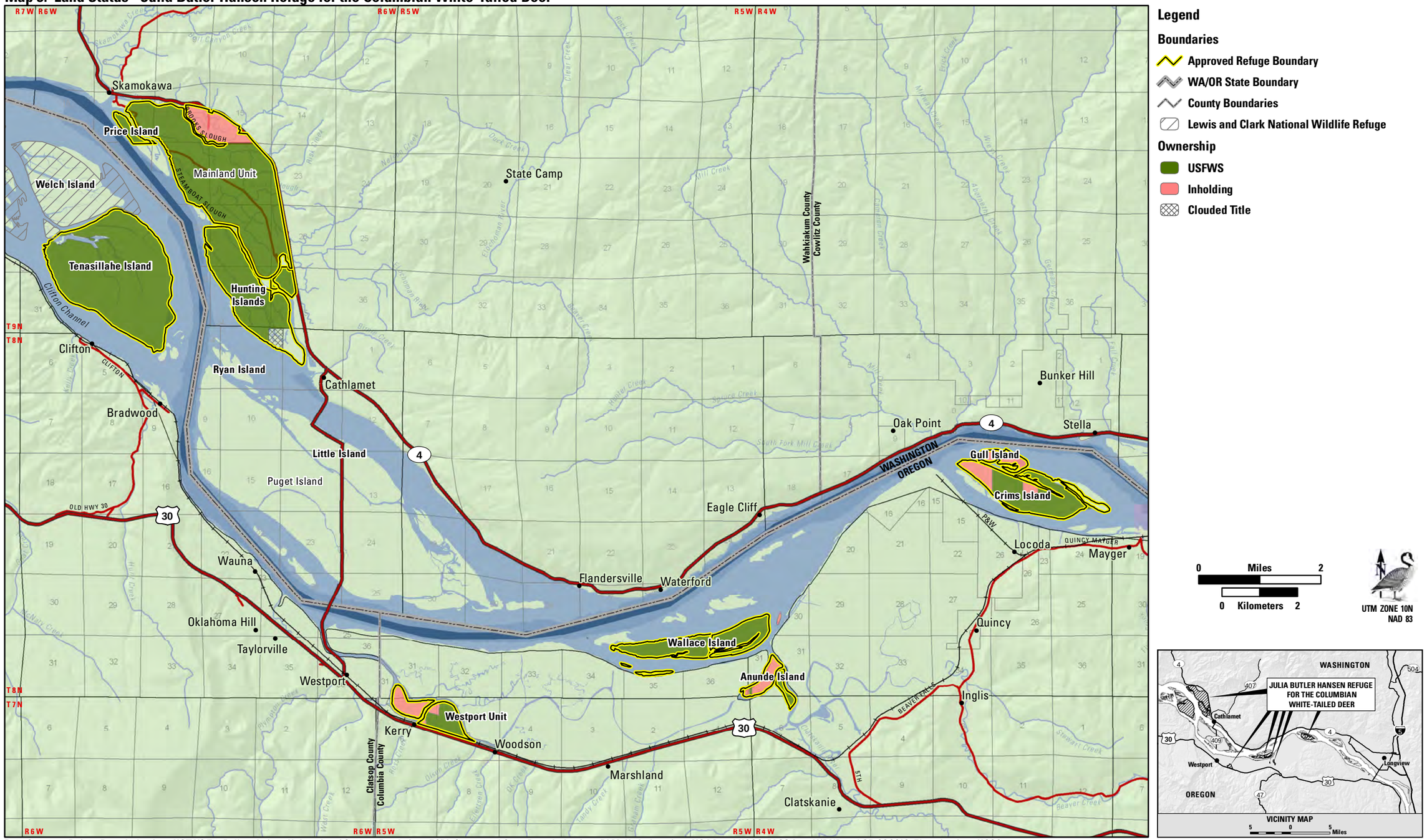
The back sides of map pages are blank to facilitate map readability.

Map 2. Land Status - Lewis and Clark National Wildlife Refuge



Data Sources: Refuge Boundaries from USFWS/R1; Railroads from University of Oregon; Roads from ESRI; County and State Boundaries from BLM; Hydrology from NOAA and USGS; PLSS from WDNR and OR SSCGIS; Elevation from USGS

Map 3. Land Status - Julia Butler Hansen Refuge for the Columbian White-Tailed Deer



Data Sources: Refuge Boundaries from USFWS/R1; Railroads from University of Oregon; Roads from ESRI; County and State Boundaries from BLM; Hydrology from NOAA and USGS; PLSS from WDNR and OR SSCGIS; Elevation from USGS

This Draft CCP/EIS was developed to provide reasonable, scientifically grounded guidance for improving the refuges' riparian, wetland, Sitka spruce swamp, and grassland habitats, for the long-term conservation of CWT deer, native plants, and migratory birds. The Draft CCP/EIS identifies appropriate actions for protecting and sustaining the cultural and biological features of the estuary islands, the refuges' wintering waterfowl populations and habitats, the migratory shorebird populations that use the refuges, and threatened, endangered, or rare species. A final purpose of the CCP is to provide guidance and evaluate the priority public use programs on the refuges which may include hunting, fishing, wildlife observation, photography, environmental education, and interpretation.

The CCP is needed for a variety of reasons. Primary among these is the need to improve the refuges' riparian, wetland, and Sitka spruce swamp habitats, some of which are degraded by invasive plants and animals. The Draft CCP/EIS also recognizes and identifies threats to the endangered CWT deer, including predation of fawns, competition for food resources with elk, and impacts to habitat from invasive species. There is a need to address the refuges' contributions to conservation efforts for listed salmon species that migrate through the water and use certain refuge habitats for rearing. The refuges' wildlife-dependent priority public uses need to be analyzed, to determine what improvements or alterations could be made in the pursuit of higher quality programs (see Chapter 5). We need to determine whether and how the refuge should consider other nonwildlife-dependent uses, including commercial guiding activities, and camping. We also need to describe our strategies for better protecting the refuges' habitats and wildlife and the steps that should be taken to accomplish our goals.

1.4 Content and Scope of the CCP

This Draft CCP/EIS provides guidance for management of the refuges' habitats and wildlife and administration of public uses on refuge lands and waters. Information provided in this Draft CCP/EIS includes the following topics.

- An overall vision for the refuges and their role in the local ecosystem (Chapter 1).
- Goals and objectives for specific conservation targets and public use programs, as well as strategies for achieving the objectives (Chapter 2).
- A description of the refuges' physical environment (Chapter 3).
- A description of the conservation targets, their condition and trends on the refuges and within the local ecosystem, a presentation of the key desired ecological conditions for sustaining the conservation targets, and a short analysis of the threats to each one of the conservation targets (Chapter 4).
- An overview of the refuges' public use programs and facilities, a list of desired future conditions for each refuge program, and other management considerations (Chapter 5).
- An evaluation of the environmental consequences of implementing the alternatives (Chapter 6).
- Evaluations of existing and proposed public and economic uses for compatibility with each refuge's purposes (Appendix B).
- An outline of the projects, staff, and facilities needed to support the alternatives considered.
- Information regarding current State and Federal wildlife species listing status, and identification under relevant ecosystem plans.

This Draft CCP/EIS is intended to comply with both the Refuge Administration Act and the National Environmental Policy Act (NEPA), as amended (42 U.S.C. 4321-4347).

1.5 National Wildlife Refuge System Laws and Directives

1.5.1 Planning and Management Guidance

Refuges are guided by various Federal laws, executive orders, Service policies, and international treaties. Fundamental to the management of every refuge 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 are derived from the National Wildlife Refuge System Administration Act of 1966 as amended (16 U.S.C. 668dd-668ee), the Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4), as amended, Title 50 of the Code of Federal Regulations, and the Service Manual. The National Wildlife Refuge System Administration Act is implemented through regulations covering the Refuge System, published in Title 50, subchapter C of the Code of Federal Regulations. These regulations govern general administration of units of the Refuge System.

1.5.2 U.S. Fish and Wildlife Service Mission

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, interjurisdictional fish, wetlands, and certain marine mammals. The Service also manages national fish hatcheries, enforces Federal wildlife laws and international treaties regarding importing and exporting wildlife, assists with state fish and wildlife programs, and helps other countries develop wildlife conservation programs.

1.5.3 National Wildlife Refuge System

The Refuge System is the world's largest network of public lands and waters set aside specifically for conserving wildlife and protecting ecosystems. From its inception in 1903, the Refuge System has grown to encompass 150 million acres managed on 550 national wildlife refuges located in all 50 states and waterfowl production areas in 10 states. More than 40 million visitors annually fish, hunt, observe, and photograph wildlife, or participate in environmental education and interpretive activities on national wildlife refuges.

1.5.4 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).

Wildlife conservation is the fundamental mission of the Refuge System. The goals of the Refuge System, as articulated in our Mission, Goals and Purposes Policy (601 FW1) follow.

- Conserve a diversity of fish, wildlife, and 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 interjurisdictional 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 interconnectedness of fish, wildlife, and plants and their habitats.

1.5.5 National Wildlife Refuge System Administration Act

Of all the laws governing activities on National Wildlife Refuges, the Refuge Administration Act undoubtedly exerts the greatest influence. In 1997, the Refuge System Administration Act was amended by the National Wildlife Refuge System Improvement Act; it included a unifying mission for all national wildlife refuges to be managed as a system, a new process for determining compatible uses on refuges, and a requirement for each refuge to be managed under a comprehensive conservation plan, developed in an open public process.

The Refuge Administration Act states that the Secretary shall provide for the conservation of fish, wildlife and plants, and their habitats within the System as well as ensure that the biological integrity, diversity, and environmental health of the 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." Biological integrity, diversity, and environmental health (BIDEH) are critical components of wildlife conservation. As later made clear in the Biological Integrity, Diversity, and Environmental Health Policy section, "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 it was established. The Refuge Administration Act requires the Service to monitor the status and trends of fish, wildlife, and plants on each refuge.

Additionally, the Refuge Administration Act identifies six priority wildlife-dependent recreational uses. 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 during planning, managing, establishing, and expanding units of the Refuge System. The overarching goal is to enhance wildlife-dependent recreation opportunities and provide access to quality visitor experiences on refuges, while managing the refuges to conserve fish, wildlife, plants, and their habitats.

New and ongoing recreational uses should help visitors focus on wildlife and other natural resources. These uses should provide an opportunity to make visitors aware of resource issues, management plans, and how the refuge contributes to the Refuge System and Service's mission. When determined compatible on a refuge-specific basis, the six priority uses assume priority status among all uses of the refuge in question. The Service is to make extra efforts to facilitate priority wildlife-dependent public use opportunities.

When preparing a CCP, refuge managers must reevaluate 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 purpose(s), 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 Lewis and Clark and Julia Butler Hansen Refuges are in Appendix B of this Draft CCP/EIS.

A CCP must be developed with the participation of the public, as required by the Refuge Administration Act and other formally established guidance. Issues and concerns articulated by the public play a role in guiding alternatives considered during the development of the CCP, and together with the formal guidance, can play a role in selection of the preferred alternative. It is Service policy to develop CCPs in an open public process. The Service is committed to securing public input throughout the CCP planning process.

1.5.6 Relationship to Previous and Future Refuge Plans

Planning has been part of the refuges' operations since they were established. A considerable number of plans have been completed over the years to guide refuge managers. In recent history, additional smaller "step-down" plans and or management agreements (plans addressing one

program or resource) have been developed for one and or both refuges. A list of current management plans and the year they were completed follows.

- Highly Pathogenic Avian Influenza Disease Contingency Plan (2006)
- Fire Management Plan (2004)
- Station Safety Plan (2004; with annual updates current to 2008)
- Elk Management Plan (1986; updated 2004)
- Julia Butler Hansen Habitat Management Plan (1987)
- Julia Butler Hansen Public Use Management/Development Plan (1983)
- Columbian White-tailed Deer Recovery Plan, (1976; updated 1983)
- Julia Butler Hansen Migratory Bird Hunting Plan (1985)
- Julia Butler Hansen Animal Control Plan (1989)
- Habitat Management Summary (Annually)
- Julia Butler Hansen Sport Fishing Plan (1985)
- Lewis and Clark Refuge Hunting Plan (1985)
- Lewis and Clark Refuge Management Plan (1986)
- Lewis and Clark Refuge Public Use Management/Development Plan (1984)

1.5.7 Future Planning

The final CCP will be revised every 15 years or sooner if monitoring and evaluation findings determine that changes are needed to achieve the refuges' purposes, visions, goals, or objectives. The CCP provides guidance in the form of goals, objectives, and strategies for refuge programs 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 appropriate National Environmental Policy Act (NEPA) and other compliance.

1.6 Refuge Establishment and Refuge Purposes

The purpose or purposes for which a refuge was established or acquired is of key importance in refuge planning. Refuge purposes form the foundation for planning and management decisions. The purposes 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, and plants, and the habitats on which they depend, take precedence over other purposes in the management and administration of any Refuge System 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 establishing authority, 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.

By law, refuges are to be managed to achieve their purposes. When a conflict exists between the Refuge System's mission and the purpose of an individual refuge, the refuge's purpose may supersede the Refuge System's mission.

Refuge purposes are also the driving force in the development of a refuge's vision statements, goals, objectives, and strategies in a CCP, and are critical to determining the compatibility of all existing and proposed refuge uses. The purposes for the Lewis and Clark and Julia Butler Hansen Refuges follow.

1.6.1 Lewis and Clark National Wildlife Refuge Purposes and Acquisition History

On January 5, 1971, the Service identified a 33,000-acre acquisition boundary for what was called at the time the Columbia River Islands Refuge. Initially, this refuge included some 15,000 acres of county lands, 14,000 acres of state lands, and 3,168 acres of private lands.

On September 21, 1971, the Migratory Bird Conservation Commission (MBCC), under the authority of the Migratory Bird Treaty Act of 1929, approved the purchase price for 3,110 acres of private property, including an agreement with Clatsop County to manage 4,990 acres for a total of 8,100 acres to be included in the Lewis and Clark Refuge. This acreage was identified as important habitat "To preserve an important wintering and feeding area for migratory waterfowl in the Pacific Flyway" in MBCC Memorandum #2. The Memorandum also specified numbers for migratory bird populations, including 3,000 whistling swans, 2,000 dusky Canada geese, and 50,000 ducks. It also specifically mentioned the protection of "other water and shore birds, band tailed pigeons, bald eagles, Columbian white-tailed deer, and various kinds of small fur-bearing animals." The importance of this rich estuarine habitat was recognized as "irreplaceable" not only for its importance to waterfowl, but also as a transition area for migrating and juvenile salmon.

On April 19, 1972, the Service signed a 25-year agreement with Clatsop County, Oregon, entitled "Refuge Use and Cooperative Agreement Lewis and Clark National Wildlife Refuge Astoria, Oregon." The agreement, which established the refuge, was authorized under the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 USC 661 et seq.), it stated the following:

- "WHEREAS it is the desire of the parties to this agreement to cooperate in the preservation and enhancement of a portion of the Columbia River's islands, estuaries and tidelands constituting a broad ecological unit located in Clatsop County, Oregon, supporting fish and wildlife in Natural habitat for the benefit of the public."
- Section 1 of the agreement specified "For the purpose of establishing the Lewis and Clark National Wildlife Refuge as authorized to be operated and administered under the applicable statutes and regulations for migratory birds, fish and other wildlife…"
- In Section 9 the agreement stated "The commercial fishery is one of the public rights to be continued and preserved within the refuge…" It further stated that it "includes but is not limited to the actual harvesting of fish, the control of seal and sea lions in accordance with State and Federal rules and regulations and the clearing, preservation and maintenance of the fishing grounds."

- Section 7 of the agreement was later amended in July 1975, to give the Service management authority to regulate hunting and to close County lands to hunting with the County's concurrence. The amended section reaffirmed that "Public and commercial fishing shall continue in accordance with established custom and usage…" and that "other recreational uses shall be as prescribed by the U.S. Fish and Wildlife Service." In May 2004, Clatsop County donated these lands to the Service. The deed states the lands to be subject to "Public Waterfowl hunting, recreational fishing, and commercial fishing, in accordance with established custom and usage in accordance with State and Federal rules and regulations."

The Migratory Bird Commission's meeting notes and Memorandum #7 (dated May 1974) re-approved the purchase price for 1,595 acres. The justification for this acquisition was "Wintering area for migratory waterfowl." It further identified the refuge as "extremely important estuarine environment for marine animals, and a transition zone for hundreds of thousands of migrating salmon."

During December 1974, Oregon Department of State Lands (ODSL) entered into a 50-year agreement with the Service entitled "Refuge Use and Cooperative Agreement Lewis and Clark National Wildlife Refuge." This agreement specified the management of state lands inside the refuge acquisition boundary as "...to cooperate in the preservation, enhancement and management of a portion of the Columbia River's island and submerged and submersible lands, located in Clatsop County, Oregon, which constitute a broad and irreplaceable ecological unit supporting fish and wildlife in natural habitat for the benefit of the public."

The Service recognized an opportunity to acquire habitat near the Lewis and Clark Refuge's boundary, which was available through the government excess process from the U.S. Department of Labor (DOL). Formerly, these units were part of the Tongue Point Naval Station; a portion of the area is now part of the Tongue Point Job Corps Center. The first parcel was transferred during March of 1979; the DOL under the authority of Section 1 of P.L 537, 80th Congress (Federal Property and Administrative Service Act 1949) transferred 41.76 acres of the east shore at Tongue Point to the Service for "…wildlife conservation purposes."

In 1989 the Service received a 47.83-acre parcel of land from the Farmers Home Administration. In a letter dated May 26, 1989, it states that the land is "for conservation purposes." This parcel is called the Brownsmead Unit; the refuge has an agreement with the local Volunteer Fire Department who operates a fire station on a small portion of the property.

In May of 1990, the DOL transferred an additional 89.38 acres (Emerald Heights) to the refuge in order to "...maintain existing habitat for the threatened bald eagle, as well as support its eventual recovery." In the Categorical Exclusion for the property transfer, the Service specifically stated its objectives for acquiring the property "The lower Columbia River estuary is important resident bald eagle habitat. Acquisition of this parcel would secure three of the four nest sites which constitute the Mill Creek bald eagle nesting territory." It also characterized the "….mature forest supports cavity nesters and other wildlife species that depend on the presence of large trees and snags."

During April 1992, 83 acres were also transferred from the DOL and added to the refuge at Tongue Point, including nine acres of tidelands around the base of Tongue Point. Habitat descriptions include "...patchy stand of mature western hemlock up to 36 inches in diameter. Younger stands of hemlock predominate interspersed with Douglas fir. The understory is primarily sword fern with salmonberry and devil's club. Red alder, western red cedar, willow species, mosses, sedges, yellow monkey flower and celery-leaved buttercup are associated with many small drainages."

In 1993, the State of Oregon terminated a 50-year agreement with the Service entitled "Refuge Use and Cooperative Agreement Lewis and Clark National Wildlife Refuge." This agreement was cancelled due to a conflict with State laws, and subsequently the State issued a one-year license based upon existing law. A decision was made to allow the license agreement to expire in 1994 as a result of decreasing land values.

The South Tongue Point Land Exchange and the Marine Industrial Park Development Project Record of Decision were approved on June 20, 1994. The decision stated that the excess lands were set up to enhance habitat and wildlife protection on the refuge. The development component of the land exchange created real property assets for the State of Oregon's Common School Fund; it also encouraged new industrial employment within the area. Initially, the Corps conveyed 130 acres to ODSL for the development of a marine industrial site. In exchange, the ODSL conveyed 3,930 acres of State land within the approved Lewis and Clark Refuge boundary to the Service to become part of the refuge.

On May 20, 2004, Clatsop County donated 4,535 acres in fee title to the Service. As it was noted in the earlier agreement from April 19, 1972, (the Services 25-year management agreement with Clatsop County) these deeded lands are "Subject to; Public waterfowl hunting, recreational fishing, and commercial fishing, in accordance with established custom and usage in accordance with State and Federal rules and regulations." Map 2 shows the approved refuge boundary and ownerships within it.

1.6.2 Summary of Purposes and Management Direction for the Lewis and Clark Refuge

The purposes for the Lewis and Clark Refuge have been identified in legal documentation establishing and adding refuge lands. Because the refuge was originally established to preserve important wintering and foraging habitat for migratory waterfowl in the Pacific Flyway, this purpose represents a priority for refuge management. Protecting nesting and roosting habitat for the bald eagles is also a management priority.

Refuge authority and management is primarily limited to the islands; the State maintains jurisdiction over the open waters of the Columbia River. In accordance with the National Wildlife Refuge System Administration Act of 1966, as amended (16 U.S.C. 688dd-688ee), all lands acquired since the original establishment of the refuge retain this purpose. Along with managing for migratory waterfowl to achieve refuge purposes, legal documentation for the inclusion of additional refuge lands identified the following habitats as management priorities, to support a diverse assemblage of native fish, wildlife, and plants, and their habitats.

- Columbia River bottomlands.
- Island, estuaries, and tidelands.
- Forested habitats.
- Recreational and commercial fishing.
- Public waterfowl hunting.
- American bald eagle.

1.6.3 Julia Butler Hansen Refuge for the Columbian White-tailed Deer Purposes and Acquisition History

The Julia Butler Hansen Refuge contains over 6,000 acres of pastures, forested tidal swamps, brushy woodlots, marshes, and sloughs in both Washington and Oregon (Map 3). The refuge is located along the Columbia River from river mile 33 to river mile 56. Virtually all refuge lands were originally intertidal wetlands; some areas were diked, drained, and converted to uplands early in the 20th century.

The early planning history for protection of the CWT deer began in January 1940, with a report and a plan for the protection of CWT deer habitat by J. Burton Lauckhart, a Service game biologist. The brief report included purchasing lands for the protection of deer habitat. Nearly 25 years later, a formal discussion to preserve these lands within the Refuge System began in a letter (October 28, 1966) from the Service's Acting Regional Director, John Findlay, to John Biggs, Director of Washington's Department of Game, in it he stated "On October 15, 1966, the President signed the endangered species bill (P.L. 89-669) which authorizes the purchase of land for various endangered species of fish and wildlife." Public Law 89-669 was the Endangered Species Preservation Act, the precursor to the Endangered Species Act of 1973. Findlay's letter also stated "Our Region is being programmed $350,000 in fiscal year 1968 for acquisition of the proposed Columbia white-tailed deer area." This letter set the stage for cooperation in establishing protection for CWT deer habitat.

During the following year, the Service completed an Estimated Land Acquisition report under the funding authority of Public Law 88-578 (Land and Water Conservation Fund). The report proposed the purchase of 1,970 acres to create the "Columbia White Tailed Deer Sanctuary" and stated "The lands proposed for acquisition are essential to the preservation of the endangered Columbia white-tailed deer, Odocoileus virginianus leucurus (Douglas)." The report also describes past estimates of suitable habitat from the 1940s of "9,000 acres in Washington and 14,000 in Oregon." At the time of the report (1967), the total estimated acreage of "quality white-tail habitat remaining is less than 2,000 acres." A short description on needed habitat was identified as "A varied pattern of timber, brush and cropland seems to provide optimum habitat."

The first parcel (totaling 845 acres) was purchased during December 1971, establishing the "Columbia White Tailed Deer Sanctuary." By July 1972, the Sanctuary had gained over 1,900 acres and was renamed the Columbian White-tailed Deer National Wildlife Refuge.

During May 1973, a Final Environmental Statement entitled "Proposed Additions to and Operation of the Columbian White-Tailed Deer National Wildlife Refuge, Oregon and Washington" was completed. The Environmental Statement described the need for acquisition

of 5,230 acres in Clatsop County, Oregon, and Wahkiakum County, Washington, as a National Wildlife Refuge with the following statements:

- "The objective for acquiring and managing this area is to preserve the Columbian white-tailed deer in its natural habitat for future generations to see and enjoy."
- It identified a secondary purpose as "…providing viewing opportunities for the public to see this animal."
- This report also identified other wildlife values "…waterfowl, band-tailed pigeons, and numerous other wildlife species associated with a river environment."
- Wintering waterfowl estimates for the refuge and proposed acquisition included "1,000 whistling swans and 200 dusky Canada geese along with several thousand mallards, American widgeon and pintails." The report stated its significance as "…a waterfowl use area, this refuge will be a part of the overall Columbia River wintering area, which plays a major role in winter for the Pacific Flyway."
- A description of the wildlife benefits to preserving the river bottom habitat was specified as "…mammals such as mink and beaver, and birds ranging from grebes to numerous hawks and owls and passerine species. Bald eagles and red-tailed hawks are among the most abundant species."
- The report also mentioned muskrats, nutria, river otter, coyotes, raccoons and red fox.
- It also described historic, current and proposed management practices for the refuge. General descriptions included "Vegetation on the islands consists of thick stands of willow, black cottonwood, Sitka spruce, red alder, red osier dogwood, elderberry, salmonberry, and other species."
- A description of the fishery identified "Cold water species taken include Chinook and coho salmon and steelhead."
- The sloughs within the acquisition area were characterized by "…populations of warm water game fish including bass, black and white crappies, bluegill, yellow perch, etc., and various catfishes…"

The lands proposed for purchase were located on the Mainland Unit, Price Island, and Hunting Island. These lands were later purchased under the authority of the Fish and Wildlife Act of 1956 and the Endangered Species Act of 1973.

During 1988, the refuge was renamed the Julia Butler Hansen Refuge for the Columbia White Tail Deer (P.L. 100-446, September 27, 1988) to recognize a prominent local legislator who was instrumental in establishing the refuge.

An environmental assessment (EA) was completed during June 1993, entitled "Proposed Additions to Julia Butler Hansen Refuge for the Columbia White-tailed Deer, Clatsop and Columbia Counties, Oregon." This EA stated "…proposes to ensure the preservation of essential habitat for the Westport, Oregon subpopulation of the endangered Columbia White-tailed Deer." The EA also stated "The proposal would also serve to protect a portion of the dwindling wetland and riparian habitats along the lower Columbia River." This Columbia River addition approved under the authority of the Endangered Species Act of 1973, included 4,484 acres within the approved boundary. All of the units are located in Columbia County, Oregon. Some of these lands were later purchased under the authorities of the Fish and Wildlife Act of 1956, and the

Endangered Species Act of 1973, using the Land and Water Conservation Fund's funding authority.

During 1998, the addition of the Willamette Industries property to the refuge was approved under the authority of the Fish and Wildlife Act of 1956. The purpose for this addition was specified as "…to preserve native spruce swamp habitat for the Endangered Columbian white-tailed deer."

In 2001, the Service modified the approved refuge boundary to include the addition of the Moores-Wright Tracts which included an estimated 264 acres. These lands were not purchased, yet are included in the refuge acquisition boundary for future consideration if they are made available for purchase. The purpose for this addition to the refuge boundary was specified to complement and facilitate ongoing refuge management activities for endangered species, anadromous fish, and migratory birds.

A Memorandum of Agreement was signed in August of 2003 between the Bonneville Power Administration (BPA), Columbia Land Trust, and the Service for the "Acquisition and Management of a Portion of Crims Island." This document stated that the purpose of the agreement is to "permanently protect, mitigate, and enhance fish and wildlife and their habitats, and to manage these resources in a manner consistent with the council's program in accordance with the goals and objectives established by the refuge to help fulfill BPA's obligations, particularly those under the Northwest Power Act and the Endangered Species Act, and other laws as appropriate. The desired future condition of the property is one of naturally self-sustaining native habitat that minimizes the need for future human intervention to achieve the purpose of the project." Ultimately, the Service will assume all management responsibilities of this land. In May 2004, the Service received a large portion of Crims Island in fee title, approximately one third of the island is held in private ownership. Map 3 shows the approved refuge boundary and ownerships within it.

1.6.4 Summary of Purposes and Management Direction for the Julia Butler Hansen Refuge

In summary, purposes for the refuge have been identified in legal documentation establishing and adding lands. Because the refuge was originally established for the preservation and management of the endangered CWT deer, this purpose represents the highest priority for refuge management. In accordance with the National Wildlife Refuge System Administration Act of 1966, as amended (16 U.S.C. 688dd-688ee), all lands acquired since the establishment of the refuge retain this purpose for preservation of the deer and its habitat. Along with the CWT deer, legal documentation for inclusion of additional lands to the refuge identified the importance of the following resources, also essential to achieving refuge purposes:

- Wetlands – aquatic migratory birds.
- Deepwater channels and slough – native fish including steelhead and Chinook.
- Columbia River bottomlands – diversity of native fish, wildlife, plants and their habitats.
- Native spruce swamp habitat.
- Wintering waterfowl habitat.
- Public viewing opportunities for CWT deer.

1.7 Relationship to Ecosystem Management Goals

One of the major purposes of this CCP is to ensure that refuge management is focused on achieving not only the refuge's purposes, but also national, regional, state, and watershed goals for the preservation and enhancement of wildlife and habitats. These goals are stated in various plans that pertain to the Pacific Northwest and especially the Columbia River Basin. A brief summary of the major plans considered during development of this Draft CCP/EIS follows.

1.7.1 Lower Columbia River Estuary Partnership Comprehensive Conservation and Management Plan

The Lower Columbia River Estuary Partnership (LCREP) is part of the National Estuary Program (NEP). The NEP was established to coordinate the protection of estuaries of national significance that are threatened with ecological degradation resulting from human activities. The estuary partnership focuses its efforts on the tidally influenced portion of the Columbia River, which reaches from the river's mouth to Bonneville Dam.

In response to an agreement between the governors of Oregon and Washington, and the U.S. Environmental Protection Agency, the estuary partnership prepared the Comprehensive Conservation and Management Plan for the estuary (LCREP 1999). The plan embodies the efforts of many committed citizens who represent environmental groups, local governments, state and Federal agencies, ports, tribal governments, industry, labor, agriculture, recreational users, commercial fishing, the Northwest Power Planning Council, and citizens-at-large. The goals of the plan include the following:

- Increase habitat and habitat functions.
- Prevent toxic and conventional pollution.
- Improve land use practices to protect ecosystems.
- Monitor the river for long term impacts and evaluate impact of actions.
- Strengthen coordination between the states in water quality and species issues.
- Enhance education opportunities regarding the lower river and estuary to build stewardship among all citizens: individual, municipal, corporate.

For each of the plan's goals, there are specific actions that may be taken to accomplish the goal. The refuges play an important role in achieving many of the plan's recommended actions, including the following:

- Protect, conserve and enhance identified habitats, particularly wetlands, on the mainstem of the lower Columbia River.
- Preserve and/or restore buffer areas in appropriate locations along tributaries and the mainstem to a condition that is adequate to maintain a healthy, functioning riparian zone for the lower river and estuary.
- Restore 3,000 acres of tidal wetlands along the lower 46 river miles to return tidal wetlands to 50 percent of the level present in 1948.
- Identify and increase points of public access to the river. Ensure that access does not cause further loss of habitat, increased erosion, loss of riparian vegetation, or degradation of water quality.

- Maintain public information and education efforts regarding the lower river and estuary that focus on endangered species, habitat loss and restoration, biological diversity, and lifestyle practices and connections to the river.

1.7.2 Oregon Natural Heritage Plan

The Oregon Natural Heritage Plan (2003) is a product of the Oregon Natural Heritage Program, whose mission is to conserve the full range of Oregon's native plants, animals and ecosystems through voluntary and cooperative action. The program uses science to identify high quality and representative examples of native Oregon habitats and species and works to protect these natural treasures through voluntary and cooperative habitat conservation agreements. The Oregon Natural Heritage Plan has three roles:

- Describe the components of Oregon's natural heritage;
- Identify natural areas of exceptional value for conservation; and
- Provide opportunities for voluntary conservation on both public and private lands.

Areas of Critical Environmental Concern, Wilderness Areas, National Monuments, local preserves and other public lands with management plans that adequately protect Oregon's natural heritage are now included with Research Natural Areas and preserves as providing complete or partial protection for some ecosystems and species. For national wildlife refuges, the plan recommends that Research Natural Areas be established to protect natural areas of exceptional value (particularly those areas that are unique, and have no similar examples protected elsewhere). Freshwater tidal marsh at Russian Island (Lewis and Clark Refuge) and cottonwood/willow-creek dogwood tidal swamp at Tenasillahe Island (Julia Butler Hansen Refuge) are identified in the plan as desirable sites for Research Natural Area designation.

1.7.3 Oregon and Washington Comprehensive Wildlife Conservation Strategy

The Oregon Department of Fish and Wildlife (ODFW) and Washington Department of Fish and Wildlife (WDFW) prepared Comprehensive Wildlife Conservation Strategies (CWCS) (ODFW 2006, WDFW 2005) in response to two Federal programs—the Wildlife Conservation and Restoration Program and the State Wildlife Grant Program. The CWCSs included information on the distribution and abundance of priority wildlife and habitats; provide strategies for conserving and monitoring wildlife and habitat; and provide for coordination with Federal, state, tribal, and local agencies, and the public. The CWCSs emphasized proactive measures to conserve declining species and habitats, and to maintain the status of common species. At least 24 species that were identified as priority species in the CWCSs occur on the refuges, including CWT deer, bald eagle, band-tailed pigeon; Chinook, chum, and coho salmon; and steelhead.

1.7.4 Mainstem Lower Columbia River and Columbia Estuary Subbasin Plan

The Northwest Power and Conservation Council (NPCC) was formed by the states of Washington, Oregon, Idaho, and Montana to protect and mitigate fish and wildlife that are affected by development and operation of the Columbia River hydropower system while assuring an adequate power supply. The NPCC established the Columbia River Fish and Wildlife Program to guide efforts to protect, mitigate, and enhance fish and wildlife resources. Through

the Fish and Wildlife Program, the Columbia Basin was divided into 62 subbasins for planning purposes. A subbasin plan was then developed for each subbasin. These plans contain the strategies that drive the implementation of the Council's fish and wildlife program.

The Julia Butler Hansen Refuge's Mainland and Hunting Island units are within the Elochoman Subbasin of the Lower Columbia Province. The Elochoman Subbasin Plan is part of the Lower Columbia Salmon Recovery and Fish and Wildlife Subbasin Plan. Thus, there are three plans that apply to the refuges. It is the Mainstem and Estuary Subbasin Plan (NPCC 2004) that pertains most directly to the refuges.

The Mainstem Lower Columbia River and Columbia Estuary Subbasin Plan identities the following focal species: CWT deer; bald eagle; chum, Chinook, and coho salmon; steelhead; Pacific lamprey; green sturgeon; and white sturgeon. The refuges provide important habitats for these species. Enhancing and preserving these habitats are key elements of the Draft CCP/EIS.

1.7.5 Columbian White-tailed Deer Recovery Plan

Recovery Plans are prepared by the Service for most endangered species. These plans specify actions that are necessary to protect and recover the species. The CWT deer Recovery Plan, as revised in 1983 (USFWS 1983), states that the lower Columbia River population of the deer may be considered recovered if a minimum of 400 individuals can be maintained in at least three viable subpopulations distributed in suitable secure habitat. General guidelines for accomplishing this goal are: (1) maintain overall viability of 400 deer; (2) increase the subpopulation on Tenasillahe Island to a minimum viable herd of 50; and (3) secure the habitat of one additional subpopulation. Listed stepwise under the general guidelines are specific actions that are recommended to accomplish the deer's recovery. Actions that are applicable to management of the refuges include the following:

- Census the population annually for numbers, sex ratios, and doe to fawn ratios.
- Maintain closed areas on the Julia Butler Hansen Refuge.
- Manage Julia Butler Hansen Refuge habitat to benefit the deer.
- Prepare a long-range management plan for the Julia Butler Hansen Refuge that is based on existing knowledge of CWT deer habitat relationships.
- Monitor the incidence of hybridization between CWT deer and black-tailed deer and take action if hybridization frequency increases.
- Transplant CWT deer to establish new subpopulations within their historical range.

1.7.6 North American Waterfowl Management Plan, Pacific Coast Joint Venture

The North American Waterfowl Management Plan (NAWMP) is an international action plan to conserve migratory birds throughout the continent. The goal of the NAWMP is to return waterfowl populations to their levels in the 1970s by conserving wetland and upland habitat. Canada and the United States signed the NAWMP in 1986, in reaction to critically low numbers of waterfowl. Mexico joined in 1994, making it a truly continental effort. The NAWMP is a partnership of Federal, provincial, state and municipal governments, non governmental

organizations, private companies, and many individuals, all working toward achieving better wetland habitat for the benefit of migratory birds, other wetland-associated species and people.

Transforming the goals of the NAWMP into on-the-ground actions is accomplished through partnerships called joint ventures. Joint ventures are comprised of individuals, corporations, conservation organizations, and local, state, provincial, and Federal agencies. There are currently 11 habitat joint ventures in the United States and 4 in Canada endorsed by the NAWMP committee. One of the habitat joint ventures has international status (Canada/United States). Partners from Canada and the United States also jointly support three species joint ventures. Habitat joint ventures restore and enhance wetlands and associated upland habitats. The species joint ventures address monitoring and research needs of black ducks, Arctic nesting geese, and seaducks.

The Oregon Habitat Joint Venture's partners work within a planning framework that links local habitat conservation priorities to the regional goals of the Pacific Coast and Intermountain West Joint Ventures. A series of Oregon "focus area" plans, developed in the 1990s, provide a broad overview of wetland and wildlife resources and describe conservation needs and opportunities in general areas identified as "target areas" for Joint Venture action. A focus area plan was developed for the lower Columbia River, the objectives of the plan follow.

1.7.6.1 Habitat Objectives

Within the Lower Columbia River Focus Area the Joint Venture is dedicated to ensuring the following habitat objectives are met and sustained. These objectives are based on the recommended actions for individual target areas contained in the draft plan. The figures represent estimates of what the Joint Venture hopes to accomplish, given the resource needs and opportunities identified through the planning process and the financial, political and logistical constraints that exist.

- Ensure that at least 4,600 hectares (11,500 acres) of low-lying pastureland in private ownership will remain in agricultural production with farm management practices that are compatible with providing needed waterfowl feeding areas.
- Permanently protect, through easements or fee title acquisition, an additional 1,600 hectares (4,000 acres) of tidal wetlands, 1,280 hectares (3,200 acres) of freshwater wetlands, and approximately 500 hectares (1,200 acres) of uplands that are important to maintaining the habitat values of the wetlands they are associated with.
- Restore or create at least 500 hectares (1,250 acres) of tidal wetlands, and 100 hectares (250 acres) of freshwater wetlands.
- Enhance wildlife habitat values on 270 hectares (680 acres) of tidal wetlands, 1450 hectares (3,600 acres) of freshwater wetlands, and 700 hectares (1,750 acres) of uplands.

1.7.6.2 Actions Specific to the Refuges

In addition to the overall objectives, the NAWMP contains the following recommended actions specific to the refuges:

Lewis and Clark Refuge

- Maintain existing habitat values.
- Support land exchanges to acquire the State of Oregon's inholdings as an addition to Lewis and Clark Refuge.

Julia Butler Hansen Refuge

- Enhance open field habitat to support expanded wintering goose populations.
- Support securing additional habitat necessary to carry out the recommendations of the Revised Columbian White-tailed Deer Recovery Plan.

1.7.7 Pacific Flyway Management Plans

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. The following management plans pertain to refuge habitats and associated waterfowl species.

1.7.7.1 Canada Goose Agricultural Depredation Control in Oregon and Washington

The Service, ODFW, WDFW, Animal and Plant Health Inspection Service–Wildlife Services (WS), and the Oregon and Washington Farm Bureaus participated in the development of a comprehensive nine point plan (Pacific Flyway Council 1998) to address the agricultural depredation problems associated with Canada geese in the Willamette Valley–Lower Columbia River (WV-LCR). The primary goal for the depredation control plan is to establish a systematic and comprehensive approach for minimizing depredation losses caused by Canada geese in the WV-LCR.

The habitat management and public use objective of the plan is to increase the amount of Canada goose use on public lands, while subsequently decreasing the amount of Canada goose use on private lands. The approach will be to review habitat management programs on Federal refuges and state wildlife areas to assure that everything possible is being done to provide abundant, high quality goose forage on public lands. Additionally, management agencies will implement public use restrictions on public lands to decrease harassment of wintering Canada geese and increase their use of these lands. Finally, management agencies will recognize private landowners for their role in providing Canada goose foraging areas on selected private lands and consider developing voluntary agreement, conservation easement, or coordinated hunting programs to address adverse agricultural impacts.

The depredation control plan contains a habitat management strategy for the lower Columbia River refuges (including Julia Butler Hansen and Lewis and Clark) for evaluating existing lands

for additional goose foraging and wetland restoration opportunities. The strategy includes grazing cattle in pasture areas, which can greatly benefit wintering Canada geese by stimulating growth of young succulent shoots. Grazing can be beneficial or detrimental depending upon the intensity, timing and duration of grazing in green forage areas. To maximize green forage production, alternative grazing strategies should be investigated to determine their effects on green forage production and subsequent use by wintering Canada geese. Creating and/or improving wetland areas could also increase the use of these public lands by Canada geese.

1.7.7.2 Cackling Canada Geese

The goal of the Cackling Canada Geese management plan is to identify needs and responsibilities necessary to cooperatively manage the number and distribution of cackling Canada geese, to provide for optimal aesthetic, educational, scientific, and hunting uses throughout their range (Pacific Flyway Council 1999).

The refuges lie within the primary wintering area of cackling geese in northwestern Oregon and southwestern Washington. They typically support several thousand wintering cackling geese. Refuge management practices discussed in the Draft CCP, including mowing, grazing, and wetland enhancement, provide considerable goose foraging habitat. The refuges also provide sanctuary from disturbance.

1.7.7.3 Pacific Population of Western Canada Geese

The goal of the Pacific Population of Western Canada Geese management plan is to maintain the Pacific population of western Canada geese at a level and distribution that will optimize recreational opportunity and minimize depredation and/or nuisance problems in agricultural and urban areas (Subcommittee on Pacific Population of Western Canada Geese 2000). Objectives of the plan are to:

- Monitor breeding population trends to assess levels relative to objectives;
- Maintain the currently known distribution of the Pacific population of western Canada geese;
- Maintain optimum sport harvest and provide for viewing, educational, and scientific pursuits;
- Assist in management of agricultural depredation and nuisance problems as outlined in the Pacific Flyway Depredation Policy and the Northwest Oregon/Southwest Washington Canada Goose Depredation Plan.

The refuges provide nesting and wintering habitat for western Canada geese, as well as public viewing and hunting opportunities.

1.7.7.4 Western Population of Tundra Swans

The goal of the Western Population of Tundra Swans management plan is to ensure the maintenance of the western population of tundra swans at a size and distribution that will provide for all their benefits to society (Pacific Flyway Council 2001). This plan's objectives include maintaining a population of at least 60,000 swans in their current geographic distribution to

provide suitable public benefits. For the most part, swans use lands where wildlife is already recognized as being an important resource being managed. Therefore, these lands should continue to be managed for waterfowl in general with consideration being given to swans and other waterfowl species that are more dependent upon natural wetlands than agricultural areas. The refuge marshes, especially on the Lewis and Clark Refuge, provide wintering habitat for several hundred swans and the management practices contained in this Draft CCP/EIS will ensure the continuation of that habitat.

1.7.7.5 Dusky Canada Geese

The goal of this management plan is to maintain and enhance the dusky Canada goose population for all of its values to society (Subcommittee on Dusky Canada Geese 1992). The objectives of the plan include: achieving and maintaining a wintering population of 20,000 dusky Canada geese; maintaining wintering habitats in sufficient quantity and quality; and managing wintering habitat to provide optimum food, water, and sanctuary conditions, and to provide optimum geographical distribution.

A minimum of 250 to 300 dusky Canada geese are typically present on the refuges during the fall, winter, and early spring, and more make migrational stopovers. While not a large number, it is significant considering the small size of the population.

1.7.8 Partners in Flight Landbird Conservation Plans

Partners in Flight (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 the improvement of monitoring and inventory, research, management, and education programs involving birds and their habitats. Their strategy is to stimulate cooperative public and private sector efforts in North America and the Neotropics to meet these goals.

Specific strategies for accomplishing the goals are contained in regional landbird conservation plans. These plans describe priority habitats and species, and provide recommended management actions to conserve the habitats and species. The regional plans applicable to the refuges entitled 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 1999). The lowlands and valleys plan identifies four priority habitats: grassland/savannah, oak woodland, riparian and chaparral. Two of these habitats—grassland/savanna and riparian—are found within the refuges. In addition, nearly 30 focal species identified in the two plans occur on the refuges.

1.7.9 U.S. Shorebird Conservation Plan, Northern Pacific Coast Regional Shorebird Management Plan

Manomet Center for Conservation Sciences, under contract with the Service, is developing the United States Shorebird Conservation Plan. This national plan includes 11 regional plans

reflecting major shorebird flyways and habitats within the United States. The Northern Pacific Regional Working Group was formed under the auspices of the national plan to formulate shorebird management goals for the Northern Pacific Region (NPR), which represents western Washington and Oregon. The purpose of this management plan is to address shorebird management needs on a regional basis while considering Pacific Flyway and national levels of need (Drut and Buchanan 2000).

Regional goals were established during the development of this plan. The primary goals are to: (1) measurably increase populations of species impacted by current or recent declines, at population or flyway levels, over the next 10 years, and (2) stabilize and maintain current levels of breeding, wintering, and migrating populations of other shorebird species within the region/flyway. In support of these broad population goals, specific goals were also developed for research and monitoring, management, habitat protection, and outreach. Specific strategies to meet each of these goals were developed. The plan nominates the Columbia River estuary as a site of international significance.

The habitat management practices outlined in this Draft CCP/EIS will result in the preservation of tidal shorelines and mudflats that provide foraging and resting habitat for shorebirds. Also, shallow managed wetlands will provide foraging habitat for yellow legs, dowitchers, and other species, and intertidal wetlands at Crims Island will provide foraging habitat for shorebirds.

1.8 Planning and Issue Identification

Public scoping for this Draft CCP/EIS began in fall 2006. In September, public meetings were held in Astoria and Clatskanie, Oregon, and in Cathlamet and Longview, Washington. Public commentary was also solicited through distribution of a planning update to the refuges' mailing lists. A complete summary of public involvement to date is in Appendix I.

Issues and concerns articulated by the public played a role in guiding alternatives considered during the development of the Draft CCP/EIS, and together, with the formal guidance, they can play a role in selection of the preferred alternative.

1.9 Issues Addressed in the Draft CCP/EIS

The core planning team evaluated the issues and the topics documented during the scoping meetings. 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 be addressed in the CCP, pinpoint the types of information to gather, and help define alternatives for the CCP. Numerous issues, concerns and opportunities were raised, and all are addressed in some manner in the Draft CCP/EIS. It is the Service's responsibility to focus CCP planning and EIS analysis on the major issues. Major issues typically suggest different actions or alternative solutions and are typically those within the refuge's jurisdiction which have a positive or negative effect on the resource. Major issues will influence the decisions proposed in the plan. The major issues, concerns, and opportunities are presented in the sections that follow.

1.9.1 Lewis and Clark National Wildlife Refuge

1.9.1.1 Issue 1: Wilderness Study

Should specific areas of the refuge, if appropriate and eligible, be designated as wilderness?

Lewis and Clark Refuge is part of the largest natural marsh in western Oregon. Due to the relative remoteness and lack of influences by humans, some of the islands within the refuge's approved 33,000-acre acquisition boundary may meet the criteria for a wilderness designation. It should be noted that while a wilderness designation can be recommended, only Congress has the authority to grant this designation. This Draft CCP/EIS includes a preliminary wilderness inventory which identifies a number of islands in the refuge with wilderness qualities.

1.9.1.2 Issue 2: Dredged Materials Management

What actions should be taken to improve and maximize wildlife benefits in dredge-spoil areas of the refuge?

Columbia River channel maintenance and deepening activities continue to generate dredge spoil accumulations within the refuge's acquisition boundary. Dredge spoil provides habitat for colonial nesting birds and streaked horned larks. This Draft CCP/EIS discusses the areas of dredge spoil placement and what, if any, refuge actions are needed to maximize wildlife benefits.

1.9.1.3 Issue 3: Oregon Department of State Lands Management Agreement

Should the refuge seek to modify the management agreement for State owned lands within the refuge boundary?

In 1974 the refuge signed an agreement with the Oregon Department of State Lands to allow the refuge to manage State-owned lands within the boundary of the Lewis and Clark Refuge as part of the refuge. This agreement was nullified in 1994, as part of a land exchange between the Service and the State of Oregon. After the land exchange, the agreement was not reinstated. As part of the Draft CCP/EIS, the Service considered whether the refuge should again look at managing the State's lands within the boundaries of the Lewis and Clark Refuge, what management activities an agreement with the State should cover, and what future opportunities may be available to acquire or trade lands to better meet the goals of both agencies.

1.9.2 Julia Butler Hansen Refuge for the Columbian White-tailed Deer

1.9.2.1 Issue 1: Population Management of Predators to protect CWT Deer Fawns

Coyotes prey upon CWT deer fawns. Are the methods for coyote removal appropriate to maintain recovery of this endangered deer?

Predation of CWT deer, primarily by coyotes, continues to be a major factor in meeting CWT deer population recovery goals. In order to maintain a healthy and viable CWT deer population,

as specified by the CWT deer Recovery Plan, predation needs to be managed. This Draft CCP/EIS explores the best way to reduce predation on CWT deer.

1.9.2.2 Issue 2: Wildlife and Habitat Management

What actions should the Service take to sustain and restore priority species and habitats?

The refuge is actively managing habitat on the Mainland and Tenasillahe Island units for the benefit of the CWT deer. Invasive species such as purple loosestrife and reed canary-grass degrade natural habitat resulting in the need for intensive habitat management activities. This Draft CCP/EIS examines current management practices and potential new actions for meeting Julia Butler Hansen Refuge's purposes, trust resource responsibilities, and maintaining/restoring biological integrity, diversity, and environmental health.

1.9.2.3 Issue 3: Management of Public Access and Use

What type and level of recreational opportunities should be provided? Are existing public use opportunities adequate and appropriate?

Interest in public recreation on the refuge continues to increase. This issue covers wildlife-dependent public uses that have priority over other public uses as mandated by the National Wildlife Refuge System Administration Act of 1966, as amended. The priority public uses include hunting, fishing, wildlife observation, photography, and environmental education and interpretation. Specifically, how the refuge can best meet priority public use needs while also protecting habitat and wildlife is considered in this Draft CCP/EIS.

1.9.2.4 Issue 4: Tidal Wetland and Stream Restoration for Native Fish Enhancement

How will the refuge enhance native fish populations?

Over the last century, major losses of historic, intertidal marsh and riparian forest habitats have occurred within the lower Columbia River estuary. This loss of habitat has had a profound effect on the native fish, wildlife, plants, and habitats of the region. The Draft CCP/EIS looks at the potential for restoring native estuarine habitat to portions of the refuge in concert with protecting habitat for the endangered CWT deer.

1.9.2.5 Issue 5: Wilderness Study

Should specific areas of the refuge, if appropriate and eligible, be designated as wilderness?

Due to the relative remoteness and lack of influences by humans, two of the islands—Hunting and Wallace—in this 6,000-acre refuge may meet the criteria for a wilderness designation. It should be noted that while a wilderness designation can be recommended, only Congress has the authority to grant this designation.

1.9.2.6 Issue 6: Education and Outreach

Should existing programs be expanded to better engage and educate the public on refuge wildlife and habitat management activities?

The refuge is actively managing habitat and wildlife on the Mainland, Crims Island, and Tenasillahe Island units. In many cases, the public does not understand the reason or need for an active management program. In the Draft CCP/EIS we explored how to better engage and educate the public on refuge management activities.

1.10 Issues Outside the Scope of the CCP

While CCPs are very comprehensive plans, no single plan can cover all issues. The planning team has made a list of some of the issues currently outside the scope of this Draft CCP/EIS.

1.10.1 Lewis and Clark Refuge

1.10.1.1 Floathouses

Thirty-one floathouses are currently located in the channels in and adjacent to refuge lands. They are within the designated boundaries of the refuge, but are technically on Oregon State tidelands. A joint MOU between the Service, Clatsop County, ODSL, and floathouse owners was developed to allow the existing floathouses to remain while prohibiting the placement of new structures. This topic is not addressed in the Draft CCP/EIS because it is now in the final stages of implementation.

1.10.1.2 East Sand Island Management

In 1999, the Corps initiated a pilot project to relocate a colony of 9,000-pairs of Caspian terns from Rice Island to East Sand Island. In addition to the terns, East Sand Island supports numerous colonial nesting birds including double-crested cormorants, brown pelicans, western/glaucous-winged gulls, and Brandt's cormorants, as well as migrating shorebirds. East Sand Island is located outside the boundaries of the refuge. Because this island is not owned by the refuge and is located outside refuge boundaries, it is outside the scope of this Draft CCP/EIS.

1.10.2 Julia Butler Hansen Refuge for the Columbian White-tailed Deer

1.10.2.1 Deer Depredation

A number of CWT deer have been relocated off of the refuge as part of the recovery effort described within the recovery plan. During the early 1990s, there were some complaints regarding CWT deer depredation on private property on Puget Island. If deer depredation occurs, complaints may again be directed at the refuge staff. However, this issue was not included in this Draft CCP because local depredation complaints have not occurred during the past 10 years associated with relocations.

1.10.2.2 Liquefied Natural Gas Facility

A proposal developed by Northern Star Natural Gas to construct a liquefied natural gas (LNG) facility on private land adjacent to the Julia Butler Hansen Refuge is currently under consideration and review by a number of public and private entities. This plan is extremely controversial in the local community. While the proposed facility would not be on refuge lands, the public is questioning the safety/aesthetic/resource concerns of developing and operating the LNG facility adjacent to refuge lands. In addition, LNG security concerns may impact the refuge's ability to access its docking site and buildings on Tenasillahe Island. This issue is outside the scope of the Draft CCP/EIS and can be better addressed as part of the planning process Northern Star Natural Gas is conducting for that facility.

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The Columbia River estuary supports populations of resident and wintering Bald eagles.
Photo: Bald eagle chicks / Dave Menke USFWS