

Chapter 1

Introduction and Background



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Chapter 1. Introduction and Background

1.1 Introduction

Dungeness National Wildlife Refuge (NWR or Refuge) is managed by the U.S. Fish and Wildlife Service (USFWS or Service) as part of the National Wildlife Refuge System (Refuge System). The Washington Maritime National Wildlife Refuge Complex (Complex) comprises six individual National Wildlife Refuges that are located on the coast of Washington and within the Salish Sea (Figures 1-1 and 1-2). The Complex supports a rich diversity of wildlife habitats including coastal rocks, reefs, and islands; forested and grass-covered islands; tidelands; salt and freshwater marshes; barrier and pocket beaches; and riparian areas. The six National Wildlife Refuges include Copalis, Quillayute Needles, Flattery Rocks, Dungeness, Protection Island, and San Juan Islands. This Comprehensive Conservation Plan (CCP) applies only to Dungeness NWR. Comprehensive Conservation Plans for the Complex's other five refuges have been developed under previous planning efforts.

Dungeness NWR consists of the Dungeness Unit, which includes the Graveyard Spit Research Natural Area (RNA), and the Dawley Unit (Figure 1-3). Both these units are within the geographic area known as the Salish Sea (Figure 1-1). The Salish Sea is a single estuarine ecosystem that extends from the north end of the Strait of Georgia to the west end of the Strait of Juan de Fuca and south to the southern extent of Puget Sound. It encompasses the inland marine waters of southern British Columbia, Canada, and northern Washington, USA.

The Dungeness Unit was established to protect and preserve breeding grounds for native birds in 1915. Originally the Unit was part of a lighthouse reservation, on which the New Dungeness Light Station was built in 1857. For the most part, the coastal strand and spit, coastal lagoon, salt marsh, and mudflat habitats associated with the Dungeness and Graveyard spits were not altered by humans, with the exception of the years of 1940-1955, during which time the Navy maintained a small presence for radio communications on Graveyard Spit. Upland habitats at the base of Dungeness Spit, including forests and sandy bluffs, were added with subsequent acquisitions.

The Dawley Unit, located along Sequim Bay, was added to the Refuge in 1973. The residential area was heavily developed with the construction of aviaries, ponds, and gardens while the forested tract was altered by logging over the years. The forested area does have an established logging road system, but due to the topography, some areas were protected from further alterations and are considered second growth forest habitat.

1.2 Significance of the Refuge

Dungeness Spit is the longest sand spit in North America. Extending five miles into the Strait of Juan de Fuca, it provides habitat for a great variety of migratory shorebirds, waterfowl, marine mammals, and marine life. The tranquil waters of Dungeness Bay, with its eelgrass beds, mudflats, and tidelands provide food, shelter, and breeding grounds to support a whole ecosystem teeming with life. Large numbers of brant, wigeon, pintail, mallard, and bufflehead spend their winters here. Surf smelt, herring, Pacific sand lance and other species of marine fish breed and rear within the bay. Anadromous fish such as Chinook, chum, pink, coho salmon and steelhead and cutthroat trout are dependent on nearshore habitats within Dungeness Bay and Harbor during the juvenile rearing

period. The bay also serves as a vital nursery area for commercially important species such as marine invertebrates (e.g., Dungeness crab) which seek these areas for refugia. The rare northern elephant seal hauls out on the spit each year. Graveyard Spit supports some of the best remaining coastal strand habitat within the Salish Sea.

1.3 Proposed Action

We, the U.S. Fish and Wildlife Service (Service), manage wildlife refuges as part of the National Wildlife Refuge System. This document is the Dungeness Refuge's Comprehensive Conservation Plan (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. 668dd -668ee, 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 a refuge;
- The fish, wildlife, and plant populations, their habitats, and the archaeological and cultural values found on a 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.

The Service developed and examined alternatives for future management of Dungeness Refuge through the CCP process. These were presented in the Draft Comprehensive Conservation Plan and Environmental Assessment (USFWS 2012a). We developed and evaluated three alternatives for the CCP and selected Alternative B as the preferred alternative.

The goals, objectives, and strategies under the preferred alternative best achieve the purpose and need for the CCP while maintaining balance among the varied management needs and programs. Thus, the preferred alternative represents the most balanced approach for achieving the Refuge's purposes, vision, and goals; contributing to the Refuge System's mission; addressing relevant issues and mandates; and managing the Refuge consistently with sound principles of fish and wildlife management. The preferred alternative was slightly modified between the draft and final documents based upon comments received from the public or other agencies and organizations (see Appendix L). The Service's Regional Director for the Pacific Region made the final decision about the alternative to be implemented. For details on the specific components of management direction for the Refuge over the next 15 years, see Chapter 2.

1.4 Purpose and Need for Action

The purpose of developing the CCP is to provide the Refuge 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 and the Refuge System; and meet

Figure 1-1. Salish Sea



Data Sources: Populated Places and Country Boundaries from Natural Earth; Imagery from NASA Blue Marble; Elevation from NASA/CGIAR-CSI

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Figure 1-2. Regional Context



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

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other mandates. The CCP must be specific to the planning unit and identify the overarching wildlife, public use, or management needs for the Refuge (602 FW 3.4C1d).

The need for the CCP is to provide reasonable, scientifically-grounded guidance for ensuring that over a period of 15 years, Dungeness NWR will achieve the following purposes:

- Enhance, maintain, and protect Refuge habitats (including mixed coniferous forest, wetlands, and nearshore habitats) and other lands for the benefit of migratory birds and other wildlife.
- Gather sufficient scientific information to guide responsible adaptive management decisions.
- Provide visitors compatible wildlife-dependent public use opportunities that foster an appreciation and understanding of the Refuge’s fish, wildlife, plants, and their habitats, and have limited impacts to wildlife.
- Initiate and nurture relationships and develop cooperative opportunities to promote the importance of the Refuge’s wildlife habitat, and support Refuge stewardship.
- Protect and manage the Refuge’s cultural resources, and identify new ways to gain an understanding of the Refuge’s history and cultural resources.

1.5 Legal and Policy Guidance

1.5.1 The U.S. Fish and Wildlife Service

All national wildlife refuges are managed by the Service, an agency within the Department of the Interior. 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, wildlife, plants, and their habitats for the continuing benefit of the American people.” Although we share this responsibility with other Federal, state, tribal, local, and private entities, the Service has specific trust responsibilities for migratory birds, endangered and threatened species, and certain anadromous fish and marine mammals. The Service has similar trust responsibilities for the lands and waters we administer to support the conservation and enhancement of fish, wildlife, plants, and their habitats. The Service also enforces Federal wildlife laws and international treaties for 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

A refuge is managed as part of the National Wildlife Refuge System within a framework provided by 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.

The needs of wildlife and their habitats come first on refuges, in contrast to other public lands that are managed for multiple uses. 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 a refuge unit as described in establishing legislation, executive orders, or other documents establishing, authorizing, or expanding a refuge.

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 our Mission Goals and Purposes policy (601 FW 1), 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 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 interconnectedness of fish, wildlife, and plants and their habitats.

Law and Policy Pertaining to the Refuge System

Refuges are guided by various Federal laws and 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 a 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 (Administration Act) as amended (16 U.S.C. 668dd-668ee); the Refuge Recreation Act of 1962 as amended (16 U.S.C. 460k-460k-4); Title 50 of the Code of Federal Regulations; and the Service Manual. The Administration Act is implemented through regulations covering the Refuge System, published in Title 50, subchapter C of the Code of Federal Regulations and policies contained in the Service Manual. These regulations and policies govern general administration of units of the Refuge System.

Many other laws apply to the USFWS and management of Refuge System lands. Examples include the Endangered Species Act of 1973 (ESA), as amended, and the National Historic Preservation Act of 1966, as amended. Brief descriptions of laws pertinent to Dungeness Refuge are included in this chapter. A complete list of laws pertaining to the Service and the Refuge System can be found at <http://laws.fws.gov>.

Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4). The Refuge Recreation Act authorized the Secretary of the Interior to administer refuges, hatcheries, and other conservation areas for recreational use, when such uses do not interfere with the area’s primary purposes. It provided for public use fees and permits, and penalties for violating regulations. It also authorized the acceptance of donated funds and real and personal property, to assist in carrying out its purposes. Enforcement

provisions were amended in 1978 and 1984 to make violations misdemeanors in accordance with the uniform sentencing provisions of 18 U.S.C. 3551-3586.

National Wildlife Refuge System Administration Act (16 U.S.C. 668dd et seq.) as amended by the National Wildlife Refuge System Improvement Act (Public Law 105-57). 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 of 1997 (Refuge Improvement Act) amended the Administration Act by defining a unifying mission for all refuges, including a new process for determining compatible uses on refuges, and requiring that each refuge be managed under a comprehensive conservation plan. Key provisions of the Refuge Administration Act follow.

- Comprehensive conservation planning. A CCP must be completed for each refuge, as is required by the Refuge Administration Act. Each CCP will be revised every 15 years or earlier if monitoring and evaluation determine that changes are needed to achieve purposes, vision, goals, or objectives. The Refuge Administration Act also requires that CCPs be developed with the participation of the public. Public comments, issues, and concerns are considered during the development of a CCP, and together, with the formal guidance, can play a role in selecting the preferred alternative. Information on public involvement can be found in Appendix K. The CCP provides guidance in the form of goals, objectives, and strategies for refuge programs, but may lack some of the specifics needed for implementation. Therefore, step-down management plans will be developed for individual program areas as needed, following completion of the CCP. The step-down plans are founded on management goals, objectives and strategies outlined in a CCP, and require appropriate NEPA compliance.
- Wildlife conservation; biological diversity, integrity and environmental health. The Refuge Administration Act expressly states that the conservation of fish, wildlife and plants, and their habitats is the priority of Refuge System lands, and that the Secretary of the Interior shall ensure that the biological integrity, diversity, and environmental health of refuge lands 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.”
- Refuge purposes. Each refuge must be managed to fulfill the Refuge System mission and the specific purpose(s) for which the refuge was established. 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. When a conflict exists between the Refuge System mission and the purpose of an individual refuge, the refuge purpose may supersede the mission.
- Priority public uses on refuges. The Administration Act superseded some key provisions of the Refuge Recreation Act regarding compatibility, and also provided significant additional guidance regarding recreational and other public uses on units of the Refuge System. 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. The Service is to grant these six wildlife-dependent public uses special consideration during planning for, management of, and establishment and expansion of units

of the Refuge System. When determined compatible on a refuge-specific basis, these six 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.

Compatibility and Appropriate Refuge Uses Policies (603 FW 2 and 1). With few exceptions, lands and waters within the Refuge System are different from multiple-use public lands in that they are closed to all public access and use unless specifically and legally opened. 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.

The six wildlife-dependent recreational uses described in the Refuge Administration Act (hunting, fishing, wildlife observation and photography, and environmental education and interpretation) are defined as appropriate. When determined to be compatible, they receive priority consideration over other public uses in planning and management. Other uses on a refuge are reviewed by the refuge manager to determine if the uses are appropriate. If a use is determined appropriate, then a compatibility determination is completed.

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) occurring or proposed on a refuge for appropriateness and compatibility. Updated appropriate use and compatibility determinations for existing and planned uses for Dungeness NWR are in Appendices A (Appropriateness) and B (Compatibility) of this CCP.

Biological Integrity, Diversity, and Environmental Health (BIDEH) Policy (601 FW 3). The Refuge Administration Act directs the Service to “ensure that the biological integrity, diversity, and environmental health of the National Wildlife Refuge System are maintained for the benefit of present and future generations of Americans...” The policy is an additional directive for refuge managers to follow while achieving refuge purpose(s) and the Refuge System mission. It provides for the consideration and protection of a broad spectrum of native fish, wildlife, and habitat resources found on refuges and associated ecosystems. When evaluating the appropriate management direction for refuges (e.g., in compatibility determinations), refuge managers will use sound professional judgment to determine their refuge’s contribution to biological integrity, diversity, and environmental health at multiple landscape scales. Sound professional judgment incorporates field experience, knowledge of refuge resources, an understanding of the refuge’s role within an ecosystem, applicable laws, and best available science, including consultation with others both inside and outside the Service. The policy states that “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.”

Wildlife-dependent Recreation Policies (605 FW 1-7). The Refuge Administration Act states that “compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System.” A series of recreation policies provide additional guidance and requirements to consider after a recreational use has been determined to be compatible. These policies also establish a quality standard for visitor services on national wildlife refuges. Through these policies, we are to simultaneously enhance wildlife-dependent recreational opportunities, provide access to quality visitor experiences, and manage refuge resources to conserve fish, wildlife, plants, and their habitats.

New and ongoing recreational uses should help visitors focus on wildlife and other natural resources, and provide an opportunity to display resource issues, management plans, and how the refuge contributes to the Refuge System and the Service's mission. The policies also require development of a visitor services plan.

1.5.3 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, Refuge Recreation Act of 1962, National Historic Preservation Act of 1966, and the Endangered Species Act of 1973. For additional information on laws and other mandates, a list and brief description of Federal laws of interest to the Service can be found in the Laws Digest at <http://www.fws.gov/laws/Lawsdigest.html>.

In addition, over the last few years, the Service has 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.

1.6 Refuge Establishment and Purposes

1.6.1 Legal Significance of the Refuge Purpose

The purpose for which a refuge was established or acquired is of key importance in refuge planning. Purposes must form the foundation for management decisions. A refuge's 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 planned refuge uses.

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, 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 mission of the System.

1.6.2 Purpose and History of Refuge Establishment

Background

Establishment authorities, acquisition history, refuge purposes, and land status are all included here because their research and documentation are intertwined. The Service's Land Record System was reviewed for Dungeness NWR. Realty hardcopy files, Federal Register Archive, county records, Service's Lands Mapper program, and station files were searched in documenting these findings.

Refuge Purposes Statement (*purposes are bold and italicized*)

Dungeness National Wildlife Refuge (NWR) was established by Executive Order (E.O.) 2123 on January 20, 1915 for the land to be ***"...as a refuge, preserve and breeding ground for native birds."*** The original 226.02 acres were known as the Dungeness Spit Reservation. This purpose applies to all portions of Dungeness NWR.

Most of the additional tracts acquired between the years 1972-1999, for a total of 39 acres, that make up the Refuge were authorized by the same Public Law and purchased with funds authorized by the Fish and Wildlife Act of 1956 (FWA) (16 U.S.C. 742a-742j), as amended. This Act authorized the ***"... acquisition of refuge lands 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) and Section 7(a)(1) of the Land and Water Conservation Fund Act (16 U.S.C. 4601-9) provides authority to use Land and Water Conservation Fund (LWCF) monies for acquisition under this Act. Purposes of the Land and Water Conservation Fund Act of 1965, as amended, include acquisition of ***"(d) any areas authorized for the National Wildlife Refuge System by specific Acts (16 U.S.C. 4601-9)."***

Additional land was purchased from willing sellers, received through donations, or easements. One purchase in 1971, for 45 acres, was acquired under the Refuge Recreation Act of 1962 as amended (16 U.S.C. §460k-460k-4) -- Public Law 87-714, ***"...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered or threatened species..."*** (16 U.S.C. 460 k-1) and ***"... the Secretary ... may accept and use ... real ... property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors ..."*** (16 U.S.C. § 460k-2). There were two authorities that the donation was made under; the first was the Endangered Species Act of 1973 (16 U.S.C. §1543) as amended of 3.66 acres, ***"... to conserve (A) fish or wildlife which are listed as endangered species or threatened species or (B) plants ..."*** The second was under the Fish and Wildlife Act of 1956 for 125 acres.

1.6.3 Other Management Direction

The State of Washington conveyed 321 acres as permanent easement on tidelands of the second class to the United States of America, USFWS, on May 29, 1943, (Deed No. 18251 App. No. 10585), under the authority described in Section 152, Chapter 255, State of Washington Laws of 1927.

Graveyard Spit was approved as a Research Natural Area on February 21, 1990 for its **“High quality example of 1) low intertidal, high salinity sandy marsh; 2) coastal spit with native vegetation; and 3) high salinity coastal lagoon”** (Memorandum from Deputy Director Richard M. Smith, USFWS Washington Office, to Pacific Region Regional Director).

The Warranty Deed (420707) document pertaining to the donation from Mr. Dawley on March 6, 1973 stated that the land is to be **“...administered as a contiguous unit, as a part of the national wildlife refuge system, and as a sanctuary for wildlife...”**

1.6.4 Land Status and Ownership

The Dungeness National Wildlife Refuge was established by January 20, 1915 by President Woodrow Wilson. Consisting originally of 226.02 acres of barrier beach as an overlay with secondary jurisdiction to lighthouse and military purposes it was known then as the Dungeness Spit Reservation. In 1923, E.O. 3893 gave USFWS primary withdrawal on Tract 1a because the military reservation was removed and there was no lighthouse reservation on that tract (Figure 1-3). On July 25, 1940, Presidential Proclamation 2416 changed the name from Dungeness Spit Reservation to Dungeness National Wildlife Refuge.

Additional land was acquired from willing sellers, donations, or easements. The Refuge received a permanent easement to 321 acres of second class tidelands within the northern portion of Dungeness Bay from the State of Washington in 1943. The first purchase was for 45 acres from Mr. and Mrs. Haugland. This consisted of the forested section and bluffs to the west of the base of the spit. The next was the purchase of 29 acres from Mr. Mellus. These two sales, which now included additional forest and a cabin, actually connected the Refuge to the mainland for the first time. It also included an easement that allowed the Service to maintain vehicle access to the spit.

A year later saw the donation of what is referred to as the Dawley Tract. The donation of 129 acres came from Mr. Dawley on March 6, 1973. This land is divided by U.S. Highway 101 with a portion on Sequim Bay north of the highway. This is the site of the former residence of Mr. Dawley and is about 14 acres. The portion which lies to the south of Highway 101 is the forested unit. This forest was logged over the years by Mr. Dawley and previous owners. There is State and private land bordering this unit and Dean Creek runs through a portion of the site.

The current Refuge administrative site, which is situated on 5.04 acres, was purchased from Mr. and Mrs. Krier on Nov. 20, 1996. This purchase also provided a buffer for the Refuge. The Nature Conservancy of Washington assisted the Service in the purchase of the Weinstein Tract, consisting of 4.56 acres of coastal forest, on May 19, 1999. This tract protected the viewshed to the east from the observation platforms along the main trail. Further details on the chronological legal history related to Refuge land acquisition and status are presented in Table 1-1.

The Nature Conservancy proposed that Graveyard Spit be approved as a Research Natural Area because of its **“High quality example of 1) low intertidal, high salinity sandy marsh; 2) coastal spit with native vegetation; and 3) high salinity coastal lagoon.”** This proposal was approved on February 21, 1990 through a memorandum from Deputy Director Richard M. Smith (USFWS Washington Office) to the Pacific Region Regional Director.

1.7 Relationship to Other Planning Efforts

When developing a CCP, the Service considers 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 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 Refuge Plans

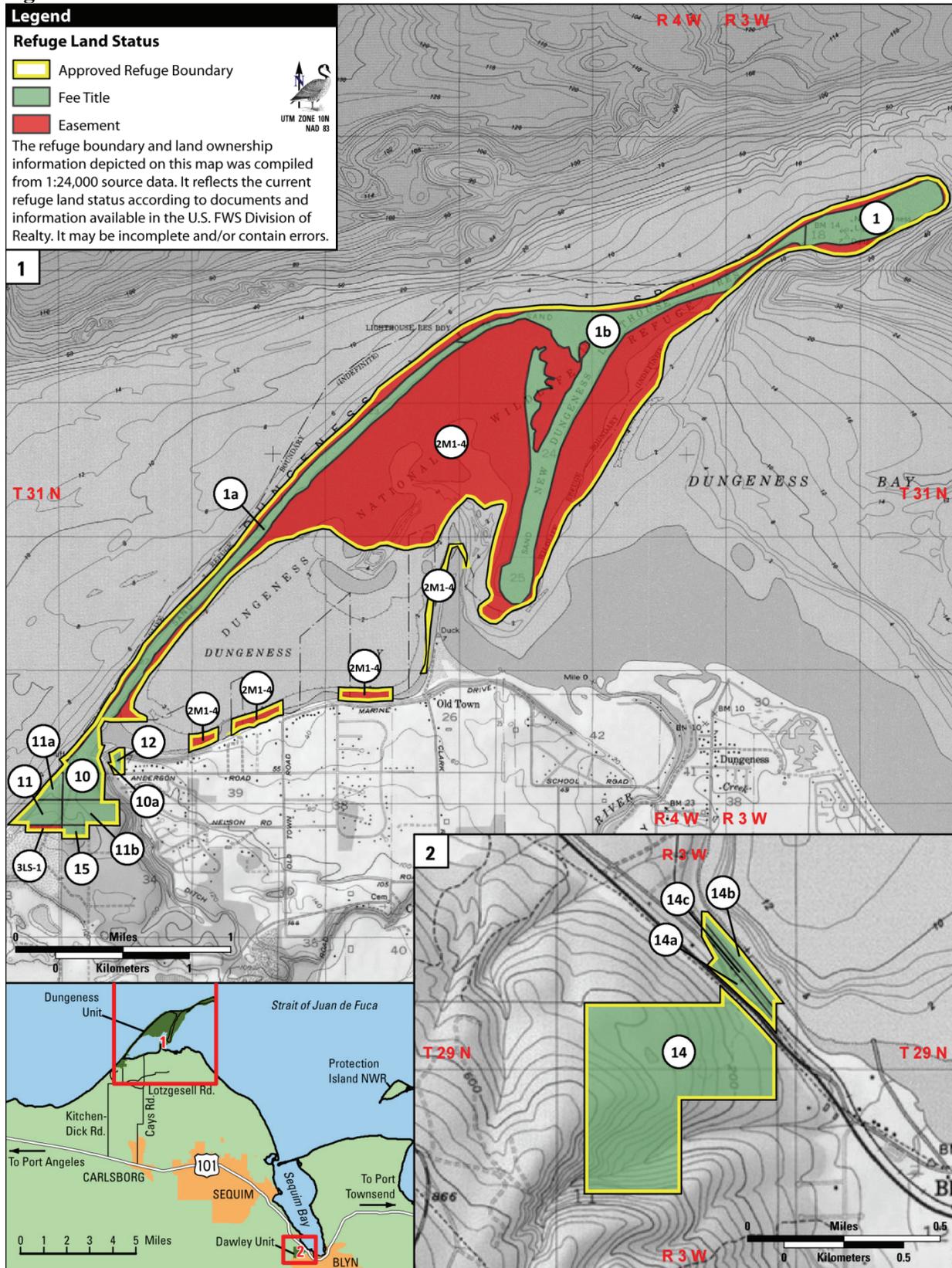
Over the years, prior management plans for the Refuge were developed. Being an unfunded Refuge for many years, some of the plans for the Refuge were created through partnerships. The 1974 Dungeness National Wildlife Refuge Interpretive Master Plan was the Master's thesis of Paul Ray Frandsen with the University of Washington (Frandsen 1974). The Wildlife Inventory Plan, Puget Sound National Wildlife Refuges (USFWS 1985), Refuge Management Plan (USFWS 1986), and Fire Management Plan for Dungeness NWR (USFWS 2004a) are older plans now outdated both in terms of Refuge resources and conditions, as well as current policies and mandates. This CCP will serve to update the 1997 Management of Public Use for Dungeness NWR Final Environmental Assessment (EA) by incorporating new requirements to assess appropriateness and compatibility for each public use previously described in the 1997 EA. Information on wildfire risk and suppression options as well as sensitive habitats to be considered in planning for fire risk reduction and suppression actions, is contained in the new step-down Complex-wide fire management plan in draft concurrent with this CCP.

1.7.2 Other Plans and Assessments

When developing a CCP, the Service considers the goals, objectives, strategies, and other information available in existing national, regional, and ecosystem plans, state fish and wildlife conservation plans, and other landscape-scale plans developed for the same watershed or ecosystem in which the refuge is located. To the extent possible, the CCP is expected to be consistent with existing plans and assist in meeting their conservation goals and objectives. The following list identifies some of the key plans or assessments which were reviewed by members of the core team while developing the CCP.

- Management of Public Use for Dungeness National Wildlife Refuge, Final Environmental Assessment (USFWS 1997a)
- Rising to the Challenge: Strategic Plan for Responding to Accelerating Climate Change (USFWS 2010a)
- Strategic Plan for Inventories and Monitoring on National Wildlife Refuges: Adapting to Environmental Change (USFWS 2010b)
- Strait of Juan de Fuca Geographic Response Plan (WDOE 2008)
- Birds of Conservation Concern (USFWS 2008)
- Birds of Management Concern (BMC) – Region 1 (USFWS 2005a)
- North American Waterfowl Management Plan (NAWMP Plan Committee 2004)
- Partners in Flight Species Assessment Database (PIF 2010)
- Willamette Valley, Puget Trough, Georgia Basin Ecoregional Assessment (Floberg et al. 2005)
(continued on page 1-20)

Figure 1-3. Land Status



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Table 1-1. Dungeness NWR Chronological Legal History of Acquisition and Land Status

Date	Legal document or source	Tract #	Tract Name	Acres	FWS Interest	Acquisition Authority	Funding Authority	Action and Management Direction
10/01/1851	S.O. (See P.L.O. 6161 / 47 FR 7235 for ref. to this S.O.)	Applied to lands currently under Tracts 1 and 1b	New Dungeness Lighthouse Reservation	190 (Based on later calculations)	None	N/A	N/A	Withdraw lands for lighthouse purposes.
09/22/1866	E.O. (See E.O. 3893 and GLO 1894 for ref. to this 1866 E.O.)	Includes 1a, 1b, and probably includes 1 plus other tracts.	North side of New Dungeness Harbor, embracing all of the peninsula to its junction with the mainland, in T 31 N., R 4W.	458.63 (GLO 1894)	None	N/A	N/A	Reserved and set aside for military purposes lands on the North side of New Dungeness Harbor.
01/20/1915	E.O. 2123	1, 1a, and 1b	Dungeness Spit Reservation	226.02	Secondary jurisdiction to lighthouse and military purposes	E.O. 2123	N/A	Established Dungeness Spit Reservation. "This order is not intended to abrogate the orders creating military and lighthouse reservation located in part upon the same lands, rather in addition to such uses, shall insure the protection of the native birds therein."
08/13/1923	E.O. 3893	Includes 1a, 1b, and probably includes 1 plus other tracts.	North side of New Dungeness Harbor, embracing all of the peninsula to its junction with the mainland, in T 31 N., R 4W.		Gave FWS primary withdrawal on Tract 1a because the military reservation was removed and there was no lighthouse reservation on that tract.	E.O. 3893	N/A	Certain lands in WA and CA which were reserved for military purposes but which are no longer needed for military purposes are put under the control of the Secretary of Interior for disposition as provided by the Act of July 5, 1884 (23 Stat. 103). This effectively revokes the E.O. of 9/22/1866 as well as many other E.O.s)
07/25/1940	P.P. 2416 (FR Vol. 5, No. 147 7/30/40)	All Tracts						Changed the name from Dungeness Spit Reservation to Dungeness National Wildlife Refuge.

Date	Legal document or source	Tract #	Tract Name	Acres	FWS Interest	Acquisition Authority	Funding Authority	Action and Management Direction
08/16/1940	E.O. 8518 (FR Vol. 5, No. 162 8/20/40)	Most of 1b, and possibly part of 1a	T 31 N., R. 4W, Sec 13, lots 1-4; Sec 14, lot 1; Sec 24, lots 1-5; Sec 25, lot 5; Sec 26, lot 3	147.5		E.O. 8518	N/A	Modifies E.O. 2123 "..." to the extent necessary to permit the Navy Department to have primary jurisdiction over the following-described land for naval purposes..."
05/29/1943	Deed # 18251	2M1-4	State of WA Tidelands	321	Permanent Easement	State of WA Laws of 1927	N/A	Tidelands of the second class were conveyed to the United State of America, U.S. Fish and Wildlife Service, from the State of Washington through a permanent easement on May 29, 1943 for the purpose of "establishing and maintaining on these lands a wildlife refuge."
09/16/1946	(Memo of assistance chief counsel, Chicago, IL. 1946).	2a, 2b, 2c, 2d	State of WA Tidelands	321.47	Permanent Easement		N/A	This memo confirmed the transfer of the tidelands of the second class were conveyed to the United State of America, U.S. Fish and Wildlife Service, from the State of Washington through a permanent easement on May 29, 1943 for the purpose of "establishing and maintaining on these lands a wildlife refuge."
02/09/1955	P.L.O. 1068 (FR 2/16/55)	Most of 1b, and possibly part of 1a	T 31 N., R. 4W, Sec 13, lots 1-4; Sec 14, lot 1; Sec 24, lots 1-5; sec 25, lot 5; Sec 26, lot 3	147.5		P.L.O. 1068	N/A	Revoked E.O. 8518 thereby terminating the use by the Navy for naval purposes.
12/17/1970 and 01/29/1971		11, 11a, 11b	Hoagland Upper Forested Area	45.44	Fee	Refuge Recreation Act of 1962	LWCF	Purchased from Mr. and Mrs. Hoagland.

Date	Legal document or source	Tract #	Tract Name	Acres	FWS Interest	Acquisition Authority	Funding Authority	Action and Management Direction
03/23/1972		10, 10a,	Mellus/ Upper Forested Area	29.18	Fee	Fish and Wildlife Act of 1956	LWCF	Purchase from Mr. Mellus.
03/06/1973 and 01/27/1989		14, 14a, 14b, and 14c	Dawley Tract	128.66	Fee	FWA 1956 and ESA 1973, respectively	N/A	Donation of land from Mr. Dawley "to be administered as a contiguous unit, as a part of the national wildlife refuge system, and as a sanctuary for wildlife."
02/18/1982	P.L.O. 6161 (FR Vol. 47 No. 33, 2/18/1982) Also see USGS 1976 property disposal map.	All of 1b, and possibly part of 1a	T. 31 N., R., 3W., Sec 18, westerly 2,000 feet of lot 1. T. 31 N., R., 4W., Sec 13, lots 1-4, Sec 14, lot 1; Sec 24, lots 1-5; Sec 25, lot 5; Sec 26, lot 3	157.5	Gives FWS Primary jurisdiction on all of Tracts 1b and 1a.	Special Authorizing Legislation	N/A	Revokes SO of Oct 1, 1851 in part as to lighthouse purposes of 157.50 ac of land. Lands remain withdrawn for Dungeness NWR.
03/08/1988		3LS-1	Clallam County	3.17	Lease	Other	LWCF	Original lease for 20 years for parking lots began.
02/21/1990	Memorandum from Deputy Director Richard M. Smith (USFWS Washington Office) to Regional Director	Part of 1b	Graveyard Spit	173.83	Managers of the RNA	N/A	N/A	Designated Graveyard spit as a Research Natural Area on for its "High quality example of 1) low intertidal, high salinity sandy marsh; 2) coastal spit with native vegetation; and 3) high salinity coastal lagoon."
03/28/1997	Warranty Deed 754589 and 752629	15	Krier	5.04	Fee	Fish and Wildlife Act 1956	LWCF	Land purchase for new administrative site. Deed signed 3/14/97. Two recordations, second one exempted from Excise tax # 752629
05/19/1999		12	TNC/Weinstein	4.56	Fee	FWA 1956	Other	
04/01/2008		3LS-1	Clallam County	3.17	Lease	FWA 1956	Other	
06/30/2009		3M	Clallam County	3.17	Agreement	FW Coordination Act 1934	Other	

¹S.O. = Secretarial Order; E.O. = Executive Order; P.L.O. = Public Land Order; PP = Presidential Proclamation

- The California Current Marine Bird Conservation Plan (Mills et al. 2005)
- Northern Pacific Coast Regional Shorebird Management Plan (Drut et al. 2000)
- Regional Seabird Conservation Plan (USFWS 2005b)
- State of Washington Comprehensive Wildlife Conservation Strategy (WDFW 2005)
- Caspian Tern Management to Reduce Predation of Juvenile Salmonids in the Columbia River Estuary – Final EIS (USFWS 2005c)
- Conservation Plan for Dunlin with Breeding Populations in North America (*Calidris alpina arctica*, *C. a. pacifica*, and *C. a. hudsonia*), Version 1.1. (Fernandez et al. 2010)
- Black Oystercatcher (*Haematopus bachmani*) Conservation Action Plan (Tessler et al. 2007)
- National Bald Eagle Management Guidelines (USFWS 2007a)
- Puget Sound Salmon Recovery Plan and NMFS Final Supplement to the Shared Strategy Plan (Shared Salmon Strategy 2007)
- Habitat Management Guidelines for Amphibians and Reptiles of the Northwestern United States and Western Canada (Pilloid and Wind 2008)
- U.S. Forest Service – Management Indicator Species Information Sheet: Pileated Woodpecker (*Dryocopus pileatus*) (Mellen-McLean 2011)
- Clallam County Shoreline Master Program (WDEQ 1992)
- Dungeness Recreation Area Master Plan (Clallam County 2008)
- Elwha-Dungeness Watershed Plan, Water Resource Inventory Area 18 and WRIA 17 (EDPU 2005)
- Banking on Nature 2006: the Economic Benefits to Local Communities from National Wildlife Refuge Visitation (Carver and Caudill 2007)
- Estimates of future participation in outdoor recreation in Washington State (IAC 2002)
- North Olympic Peninsula Resource Conservation & Development Council, Washington State Area Plan 2008-2012, revised December 2009 (RC&DC 2009)
- 2006 Outdoor Recreation Survey Final Report (RCO 2007)
- Defining and Measuring Success: The Role of State Government in Outdoor Recreation, A State Comprehensive Outdoor Recreation Planning Document (RCO 2008)

1.8 Special Designation Lands

1.8.1 Research Natural Area

A 222-acre RNA was established on Graveyard Spit in February 1990 due to its unique coastal strand habitat. The original proposal was put forth by The Nature Conservancy (TNC), Washington Chapter, with research support from the Washington Natural Heritage Program and the U.S. Fish and Wildlife Service. Activities on RNAs are limited to scientific and educational activities that are nondestructive, nonmanipulative, and maintain unmodified conditions. Guidance for the operation of RNAs is provided in Section 8 RM 10 of the Service’s Refuge Manual. The objectives of RNAs are:

- To preserve examples of major ecosystem types or other outstanding physical or biological phenomena;
- To provide research and educational opportunities; and
- To preserve a full range of genetic and behavior diversity for native plants and animals, including endangered or threatened species.

1.8.2 Important Bird Areas (IBA)

The Important Bird Areas (IBA) program is a global effort to identify the most important areas for maintaining bird populations and focusing conservation efforts on protecting these sites. Within the U.S., the program has been promoted and maintained by the American Bird Conservancy (ABC) and the National Audubon Society (Audubon). The ABC is coordinating the identification of nationally significant IBAs while Audubon is working to identify sites in individual states. Audubon is working within each state to identify a network of sites across the U.S. that provide critical habitat for birds. This effort recognizes that habitat loss and fragmentation are the most serious threats to birds across North America and around the world. By working through partnerships, principally the North American Bird Conservation Initiative, to identify those places that are critical to birds during some part of their life cycle (breeding, wintering, feeding, migrating), the intent is to minimize the effects that habitat loss and degradation have on bird populations. The IBA program has become a key component of many bird conservation efforts. More information is available at www.audubon.org/bird/iba/index.html.

The goals of the IBA program are to identify the sites that are the most essential for long-term conservation of birds and to take action to ensure the conservation of these sites (Cullinan 2001). An IBA is a site that provides essential habitat for one or more species of birds. The IBA selection process examines sites based on the presence and abundance of birds and/or the condition and quality of habitat. IBAs are chosen using standard biological criteria and expert ornithologists' review. All sites nominated as potential IBAs are rigorously evaluated to determine whether they meet the necessary qualifications. IBAs represent discrete sites, both aquatic and terrestrial, that are critically important to birds during their annual life cycle (e.g., breeding, migration, and/or wintering periods).

The 5,444-acre Dungeness Bay IBA is located on the north shore of the Olympic Peninsula and includes intertidal and subtidal waters of Dungeness Bay, Dungeness Spit, the Dungeness River estuary, and adjacent wetlands. It comprises extensive sandflats and mudflats; some of the largest eelgrass beds in the Northwest; and a network of spits, sandbars, and small islands. Adjacent coastal wetlands contain fresh water and estuarine marshes and ponds maintained by a seasonally high water table. Dungeness Spit and adjacent intertidal areas lie within the Dungeness Refuge.

The Dungeness Bay IBA is used by tens of thousands of shorebirds, gulls, and waterfowl during migration and winter. Its sandflats and mudflats provide extensive feeding areas for shorebirds. Subtidal eelgrass beds and associated fauna support significant populations of brant, diving ducks, seabirds, loons, grebes, and other diving birds.

1.9 Planning Process and Issue Identification

The core planning team evaluated the issues and concerns raised during public scoping. 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 Draft CCP/EA. Numerous issues, concerns, and opportunities were raised during the public scoping process; we addressed them all in some manner in the CCP. It is the Service's responsibility to focus planning 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 upon the resource. The following key issues, concerns, and opportunities were considered during the development of the CCP.

1.9.1 Planning Process

Planning Team: The core planning team for Dungeness NWR includes: a project leader, deputy project leader, conservation planner, biologist, park ranger (Law Enforcement Officer), and office automation clerk. The full list of core and extended team members and their roles is provided in Appendix J. The extended team assisted in the development of this CCP, particularly in providing comments at key milestones.

Resources of Concern: The planning process began when the planning team reviewed Refuge purposes and considered other plans and reports, and sought input from Washington State conservation agencies and nongovernmental organizations. The planning team then identified the top priority species, groups, and communities for the Refuge. A comprehensive list of potential resources of concern was compiled based upon review of the plans referenced above, many of which highlight priority species or habitats for conservation. From this list, those species and habitats that are most representative of Refuge purposes and habitats, BIDEH, as well as other FWS and ecosystem priorities, were chosen as priority resources of concern (habitat types) and focal resources (plant and animal species). This list was then provided to participants in the Wildlife and Habitat Review which was held on February 7-8, 2011 and included extended team members as well as U.S. Forest Service, Washington Department of Fish and Wildlife, and University of Washington biologists. The participants raised important issues and provided feedback that was used to refine the Priority Resources of Concern table. This table includes focal species, also called conservation targets, which were selected as representatives or indicators for the overall condition of important Refuge habitats. Most of the biological emphasis of the CCP is focused on protecting and restoring these species. See Appendix E for the Comprehensive Resources of Concern and Priority Resources of Concern.

Public Use Planning: Public use planning centered on developing goals, objectives, and strategies around the six wildlife-dependent recreational uses that are defined in Service policy as priority, appropriate public uses for refuge lands. The planning team assessed past, current, and future management issues surrounding public use while developing objectives and strategies during the CCP process.

Public Involvement: Public scoping began in October 2011 with a notice in the *Federal Register* [October 4, 2011, Volume 76, Number 192] announcing our intent to complete a CCP and EA for the Refuge and inviting public comments. In October 2011, we distributed Planning Update 1, which included background information on the Refuge; Refuge purposes; preliminary issues, vision, and goals; and a request for public comments. Some scoping comments we received were about broad or long-range issues, while others suggested very specific or detailed strategies that could be used to achieve biological or public use objectives. The comments were categorized into eight general categories: threats to Refuge resources; wildlife and habitat management; wildlife-dependent public use; other public use; law enforcement; cultural resources; land acquisition; and Refuge administration.

We reviewed and evaluated the potential issues, management concerns, and opportunities that we, our partners, and the public identified during scoping and used this information to define the major issues to be addressed in the CCP/EA (See Section 1.9.2). Preliminary draft alternatives were then

developed to address these issues and meet the goals and objectives of the Refuge. In January 2012, we distributed Planning Update 2, which included a summary of the scoping comments we received, a summary of our preliminary draft alternatives, notice of public open house meetings, and information on how and where to comment. On January 19 and February 2, 2012, we held a total of four public open house meetings in Sequim, Washington, to meet the public, present our preliminary draft alternatives, and solicit comments. The meetings were announced through local media outlets, on the Refuge's website, and in Planning Update 2.

Comments we received were considered and evaluated, with many incorporated into the various alternatives addressed in the Draft CCP/EA. The Dungeness NWR Draft Comprehensive Conservation Plan/Environmental Assessment was issued for public review and comment on November 28, 2012. The availability of the plan was announced through a notice in the Federal Register [November 28, 2012, Volume 77, Number 229] and via direct contact with approximately 370 people on our mailing list. The plan was made available for downloading on the USFWS Pacific Region Planning website and was made available upon request in CD or printed format. Printed copies of the Draft CCP/EA were available at local public libraries, and upon request. The public comment period was extended to February 28, 2013, providing a total of 90 days for public review and comment. All changes made as a result of public and agency comments were documented. A summary of public involvement is included in Appendix K; public comments on the Draft CCP/EA and the Service's responses to comments are included in Appendix L.

1.9.2 Key Issues Addressed in the CCP

The Service defines an issue as "Any unsettled matter that requires a management decision, e.g., an initiative, opportunity, resource management problem, threat to the resources of the unit, conflict in uses, public concern, or the presence of an undesirable resource condition (602 FW 1 1.6 K)." The following issues are within the scope of the CCP and are considered by the Service:

Human-caused Wildlife Disturbance: How can the Service reduce the incidences of human-caused wildlife disturbance on and adjacent to the Refuge and improve compliance with Refuge regulations?

Oil Spills and Other Contaminants: What can the Service do to reduce the risk of oil and other contaminant spills? What can be done about contaminants on Refuge lands?

Marine Debris and Derelict Fishing Gear: What role can the Service play in reducing the presence of marine debris and derelict fishing gear from the Refuge and adjacent areas?

Climate Change: What, if anything, should the Service do about anticipated impacts of sea level rise? What aspects of climate change should be studied at the Refuge, and how can this information be incorporated into wildlife and habitat management on the Refuge?

Forest Habitats: Should forest habitats of the Dawley Unit be actively managed for old-growth characteristics, and if so, how?

Eelgrass Beds: Is there a need to enhance eelgrass beds on the Refuge? Is there anything the Service can do to mitigate anticipated impacts to eelgrass beds from climate change?

Invasive Species: Which invasive species should be the highest priority for monitoring and control measures? What can the Service do to prevent the introduction and dispersal of invasive plants and animals?

Wildlife-dependent Uses: How should Refuge visitors and the community be educated about the Refuge and the natural and cultural resources of the Salish Sea? How can visitor opportunities to observe wildlife be enhanced? What can be done to help visitors understand and appreciate Dungeness Spit's unique geology which results in a culturally important and biologically rich site?

Other General Public Uses: Are jogging and horseback riding appropriate and compatible with Refuge purposes? How can the Service enhance the visitor's cultural appreciation for and experience of the New Dungeness Light Station?

Visitor Orientation: How can the Service help visitors understand they are on a national wildlife refuge and the importance of the National Wildlife Refuge System? How can visitors be helped to understand what activities are appropriate for the Refuge and which areas are open or closed to visitation? How can the Service enhance opportunities for people with disabilities to experience Refuge resources?

Community Outreach: How can the Service enhance community outreach efforts to advance Salish Sea conservation? How can the Service better utilize partnerships to achieve Refuge and regional conservation and education goals?

Research and Monitoring: What research or monitoring studies would assist in answering Refuge management questions? How can impacts to wildlife and habitats from research or monitoring activities be minimized? What research or studies, if any, should be encouraged for Graveyard Spit Research Natural Area?

1.10 Refuge Vision and Goals

1.10.1 Vision Statement

The forest, shoreline, and wetland habitats of Dungeness Refuge support a rich diversity of wildlife, from the regal peregrine falcon to the boisterous black oystercatcher to the unassuming rough-skinned newt. Fed by a generous offering of ancient glacial sediment from nearby bluffs and anchored by gnarled logs of driftwood, the pristine barrier beach of Dungeness Spit curves seamlessly down from the lush layers of old-growth forest above into the sparkling waters of the Salish Sea. Offshore, sheltered beds of rippling eelgrass provide a wealth of nutrients to a teeming nursery of young salmon and crab. Like the brant and dunlin that rely on this home, people flock to Dungeness seeking a welcome haven for the study of dynamic natural forces, distinctive geologic features, and compelling cultural stories. Visitors are inspired as they meander through the primeval forests and emerge upon the stunning seascape vistas. In accord with our friends and partners, and with sound science as our foremost principle, we will continue to monitor and preserve the integrity of this wonder of the Olympic Peninsula ecosystem. We endeavor to understand more about the delicate balance of nature while fostering in our visitors an abiding sense of stewardship for this irreplaceable sanctuary.

1.10.2 Refuge Goals

Refuge management goals are descriptive, open-ended, and often broad statements of desired future conditions that convey a purpose, but do not define measurable units. Goals must support the Refuge vision and describe the desired end result.

Wildlife and Habitat Goals:

1. Protect, maintain, and enhance the structure of forested habitats characteristic of mature to late-successional forest structures on the Olympic Peninsula for the benefit of forest-dependent species.
2. Protect and maintain the diversity of nearshore habitats historically characteristic of the Salish Sea ecosystem for the benefit of native plants and marine-associated wildlife.
3. Enhance and/or protect freshwater wetlands for the benefit of wetland-dependent species.
4. Gather scientific information (surveys, research, and assessments) to support adaptive management decisions under objectives for Goals 1-3.

Public Use Goals:

5. Visitors feel welcomed and know they are on a national wildlife refuge as well as where they can safely explore and learn more about the diversity of wildlife, while being good wildlife stewards. As a result, visitors will have a memorable experience and leave the Refuge with a greater connection between themselves and nature.
6. Visitors have the opportunity to participate in safe, quality wildlife-dependent recreation programs and compatible nonwildlife-dependent recreation activities while minimizing wildlife disturbance in the face of increasing Refuge visitation. Programs and activities, including interpretation, environmental education, wildlife observation and photography, and fishing, will focus on enhancing public understanding and appreciation of wildlife and cultural resources while building support for the Refuge.
7. Through Refuge outreach efforts local residents will have the opportunity to gain an understanding of and appreciation for the Refuge and Refuge System mission.

Cultural Resources Goal:

8. Protect, preserve, evaluate and interpret the cultural heritage and resources of the Refuge while consulting with appropriate Native American groups and preservation organizations, and complying with historic preservation legislation.

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