

Chapter 1. Introduction, Purpose of and Need for Action

1.1 Background

Fish Springs National Wildlife Refuge (NWR), located in western Utah in Juab County (Figure 1 and Figure 2), is one of the most isolated refuges in the lower 48 states. The nearest neighbors reside in Callao, Utah, a ranching community of about 45 people, 24 miles west of the Refuge. The nearest communities with services are Dugway Proving Ground, Utah, 63 miles to the northeast and Delta, Utah, 78 miles to the southeast. The Refuge consists of 17,992 acres of fee-title land surrounded on the east, west, and south by Bureau of Land Management (BLM) holdings and on the north by the U.S. Army's Dugway Proving Ground. Springs flowing from the eastern base of the Fish Springs Range feed a 10,000-acre saline marsh divided into nine impoundments (Figure 3). The remaining portion comprises 6,000 acres of mud and alkali flat and 2,000 acres of semidesert upland.

Fish Springs NWR sits in a valley at the eastern front of the Fish Springs Range. The Great Salt Lake Desert is to the north, with the small Thomas and Dugway Ranges to the east and the House Range to the south closing the basin. The valley is about 10 miles wide and 20 miles long. The Fish Springs Range is characterized by rocky outcroppings and lava peaks with some areas devoid of vegetation. The Refuge is entirely within the Interior Basins ecoregion. Within the expanse of that ecoregion, the Refuge lies within the sub-unit known as the Bonneville Basin.

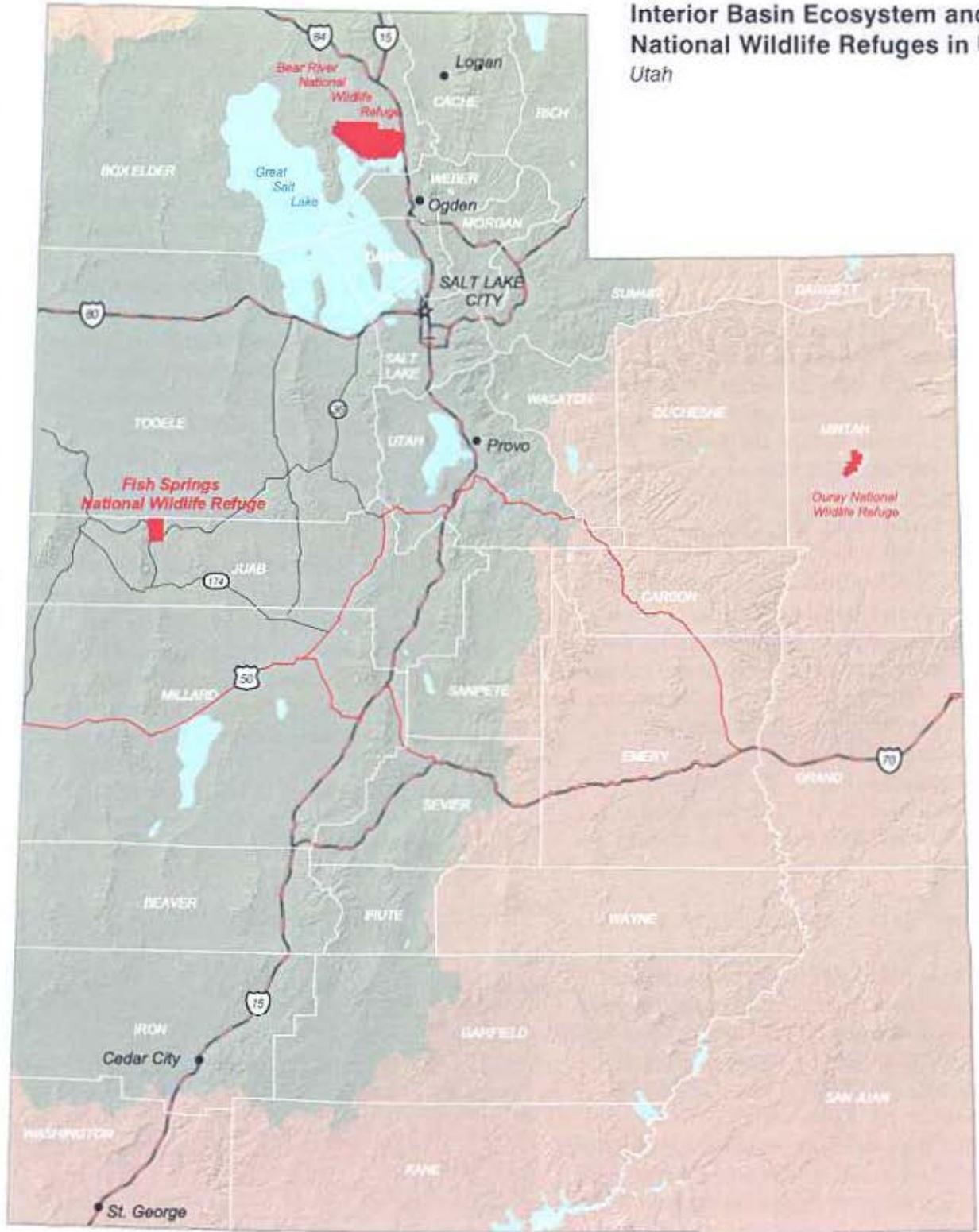
The Refuge was established because of its historic attraction to waterfowl. During fall migrations, 30,000 ducks have been recorded. Since establishment, more than 278 species of birds have been seen at Fish Springs NWR, 61 of which are known to nest on the Refuge. The Refuge provides the only important wetland habitat for a 70-mile radius. Consequently, the Refuge attracts hundreds of wetland-dependent species during migration. More than 40 species spend the winter at the Refuge.

Fish Springs NWR has an extraordinarily rich and diverse human history. As a source of bountiful resources in a very arid and often hostile environment, it has likely been a focal point of human existence as long as 11,000 years. Evidence of such pre-historic occupation can be found over nearly all of the Refuge. Two caves within the Refuge boundary, located on the east face of the northern tip of the Fish Springs Range, are part of a National Archaeological District.



Fish Springs NWR

Figure 1
Interior Basin Ecosystem and
National Wildlife Refuges in Utah
Utah



-  National Wildlife Refuge
-  USPWS Interior Basin Ecosystem



Figure 2
Ancient Lake Bonneville
Eastern Great Basin

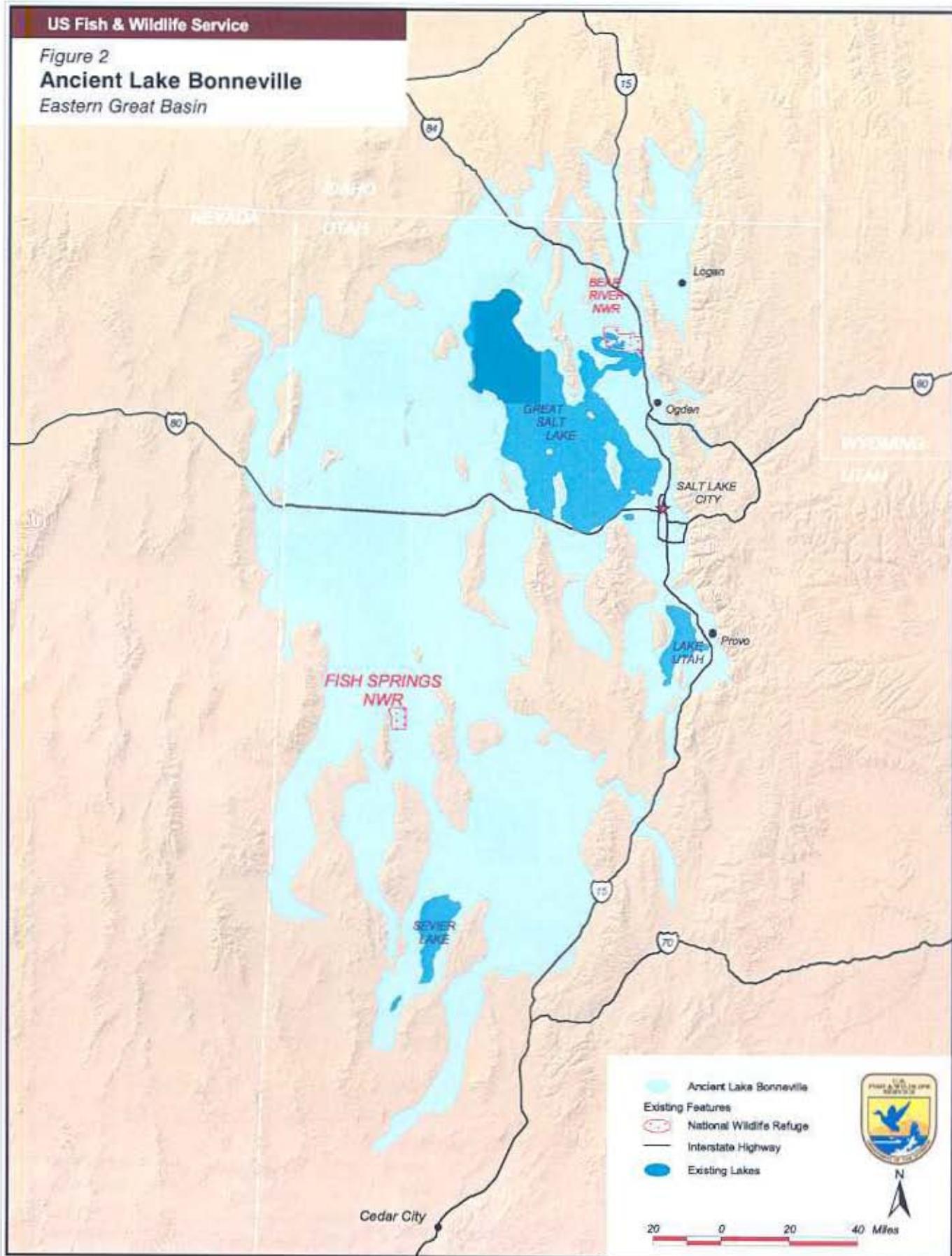
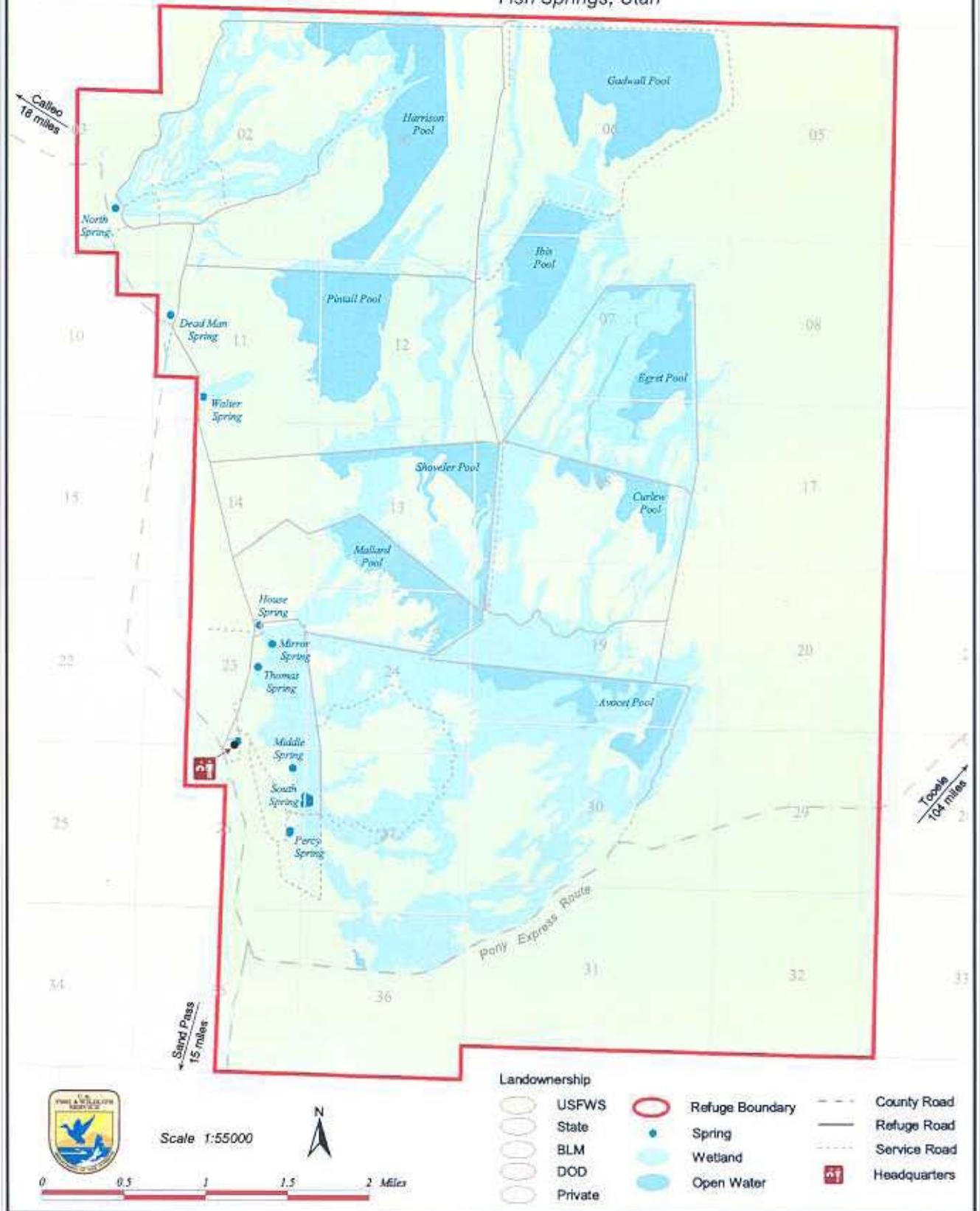


Figure 3
**Fish Springs National Wildlife Refuge
 Units and Pools**
 Fish Springs, Utah



Scale 1:55000



0 0.5 1 1.5 2 Miles

- | Landownership | | | | | |
|---------------|---------|--|-----------------|--|--------------|
| | USFWS | | Refuge Boundary | | County Road |
| | State | | Spring | | Refuge Road |
| | BLM | | Wetland | | Service Road |
| | DOD | | Open Water | | Headquarters |
| | Private | | | | |

Euro-American history of the Refuge begins in 1827 with the first documented visit to the marsh by famed mountain man and pioneering explorer Jedediah Smith. Smith stopped at Fish Springs on one of his trips to California. The first documented occupation at the marsh was in existence by 1858. In 1860, Fish Springs became a stop on the Pony Express Route and Overland Stage routes. In 1861, the Transcontinental Telegraph line passed through Fish Springs. In 1913, the Lincoln Highway, the nation's first transcontinental automobile road, would pass through Fish Springs to skirt the often impassable salt flats to the north. It is estimated that at the peak usage period for the Lincoln Highway, over 5,000 cars passed each year, compared to less than 2,500 cars currently. Several segments of the Lincoln Highway are still visible in Refuge uplands.

1.2 Comprehensive Conservation Plans

This Draft Comprehensive Conservation Plan (CCP) for the Fish Springs NWR discusses the planning process, Fish Springs NWR characteristics, and the U.S. Fish & Wildlife Service's (Service) proposed management for the Fish Springs NWR for the next 15 years. An Environmental Assessment describing the anticipated effects of the Service's proposed management and other alternatives is incorporated into this document.

The National Wildlife Refuge System Improvement Act (Refuge Improvement Act), an amendment to the National Wildlife Refuge Administration Act of 1966, was passed in 1997. This historic "organic act," the first in the National Wildlife Refuge System's history, required that a CCP be prepared for each refuge within 15 years. Lands covered by this Act include National Wildlife Refuges and Wetland Management Districts, including grassland, wetland, and conservation easements. The Refuge Improvement Act also clarified compatibility

and public use issues on Refuge System lands.

The Service worked with Congress to craft the Refuge Improvement Act and supported the planning requirement. This planning effort will assist each refuge, and the entire National Wildlife Refuge System, to meet the changing needs of wildlife and the public. Public input during the CCP process provides opportunities to consult with neighbors, visitors, and other agencies to ensure that plans are relevant and address natural resource issues and public interests.

1.3 Purpose of and Need for the Comprehensive Conservation Plan

The purpose of the proposed CCP is to describe the goals established for Fish Springs NWR, and the objectives and strategies needed to meet the goals. The goals for Fish Springs NWR are presented in Section 1.9.

The CCP is needed for several reasons. Loss of habitat in the Pacific Flyway has been substantial and continuous, primarily through conversion of wetlands to agriculture. The scope of Federal trust resources has expanded to include threatened and endangered species. Knowledge among wildlife professionals has expanded. Legislative mandates to protect cultural resources must be met. A need exists to describe how Fish Springs NWR can best contribute to efforts to protect our wildlife resources for present and future generations.

The purpose of developing the CCP is to provide the Refuge Manager with a 15-year management plan for the conservation of wildlife, fish, 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 each refuge and the Refuge System; and meet other mandates.

1.4 National Wildlife Refuge System Mission, Goals, and Guiding Principles

The National Wildlife Refuge System was started 100 years ago with an Executive Order, signed by President Theodore Roosevelt, protecting pelicans, ibises, and spoonbills on a small and unpretentious island from market hunters. In 1997, the mission and administrative policy for all refuges in the Refuge System was established with the passage of the National Wildlife Refuge System Improvement Act. It also outlined the importance of the six priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation) and how they should be promoted, except where incompatible with the purpose of the individual refuge or the Refuge System as a whole. A formal process for determining compatibility was also established with this Act. From the first Executive Order to the most recent Act, the overriding principle that guides the Refuge System is that wildlife comes first.

The Service, which administers the Refuge System, is the only Federal agency whose primary responsibility is fish, wildlife, and plant conservation. The National Wildlife Refuge System is the world's largest and most diverse collection of lands set aside specifically for wildlife. 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." Goals of the Refuge System are aimed at fulfilling this mission. Some major goals are to provide for specific classes of wildlife species for which the Federal government is ultimately responsible. These "trust resources" are defined by the purpose of the refuge and include threatened and endangered species, migratory birds, and anadromous fish. Most refuges provide breeding, migration, or wintering habitat for these species. Nearly all refuges also supply habitat for big game species and resident or non-migratory wildlife as well.

Goals of the National Wildlife Refuge System are:

1. To fulfill our statutory duty to achieve refuge purpose(s) and further the Refuge System mission.
2. Conserve, restore where appropriate, and enhance all species of fish, wildlife, and plants that are endangered or threatened with becoming endangered.
3. Perpetuate migratory bird, interjurisdictional fish, and marine mammal populations.
4. Conserve a diversity of fish, wildlife, and plants.
5. Conserve and restore, where appropriate, representative ecosystems of the United States, including the ecological processes characteristic of those ecosystems.
6. To foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, high-quality, and compatible wildlife-dependent public use. Such use includes hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

Individual refuges provide specific requirements for the preservation of trust resources. For example, migratory bird refuges in Utah provide important wetland habitats to support populations of birds as required by the Migratory Bird Conservation Act (MBCA). Fish Springs NWR supports migrating and breeding populations of waterfowl, shorebirds, and water birds. These birds migrate to and from at least 10 different states and several Canadian provinces. After visiting Fish Springs NWR, many move on to winter on refuges in the southwest or breed on refuges in Alaska. This network of lands is critical to these birds' survival; any deficiency in one location will affect these species and the entire network's ability to maintain adequate populations.

Other refuges may provide habitat for endangered plants or animals that exist in unique habitats found only in very few locations. Refuges in these situations promote the protection of local populations and their habitat. By providing a broad network of lands throughout the United States with secure habitat and opportunities for recovery, refuges help prevent species from being listed as endangered.

Under the National Wildlife Refuge System Improvement Act of 1997, six wildlife-dependent recreational uses are recognized as priority public uses of refuge lands. These are hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation. These and other uses are allowed on refuges only after finding that they are compatible with the purpose of the refuge. Uses are allowed through a special regulation process, individual special use permits, and sometimes through State fishing and hunting regulations.

1.5 History of Refuge Establishment, Acquisition, and Management

The lands comprising Fish Springs NWR have been part of the Service's National Wildlife Refuge System since 1959. The authorization for the creation of the Fish Springs NWR dates from Migratory Bird Conservation Commission approval on June 18, 1958. The first property acquisition was recorded on March 10, 1959, when 2,160 acres were purchased from the Fish Springs Livestock and Fur Company, and 160 acres were purchased from Charles and Buelah Walker of Salt Lake City, Utah. On March 12, 1959, about 1,455 acres were purchased from the State of Utah. During that same time period, 14,097 acres were withdrawn from existing public domains under Public Land Order 1942 for inclusion in the Refuge. An additional 120 acres of lands were withdrawn from public domain holdings under Public Land Order 2563 in 1961, bringing the acreage total to the present 17,992.

Interest in the possibility of establishing a national wildlife refuge at the base of the Fish Springs Range was as early as 1934. During that year, J. Clark Salyer, Director of the Migratory Bird Program under the U.S. Department of Agriculture's Bureau of Biological Survey, became aware of land in the area with potential waterfowl values that might be for sale. He directed George Mushback, Game Management Agent-In-Charge of the Bear River Migratory Bird Refuge, to visit the area and file a report. While Mushback reported that he felt that it would "offer very good possibilities for nesting, feeding, and concentration" of waterfowl, no further action was taken on acquisition at that time.

Renewed interest by Director Ira Gabrielson in 1938 led to additional on-site surveys. Charles C. Sperry, tasked with assessing

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waterfowl food supplies, reported that they were quite limited and that Fish Springs should not be considered for addition to the National Wildlife Refuge System. A visit by C. S. Williams, a wildlife biologist assigned to the Wildlife Research Lab at Bear River Migratory Bird Refuge, in September of 1938 resulted in a report that indicated that Fish Springs “in the past has been a good waterfowl area. By proper management it can be made even better.” However, Vanez T. Wilson, the Bear River Migratory Bird Refuge Manager, visited the area in December of 1938 and reported that “the Fish Springs area, in my opinion, does not lend itself to extensive development.” No further reconnaissance of the Fish Springs area was noted until a summer visit in 1941 by Reuel Janson who reported that “the Fish Springs marsh possesses considerable qualification for a waterfowl refuge.” No further written record has been found until 1958 when acquisition of the Refuge was approved.

A Master Plan for the “Physical and Biological Development” of the Refuge was written in 1960. Construction of the physical infrastructure for impounding the springs was implemented in three phases between 1961 and 1965. Phase One included the excavation of the Main Distribution Canal, which runs through the center of the Refuge and the north dike on Harrison Unit. Phase Two, begun in 1962, included the construction of the north dike of Avocet Unit and the north dike of Curlew Unit. Phase Three, completed from 1963 to 1965, involved the construction of all remaining major dikes and structures for Mallard, Shoveler, Egret, Pintail, Ibis, and Gadwall Units.

Biological “objectives,” identified in the original Master Plan, included providing resting and feeding areas for tundra swans, Canada geese, redheads, mallards, and greater sandhill cranes; to induce Canada

goose nesting; and to re-establish nesting use of the area by greater sandhill cranes.

Public Use plans in the original Master Plan included parking areas and designated access routes to the public hunting area, preservation of items of historical interest, establishment of a picnic area near the Thomas Ranch house, and designation of a tour route through the marsh.

1.6 Legal and Policy Guidance

Administration of the Department of the Interior, the Service, and the National Wildlife Refuge System is guided by international treaties, Federal laws, and Presidential Executive Orders. Refuge management options are further refined by administrative guidelines established by the Secretary of the Interior and policy guidelines established by the Director of the Service.

Treaties, laws, administrative guidelines, and policy guidelines assist the Refuge Manager in making decisions pertaining to soil, water, air, flora, fauna, and other natural resources, historic and cultural resources, research, and recreation on refuge lands.

Other key legislative policies that direct management of refuges include the Endangered Species Act (1973), Clean Water Act (1977), Land and Water Conservation Fund Act (1965), Migratory Bird Treaty Act (1918), and Executive Order 12996 Management and General Public Use of the National Wildlife Refuge System (1996). These and other Acts and Executive Orders that guide Refuge System activities are listed in Appendix A. The Service also provides its own policy guidelines, which can be found in Refuge Manuals.

1.7 Refuge Purpose

Fish Springs NWR was established under the MBCA by the Migratory Bird Conservation Commission. The stated purpose is "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds" (16 U.S.C. 715d). Past management at the Refuge was focused on waterfowl production. However, after many years of trying, waterfowl production never reached a substantial level. From 1991 to 1995, the Refuge Manager and the Regional Office of the Service reviewed and discussed the best use for the Refuge. It was decided that marsh management should be altered to accommodate the habitat needs of other migratory birds as well, namely shorebirds and water birds. The MBCA supports this because the Refuge supports many birds other than waterfowl.

1.8 Refuge Vision Statement

Fish Springs NWR will continue to conserve native fish, wildlife, plants and their habitats. Water and a diversity of habitats will be available to migratory birds and other indigenous wildlife within the physiographic region known as the Bonneville Basin of the Interior Basin eco region. The Refuge is vital to the conservation of migratory birds, interjurisdictional fish, threatened and endangered species, and the habitats on which these species depend. The Refuge will continue to be managed in accordance with sound management principals to provide a wide range of wildlife-related recreation and learning opportunities, including hunting, wildlife observation, and connecting with nature. The preservation and sharing of the cultural past of the area, both on a local and national scale, is an added benefit of Fish Springs NWR.

1.9 Refuge Management Direction Goals

- **Habitat:** Improve and maintain habitat for nesting and wintering migratory birds and other wildlife populations of the Bonneville Basin.
- **Ecological Integrity:** Perpetuate the native biodiversity and physical characteristics of the Bonneville Basin as represented on Fish Springs NWR.
- **Cultural Resources:** Preserve and protect cultural resources on Fish Springs NWR.
- **Visitor Services:** Promote an understanding and appreciation of the fish, wildlife, and natural and cultural history of Fish Springs NWR by providing high quality environmental education, interpretation, and wildlife-dependent recreational opportunities for persons of all abilities.
- **Partnerships:** Promote partnerships to preserve and enhance the natural characteristics of the Bonneville Basin ecosystem in which Fish Springs NWR plays a key role.

1.10 Step-down Management Plans

The Fish Springs NWR CCP is intended to be a broad umbrella plan that outlines general concepts and objectives for habitat, wildlife, public use, cultural resources, and partnerships that will guide Refuge management over the next 15 years. Step-down management plans provide greater detail for implementing specific actions authorized by the CCP. Table 1 presents those plans needed for Fish Springs NWR, their current status, and next revision date.

Table 1. Step-down management plans for Fish Springs NWR.

Step-Down Management Plan	Status of Plan Year Completed	Proposed Revision Date
Safety Program/Operations	1990	Not Necessary
Hazardous Materials Operations	1998 HAZCOM	MSDS updated yearly as needed
Law Enforcement	No Plan	2006
Spill Prevention Control and Countermeasure Plan	2003	2008
Integrated Pest Management	2003	2008
Refuge Uses (Compatibility)	2003 (with CCP)	2013
Visitor Services Plan	No Plan	2007
Hunting	1981	2005
Habitat Management Plan	1990 (Marsh Management Plan)	2009
Fire Management	2002	2007 (update annually)
Wildlife Inventory Plan	1990	2007
Exotic Species	No Comprehensive Plan, IPM for exotic vegetation	2009
Cultural Resource Management Plan	No Plan	2010

1.11 Description of Planning Process

Comprehensive Conservation Plans (CCPs) provide a clear and comprehensive statement of desired future conditions for each refuge or planning unit. CCPs provide long-range guidance and management direction to achieve refuge purposes, help fulfill the Refuge System mission, and maintain or restore the ecological integrity of each refuge and the Refuge System. Additional goals of the CCP process include using science and sound professional judgment to support management decisions, ensuring the six priority public uses receive consideration during the preparation of the CCP, providing a public forum for stakeholders and interested parties to have

input into refuge management decisions, and providing a uniform basis for funding.

The CCP planning process consists of the following eight steps. Although the steps are listed sequentially, CCP planning and National Environmental Policy Act (NEPA) documentation can be iterative. Some of the steps may be repeated, or more than one step can occur at the same time.

1. **Preplanning** - form core team, identify needs
2. **Identify Issues and Develop Vision** - gather public input on issues
3. **Develop Goals and Objectives** - from issues, resource relationships, legal responsibilities
4. **Develop and Analyze Alternatives** - including the Proposed Action

5. **Prepare Draft Plan and NEPA Document** - assess environmental effects, gather public comments on draft plan
6. **Prepare and Adopt Final Plan**
7. **Implement Plan, Monitor and Evaluate**
8. **Review and Revise Plan**

Comprehensive conservation planning efforts for Fish Springs began in March 1999 with a meeting of regional management and planning staff and field station employees from Fish Springs NWR at Refuge headquarters in Utah. At that meeting, a Core Planning Team, consisting of the Service, Bureau of Land Management, Utah Division of Wildlife Resources, U.S. Army Dugway Proving Ground, and the Utah State Historical Society was designated. A Notice of Intent to prepare a CCP was published in the Federal Register in September of that same year (64 Fed. Reg. 49228 (September 10, 1999)). Public Issues Workbooks were distributed during the Refuge's annual Open House, also in September. From there, work progressed on developing draft Refuge vision, goals, and objectives. However, work was discontinued in September 2000 due to changes in Refuge management and priorities for the regional planning division.

Planning efforts were re-initiated in November of 2001. Issues Workbooks were sent to 40 individuals and organizations in February 2002, followed by two public meetings in March—one in Salt Lake City, the other in Partoun, Utah. Neither public meeting was attended by the public. Eight completed Issues Workbooks were returned to the Core Planning Team. Further scoping was conducted during a Core Planning Team meeting in April 2002 where each Team member was given the opportunity to discuss concerns, recommendations, and ideas. The Core

Planning Team then revised the draft Refuge vision, goals, and management alternatives and evaluated the environmental consequences of each alternative.

The CCP, once finalized, will be signed by the Regional Director, thus providing Regional direction to the Refuge Manger and staff. Copies of the CCP will be provided upon request to all interested parties.

1.12 Planning Issues

Issues identified during the scoping process are presented here. This is a synopsis of all comments received, including those from individuals, organizations, State agencies, and other Federal agencies.

Wildlife and Habitat

There was support for managing the Refuge for a diversity of wildlife, with the current emphasis in marsh areas on waterfowl, shorebirds, and other water birds. The quality of the high desert shrubland habitat should be improved. Some concern exists for the well-being of endangered and threatened species and State species of concern. Additionally, some respondents called for protecting invertebrates in the springs, with particular emphasis given to controlling the spread of the nonnative snail, *Melanoides tuberculata*. A number of respondents saw the need for a greatly enhanced biological inventory and assessment program. Some support occurred for expanding the Refuge into nearby salt-flats and springs.

Exotic Species

Concern about the spread of exotic species, both plant and animal, was expressed. Increased control efforts are needed. However, concern with the use of chemicals to control weeds was also expressed.

Cultural Resources

There was support for the University of Utah to continue its archaeological summer field school on the Refuge. The two caves on the Refuge should be excavated. Interpretation of cultural and historic resources should be improved and expanded.

Public Use

Respondents were happy with the level of public access on the Refuge. Development of a nearby off-site campground to accommodate visitors was recommended. Conflicting opinions on hunting and trapping were voiced. Some felt a goose hunt should be implemented in addition to current hunting opportunities. Others supported no hunting or trapping on the Refuge, believing these activities are incompatible with the purpose of the Refuge. It was also requested that the Service work on eliminating the inconsistencies in hunting regulations on different refuges within Utah.

Administration/Operations

The need for additional staff for the Refuge was a concern for some respondents. The Refuge is especially in need of a biologist. A request was made to break down the Refuge

budget into administration, conservation, and public use/hunting for comparison purposes. Partnerships with Dugway Proving Ground should be expanded in light of the commonality between the two regarding habitat types and species present, especially threatened and endangered species.

1.13 Plan Amendment and Revision

The Fish Springs NWR Manager will use the CCP to ensure Refuge priorities and work is consistent with the CCP goals, objectives and strategies. Appropriate staff members will be assigned tasks and projects, identified in the CCP, to accomplish the objectives stated in the CCP. The Refuge staff will review the CCP at least annually to decide if it requires any revisions as new information becomes available, ecological conditions change, major or Refuge expansion occurs. At a minimum, the CCP will be revised every 15 years.

