

Transfer and Management of Carson Lake and Pasture

Draft Environmental Assessment



U. S. Department of the Interior Bureau of Reclamation Lahontan Basin Area Office 705 N. Plaza, Room 320 Carson City, NV 89701

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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Attachment A: Property Transfer Agreement (05-LC-20 8359)

Attachment B: Revocation Request (forthcoming, not included)

Attachment C: Nevada Department of Wildlife Management Agreement

Attachment D: Agreement with State Historic Preservation Office

(forthcoming, not included)

Attachment E: Endangered Species Act Coordination Letter

Attachment F: Distribution List

ACRONYMS AND ABBREVIATIONS

°F degrees Fahrenheit

Act Truckee-Carson-Pyramid Lake Water Rights Settlement Act

of 1990, Title II of Public Law 101-618, 104 Stat. 331 1,

APE area of potential effects

BLM Bureau of Land Management CEQ Council on Environmental Quality

CERCLA Comprehensive Environmental Response, Compensation and

Liability Act

CFR Code of Federal Regulations

cfs cubic feet per second

CLAB Carson Lake Advisory Board CLP Carson Lake and Pasture

EPA Environmental Protection Agency
ESA Environmental Site Assessment
National Register National Register of Historic Places
NDOW Nevada Department of Wildlife
NEPA National Environmental Policy Act
NHPA National Historic Preservation Act

PA Programmatic Agreement
PCBs polychlorinated biphenyls
PILT Payment in Lieu of Taxes
Reclamation Bureau of Reclamation
Secretary Secretary of the Interior

SHPO State Historic Preservation Office(r)

State State of Nevada

TCID Truckee-Carson Irrigation District
TCLP toxicity characteristic leaching potential

U.S.C. United States Code
USGS U.S. Geological Survey

WHSRN Western Hemisphere Shorebird Reserve Network

CHAPTER 1 – PURPOSE AND NEED

Purpose of and Need for Action

The proposed Federal action is to convey lands known as the Carson Lake and Pasture (CLP) (Figure 1) to the State of Nevada (State) for use as a State wildlife management area and management as a component of the Western Hemisphere Shorebird Reserve Network (WHSRN).

This Federal action would reduce the Secretary of the Interior's (Secretary's) costs associated with management of Lahontan Valley wetlands, improve management of the area for migratory waterfowl and shorebirds, and recognize important efforts made over many years by the State in the protection and management of CLP.

Study Authority

Subsection 206(e) of the Truckee-Carson-Pyramid Lake Water Rights Settlement Act of 1990, Title II of Public Law 101-618, 104 Stat. 331 1, (the "Act") authorizes the Secretary to convey CLP to the State for use as a "State wildlife refuge." The Act provides further that prior to such transfer, "the Secretary and the State shall execute an agreement ensuring that the Carson Lake and Pasture shall be managed in a manner consistent with applicable international agreements and designation of the area as a component of the Western Hemisphere Shorebird Reserve Network." The Act also provides that "the Secretary shall retain a right of reverter under such conveyance if the terms of the agreement are not observed by the State." Conveyance of CLP to the State is subject to the following restrictive covenant. "Any water right transferred by the State for use on Carson Lake and Pasture shall be limited to no more than 2.99 acre-feet per acre, except as further provided in this paragraph. The covenant shall be applicable to all previously acquired and transferred water rights; all previously acquired but not yet transferred water rights; and any water rights not yet acquired by the State."

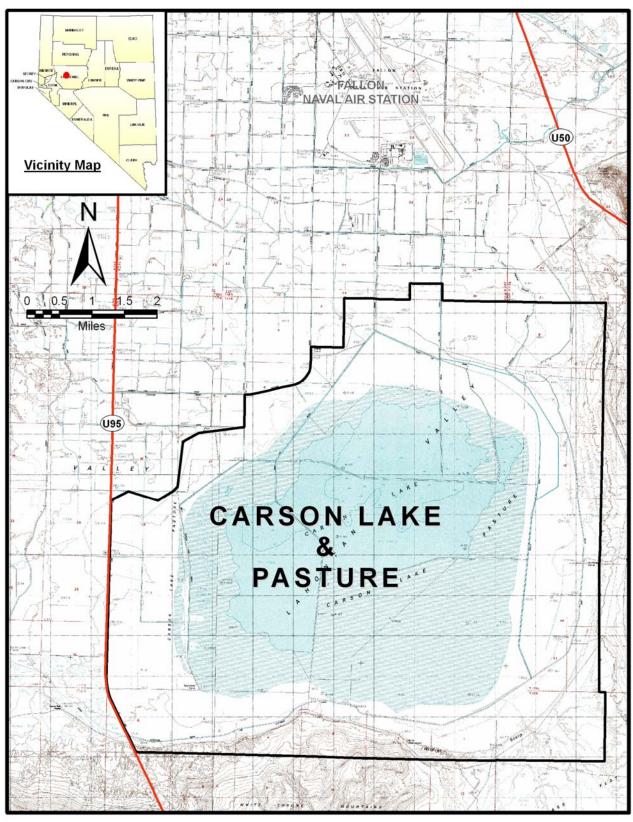


Figure 1: Title Transfer Area Boundary of Federal Lands to be Transferred to the State of Nevada

Related Permits, Actions, and Laws

Conveyance of CLP is subject to:

- Section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
- National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] 4321 et seq.),
- Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.),
- National Historic Preservation Act (NHPA) (16 U.S.C. 470 et seq.)
- Migratory Bird Treaty Act (16 U.S.C. 703-712)
- Executive Order 11990, Protection of Wetlands
- Executive Order 11988, Floodplain Management
- Executive Order 13007, Indian Sacred Sites
- Executive Order 13112, Invasive Species
- U.S. Government Property Title Documentation (Patent)

Background and History

CLP is located approximately 8 miles southeast of Fallon, Nevada. CLP consists of approximately 30,000 acres of pasture and wetlands. It is owned by the Bureau of Reclamation (Reclamation) (lands are currently withdrawn for Reclamation's Newlands Project) and co-managed by the Truckee-Carson Irrigation District (TCID) and the Nevada Department of Wildlife (NDOW). TCID maintains the canals in and around the property. NDOW has an agreement with Reclamation to manage the wildlife on the property.

CLP lake, wetlands, and surrounding basin are remnants of prehistoric Lake Lahontan, which occupied both the Carson Lake and Carson Sink to the north where Stillwater National Wildlife Refuge is now located. In more recent times, Carson Lake was the terminus of the Carson River. TCID was formed in 1918 to work with the U.S. Reclamation Service (now Reclamation) to eventually assume the operation and maintenance of the Truckee Carson Project (now the Newlands Project). Derby Diversion Dam, located about 20 miles downstream from Reno on the Truckee River, and approximately 32 miles of the Truckee Canal, were completed in 1905. Water was then diverted from the Truckee River to irrigate lands in the Fernley, Hazen, and Swingle Bench areas, as well as to supplement the flows of the Carson River for irrigation along the lower portion of the river. Lahontan Dam was completed in 1915. Since the construction of the dam and irrigation canals, Carson Lake has been fed by the runoff water from upstream customers and water rights holders.

Recognition of the quality of the waterfowl and shorebird habitat within CLP began early, when a group of local sportsmen formed the Greenhead Hunting Club in 1912 (it

was incorporated in 1925). The Greenhead Hunting Club entered into a formal lease agreement with TCID for controlled hunting that continued until 1979, when the Federal government denied further leases. In 1979, the Carson Lake Advisory Board (CLAB) was formed with the purpose of making recommendations to the TCID board of directors on management of the area.

In 1980, the Max C. Fleischmann Foundation approved a grant for \$631,000 for improvements to the area's water control structures, irrigation system, levees, and for construction of public bird observation decks. As a condition of the grant, TCID agreed to dedicate 50 percent of all spills and return flows to Carson Lake to the wetlands and to maintain CLAB in perpetuity. Also in 1980, on the advice of CLAB, the Greenhead Hunting Club funded construction of an 11-mile fence to enclose approximately 7,500 acres of the main wetland portion of CLP. Since completion of the fence in 1983, livestock have been excluded from the main wetland portion of the area.

In combination with Stillwater National Wildlife Refuge, in 1988 Carson Lake was designated as part of WHSRN, making this area one of only 17 such reserves. These reserves consist of North, Central, and South American sites considered to be critical habitat for migrating shorebirds. About this same time, the Nevada Waterfowl Association purchased the first agricultural water right to be transferred to the area to maintain the wetland habitat.

Interest in transferring CLP from control of Reclamation and management by TCID to the State for management by the NDOW arose during the negotiations in the late 1980s that led to the development and enactment of Public Law 101-618, which authorized transfer of CLP to the State, as previously discussed.

The transfer has been slowed by water rights transfer conflicts, discrepancies between the boundary description in the Act and subsequent surveys, and Reclamation's request to revoke all current leases and drilling permits within CLP and refrain from any future leasing. The property boundaries defined by the Act were found to be inaccurate, and the corrections were documented in Agreement for the Transfer and Management of Carson Lake and Pasture (Agreement 05-LC-20-8359 - Attachment A). Legislation has been drafted correcting the transfer boundaries, transfer of the mineral estate to the State, transfer of residual Reclamation lands to the BLM, and the disposition of geothermal leases already issued. This legislation is awaiting introduction to Congress. When the boundaries are corrected, Reclamation will submit a revocation request (Attachment B – not included) to the Bureau of Land Management (BLM). Included in the agreement is a clause that agrees to limit the water right transferred to the State to no more than 2.99 acre-feet per acre, with the provision that the State may seek approval for use of more than 2.99 acre-feet per acre.

Study Scope

Reclamation is the lead agency for the environmental compliance activities associated with the proposed Federal action. NDOW and Churchill County are cooperating

agencies. The proposed Federal action would transfer CLP, as shown in Figure 1, including the mineral estate, from Federal ownership to the State. Residual lands not described in Exhibit A (of Attachment B) would be transferred from Reclamation to BLM. NDOW would continue to manage CLP for waterfowl and shorebirds under the guiding principles of WHSRN as directed in the Act. This environmental assessment describes the biological, socio-economic, land use, and cultural issues associated with the transfer and describes the environmental effects that could occur.

Prior Investigations

Draft Environmental Assessment and Finding of No Significant Impact for Transfer of Carson Lake and Pasture to the State of Nevada Division of Wildlife. U.S. Department of the Interior, Bureau of Reclamation, Lahontan Basin Area Office, Carson City, Nevada (Reclamation, 1999).

Environmental Assessment for Transfer of Carson Lake and Pasture to the State of Nevada Division of Wildlife (NDOW, 1998).

Water Rights Acquisition for Lahontan Valley Wetlands, Churchill County, Nevada, Final Environmental Impact Statement. U.S. Fish and Wildlife Service, Region 1 (U.S. Fish and Wildlife Service, 1996).

Mercury in the Carson River Basin, California and Nevada. Bureau of Reclamation Technical Memorandum (TSC-2005-8290-001) (Reclamation, 2005).

Monitoring of Inorganic Contaminants Associated with Irrigation Drainage in Stillwater National Wildlife Refuge and Carson Lake, West-Central Nevada, 1994–96. P.L. Tuttle, R.J. Hoffman, S.N. Wiemeyer, J.F. Miesner. U.S. Geological Survey Water Resources Investigations Report No. 4173 (USGS, 2000).

Level 1 Contamination Survey at Greenhead Duck Club near Fallon, Nevada. June 9-11, 1998. Report on the Carson and Stillwater Basins, U.S. Department of the Interior, National Irrigation Drainage Program.

Western Hemisphere Shorebird Reserve Network (WHSRN) Site Identification Questionnaire, 1986. (Criteria for inclusion into WHSRN as a site of hemispheric importance)

Other Studies and Agreements

Phase I Environmental Site Assessment – Carson Lake and Pasture, Churchill County, Nevada. Vestra Resources, Inc., (Vestra Resources, 2008).

Western Hemisphere Shorebird Reserve Network Management Report of the Carson Lake and Pasture. (WHSRN, 2008)

Agreement for the Transfer and Management of the Carson Lake and Pasture between the U.S. Department of the Interior and the State of Nevada. Agreement Number 05-LC-20-8359, October 28' 2004 (Attachment B)

Summary of Scoping Issues

Reclamation encouraged public involvement by soliciting comments from governmental and private sector groups as well as individuals. A public meeting was held in Fallon, Nevada on May 8, 2008, at which 11 individuals each provided at least one set of comments. Issues were grouped and summarized as follows:

Water Resources/Water Rights

- Changes to Truckee River diversions
- TCID transferring water rights away from CLP
- Maintenance of drainage infrastructure

Water Quality

- Impacts of irrigation drain discharges on waterfowl and shorebirds
- Impacts of mercury contamination on fish and wildlife

Land Use

- Geothermal development (authority to lease, subsurface rights)
- Grazing (intensity, distribution, permit process)
- Hunting (public and Greenhead Club access)
- Management of residual Reclamation lands
- Land use changes on adjacent properties
- Easements for maintenance historic trail access
- Changes in land transfer boundaries

Vegetation

- Pasture management (grazing vs. wildlife management)
- Noxious and invasive vegetation management (livestock quarantine)

Wildlife/Migratory Waterfowl and Shorebirds

- Wildlife, waterfowl, and shorebird management
- Maintaining CLP in its current WHSRN status
- Description of "improved management under state ownership"

• Conflicts with geothermal energy development

Threatened and Endangered Species

• Impacts on cui-ui and Lahontan cutthroat trout

Hazardous and Toxic Wastes

- CERCLA Phase I Site Assessment
- Superfund site status and natural resource damage assessment status
- State and Federal contaminant liability

Recreation and public access

- Public access and authorized uses (hunting, fishing, motorized vehicles, etc.)
- Greenhead Club use
- Improvement and maintenance of roads, restrooms, trails, and accessibility

Socio-economics

- Changes in Federal Payment in Lieu of Taxes (PILT) after transfer
- Changes in expenditures and revenues from CLP

Cultural Resources/Historic Properties

• Location and protection of significant cultural resources

Air Quality and Noise

• Geothermal development

Cumulative Impacts

• Land use changes in nearby private and public lands (Naval Air Station, Fallon, geothermal and wind energy development

CHAPTER 2 - ALTERNATIVES

The Council on Environmental Quality (CEQ) regulations regarding environmental assessments require the document to describe the features of the proposed Federal action and alternatives to the proposed action. The description of the proposed action and alternatives should focus on unresolved resource conflicts brought to light during consultations with the affected public, tribes, government agencies, and non-governmental organizations. These issues are summarized in "Summary of Scoping Issues" in Chapter 1.

This chapter describes the proposed Federal action, the No Action Alternative, and alternative options considered and eliminated. The No Action Alternative provides an appropriate basis for comparing the effects of the proposed action.

Alternative One - Proposed Action

The proposed Federal action is transfer of the property (Figure 1) described in Agreement Number 05-LC-20-8359 (Attachment A) between the U.S. Department of the Interior and the State, dated October 28, 2004. The legal description in the agreement has been agreed to by all the parties involved and would be enacted by the Congress in order to complete the title transfer. (The boundaries described in the 1990 Act erroneously included private property and required a new survey to accurately describe the property transfer.) Therefore, legislation would further be enacted to make clear all right, title and interest of the United States be transferred to the State, including issued mineral leases, including geothermal potential.

Legislation would also relinquish the withdrawal of Reclamation lands bordering CLP on the east and south sides not being transferred to the State. These would be returned to BLM.

Legislation would also clarify that Newlands Project facilities/rights-of-way, as named below, shall remain the property of the United States. Easement descriptions would be mutually identified by Reclamation and the State in the final transfer documents. These properties are: Cabin Drain, Carson Lake Drain, Coverston Drain, Lee Drain, East Lee Drain, West Lee Drain, Holmes Drain, J1 Drain, J1E Drain, L Drain, Pierson Drain, Pierson Wastewater Ditch, and Yarbrough Drain.

CLP would be managed as a State wildlife management area and as part of WHSRN, as directed in the Act. WHSRN criteria for CLP entail management for at least 500,000 shorebirds annually and significant nesting areas for snowy plover, American avocet, and black-necked stilt. All use of the property, including public access, mineral development, grazing, and recreation, would be subordinated to wildlife management in the event of land use conflicts. Grazing would be managed to enhance wildlife habitat, including providing adequate food, cover, and water for desired upland wildlife species and retaining, creating, and managing wetlands for waterfowl, fur bearers, and other wildlife. Land with significant cultural resources would be retained by the Federal government or

protected by the State under an agreement with the State Historic Preservation Office (SHPO) (Attachment D – forthcoming, not included). The State would be limited to no more than 2.99 acre-feet per acre of water transfers for all previously acquired and transferred water rights; all previously acquired but not yet transferred water rights; and any water rights not yet acquired by the State or until legal settlement to the contrary.

Alternative Two - No Action Alternative

Under the No Action Alterative, CLP would remain as federally owned lands under a Reclamation withdrawal. The Act authorizing the conveyance of CLP to the State for use as a State wildlife management area would not be implemented. The benefits of reducing the Secretary's costs associated with management of the Lahontan Valley wetlands, improved management of the area for migratory waterfowl and shorebirds, and recognition of the State's protection and management of CLP would not be fulfilled. It is assumed that the State would continue to manage the area for Reclamation for migratory waterfowl and shorebirds. Reclamation would continue to allow TCID to manage grazing, and it is assumed TCID would continue to lease hunting rights to the Greenhead Club. It is also assumed that mineral leases for geothermal development would be developed, which may jeopardize the area's status in WHSRN. The effects of the No Action Alternative are not further discussed in Chapter 3, but effects under the No Action Alternative described here provide an appropriate basis of comparison for the effects anticipated under the action alternative.

Alternatives Considered and Eliminated

Several alternative options were considered and eliminated, as discussed in the following.

Phased Transfer - This option would not meet the purpose and need of title transfer and management by the State of Nevada as defined in the authorizing legislation.

Transfer Rate of 3.5 Acre-Feet Per Acre – This option is not consistent with the U.S. Department of the Interior and State agreement (Attachment A). This transfer rate is currently authorized by the Nevada State engineer but is being contested, which precludes the transfer of any water above 2.99 until all legal avenues have been exhausted.

Purchase of a Buffer Zone in Addition to the Reclamation Lands – This option was proposed to promote additional protection for wildlife and wetland values. It is eliminated from further discussion because it is out of the scope of the legislation that authorizes the transfer.

CHAPTER 3 – AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the affected environment and environmental consequences of the proposed action on key resources in the study area. The effects on these resources under the No Action Alternative described in Chapter 2 provide the basis of comparison for the effects of the action alternative.

The following resources are not discussed in this EA: geology, air resources, soils, noise and visual resources. Impacts to these resources were considered but not analyzed in detail because they are not affected by the project.

Setting

CLP is located in the southern portion of Lahontan Valley, south of Fallon, in Churchill County, Nevada. It consists of approximately 30,000 acres of pasture and wetlands. The Lahontan Valley, also known as the Carson Desert, encompasses about 2,000 square miles of nearly flat terrain. The climate is characteristic of dry, arid regions of the temperate zone, with hot summers and moderately cold winters. Temperature ranges from a low of -10 degrees Fahrenheit (°F) to a high of 104 °F, with an average of 150 frost-free days. Most precipitation occurs in the winter and spring, and averages 4.5 inches per year.

The area is situated on the bottom portion of the remnants of prehistoric Lake Lahontan, which occupied both the Carson Lake and Carson Sink to the north, where the Stillwater National Wildlife Refuge is now located. In more recent times, Carson Lake was the terminus of the Carson River. The area is now a closed basin which has not had any surface outlet since the 1910s or 1920s.

The area is about 3,900 feet above sea level. Soils in the area are generally fertile, but tend to be high in salts, and alkaline deposits are common in the southeastern portion of the area. They also tend to be made up of fine silts and clays that retard movement of water into the ground water. There appears to be almost no ground-water recharge from the lake.

A single road for public access leads into the property, splitting into three dirt roads that are atop levees or adjacent to irrigation canals, circling the pasture and marsh areas. Many of the roads have been graveled to provide all-weather access. Three observation decks for bird watching are available to the public year round.

CLP is surrounded by a perimeter fence, and internal fences divide the area into 15 pasture areas. In addition to the fenced pastures, TCID has constructed four livestock corrals and has personnel to control livestock, provide maintenance, and irrigate pastures. Levees divide Carson Lake into ponds or wetland management units. The water depth

and salinity of these units are controlled to provide diverse and productive habitat for waterfowl and shorebirds.

Newlands Project Operations

Since 1929, TCID has managed CLP as a community pasture for Newlands Project ranchers. TCID employees control livestock, perform maintenance, and manage water distribution to the pastures. TCID has used CLP as a terminal area for Newlands Project drainwater. Under a Fleischmann Foundation agreement ("Background and History"), which also funded construction of the internal fencing and the observation towers, the drainwater is divided between the pastures and the wetland areas. The drainwater is used for pasture irrigation from February to September, while drainwater is available for wetland use the remainder of the year.

For more than five decades, the Greenhead Hunting Club managed public use of CLP. During that time, the area was closed to the general public during the year, except for waterfowl season. The area was opened to the public in 1979, when the Carson Lake Advisory Board was created, and a gatekeeper was on duty year-round.

Water Resources/Water Rights

Affected Environment

Surface Water

Water is delivered to CLP through 12 canals and drains originating in the Newlands Project. The maximum capacity of these sources is 160–200 cubic feet per second (cfs). The water delivery system is capable of placing water on more than 90 percent of CLP. From March 1 to September 1, half of the inflow irrigates the upland pastures and half is used to manage water levels in the ponds. For the remainder of the year, all the inflows are directed to the wetland management units.

In addition to the drain and return flows, CLP receives approximately 7,200 acre-feet of prime water purchased by NDOW and delivered by TCID. The State is expected to acquire 12,800–23,000 acre-feet of water from drains, the Carson Division, and upstream of Lahontan Reservoir to fulfill the waterfowl and shorebird management purposes of the transfer. This prime water has been used to reduce the total dissolved solids in the ponds (i.e., freshen) and provide quality habitat for fall migrants and resident birds. The amount of water transferred per acre of land acquired, i.e., the transfer rate, would be 2.99 acre-feet/acre. This rate may increase to 3.5 acre-feet/acre pending a decision by the State Engineer's office. In either case, there would be no increase in diversions from the Truckee River to supply CLP.

Ground Water

The depth to ground water in the vicinity of CLP ranges from the ground surface to approximately 8 feet below the ground surface in ten monitoring wells encompassing CLP. Generally, the direction of the ground-water flow tends to follow topography, which is to the center of the valley and Carson Lake. Additional information on the geothermal ground-water sources is discussed under "Land Use."

Environmental Consequences

NDOW does not anticipate the property transfer would affect surface water management. Prime water may be used more frequently as NDOW continues to seek opportunities to purchase such water from willing sellers. Water sharing and purchase agreements with the U.S. Fish and Wildlife Service would remain the same. It is assumed that the quality, quantity, and timing of the drain and return flow water conveyed from the Newlands Project through TCID canals and drains would remain the same and that TCID would not transfer water rights or change operations in a manner that would substantially affect inflows to CLP.

As the Truckee River supplies 13 percent of the Carson Division water supply on average, it is assumed that less than 5,000 acre-feet would be lost in conveyance, which is the amount considered within the range of acceptable system losses through evaporation and conveyance loss. If the transfer rate of 3.5 acre-feet/acre were approved, it would not increase the diversions from the Truckee River. It would not, however, result in *decreased* diversions, as would occur with a 2.99 acre-feet/acre transfer rate.

Water Quality

Affected Environment

As discussed previously, water is delivered to CLP through a series of canals and drains. The drain and return flow water from irrigated lands contain trace elements leached from the soil by irrigation. Water quality varies seasonally. The poorest water quality occurs in the winter and early spring when flows are lowest, and the best occurs in the summer and fall when flows are diluted by irrigation water. These naturally occurring trace elements, including arsenic, boron, molybdenum, and selenium, reach high concentrations as they evaporate in the terminal ponds of CLP. Studies in the 1980s indicated that samples of water, bottom sediment, and biota in areas affected by irrigation drainage contained concentrations of arsenic, boron, mercury, and selenium that exceeded naturally occurring levels or Federal and State criteria. Each of the water units can be separately managed and drained—for water quality management—to the South Sump, where the water evaporates each summer and the resultant salts are blown out of the area by the prevailing southwest winds.

A second source of impaired water quality is mercury used to amalgamate silver near Virginia City and Dayton in the late 1800s that found its way into the Carson River.

Mercury concentrations are high enough in CLP to include it in the Carson River Mercury Superfund site.

As they pass through the food chain, both naturally occurring trace elements and mercury from mining concentrate in plant and animal tissue. This concentration can result in deformities, infertility, and mortality in fish, birds, and mammals.

Environmental Consequences

The property transfer would not affect water quality. Naturally occurring and mining related contaminants would continue to impair water quality and put biota at risk of impaired reproduction and premature mortality. Minor improvements in the existing conditions would occur as the State purchases more prime water to freshen the wetland management units.

Land Use

Affected Environment

As discussed previously, CLP consists of approximately 30,000 acres of pasture and wetlands currently used for cattle grazing in the summer and for hunting and bird watching during the remainder of the year. CLP is owned by the United States, managed by Reclamation (lands are currently withdrawn for the Newlands Project), and comanaged by TCID and NDOW. Adjoining properties to the west are used for crop land. The properties to the south and east are open space Federal lands managed by Reclamation. Properties to the north are single-family homes with an average size of 10 or more acres.

Zoning and General Plan

The Churchill County zoning designation is A-10, Agricultural with Ten-Acre Minimum, for CLP as well as for the adjoining properties to the north and west. The properties to the east and south are designated as RR-20, Rural Resources District. The *Churchill County General Plan* designation for the site as well as all adjoining properties is Agriculture.

Livestock Grazing

Livestock grazing is currently the primary purpose for CLP; wildlife and waterfowl management is a subordinate priority. Typically, about 2,000 cattle graze the area from April 1 through November 15. The wetland area was fenced under the Fleischmann Foundation agreement in 1979. Prior to that, the entire area was grazed by livestock. In 2004, Reclamation began allotting permits directly to ranchers and collecting the grazing fees. Prior to 2004, TCID allotted leases and collected grazing revenues. During TCID's administration of the lands, two head of paying stock were allotted per each water-right-acre owned. No individual was allowed more than 400 head of paying stock, except at the discretion of TCID's board of directors. TCID is advised by a board consisting of two members of the Greenhead Hunting Club, two members of the TCID board of directors, two pasture users, and a representative from NDOW.

Geothermal Leasing

BLM manages the subsurface rights for geothermal development in CLP. In 2006, five leases, and in 2007, one geothermal drilling permit, were issued within the transfer boundaries. Objections by Reclamation, WHSRN, and the State over land use conflicts between geothermal development and wildlife management resulted in the relocation of the drill sites. The drill sites are currently outside the transfer boundaries but within Reclamation managed lands.

The property transfer language in the 1990 Act did not address the mineral estate associated with the transfer. The proposed legislation would transfer both the surface and subsurface mineral estate to the State of Nevada. If enacted, the State of Nevada would manage the development of minerals and geothermal mining in CLP.

Environmental Consequences

Land management strategies would remain largely the same following the property transfer. NDOW has begun development of a *Conceptual Management Plan* that would guide the operation of CLP for 10 years. NDOW has begun soliciting recommendations from groups and individuals with interest in CLP.

The property transfer language in the 1990 Act would have put CLP at risk of mineral and geothermal development. Such development would have potentially disturbed shorebirds and waterfowl, impairing management of CLP as a State wildlife management area, and compromising the purpose of the transfer. Under the proposed legislation, there would be no mineral or geothermal development that would potentially conflict with waterfowl, shorebird, and wildlife management, because the State would have more control in how lease are developed. Geothermal development could occur but only if it doesn't interfere with wildlife and the intent of the transfer.

Vegetation

Affected Environment

Lahontan Valley wetlands consist of fresh and alkaline marshes varying from several inches to 3 feet deep. The wetlands are largely dependent on irrigation return flows. CLP has five habitat types: emergent wetland, open water, mudflats, wet meadow and pasture, and uplands.

The types of emergent wetland vegetation are cattails, alkali, and hardstem bulrush. The amount of emergent vegetation varies slightly from year to year in each wetland management unit and is dependent on water quantity and quality.

Open water areas, with water in the spring and summer months, will produce dense stands of submergent vegetation. Sage and horned pondweed and widgeon grass are the most common species, with lesser amounts of coontail. While Sago pondweed is found in the fresher water areas, widgeon grass grows under the most saline conditions.

Mudflats contain water that is less than 1–2 inches deep, expanding under windy conditions. Mudflats are an important type of vegetation for shorebirds and are in close association with open water habitats.

Wet meadow and pasture on Carson Lake set it apart from all other wetlands in the state. The dominant vegetation associated with the area is saltgrass, spike rush, and small amounts of alkali bulrush. Spike rush stands are the most extensive found anywhere in the state and are heavily used by feeding waterfowl. The wet meadow habitat can only be maintained in its current condition by fairly intensive livestock grazing during the growing season. Without livestock grazing, most of these areas would become solid, monolithic stands of cattails.

Fewer than 1,300 acres can be classified as uplands, and these are portions of CLP that cannot be irrigated by ditches. The dominant vegetation on the upland areas is tamarisk, greasewood, and saltbrush.

Environmental Consequences

To achieve the wildlife management purposes of the legislation, NDOW would manage vegetation to prevent and control noxious weeds, use grazing and water management to optimize vegetation preferred by shorebirds and waterfowl, and improve pasture management. This management may lead to changes in current vegetation communities and/or conditions.

Wildlife/Migratory Waterfowl and Shorebirds

Affected Environment

Passerine birds regularly nesting in or near CLP include: common yellowthroats, horned larks, marsh wrens, red-winged blackbirds, savannah sparrows, song sparrows, and yellow-headed blackbirds.

Nesting species of raptors include the northern harrier, burrowing owl, great horned owl, and short-eared owl. Other species such as golden eagles, red-tailed hawks, prairie falcons, magpies, and barn owls nest in the vicinity and use the area primarily for feeding. Peregrine falcons and merlins use the area during the spring and fall migration periods. Bald eagles and rough-legged hawks use the area for winter feeding.

In 1988, WHSRN designated CLP as an important shorebird site of hemispheric importance. A wide variety of shorebirds and other marsh nesting birds use the area as a migration feeding and/or nesting site. Arctic nesting species using the area for feeding during migration include: long-billed dowitchers, Western and least sandpipers, Wilson's and red-necked phalaropes, marbled godwit, black-bellied plover, semipalmated sandpiper, and greater and lesser yellowlegs.

CLP is one of the most heavily used waterfowl areas in the State of Nevada. Dabbling ducks are the more abundant species using the shallow habitat common to the wildlife

area. Common duck species include the green-winged teal, shovelers, gadwall, widgeon, cinnamon teal, and mallards. Redhead and ruddy ducks are common during the summer. Canada geese are found year round; however, swan and snow geese are migrants and are found only during the migration periods.

Nesting surveys have shown CLP to be the second heaviest use area for waterfowl nesting in the state. Duck nesting occurs from April through mid-August; the most common breeding populations are redheads, cinnamon teal, and gadwall. Canada goose nesting occurs from March through May.

Muskrat is the most common mammal found on the wetland area. Their population is cyclical, reaching a peak during years of abundant water. They act as a waterfowl management tool by reducing dense stands of vegetation and are periodically a nuisance when they damage dikes and water control structures through burrowing. The most common upland mammals include several species of rodents, including kangaroo rats, mice, and voles. They provide a food source for coyotes, the most common predator in the area. Other upland mammals include a small number of mule deer and antelope.

No game fish occur in CLP because of the water quality and temporary nature of the wetlands, however, nongame fish, including common carp and mosquito fish, can tolerate the conditions and are common.

Environmental Consequences

Migratory waterfowl and shorebird populations could increase in CLP following the property transfer because management strategies would focus on improving their habitat. The most important factor in boosting populations would be the quantity and quality of water available. The quality, quantity, and timing of water provided by the Newlands Project is anticipated to remain the same, and NDOW would purchase more prime water after the transfer. NDOW also would track the effectiveness of its management using a planning protocol used by WHSRN. Use of this planning protocol would ensure that transferred lands "...shall be managed in a manner consistent with applicable international agreements and designation of the area as a component of the Western Hemisphere Shorebird Reserve Network," as prescribed by the transfer legislation.

The property transfer language in the 1990 Act would have put CLP at risk of mineral and geothermal development. Such development would have potentially disturbed shorebirds and waterfowl, impairing CLP's management as a State wildlife management area and compromising the purpose of the transfer. Under the proposed legislation, there would be no mineral or geothermal development that would potentially conflict with waterfowl, shorebird, and wildlife management.

Threatened and Endangered Species

Affected Environment

No listed or proposed species protected by the Endangered Species Act occur within CLP (Attachment E). However, the yellow-billed cuckoo (*Coccyzus americanus*), a candidate species, may occur (Attachment E). The bald eagle (*Haliaetus leucocephalus*) may also occur; however, it was removed from the Federal list of threatened and endangered species and is now protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

Though the protected cui-ui and Lahontan cutthroat trout do not occur in CLP, the public expressed a concern regarding diversions from the Truckee River associated with the transfer that might adversely affect these species. As discussed under "Water Resources/Water Rights," the diversion of water for CLP would be within the range of current operations.

Environmental Consequences

The property transfer would not affect threatened or endangered species. The transfer would not affect the yellow-billed cuckoo or the bald eagle because their habitats would be unchanged.

Hazardous or Toxic Wastes

Affected Environment

As discussed under "Water Quality," CLP is part of the facility comprising the Carson River Mercury Superfund site. Mercury contamination in the area is a legacy of the Comstock mining era of the late 1800s. Mercury was imported to the area for processing of gold and silver ore. Ore mined from the Comstock Lode was transported to mill sites, where it was crushed and mixed with mercury to amalgamate the precious metals. Numerous studies have been conducted on the extent of the mercury contamination, and it has been identified in the sediments and adjacent flood plain of the Carson River and in the sediments of Carson Lake. In 1990, the entire region was listed on the Federal National Priority List. The site encompasses the area from Carson City to the Lahontan Valley.

Elevated levels of mercury have been confirmed in sediment from Carson Lake. Sampling from 1985 to date has confirmed mercury in sediment and in fish and bird tissue. Some of the highest mercury tissue levels were found in the Carson Lake area. Mercury-contaminated sediments in the Carson River, Lahontan Reservoir, Carson Lake, and Stillwater National Wildlife Refuge are the cause of the elevated levels of mercury in fish and wildlife in and near the contaminated areas. The contamination presents a health risk to those who consume mercury-contaminated fish. In 1993, Reclamation analyzed soil samples to determine whether the mercury levels exceeded the Environmental Protection Agency's (EPA) hazardous waste level criterion. All samples were well below the action levels for both total and toxicity characteristic leaching potential (TCLP)

and, therefore, not classified as hazardous material based on mercury evaluation alone. The same study did find that the mean concentration of arsenic and lithium are approximately double that of Western United States levels, while mercury and selenium are more than ten-fold higher. The report implied that there is a greater—than-normal risk to human health from exposure through airborne dust and ingestion of livestock and waterfowl feeding in the pasture, as well as contamination of livestock, waterfowl, and other biota.

Since 1997, most of the investigation work has continued through agreements with USGS, U.S. Fish and Wildlife Service, and university researchers. In addition to the ecological effects found in studies carried out in cooperation with USGS, studies have been completed to examine the formation and degradation of methylmercury in contaminated sediments, whether contaminated sediments in Lahontan Reservoir are a significant source of mercury to wildlife, the transport of mercury in Stillwater National Wildlife Refuge, and loadings of mercury into and from Lahontan Reservoir. These studies are part of an ongoing investigation to effectively assess the mobilization and transport of mercury, as well as the effects of management practices relating to the sustainability of wetlands.

There are no storage tanks, odors, pools of liquid, drums, hazardous substance and petroleum products, unidentified substances containers, or polychlorinated biphenyls (PCBs) located on the property. In February 2008, a Phase I Environmental Site Assessment (ESA) was conducted. An ESA is required when lands are transferred from Federal control in order to determine the presence or likelihood of a hazardous substance or petroleum products release. The site visit found no signs of contaminants or contamination. However, an adjoining property to the north contains an aboveground tank used to store fuel for outboard motors. The tank and surrounding area show no staining or signs of contamination.

Environmental Consequences

The property transfer would not affect the presence or risk of hazardous or toxic waste. Naturally occurring and anthropogenic related contaminants would continue to impair soil and water quality. Higher-than-normal risks to public health, livestock, and waterfowl have not been determined but have been implied in previous research. Minor improvements in the existing conditions would occur as more prime water is purchased by the State to freshen the wetland management units.

Recreation

Affected Environment

Before 1979, the Carson Lake area was only open to the public during the waterfowl season, October through January, when a caretaker was on the premises. Currently, public use of the area includes waterfowl hunting, bird watching, photography, and education tours. Other uses include boating, shooting, dog training, and target practice.

No visitor number or activity surveys for CLP have been located. However, a study conducted for the nearby Stillwater National Wildlife Refuge (Englin et al., 1999) notes that the majority (84 percent) of the visitors using the area were Fallon-area residents who came to CLP for bird watching and sightseeing. On average, they spent \$21/person/trip, while hunters spent \$38/person/trip. Waterfowl hunting, by boat or from the existing levee roads, is the only form of hunting allowed. Waterfowl hunters either pay a daily or seasonal fee, while no fee is charged for other recreation users. In low water years, some of CLP is closed to hunting to provide a rest area for waterfowl. The entire CLP is open to the public for bird watching when the caretaker is available; however, some access roads are closed during the waterfowl season.

The level of recreation development and public facilities has been minimal. CLP has no potable water and three primitive outhouses. There are no camping facilities; however, in an area just north of the entrance (not on the lands to be transferred), trailers are parked and cabins for hunters were built.

The Greenhead Hunting Club has been allowed to use the clubhouse and immediate area in exchange for management of the gate during hunting season. The club has accepted financial responsibility for all hunting permits leaving TCID's office, with revenues used to support CLP management. Upon transfer, the area would become another State-owned wildlife management area and would be operated similarly to the others, with few exceptions. NDOW would direct and actively manage the operation of CLP based on a *Conceptual Management Plan* that is currently under development.

Environmental Consequences

The property transfer would not affect the type of, or access to, recreation in CLP. Public meetings and discussions with NDOW suggest that level of development for recreation would not substantially change. The terms of the transfer would give priority to waterfowl and shorebird management, suggesting that recreation activities that would conflict with this purpose would be minimized, while those that would enhance this purpose would be favored.

Socioeconomic Resources

Affected Environment

CLP lands are located in Churchill County, east of the city of Fallon. The CLP area's economic base, in terms of employment and income, is the Fallon Naval Air Station, as well as alfalfa and beef production (Darden, et al., 1999). Recreation and beef production in CLP contribute slightly to the local and county economy.

Environmental Consequences

The property transfer would not affect the local economy because land use would not change and the revenue generated by recreation or grazing is anticipated to remain the same.

Cultural Resources/Historic Properties

Affected Environment

The term "cultural resources" is used to describe archaeological sites, illustrating evidence of past human use of the landscape; the built environment, represented by structures such as dams, roadways, and buildings; and traditional resources, including, but not limited to, structures, objects, districts, and sites. Traditional Cultural Properties are commonly, but not always, related to Native American sites. Generally, a cultural resource that is greater than 50 years old qualifies for consideration as a historic property. Historic Properties are cultural resources listed, or eligible for listing, on the National Register of Historic Places (National Register). The criteria for National Register eligibility are outlined at 36 CFR Part 60.4.

The National Historic Preservation Act (NHPA) of 1966, as amended (16 USC 470 et seq.), is the primary legislation that outlines the Federal Governments' responsibility to consider the effects of their actions on historic properties. The 36 CFR Part 800 regulations that implement Section 106 of the NHPA describe how Federal agencies address these affects. Additionally, Native American human remains, cultural objects, and objects of cultural patrimony are protected on federal and Tribal lands under the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 USC 32) and its implementing regulation outlined at 43 CFR Part 10. The Archaeological Resources Protection Act (ARPA) of 1979 (16 USC 470aa), as amended, and its implementing regulations at 43 CFR Part 7, outlines the Federal government's law enforcement responsibility and data management of archaeological resources located on Federal land.

Pacific Legacy, Inc. (Tiley and Kovak 2009) conducted a baseline Class I inventory (records search) that included a review of the existing literature on cultural resources (archaeological and ethnographic sites and investigations) in, and within one mile of, the Carson Lake and Pasture Title Transfer area (transfer area) and prepared a prehistoric, ethnographic, and historic context. The records search included sources located at Reclamation's Mid-Pacific Regional office in a 1998 records search of the general transfer area; the Nevada State Museum, Carson City; the Bureau of Land Management, Carson City; the University Library at California State University, Sacramento; the Getschell Library at University of Nevada, Reno; the Nevada State Historical Society, Reno; the Nevada State Museum, Carson City; and the Churchill County Museum in Fallon.

This body of information was used to develop a research design that outlines relevant themes and/or issues, discusses the data necessary to address them, and explains the field, laboratory, and reporting procedures that will be used to explore them. The context and research design will help guide an intensive (Class III) archaeological survey and ethnographic study of the transfer area, as well as the evaluation of all identified cultural resources for National Register eligibility.

The records search revealed a total of sixteen sites have been previously identified within the title transfer area, consisting of thirteen prehistoric sites, one historic site, and two indeterminate sites for which the records are missing or unclear (Table X). None of these sites have been evaluated for National Register eligibility.

Table X. Previously Recorded Sites within the Transfer Area (from Tiley and Kovak 2009:32).

Site	UC No./ Agency No.	Description	
26CH71	UC-26-Ch-40,	Huntington Site – surface site with 3 points and manos	
	CrNV-03-55		
26CH79	UC-26-Ch-48,	Mano Beach (site is ½ mile long)	
	CrNV-03-559	-	
26CH80	26-Ch-50,	Government Pasture – surface site with 2 metates, 2	
	CrNV-03-477	obsidian flakes, and one mortar	
26CH83/26CH91	UC-26-Ch-54,	Wildcat Cave – human remains, coiled basket	
	UC-26-Ch-62,	fragment, faunal remains	
	CrNV-03-56		
26CH92	26-Ch-63,	Metates covered with tufa, chalcedony blade	
	CrNV-03-570		
26CH125		Record missing at Nevada State Museum	
26CH149	CrNV-03-21	Eetza Cave with faunal remains, cache, isolated human	
		bone	
26CH486	UC-76-Ch-1,	Large village site (?) – manos, metates, pestles,	
	CrNV-03-478	mortars, lithic debitage, historics	
26CH488	UC-76-Ch-3,	Large cave with two chert flakes, faunal and vegetal	
	CrNV-03-480	material on the surface	
26CH490	CU-76-Ch-5,	Cave site with charcoal debris, bone, shell, and vegetal	
	CrNV-03-482	material on the surface	
26CH491	CrNV-03-483	Series of Rock Cairns	
26CH1155	CrNV-03-3828	Large campsite – hearths, lithic debitage, faunal	
		remains, obsidian biface	
	CrNV-03-1893	Wildcat Freight Station	
	CrNV-03-5947	Dispersed lithic scatter with ground stone	
	CrNV-03-5948	Three pieces of CCS debitage	
	03-2092	Wrong number on the State Museum Map	

The thirteen prehistoric sites include cave shelters, large villages, and lithic scatters. The historic site, CrNV-03-1893, is Wildcat Freight Station. The remaining two sites are unknown. Of the prehistoric sites, there is some confusion with sites 26CH83 and 26CH91, which appear to be listed as the same site, and 26CH149, which contains an unspecified reference to 26CH83. The two unknown sites, 26CH125 and 03-2092, have missing or confusing documentation; therefore, it is unknown whether these are historic or prehistoric sites. The five problematic sites will be relocated during survey and their site records updated appropriately so as to resolve their ambiguity.

A total of nine cultural resources studies have been conducted completely, or partially, within the title transfer area. One study (1-9) involved testing at Eetza Cave, while eight others were cultural resource inventories (Table X). Nevada State Museum and BLM records show that less than 100 acres have been previously surveyed within the transfer area.

Table X. Previous Cultural Resource Studies within the Transfer Area (from Tiley and Kovak 2009:29).

Study No.	Type of Study	Size	Reference
1-9	Test Excavations	Not applicable	Busby, C. et al.
			1975
1-65	Survey, within and	7 geothermal test holes, each 50 m	Hatoff, B. 1978
	adjacent	diameter	
1-72	Survey, within	31 acres	Busby, C. 1976
1-85	Survey, within and	95 acres	Wallof, K. 1981
	adjacent		
1-312	Survey, within and	360 acres	Bunch, J. H., 1987
	adjacent		
1-329	Survey, within and	1 geothermal test hole	Moore, R. 1989
	adjacent		
1935	Survey, within	Less than 1 acre	Not available
03-2212	Survey, within and	13 linear miles and 718 acres	Young, D. C., 2005
	adjacent		
1-242	Survey, within	1 geothermal test hole	Botti, N. 1980

Environmental Consequences

Under the proposed action, the federal government will transfer ownership of Carson Lake and Pasture to the State of Nevada. As a result, cultural resources will no longer be subject to federal statues and regulations (i.e., NHPA, ARPA, NAGPRA). The regulations at 36 CFR Part 800.5(a)(2)(vii) identify the "[t]ransfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance" as an adverse affect. While the State of Nevada has historic preservation statues in place, these do not provide equivalent long-term preservation of any potential historic properties located within the transfer area.

In order to comply with Section 106 of the NHPA, Reclamation is overseeing a cultural resources inventory to identify historic properties affected by this undertaking. Several ponds are located within the transfer area, which precludes complete survey of the entire 30,000 acres. However, all portions of the transfer area not under water will be subject to field inventory. This process is defined in 36 CFR Part 800.4(b)(1), which states: "The agency official shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey." Identification efforts suggested for this undertaking will comply with the aforementioned regulation, and shall include the following:

1. A Class III inventory to identify historic properties in the transfer area. A Class III survey involves a comprehensive and systematic field inspection to identify all cultural resources and to record sufficient information to permit their evaluation of significance, or to indicate what further work is necessary to accomplish their evaluation.

- 2. An ethnographic study that will include interviews and field visits with members of the Fallon Paiute-Shoshone Tribe in order to identify sites of religious and cultural significance within the transfer area.
- 3. Identified cultural resources will be evaluated for inclusion into the NRHP per 36 CFR Part 800.4(c) and 36 CFR Part 63. Any historic properties identified will be subject to adverse effects as a result of the title transfer because they will leave federal ownership (36 CFR 800.5(a)(2)(vii).

The means of resolving adverse effects to historic properties recorded within the transfer area is difficult to project at this time because the proposed inventory has not yet been completed. The total range and complexity of historic properties remain to be determined. There are several strategies that may be implemented at this juncture, while acknowledging that actual mitigating measures will be negotiated between Reclamation, the State Historic Preservation Officer (SHPO), and any other consulting parties identified during the Section 106 process. One or more of the following measures may be used to resolve adverse effects to historic properties:

- 1. Prepare a management plan to guide consideration of known historic properties following inventory of the transfer area and evaluation of identified cultural resources. The plan can investigate alternatives for protection of historic properties through fencing, road closures, and other forms of limiting access. Any management plan should include a monitoring section to evaluate the effectiveness of the proposed actions.
- 2. Develop a programmatic agreement to describe responsibilities of recipient entities towards consideration of historic properties.
- 3. Excise those historic properties that possess exceptional significance from the project. Title to such land, including an appropriate buffer, would be retained or transferred to another federal land managing agency.
- 4. Map, excavate, or conduct other forms of data recovery as required at all or some historic properties. All work done under this approach would be preceded by a research design that follows SHPO's Guidelines for Section 106 Submissions, Appendix B. Archaeological Treatment Plan Checklist, and the Secretary of Interior's Standards for Archaeological Documentation.

Additional mitigating measures may be developed as the Section 106 compliance process continues for the Carson Lake and Pasture title transfer. Mitigation measures to resolve adverse effects to historic properties must be established and agreed upon by Reclamation and SHPO prior to the transfer of title to the State of Nevada.

Indian Trust Assets

Affected Environment

Indian trust assets are legal interests in property or natural resources held in trust by the United States for Indian Tribes or individuals. The Secretary of the Interior is the trustee for the United States on behalf of Indian Tribes. The Pyramid Lake Paiute Indian Reservation has interests in the natural resources potentially impacted by water diversions from the Truckee River into the Lahontan basin.

Environmental Consequences

The State of Nevada is expected to acquire water from the Truckee River to maintain wetlands in the Stillwater Wildlife Management Area, CLP, and the Fallon Indian Reservation. This water is currently diverted from the Truckee River and would come from the retirement of irrigated lands in the Newlands Project and the transfer of use from irrigation to wetlands. The Pyramid Lake Paiute Indian Reservation has protested change of use purchases on the grounds that it would adversely affect the preservation of the cui-ui, a fish protected by the Endangered Species Act. The purchase of water for CLP wetlands is not considered a significant impact on cui-ui because it is below the 5,000-acre-foot threshold cited in a decision by the 9th Circuit Court of Appeals in 1990.

Short-Term Uses and Long-Term Productivity

NEPA requires consideration of the relationship between short-term uses of the environment and long-term productivity associated with the proposed action. The proposed Federal action is an administrative action that would not result in a direct physical change to the environment.

Under the property transfer, the State of Nevada would obtain legal title to land and subsurface mineral development for CLP. This ownership change would allow greater control, accountability, and long-term planning for lands the State currently manages through the NDOW. NDOW's management could affect ranchers with existing grazing leases. These changes would improve the control of invasive and noxious weeds, range management, and waterfowl/shorebird habitat. The land transfer would reduce the amount of lands in Federal control and would increase the control and investment by the State.

Unavoidable, Irreversible and Irretrievable Impacts

Irreversible commitments of resources occur as a result of the use or destruction of a specific resource (e.g., mineral extraction, destruction of cultural resources) which cannot be replaced or, at a minimum, restored over a long period of time and possibly at great expense.

Irretrievable commitment of resources refers to actions resulting in the loss of production or use of natural resources. It represents opportunities foregone for the period of time that a resource cannot be used, e.g., land conversion to new uses or construction of levees preventing natural flooding of flood plains.

The property transfer is not expected to cause any irreversible or irretrievable impacts to existing resources. Future development of CLP to better manage it for waterfowl and shorebirds is currently undefined.

CHAPTER 4 – CONSULTATION AND COORDINATION

Public Involvement

Reclamation held a public meeting to solicit public comments on the property transfer and future management of CLP on May 8, 2008, at the NDOW office in Fallon, Nevada. A notice announcing the meeting was sent to the CLP mailing list and to all CLP grazers. The notice also was posted in the *Lahontan Valley News*, *Gardnerville Record Courier*, and the *Reno Gazette-Journal* on May 2, 2008. The deadline for written comments on the EA was May 22, 2008. The comments are summarized in Chapter 1, under "Summary of Scoping Issues.

NDOW held two public stakeholder meetings to solicit input on its *Conceptual Management Plan* on January 20 and 21, 2009, in Reno and Fallon, respectively.

Agency Coordination and Consultation

Cooperating Agencies

On October 10, 2008, Reclamation extended letters of invitation to the following agencies to participate as cooperators in the NEPA process. Churchill County accepted and is serving as a cooperating agency for this study.

- Fallon Paiute-Shoshone Tribe
- Pyramid Lake Paiute Tribe
- Bureau of Land Management
- Naval Air Station Fallon
- U.S. Fish and Wildlife Service
- Nevada Division of Wildlife
- Churchill County
- City of Fallon
- Truckee-Carson Irrigation

U.S. Fish and Wildlife Service

Reclamation sent a species list request to the U.S. Fish and Wildlife Service on May 28, 2008. The agency replied on June 16, 2008, that no threatened or endangered species were found in CLP. Only one candidate species, the yellow billed cuckoo, may occur in CLP (Attachment E).

State Historic Preservation Officer

Consultation with SHPO is ongoing. (See Cultural Resources section).

Tribal Consultation and Coordination

Letters to initiate Tribal consultation were sent on May 28, 2008, to both the Fallon Paiute-Shoshone Tribe and the Pyramid Lake Paiute Tribe. Reclamation received no response.

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APPENDICES

Attachment A: Property Transfer Agreement (05-LC-20 8359)

Attachment B: Revocation Request (forthcoming, not included)

Attachment C: Nevada Department of Wildlife Management Agreement

Attachment D: Agreement with the State Historic Preservation Office (forthcoming, not included)

Attachment E: Endangered Species Act Coordination Letter

Attachment F: Distribution List for Carson Lake and Pasture Transfer