Conveyance and Storage of Non-Project Water in the Starvation Collection System

Final Environmental Assessment

PREPARED BY:

U.S. Department of the Interior
Central Utah Project Completion Act Office

Central Utah Water Conservancy District

CENTRAL UTAH WATER CONSERVANCY DISTRICT

May 2019

United States Department of the Interior
Central Utah Project Completion Act Office

Central Utah Water Conservancy District

FINDING OF NO SIGNIFICANT IMPACT

CONVEYANCE AND STORAGE OF NON-PROJECT WATER IN THE STARVATION COLLECTION SYSTEM

May 2019

Recommended by: _____ Date: May 10, 2019

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Recommended by: _____ Date: May 10, 2019

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FINDING OF NO SIGNIFICANT IMPACT

Conveyance and Storage of Non-Project Water in the Starvation Collection System

In accordance with Section 102(2)(c) of the National Environmental Policy Act (NEPA), as amended, the Council of Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the U.S. Department of the Interior regulations for implementation of NEPA (43 CFR Part 46), the U.S. Department of the Interior, Central Utah Project Completion Act Office (CUPCA Office) and the Central Utah Water Conservancy District (CUWCD), as Joint Lead Agencies, find that the Proposed Action analyzed in the Final Environmental Assessment (Final EA) for this project would not significantly affect the quality of the natural or human environment. Therefore, an Environmental Impact Statement is not required for the proposed Conveyance and Storage of Non-Project Water in the Starvation Collection System (Starvation Warren Act).

Alternatives

No-Action Alternative

Under the No-Action Alternative, the CUPCA Office would not execute a Warren Act contract with CUWCD. Furthermore, CUWCD would not execute third party contracts with Duchesne County Water Conservancy District (DCWCD), East Duchesne Culinary Water Improvement District (EDCWID), and Duchesne City for storage of non-project water in the Starvation Collection System on a space available basis.

Proposed Action

The Proposed Action would allow for the conveyance and storage of 11,774 acre-feet (AF) of non-project water in the Starvation Collection System from the water sources listed in Table F-1 on the following page on a space available basis. Conveyance and storage would be in accordance with the following priorities:

1) CUP Water (including the Midview Exchange Agreement water – see section 1.2 in the Final EA for more information);
2) Rediverted Instream Flow Agreement Waters comprised of 44,400 AF described in the amended Stream Flow Agreement of 1990 and 2,900 AF of Daniel Replacement Project water (see section 3.3 in the Final EA for more information); and
3) Warren Act Contract(s) (Proposed Action).

All non-project water identified in Table F-1 (11,774 AF) would require a Warren Act contract(s) with the U.S. Department of the Interior as part of the Proposed Action and compliance with Utah State water law. The conveyance and storage of the 11,774 AF of non-project water would be for DCWCD, EDCWID, and Duchesne City and would be derived from the water rights listed in Table F-1 on the following page and existing lease agreements.

It is recognized that there are additional water rights in the Strawberry and Duchesne rivers. No additional water rights would be affected by the Proposed Action. Only those water rights listed in Table F-1 would be considered for conveyance and storage in the Starvation Collection System as part of the Proposed Action.

TABLE F-1: IDENTIFICATION OF NON-PROJECT WATER BY AGENCY

	Acre-feet	Comments
Duchesne County Water Conservancy District		
• Pioneer Canal Company Shares	68*	CUWCD owns 17 shares at 4 acre-feet per share to be acquired by Duchesne County Water Conservancy District
• Surplus Water Agreement with Duchesne City	2,898*	4 cfs leased from Duchesne City
• Surplus Water Agreement with Hanna Water and Sewer District	95	
Sub-Total for DCWCD	**3,061**	
East Duchesne Culinary Water Improvement District		
• EDCWID water rights	353	
• Surplus Water Agreement with Hanna Water and Sewer District	391	
Sub-Total for EDCWID	**744**	
Duchesne City		
• Duchesne City water rights	**7,969****	Duchesne City has a total of 15 cfs from 3 water rights; 4 cfs has been leased to Duchesne County Water Conservancy District; the volume calculated is from the remaining 11 cfs
TOTAL	**11,774**	

* The Pioneer Canal Company Shares are currently for irrigation use. Based on past conversions from irrigation to municipal and industrial, the maximum diversion volume would most likely be reduced based on water consumption conversions and original canal carrier water needs. The Joint Lead Agencies have determined to leave it at a higher volume for the NEPA analysis and to not speculate on any reduction from a change in use.

** converted from cfs to AF for a year to calculate the volumes

Currently, the non-project waters listed above have water rights either in the Strawberry River or the Duchesne River systems. 11,220 AF of the non-project water discussed in the Final EA and shown in Table F-1 are currently being conveyed and have a points of diversion per Utah State water law at Knight Diversion Dam or Starvation Reservoir and may be treated at the Duchesne Valley Water Treatment Plant (DVWTP) for municipal and industrial uses. These 11,220 AF of non-project water are under existing carriage agreements with CUWCD for conveyance through the Starvation Collection System. However, they are currently not being stored in Starvation Reservoir. The other 554 AF of non-project water (surplus water agreements with Hanna Water and Sewer District and the Pioneer Canal Company shares water) have a points of diversion above the Starvation Collection System on the Duchesne River.

The Final EA evaluates the potential for these non-project waters to be conveyed and stored in the Starvation Collection System pending the approval of appropriate Warren Act contract(s) and compliance with Utah State water laws.

Need for the Proposed Action

The need for the Proposed Action is to provide a mechanism to allow non-project water to be conveyed and stored in the Starvation Collection System on a space available basis and to update existing water carriage agreements.

Purpose for the Proposed Action

The purpose of the Proposed Action is to utilize the available capacity of the Starvation Collection System to assist with the needs of water users by providing capacity, storage, and timing flexibility to meet non-project water demands.

Findings

The Proposed Action does not violate federal, state, or local laws or requirements imposed for protection of the environment. The CUPCA Office and CUWCD have analyzed the environmental effects, public and agency comments, and the alternatives in detail and find that the Proposed Action meets the purpose and need described in the Final EA with no significant impacts to the natural or human environment. The Proposed Action and the No-Action alternatives would have no effect on the natural or human environment.

The Proposed Action would not require any construction or ground disturbing activities. As discussed in the Final EA, the volume and timing of water conveyed and stored would be minor and within the historical flow rates of the Strawberry and Duchesne river systems. The Proposed Action Alternative would not result in any change in function of the existing Starvation Collection System and aquatic or riverine habitat along the Strawberry or Duchesne rivers. The Proposed Action Alternative would have no effect to the 11,600 AF Midview Exchange Agreement water or the Federal Indian Reserved Water Rights (Winters Doctrine) water.

Executive Order 12898 requires each federal agency to identify and address disproportionately high and adverse human health or environmental effects, including social and economic effects of its program, policies, and activities on minority populations and low-income populations. Since there would be no change in existing or similar land or water uses, there would be no adverse human health or environmental effects to minority or low-income populations.

Midview Exchange Agreement

The Joint Lead Agencies have evaluated the Proposed Action effects on the Midview Exchange Agreement waters (see sections 1.2 and 3.2 in the Final EA). The 11,600 AF of Midview Exchange Agreement water is made available through CUP Block Notice #1 to the CUWCD. Per federal statutory requirements for Warren Act projects, the conveyance and storage of non-project water can only occur when there is excess capacity in the federal facilities proposed for conveyance and storage. Therefore, the 11,774 AF of non-project water evaluated in the Final EA for the Starvation Collection System project is subject to conveyance and storage capacities and limits of the Starvation Collection System. The Proposed Action will not affect the 11,600 AF of Midview Exchange Agreement water.

Federal Indian Reserved Water Rights (Winters Doctrine)

The Joint Lead Agencies recognize that the Federal Indian Reserved Water Rights associated with the Uintah & Ouray Reservation have priority dates no later than 1861 and 1882. The water rights associated with the Proposed Action Alternative (see Table F-1) are junior to and have later priority dates than the Federal Indian Reserved Water Rights within the Uintah Basin. The Proposed Action will not affect Federal Indian Reserved Water Rights.

Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for federally recognized Indian tribes or individuals. Assets can be real property, physical assets, or intangible property rights, such as lands, minerals, hunting and fishing rights, and water rights. The U.S. Department of Interior's policy is to recognize and fulfill its legal obligations to identify, protect and conserve the trust resources of federally recognized Indian tribes and tribal members, and to consult with the tribes on a government-to-government basis whenever plans or actions affect tribal trust resources, trust assets, or tribal safety. Under this policy, the federal government is committed to carrying out its activities in a manner that avoids adverse impacts to ITAs when possible, and to mitigate or compensate for such impacts when it cannot. All impacts to ITAs, even those considered insignificant, must be discussed in the trust analyses in NEPA compliance documents and appropriate compensation or mitigation must be implemented.

The Proposed Action Alternative would have no effect on Indian Trust Assets. The water rights listed in Table F-1 and evaluated in the Final EA are the only water rights considered for the Proposed Action Alternative. All of the non-project water rights evaluated in the Final EA are subject to Utah water law including priority dates and uses. The Federal Indian Reserved Water Rights have the earliest priority dates in the Duchesne River watershed and would therefore be unaffected by the Proposed Action Alternative.

The state of Utah is a 'Prior Appropriation' water rights state. In 1903, the state legislature passed water laws consistent with prior appropriations doctrine. Per prior appropriation doctrine and Utah water law, the earliest in date water right users (that put the water to beneficial use) have the earliest legal rights to that water than subsequent users; in other words, "first in time is first in right". The Federal Indian Reserved Water rights have the earliest water right priority dates in the Uintah Basin (1861 and 1888 per two Executive Orders dated October 3, 1861 and January 5, 1882) and are senior and have priority to all junior water rights. The non-project water rights evaluated in the Final EA (see Table F-1) have a later priority date and are junior to the Federal Indian Reserved Water rights in accordance with Utah water law and prior appropriations doctrine. The Proposed Action Alternative would have no effect on Federal Indian Reserved Water Rights.

Decision

The Joint Lead Agencies have decided to implement the Proposed Action as described in the Final EA.

Environmental Commitments

No environmental commitments are needed for the Starvation Warren Act project.

Review of Public Comments and Revisions to the Final EA

To announce the review and comment period for the Draft EA (dated November 2018) a legal notice was published in the Uintah Basin Standard on Tuesday, November 13 and Tuesday, November 20, 2018. Consultation letters were sent to Native American Tribes on November 9, 2018. A post card announcing the review and comment period was sent to local, state, and federal agencies and other interested parties. A link, shown below, to the Starvation Warren Act website was placed on the Duchesne County main web page. The Draft EA was available for review and comment beginning Tuesday, November 13, 2018 and comments were due by Monday, December 17, 2018. The Draft EA was posted on the project website at https://starvation.cuwcd.com. A comment form was also available via the project website. Two agencies submitted comments during the public review period of the Draft EA:

- Duchesne County Commission; and
- Ute Indian Tribe.

All comments received on the Draft EA during the public comment period were carefully considered and reviewed together with the information contained in the Final EA in determining whether to issue a Finding of No Significant Impact (FONSI). A copy of each comment received, the Joint Lead Agencies responses to those comments, and references to any related revisions are found in Table 4-1 in Chapter 4 of the Final EA. Table A-1 shows each comment along with the response from the Joint Lead Agencies. The FONSI and Final EA, containing the specified revisions, will be posted on the internet at www.cupcao.gov and https://starvation.cuwcd.com. Copies of the Final EA and FONSI are available on request by contacting:

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Final Environmental Assessment

CENTRAL UTAH WATER CONSERVANCY DISTRICT

May 2019

Joint Lead Agencies

U.S. Department of the Interior, Central Utah Project Completion Act Office
Central Utah Water Conservancy District

Cooperating Agencies

U.S. Bureau of Reclamation
Utah Reclamation Mitigation and Conservation Commission

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TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

1.1 Introduction

This Final Environmental Assessment (Final EA) has been prepared to analyze the conveyance and storage of 11,774 acre-feet (AF) of non-project water[1] in the Starvation Collection System; the project is also known as the Starvation Warren Act. The Joint Lead Agencies (JLAs) for this project are the U.S. Department of the Interior, Central Utah Project Completion Act Office (CUPCA Office) and the Central Utah Water Conservancy District (CUWCD). The U.S. Bureau of Reclamation (Reclamation) and the Utah Reclamation Mitigation and Conservation Commission (Mitigation Commission), are Cooperating Agencies as defined by 40 Code of Federal Regulations (CFR) §1501.6.

The Final EA has been prepared pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969 (NEPA), as amended; Public Law (PL) 102-575, Central Utah Project Completion Act of 1992 (CUPCA), as amended; the Council on Environmental Quality's (CEQ's) implementing regulations under NEPA (40 CFR §1500 through §1508); and the U.S. Department of the Interior NEPA Implementing Procedures (43 CFR §46). The Final EA evaluates potential impacts to the environment associated with implementation of the Proposed Action Alternative, as well as providing an analysis of the No-Action Alternative for comparison purposes.

Project Study Area

The project study area is the Starvation Collection System, which is located in Duchesne County, Utah. The Starvation Collection System consists of Starvation Reservoir and Dam, Knight Diversion Dam, and Starvation Conduit (pipeline and tunnel). Starvation Reservoir stores Central Utah Project (CUP) water from Strawberry River and water diverted from the Duchesne River at Knight Diversion Dam through the Starvation Conduit. The project study area is shown in Figure 1-1.

1.2 Project Information and Background

Warren Act

The United States Congress passed the Warren Act on February 21, 1911 to allow the storage and conveyance of non-project irrigation water in federal facilities when there is excess capacity (43 United States Code (USC) §523; February 21, 1911, Chapter 141, [36 STAT. 925]). In order to utilize the flexibility provided under the Warren Act, entities must enter into a contract(s) with the U.S. Department of the Interior. The Warren Act was amended by PL 103-434 on October 31, 1994, to provide for storage and conveyance of non-project water for "domestic, municipal, fish and wildlife, industrial, and other beneficial purposes" in CUP facilities.

[1] For definition of non-project water see Section 1.3.

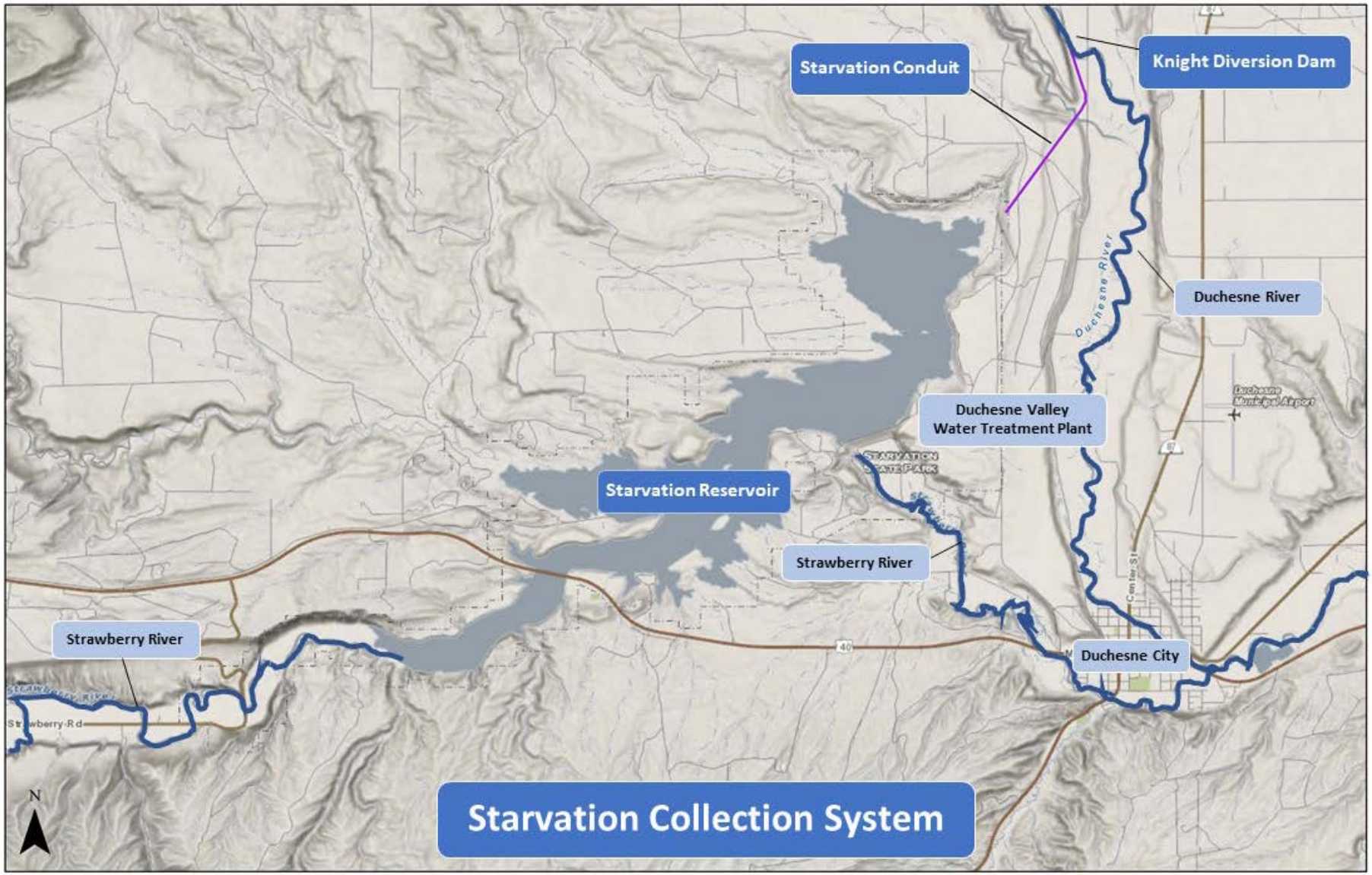

FIGURE 1-1: PROJECT STUDY AREA

Central Utah Project

The Central Utah Project is a United States federal water project authorized for construction under the Colorado River Storage Project Act of April 11, 1956 (PL 84-485, 70 Stat. 105), as a participating project of the Colorado River Storage Project. Constructed by Reclamation and CUWCD, the CUP is located in the central, east-central, and northeast part of Utah and is the largest water resources development project in the state. The CUP makes use of a portion of Utah's share of the Colorado River yield as set out in the Colorado River Compact of 1922. Water developed by the CUP is used for municipal, industrial, and agricultural supplies; hydroelectric power; fish and wildlife; and recreation. The CUP also improves flood-control capability and helps control water quality. The CUP was originally divided into six units to facilitate planning and construction: Vernal, Bonneville, Jensen, Upalco, Uintah, and Ute Indian. The Upalco, Uintah, and Ute Indian units were subsequently deauthorized. The Vernal and Jensen units are completed.

Bonneville Unit of the Central Utah Project

The Bonneville Unit collects and diverts water from the Uinta Basin (which is part of the Colorado River Basin) to the Bonneville Basin. The Bonneville Unit is located in central and northeastern Utah and provides water for Salt Lake, Utah, Wasatch, and Duchesne counties; and a portion of Summit County. The Bonneville Unit is divided into seven systems: Starvation Collection System, Strawberry Aqueduct & Collection System, Municipal and Industrial System, Diamond Fork System, Utah Lake Drainage Basin Water Delivery System, Wasatch County Water Efficiency/Daniel Replacement Project, and Uinta Basin Replacement Project. These systems contain a vast network of reservoirs, aqueducts, tunnels, canals, pipelines, pumping plants and other conveyance facilities that develop water for irrigation, municipal, and industrial use; instream flows; and hydropower production. Much of the Bonneville Unit is completed and remaining features are being designed or are currently under construction. The Bonneville Unit is the largest and most complex of the CUP units (see Figure 1-2).

Starvation Collection System

The construction of the Starvation Collection System was completed in the early 1970s as part of the Bonneville Unit of the CUP. The Starvation Collection System is made up of the Knight Diversion Dam, Starvation Conduit, and Starvation Dam and Reservoir. Knight Diversion Dam diverts water from the Duchesne River, into the Starvation Conduit which discharges into Starvation Reservoir. The Starvation Conduit is approximately 1.70 miles long and is 7.0-7.3 feet in diameter with a capacity of 300 cubic feet per second (cfs). Starvation Reservoir has a capacity of 164,118 acre-feet (AF) and stores water from the Strawberry River and the water diverted from the Duchesne River. The proposed conveyance and storage of non-project water would be through the Knight Diversion Dam on the Duchesne River, then through the Starvation Conduit and/or flow directly from the Strawberry River into the reservoir.

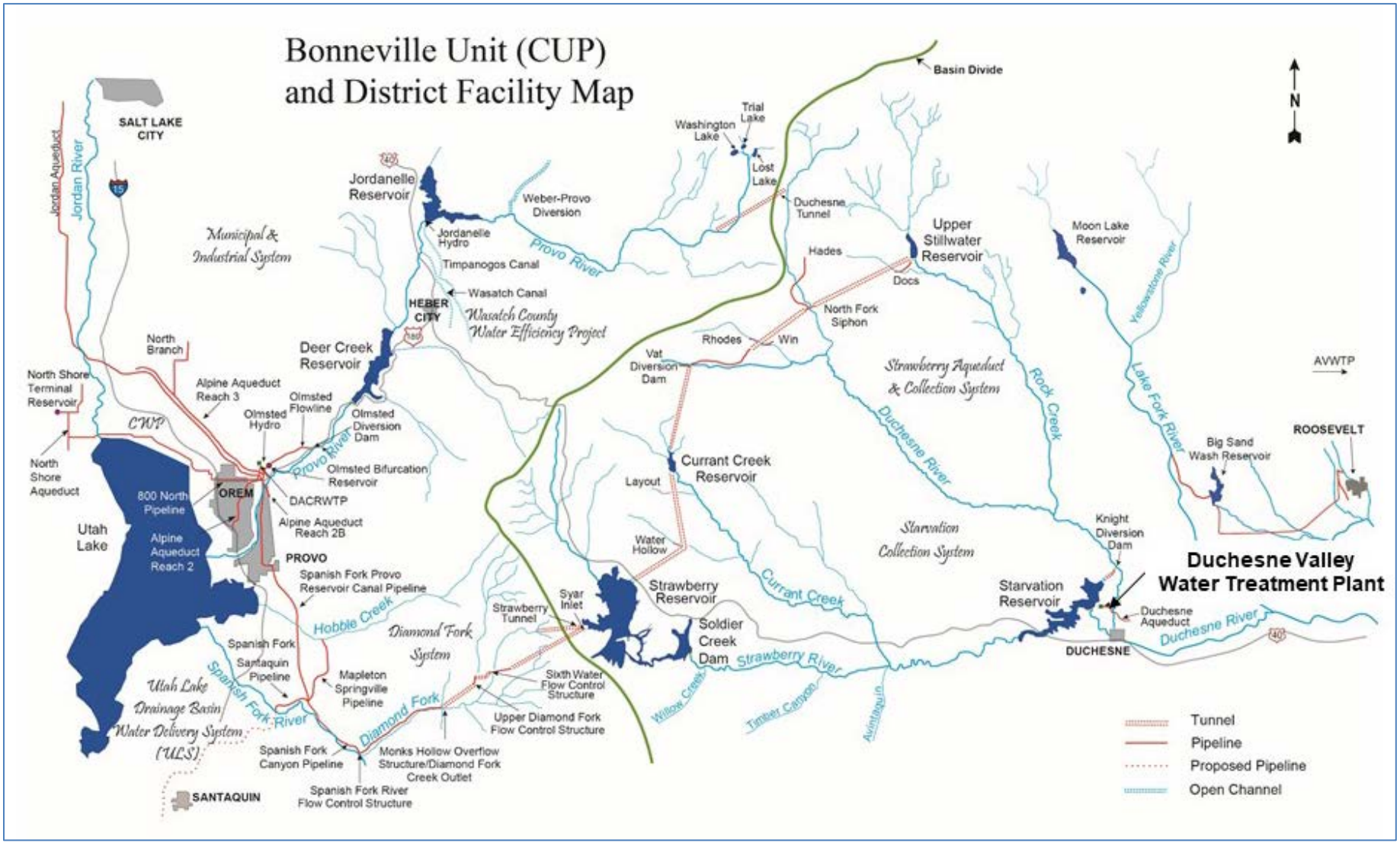

FIGURE 1-2: BONNEVILLE UNIT OF THE CUP

Midview Exchange Agreement

The Moon Lake Project is a federal water development project in eastern Duchesne County and western Uintah County, Utah. The project develops irrigation water on the Lake Fork River and other nearby rivers which are tributaries of the Duchesne River. The Moon Lake Project began construction in 1935 and included the Midview Dam and Reservoir, Duchesne Diversion Dam, Duchesne Feeder Canal, the Midview Lateral, and the Lake Fork Siphon. The Moon Lake Project is operated and maintained by the Moon Lake Water Users Association. Midview Reservoir is also known as Lake Boreham.

To assist with providing water to the Moon Lake Water Users Association, the Midview Exchange was executed November 1967. This agreement, signed by the United States (both the Bureau of Reclamation and Bureau of Indian Affairs), Moon Lake Water Users Association, and the Ute Indian Tribe, provides for the transfer or exchange of water supplies and water rights associated with Ute Indian Tribal lands on the lower Lake Fork River and Moon Lake project lands higher in the same river system. Under the Midview Exchange, Ute Indian Tribal lands originally supplied with Lake Fork water and water rights are instead supplied with Duchesne River water and water rights. The replaced Lake Fork water and water rights are then moved upstream and used to make-up a portion of the water supply for the Moon Lake Project. To replace the Ute Indian Tribe's Lake Fork water, the Midview facilities deliver water from the Duchesne River to Ute Indian Tribe lands previously served from the Lake Fork River through the Redcap and Dry Gulch canals systems.

A subsequent Memorandum of Understanding (MOU), dated December 11, 1970, was signed between Reclamation and the Bureau of Indian Affairs which included concurrence from the Ute Indian Tribe. This MOU established the 11,600 acre-feet in Starvation Reservoir for the Midview Exchange Agreement water. Because the Duchesne River water rights are junior in priority date and have a less reliable water yield than the Tribal Lake Fork water rights, Starvation Reservoir provides up to 11,600 AF of water annually (as made available through CUP Block Notice #1 to the CUWCD) to supplement Duchesne River flows during the irrigation season (April 1 through October 31).

Duchesne Valley Water Treatment Plant

The Duchesne Valley Water Treatment Plant (DVWTP) is located northeast of Starvation Dam (see Figure 1-2 and photo inset). The DVWTP, a non-federal facility, is owned and operated by CUWCD to provide culinary water to agency customers within the Duchesne County area. The DVWTP was originally constructed in the early 1980s as a 4.0 million gallon per day (MGD) treatment plant. It was expanded to 8.0 MGD in 2010. The sole source of water for the DVWTP is Starvation Reservoir. The DVWTP delivers a culinary water supply to three agencies[2]:

- Duchesne County Water Conservancy District (DCWCD);
- East Duchesne Culinary Water Improvement District (EDCWID); and
- Duchesne City.

Duchesne Valley Water Treatment Plant

1.3 Proposed Action

The Proposed Action would allow for the conveyance and storage of 11,774 AF of non-project water in the Starvation Collection System from the water sources listed in Table 1-1 on a space available basis. Conveyance and storage would be in accordance with the following priorities:

1) CUP Water (including the Midview Exchange Agreement water – see section 1.2 above for more information);
2) Rediverted Instream Flow Agreement Waters comprised of 44,400 AF described in the amended Stream Flow Agreement of 1990 and 2,900 AF of Daniel Replacement Project water (see section 3.3 for more information); and
3) Warren Act Contract(s) (Proposed Action).

The conveyance and storage of non-project water is dependent upon approval of a Warren Act contract(s) and compliance with Utah State water right laws. The conveyance and storage of the 11,774 AF of non-project water would be for Duchesne County Water Conservancy District, East Duchesne Culinary Water Improvement District, and Duchesne City and would be derived from the water rights listed in Table 1-1 and existing lease agreements. All non-project water identified in Table 1-1 (11,774 AF) would require a Warren Act contract(s) with the U.S. Department of the Interior as part of the Proposed Action. Table 1-1, on the following page, lists the non-project water which could be conveyed and stored in the Starvation Collection System on a space available basis.

[2] These agencies have third party contracts with other culinary water supply agencies within Duchesne County (e.g. Johnson Water Improvement District, Roosevelt City) to provide treated water.

TABLE 1-1: IDENTIFICATION OF NON-PROJECT WATER BY AGENCY

	Acre-feet	Comments
Duchesne County Water Conservancy District		
• Pioneer Canal Company Shares	68*	CUWCD owns 17 shares at 4 acre-feet per share to be acquired by Duchesne County Water Conservancy District
• Surplus Water Agreement with Duchesne City	2,898*	4 cfs leased from Duchesne City (see discussion below)
• Surplus Water Agreement with Hanna Water and Sewer District	95	
Sub-Total for DCWCD	**3,061**	
East Duchesne Culinary Water Improvement District		
• EDCWID water rights	353	
• Surplus Water Agreement with Hanna Water and Sewer District	391	
Sub-Total for EDCWID	**744**	
Duchesne City		
• Duchesne City water rights	**7,969****	Duchesne City has a total of 15 cfs from 3 water rights; 4 cfs has been leased to Duchesne County Water Conservancy District; the volume calculated is from the remaining 11 cfs
TOTAL	**11,774**	

* The Pioneer Canal Company Shares are currently for irrigation use. Based on past conversions from irrigation to municipal and industrial, the maximum diversion volume would most likely be reduced based on water consumption conversions and original canal carrier water needs. The Joint Lead Agencies have determined to leave it at a higher volume for the NEPA analysis and to not speculate on any reduction from a change in use.

** converted from cfs to AF for a year to calculate the volumes

Currently, the non-project waters listed above have water rights either in the Strawberry River or the Duchesne River systems. 11,220 AF of the non-project water discussed in the Final EA and shown in Table 1-1 are currently being conveyed and have a points of diversion per Utah State water law at Knight Diversion Dam or Starvation Reservoir and may be treated at the DVWTP for municipal and industrial uses. These 11,220 AF of non-project water are under existing carriage agreements with CUWCD for conveyance through the Starvation Collection System. However, they are currently not being stored in Starvation Reservoir. The other 554 AF of non-project water (surplus water agreements with Hanna Water and Sewer District and the Pioneer Canal Company shares water) have a points of diversion above the Starvation Collection System on the Duchesne River.

This NEPA document evaluates the potential for these non-project waters to be conveyed and stored in the Starvation Collection System pending the approval of appropriate Warren Act contract(s) and compliance with Utah State water laws.

The Proposed Action Alternative would allow DCWCD, EDCWID, and Duchesne City the ability to use their non-project water in the reservoir when there is a water quality issue on the Duchesne River. Often during heavy rain and spring runoff events, high turbidity water can flow in the Duchesne River. If Duchesne River water needs to be diverted into the reservoir to be treated at the DVWTP to meet water delivery obligations of the agencies during times of high turbidity it can cause operational concerns and increased costs. The Proposed Action would allow these agencies to convey and store their non-project water (on a space available basis) in the Starvation Collection System so the water is available for use at the DVWTP when Knight Diversion Dam has been shut down because of high turbidity or other issues on the Duchesne River.

It is recognized that there are additional water rights in the Strawberry and Duchesne rivers. No additional water rights would be affected by the Proposed Action. All water in the Strawberry and Duchesne rivers and in the Starvation Collection System would continue to move as it currently does. Only those water rights listed in Table 1-1 would be considered for conveyance and storage in the Starvation Collection System as part of the proposed project. Currently, the non-project waters listed above in Table 1-1 are being transported through either the Strawberry River or the Duchesne River.

1.4 Purpose and Need for the Proposed Action

Need for the Proposed Action

The need for the Proposed Action is to provide a mechanism to allow non-project water to be conveyed and stored in the Starvation Collection System on a space available basis (see above Section 1.3 – Proposed Action) and to update existing water carriage agreements.

Purpose for the Proposed Action

The purpose of the Proposed Action is to utilize the available capacity of the Starvation Collection System to assist with the needs of water users by providing capacity, storage, and timing flexibility to meet non-project water demands.

1.5 Permits, Contracts, and Authorizations

Implementation of the Proposed Action would require a Warren Act contract(s) with the U.S. Department of the Interior to allow conveyance and storage of non-project water, as described above and shown in Table 1-1, in the Starvation Collection System between the CUPCA Office and CUWCD. The Proposed Action would require compliance with all applicable United State laws, regulations, and Executive Orders. DCWCD, EDCWID, and Duchesne City would be required to adhere to Utah State water law which may require change applications and other approvals.

The non-project waters, as listed and up to the amounts in Table 1-1, would be conveyed and stored for DCWCD, EDWCID, and Duchesne City to be used within their service areas upon the above-mentioned approvals. The non-project water would be conveyed and stored only when there is space available in the Starvation Collection System. The quantity and timing of non-project storage is limited to what can be conveyed and stored without negatively impacting the CUP water rights (including the Midview Exchange

Agreement waters) or the storage of the rediverted 44,400 acre-feet (instream flow water) and Daniel Replacement Water. The conveyance and storage requested for the Warren Act contract(s) and this NEPA document would not exceed 11,774 AF in the Starvation Collection System.

Federal Indian Reserved Water Rights (Winters Doctrine)

In *Winters v. United States*, the Supreme Court held that the establishment of an Indian reservation impliedly reserved the amount of water necessary to fulfill the purposes of the reservation (207 U.S. 564 (1908)). *Winters* rights are quantified based on what is needed to accomplish the reservation's purposes both for present and future needs, and Indian tribes with reserved water rights under the *Winters* Doctrine enjoy a priority date no later than the date of their reservation's establishment.

Water rights associated with the Uintah & Ouray Reservation for the Ute Indian Tribe and its members have been addressed in part in two federal court decrees and a 1965 deferral agreement between the Ute Indian Tribe, the United States, and the Central Utah Water Conservancy District ("1965 deferral agreement"). At the request of the Ute Indian Tribe and the State of Utah, Congress enacted the Ute Indian Rights Settlement in 1992, Title V of the Central Utah Project Completion Act, to quantify the Ute Indian Tribe's water rights, allow increased beneficial use of waters, and provide economic benefits to the Ute Indian Tribe in lieu of the storage projects envisioned in the 1965 deferral agreement. The Ute Indian Tribe's *Winters* reserved water rights have priority dates no later than 1861 and 1882, corresponding to two Executive Orders dated October 3, 1861, and January 5, 1882, establishing the Uintah Valley Reservation and the Uncompahgre Reservation, respectively.

1.6 Related Documents

The Proposed Action has taken into consideration related environmental documents including the Bonneville Unit Final Environmental Statement, the 1980 Stream Flow Agreement, and the 1990 Amendment.

CHAPTER 2: ALTERNATIVES

This chapter discusses the No-Action and the Proposed Action alternatives. The impacts of both the No-Action and Proposed Action alternatives are disclosed in Chapter 3 of this document.

2.1 No-Action Alternative

Under the No-Action Alternative, the CUPCA Office would not execute a Warren Act contract with CUWCD. Furthermore, CUWCD would not execute third party contracts with DCWCD, EDCWID, and Duchesne City for storage of non-project water in the Starvation Collection System on a space available basis.

2.2 Proposed Action Alternative

The Proposed Action Alternative would allow DCWCD, EDCWID, and Duchesne City to convey and store up to 11,774 AF of non-project water (sum of all non-project water from the three agencies) in the Starvation Collection System on a space available basis and with no impact to senior water rights within the Duchesne River basin.

Only the water rights listed in Table 1-1 are being considered for conveyance and storage in the Starvation Collection System for this Proposed Action Alternative. No additional water rights in the Strawberry or Duchesne rivers would be affected by the Proposed Action including Winters Doctrine rights.

Description of Non-project Water for Duchesne County Water Conservancy District

The DCWCD has acquired or is in the process of acquiring (i.e. Pioneer Canal Company shares purchased from CUWCD) non-project water from three sources listed in Table 1-1: Pioneer Canal Company shares, surplus water from Duchesne City, and surplus water from Hanna Water and Sewer District.

Pioneer Canal Company Shares

Currently, CUWCD owns 17 Class A shares in Pioneer Canal Company which equates to 68 AF based on a four acre-feet per share calculation. Class A shares originate from a number of water rights in the Duchesne River basin. The Pioneer Canal diversion is located a little more than four miles upstream of Knight Diversion Dam on the Duchesne River. The Pioneer Canal Company service area is located above the Starvation Collection System. The Pioneer Canal Company shares are for irrigation purposes and are generally given a right to use during the irrigation season (approximately from mid-April to mid-October).

In the future, CUWCD intends to sell its 17 Class A shares (or 68 AF)[3] of Pioneer Canal Company water to DCWCD for use within DCWCD's service area. It's anticipated that DCWCD would have this water treated at DVWTP, requiring a Warren Act contract for use of the Starvation Collection

[3] This non-project water has been added to this Final EA in anticipation that DCWCD acquires it from CUWCD and obtains the necessary approvals as part of Utah water law.

System. This water would require DCWCD to obtain an approved change application through Utah Division of Water Rights, which currently requires consent from Pioneer Canal Company as part of the state's water right change application process. The Proposed Action would allow this non-project water to be conveyed and stored, on a space available basis and pending Utah State water right approval, in the Starvation Collection System.

Currently, the 68 AF of Pioneer Canal Company Shares are for irrigation use. Based on previous conversions of use from irrigation to municipal and industrial, the maximum diversion volume would most likely be reduced based on water consumption conversions and original canal carrier water needs. Under current Utah State water law, Pioneer Canal Company would need to approve any changes to these water rights. The Joint Lead Agencies have determined to leave the amount of this water at 68 AF for the NEPA analysis and to not speculate on any reduction from a change in use.

Surplus Water Agreement with Duchesne City

DCWCD has entered into an agreement for surplus water owned by Duchesne City on the Duchesne River. The agreement is for a total of four cfs which equates to approximately 2,898 AF per year. Duchesne City has three water rights within the Duchesne River [water right numbers 43-180 (a40299), 43-203 (a30369), and 43-11416 (a29522)] which the four cfs of surplus water originates from. This water is for municipal and industrial uses and has been used within Duchesne City's service area which is adjacent to and below the Starvation Collection System. The diversion point for these three water rights is at Knight Diversion Dam on the Duchesne River. Through existing agreements with CUWCD, this water can be conveyed into Starvation Reservoir and treated for culinary purposes at the DVWTP.[4] The Proposed Action would allow this non-project water to be conveyed and stored, on a space available basis, in the Starvation Collection System.

Surplus Water Agreement with Hanna Water and Sewer District

In 2017, DCWCD entered into an agreement with the Hanna Water and Sewer District (HW&SD) to lease approximately 95 AF of surplus water as shown in Table 2-1.

TABLE 2-1: SUMMARY OF WATER RIGHTS FOR DCWCD SURPLUS WATER AGREEMENT WITH HW&SD

Water Right Numbers	Type of Use	CFS*	AF (approximate)
43-11089 (a24234)	Municipal and Industrial	0.05	12.6
43-10673 (a24450)	Municipal and Industrial	0.14	38.0
43-10967 (a23710)	Municipal and Industrial	0.31	44.4
TOTAL		**0.50**	**95**

*cfs was converted to AF for a year to calculate the volume

HW&SD has entered into a 5-year agreement with DCWCD to make this surplus water available to DCWCD annually. This water has historically been used in the HW&SD service area located

[4] DCWCD has been allocated 4.0 million gallons per day (7.4 cfs) capacity at the DVWTP.

above the Starvation Collection System (water right 43-10967 (a23710) is part of a share for the Pioneer Canal Company which diverts from the Duchesne River above Knight Diversion Dam). The Proposed Action Alternative would convey and store this water, pending a Warren Act contract and Utah State water law approval, through the Starvation Conduit (diverted at Knight Diversion Dam), and into Starvation Reservoir for use by DCWCD.

Description of Non-project Water for East Duchesne Culinary Water Improvement District

The EDCWID has acquired non-project water from two sources listed in Table 1-1: EDCWID water rights and surplus water agreement with Hanna Water and Sewer District.

East Duchesne Culinary Water Improvement District Water Rights

EDCWID currently has three water rights on the Strawberry and Duchesne rivers that are used at the DVWTP.[5] These water rights are non-project waters and are summarized in Table 2-2.

TABLE 2-2: SUMMARY OF EDCWID WATER RIGHTS

Water Right Numbers	Type of Use	CFS	AF (approximate)
43-10916 (a23225)*	Municipal and Industrial	0.029	6.0
43-11555 (a29209)	Municipal and Industrial	1.08	148.7
43-8342 (a10444)	Municipal and Industrial	0.81	197.6
TOTAL		**1.92**	**353**

*change application a23225 has been approved which moved this water into Starvation Reservoir and treated at DVWTP for use at the Bridgeland Cemetery.

Surplus Water Agreement with Hanna Water and Sewer District

In 2015, EDCWID entered into an agreement with the HW&SD to lease approximately 391 AF of surplus water as shown in Table 2-3.

TABLE 2-3: SUMMARY OF WATER RIGHTS FOR EDCWID SURPLUS WATER AGREEMENT WITH HW&SD

Water Right Numbers	Type of Use	CFS	AF (approximate)
43-10968 (a23712)	Municipal and Industrial	1.26	290.5
43-10969 (a23709)	Municipal and Industrial	0.29	74.4
43-1985 (a24943)	Municipal and Industrial	0.03	11.0
43-12338 (a36759)	Municipal and Industrial	0.02	13.5
43-10885 (a37529)	Municipal and Industrial	0.002	1.6
TOTAL		**1.602**	**391**

[5] EDCWID has been allocated 0.6 million gallons per day (1 cfs) capacity at the DVWTP.

HW&SD has entered into a 5-year agreement with EDCWID to make this surplus water available to EDCWID annually. This water has historically been used in the HW&SD service area located above the Starvation Collection System. The Proposed Action Alternative would convey and store this water, pending a Warren Act contract(s) and Utah State water law approval, into the Starvation Conduit (diverted at Knight Diversion Dam), and into Starvation Reservoir for use by EDCWID.

Description of Non-project Water for Duchesne City

Duchesne City has 15 cfs of water on the Duchesne River from three water rights: numbers 43-180 (a40299), 43-203 (a30369), and 43-11416 (a29522). Four cfs has been leased to DCWCD as part of the surplus water agreement which is discussed above. Currently, this water is being diverted at Knight Diversion Dam, into Starvation Reservoir, and is being treated at the DVWTP for use within DCWCD service area. This leaves a total of 11 cfs of non-project water that Duchesne City has identified for the proposed conveyance and storage in the Starvation Collection System under a Warren Act contract. Eleven cfs is approximately 7,969 AF per year. These three water rights have a diversion point on the Duchesne River at Knight Diversion Dam. In addition, Duchesne City has entered into an agreement with CUWCD to treat five cfs of this water for municipal and industrial purposes through the DVWTP.[6] The remaining six cfs are divided as follows:

- two cfs at Orchard Mesa Canal for Duchesne City secondary water system (a40299);
- two cfs at Rocky Point Canal for Duchesne City secondary water system (a30369); and
- two cfs has been temporarily moved to the Strawberry River (t43071). However, the temporary change application has lapsed.

The Proposed Action would allow this non-project water to be conveyed and stored, on a space available basis, in the Starvation Collection System.

Summary of Non-Project Water Evaluated for the Starvation Warren Act

A total of 11,774 AF of non-project water is being proposed for conveyance and storage in the Starvation Collection System (see Table 1-1). Only the 68 AF of Pioneer Canal Company Shares water is currently being used for irrigation purposes; the remaining 11,706 AF is currently municipal and industrial uses as defined by Utah State water law. All the non-project water being evaluated as part of this project is currently being used within the Duchesne River watershed. All the non-project water evaluated as part of this project is subject to approval of any required change application(s) under Utah State water law.

Currently, the 68 AF of Pioneer Canal Company Shares are for irrigation use. Based on previous conversions of use from irrigation to municipal and industrial, the maximum diversion volume would most likely be reduced based on water consumption conversions and original canal carrier water needs. Under current Utah State water law, Pioneer Canal Company would need to approve any changes to these water rights. The Joint Lead Agencies have determined to leave the amount of this water at 68 AF for the NEPA analysis and to not speculate on any reduction from a change in use.

[6] Duchesne City has been allocated 3.2 million gallons per day (5 cfs) capacity at the DVWTP.

2.3 Other Non-Project Water not Evaluated in this Document

A NEPA compliance process along with a Warren Act contract would be required to store other non-project waters not addressed in this document. Also, contract(s) must be entered into and executed between the CUPCA Office, CUWCD, and the entities that are requesting storage of their non-project water in the Starvation Collection System.

CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

In accordance with the NEPA regulations codified in 40 CFR §1502.14, this chapter discusses the existing environmental conditions and the environmental consequences that may occur by implementing the Proposed Action in comparison to the No-Action. The Proposed Action would not require the construction of new water delivery facilities or result in any ground-disturbing activities and would not require any changes to existing facilities. The Proposed Action would not adversely impact any federal water development project or facilities including the CUP (Starvation Collection System is a component of the Bonneville Unit of the CUP). There would be no effect to the conveyance and storage of CUP water (including the Midview Exchange Agreement waters) in the Starvation Collection System.

Affected Environment

The Affected Environment or the existing conditions were identified based on prior experience and knowledge of the Starvation Collection System, the Strawberry and Duchesne river systems, and coordination with federal, state, and local agencies.

Environmental Consequences

NEPA requires consideration of direct, indirect, and cumulative impacts, plus identification of measures to avoid, minimize, and mitigate impacts (if any). The description of impacts are as follows:

- Direct impacts are those caused by the action and occur at the same time and place as the action (40 CFR §1508.8). Those resources with the potential to be impacted are discussed in this chapter.
- Indirect impacts are those caused by the action and occur later in time or are farther removed in distance, but are still reasonably foreseeable (40 CFR §1508.8).
- Cumulative impacts are those impacts to the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions (40 CFR §1508.7). Cumulative impacts are discussed in Section 3.10 in this chapter.

Resources Considered but Eliminated from Further Analysis

The Final EA does not analyze resources for which it would be reasonable to assume that impacts do not occur. Resources considered but eliminated from analysis are those that may not be present within or near the Starvation Collection System and/or would not be impacted by the No-Action or Proposed Action alternatives. The resources considered for inclusion but eliminated are:

- Air Quality;
- Soils and Geotechnical;
- Prime, Unique, and Statewide Important Farmland;
- Wild and Scenic Rivers (the Strawberry and Duchesne rivers have not been designated as Wild and Scenic Rivers in accordance with PL 90-542; 16 USC §1271);
- Wilderness;
- Wildlife;

- Cultural Resources - the Joint Lead Agencies follow Reclamation policy for cultural resources for carriage contracts (including Warren Act contracts). Reclamation and the Utah State Historic Preservation Office (SHPO) have determined that carriage contracts (including Warren Act contracts), where existing facilities would be used, and no modifications or land use changes are proposed, are determined to cause no adverse effect to historic properties and formal consultation with SHPO is not required in these cases (under the statewide programmatic agreement between Reclamation and SHPO signed in 2017). No additional cultural investigation is warranted.
- Floodplains and Wetlands;
- Vegetation and Invasive Species;
- Noise and Vibration;
- Energy;
- Socioeconomics - Projects may have both beneficial and adverse impacts to social and economic characteristics of the surrounding communities. The Joint Lead Agencies have determined that the Proposed Action Alternative would have beneficial impacts to the social and economic viability within Duchesne County. There would be no impact (beneficial or adverse) from the No-Action Alternative. The Proposed Action would convey 11,774 AF of non-project water in the Starvation Collection System for use within DCWCD, EDCWID, and Duchesne City service areas. 11,706 AF of the Non-project water is currently for municipal and industrial uses; the other 68 AF (Pioneer Canal Company Shares) are currently being used for agricultural purposes. All 11,774 AF of non-project water is currently being used within Duchesne County and has been allocated in accordance with Utah State water law; no new water source is being proposed as part of the Proposed Action. In addition, 11,220 AF of the Non-Project water has a point of diversion at Knight Diversion Dam or Starvation Reservoir. The other 554 AF (486 AF HW&SD temporary lease to DCWCD and EDWCID and 68 AF Pioneer Canal Company Shares) has a point of diversion on the Duchesne River above Knight Diversion Dam.
- Transportation;
- Hazardous Waste;
- Groundwater;
- Land Use Plans and Policies; and
- Public Health and Safety.

Resources Evaluated Further

The following resources have been analyzed further and addressed in more detail in this chapter:

- Starvation Collection System;
- Strawberry River, Duchesne River, and Rediverted Instream Flow Agreement Waters;
- Endangered Species Act and State Listed Sensitive Species;
- Recreation;
- Water Quality;
- Environmental Justice;
- Indian Trust Assets;
- Climate Change; and
- Cumulative Impacts.

3.2 Starvation Collection System

The Starvation Collection System is part of the Bonneville Unit of the Central Utah Project. The conveyance and storage of non-project water in the Starvation Collection System would be added to the existing CUP water for which the system was constructed when space is available. The non-project water cannot and would not interfere with the conveyance, storage, and delivery of CUP water (including the Midview Exchange Agreement waters) and is subject to approval of any required change application(s) under Utah State water law. The non-project water identified in Chapters 1 and 2 (see Table 1-1) would be allowed conveyance and storage in the Starvation Collection System during times when unused capacity would be available. Conveyance and storage would be in accordance with the following priorities:

1) CUP Water (including the Midview Exchange Agreement water – see section 1.2 for more information);
2) Rediverted Instream Flow Agreement Waters comprised of 44,400 AF described in the amended Stream Flow Agreement of 1990 and 2,900 AF of Daniel Replacement Project water (see section 3.3 for more information); and
3) Warren Act Contract(s) (Proposed Action).

Starvation Dam and Reservoir – The dam is a zoned earth-filled dam that is 200 feet high and 3,070 feet in length. Water is released at the outlet works located on the eastern side of the dam with a capacity of over 2,300 cfs. The spillway is located on the western side of the dam and is an uncontrolled ogee bathtub type with a capacity of 16,600 cfs. Starvation Dam impounds water from the Strawberry and Duchesne[7] rivers making Starvation Reservoir. The reservoir has a capacity of 164,118 AF and a surface area of 3,296 acres. Inflow forecasts for the Starvation Collection System are estimated by CUWCD and utilized for reservoir planning and project operations prior to and during the flood season, and optimization and coordination of the water supply for downstream users. Starvation Reservoir is also used for flood control based on projected runoff rates. Water is released from Starvation Reservoir when the forecasted flows exceed the storage space. Figure 3-1 shows the historic Starvation Reservoir volumes between 1970 and June 2018. Figure 3-2 shows release to the Strawberry River and to the DVWTP from Starvation Reservoir since its initial filling.

[7] A portion of the Duchesne River can be diverted at Knights Diversion Dam and into the Starvation Conduit and Reservoir.

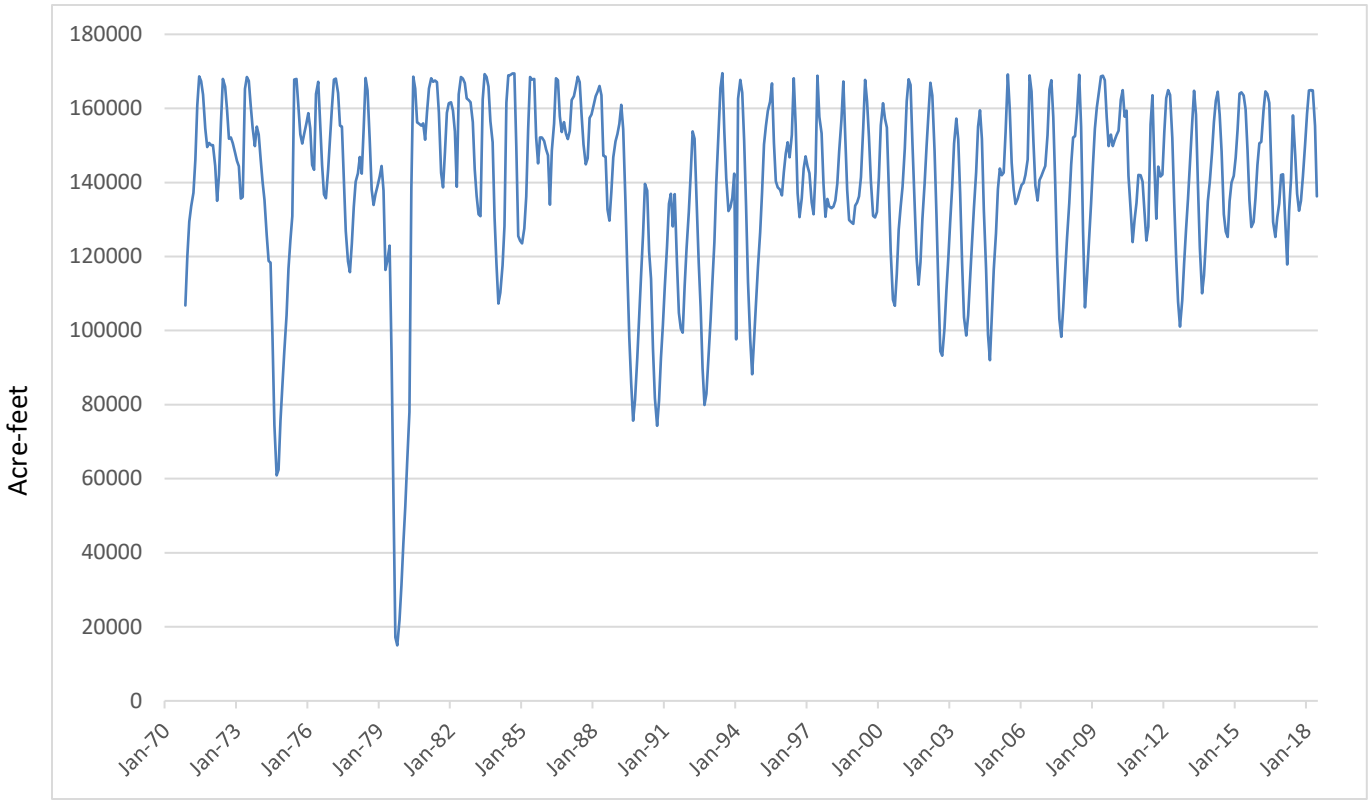

FIGURE 3-1: STARVATION RESERVOIR VOLUMES SINCE 1970

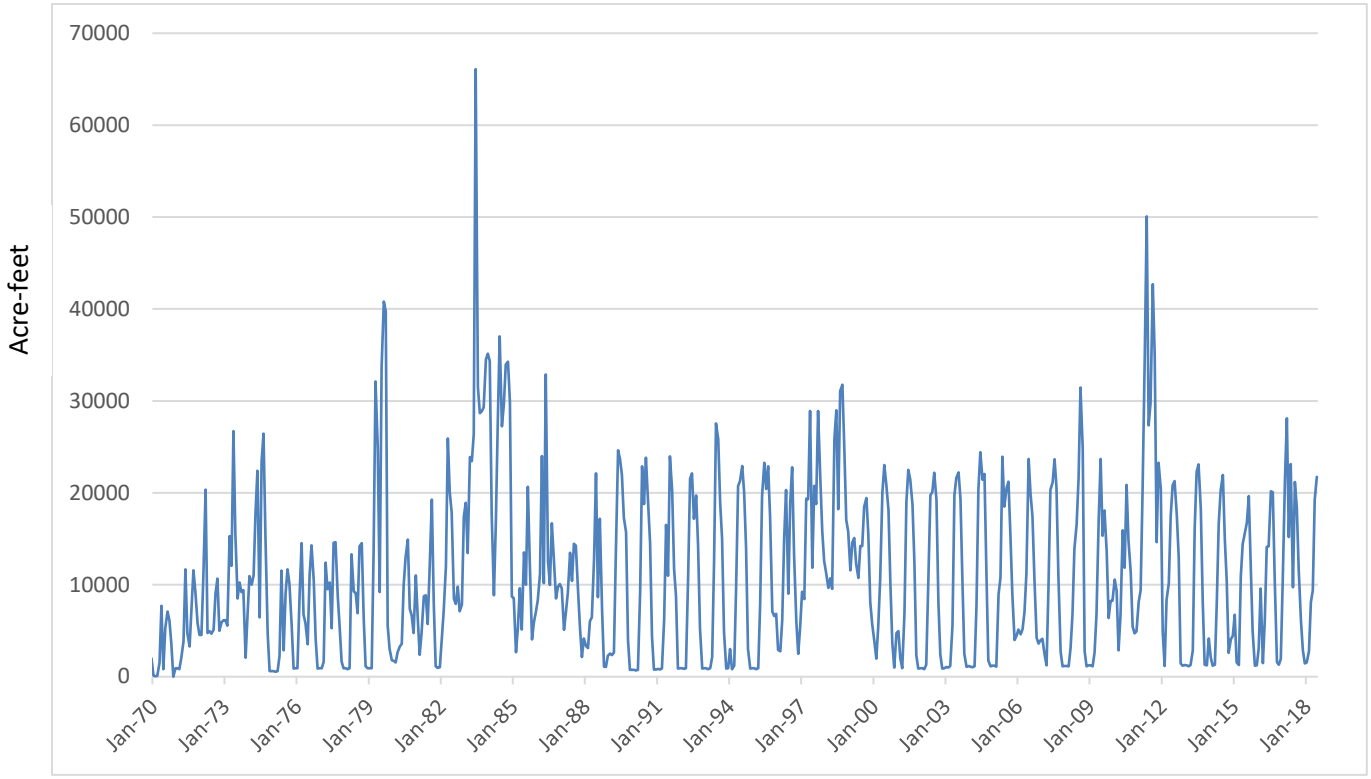

FIGURE 3-2: STARVATION RESERVOIR RELEASES TO STRAWBERRY RIVER AND TO THE DVWTP

Starvation Conduit and Knight Diversion Dam – The Starvation Conduit and Knight Diversion Dam are located on the Duchesne River. These features divert and carry Duchesne River water into Starvation Reservoir. They were constructed during the same period as the Starvation Dam. Starvation Conduit is 7.0 to 7.3 feet in diameter and approximately 1.70 miles in length. It has a capacity of 300 cfs. Knight Diversion Dam is about 12 feet high with a crest length of 1,000 feet. Figure 3-3 shows the volume of water diverted from the Duchesne River at Knight Diversion Dam into Starvation Reservoir.

No-Action Alternative

The No-Action Alternative would not alter or change the Starvation Collection System or its operation.

Proposed Action Alternative

The conveyance and storage requirements of the non-project water described in the Proposed Action are minor compared to the overall capacity of the Starvation Collection System. The reservoir has a capacity of 164,118 AF with a surface area of 3,296 acres. In addition, the reservoir is used for flood control. The non-project water described in this document would be the first water released for flood control space as described above in the Starvation Dam and Reservoir discussion above in this section. The Proposed Action Alternative would have no effect on the Midview Exchange Agreement water.

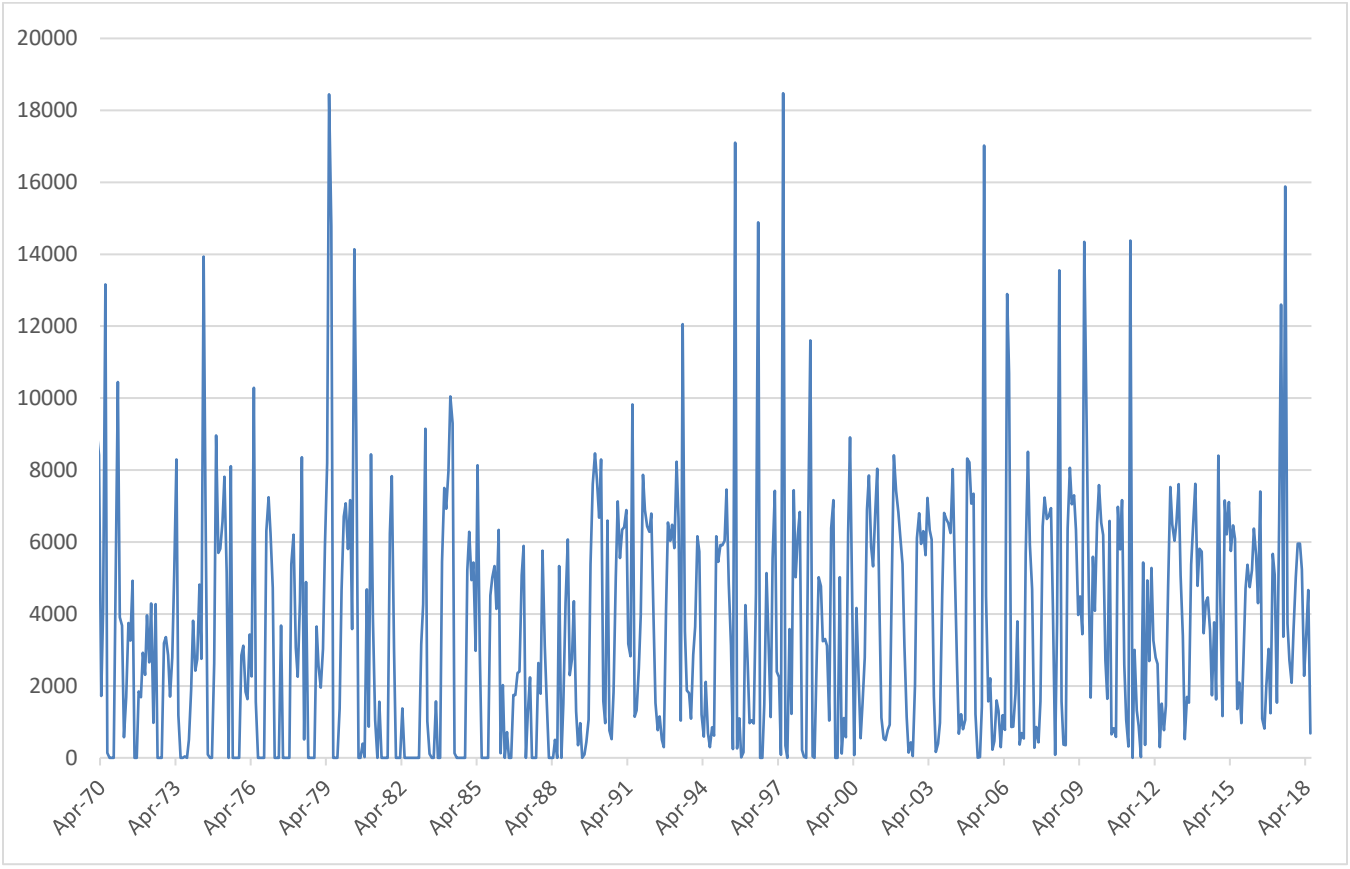

FIGURE 3-3: KNIGHT DIVERSION DAM DIVERSIONS INTO STARVATION RESERVOIR SINCE 1970

The Proposed Action Alternative would have no effect to the operations of the Starvation Collection System. The reservoir volumes and surface water elevation fluctuate depending on the amount of

snowpack and precipitation patterns received in and above the reservoir and downstream water use demand. The non-project water would be conveyed and stored on a space available basis and within or below the normal full operating elevation. Any reservoir elevation increase resulting from the non-project water storage would be within the maximum historic reservoir operational elevation. Flood control space within the reservoir would not be impacted in any way from the Proposed Action. The Proposed Action would not affect or interfere with CUP operation and other water rights (including the Midview Exchange Agreement waters).

3.3 Strawberry River, Duchesne River, and Rediverted Instream Flow Agreement Waters

This section describes the Strawberry and Duchesne river systems and the Instream Flow Agreement Waters.

Strawberry River

The headwaters of the Strawberry River are in the Wasatch Mountains of the western Uinta Basin in Wasatch County. This 18-mile long river flows south into Strawberry Reservoir and then out through Soldier Creek Dam outlet works. The river is known as a productive trout fishery and many parts can only be accessed by trail. Major tributaries of the Strawberry River consist of Avintaquin Creek and Red Creek (Currant Creek flows into Red Creek before its confluence with the Strawberry River). As discussed in this Final EA, the Strawberry River flows into Starvation Reservoir. The river then flows out of the reservoir and joins the Duchesne River near the town of Duchesne. Figure 3-4 shows the historic flow rates of the Strawberry River near where it enters Starvation Reservoir.

Duchesne River

The Duchesne River is located in the Uinta Basin and is a tributary of the Green River. It is approximately 115 miles long, drains a total land area of 3,790 square miles, and begins in the Uinta Mountains. Duchesne River's major tributaries are Rock Creek, Strawberry River (see discussion above), Lake Fork River (Yellowstone River is a major tributary of Lake Fork River), and Uinta River (White Rocks River is a major Tributary to the Uinta River) before discharging into the Green River. The Duchesne River flows through Duchesne and Uintah counties in the eastern part of Utah. A portion of the Duchesne River is diverted at Knight Diversion Dam into Starvation Reservoir. Figure 3-5 shows the monthly mean flow rate of the Duchesne River at Knight Diversion Dam from 1970 to 2003.

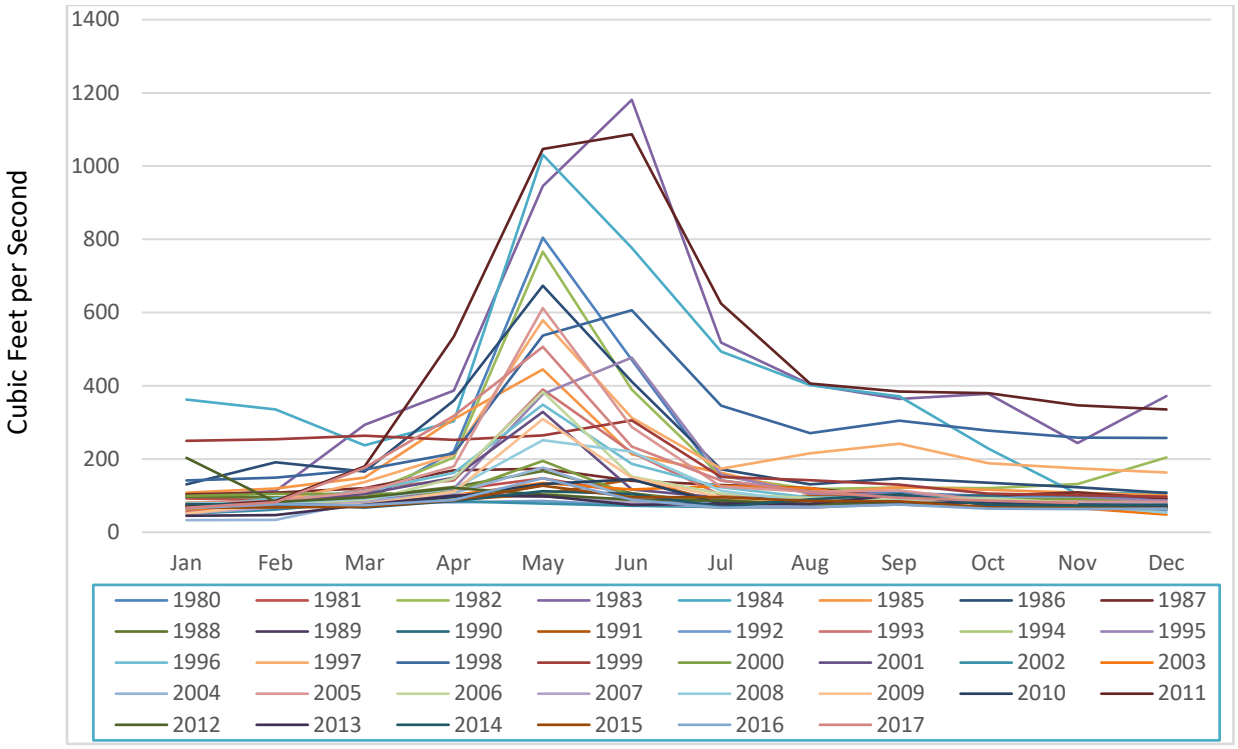

FIGURE 3-4: STRAWBERRY RIVER BEFORE ENTERING STARVATION RESERVOIR MONTHLY MEAN FLOW 1980 -2017

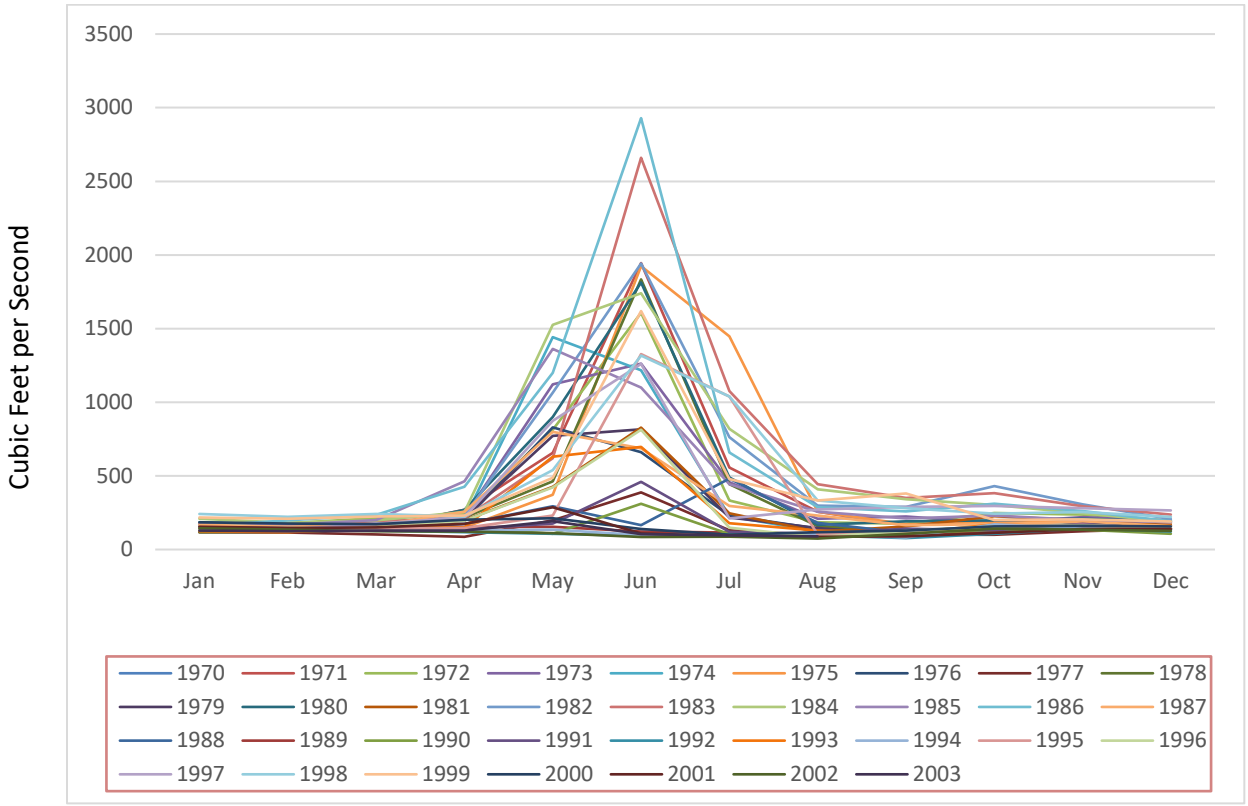

FIGURE 3-5: DUCHESNE RIVER AT KNIGHT DIVERSION DAM MONTHLY MEAN FLOW 1970-2003

Rediverted Instream Flow Agreement Waters

This section discusses the instream flow agreements that are relevant to the Proposed Action: 44,400 AF Stream Flow Agreement and the 2,900 AF Daniel Replacement Project.

44,400 AF Stream Flow Agreement

Section 303(a) of the Central Utah Project Completion Act[8] (CUPCA) requires CUWCD to provide, from project water if necessary, the amounts of water sufficient to sustain the minimum stream flows established pursuant to the stream flow agreement.[9] The stream agreement was entered into on February 27, 1980 by the U.S. Department of the Interior, the State of Utah, CUWCD, the U.S. Fish and Wildlife Service, and the U.S. Forest Service. This agreement was amended on September 13, 1990. The agreement establishes minimum flows, subject to shortages, for the Strawberry River, Rock Creek (tributary of the Duchesne River), West Fork of the Duchesne River, and Currant Creek (flows into Red Creek which is a tributary of the Strawberry River). Table 3-1 lists the agreed upon flow regimens for each of these systems.

TABLE 3-1: 44,400 AF STREAM FLOW AGREEMENT REGIMENS

	October thru March (cfs)	April thru September (cfs)	Comment
Strawberry River	13	26	Released from Soldier Creek Dam
Rock Creek	23-29	23-29	Released from Upper Stillwater Dam
West Fork of the Duchesne River	6.5-9.5	12-24	Released from Vat Diversion Dam
Currant Creek	9	23-24	Released from Currant Creek Dam

The Interagency Biological Assessment Team (IBAT) can make recommendations to change these flow agreement regimens.

Some of these waters flow into the Starvation Collection System either via the Strawberry River or are diverted at Knight Diversion Dam into Starvation Reservoir. In addition, a minimum of 15 cfs is released from Starvation Dam and 15 cfs from Knight Diversion Dam.

2,900 AF Daniel Replacement Project

Historically, the Daniel Irrigation Company diverted water through a transbasin tunnel from the upper reaches on the Strawberry River and delivered it into Daniels Creek for irrigation purposes in the Heber Valley. This transbasin diversion dewatered the upper Strawberry River above Strawberry Reservoir and several of its tributaries. The Daniel Replacement Project removed this transbasin diversion leaving an average of 2,900 AF in the Strawberry River and its tributaries above Strawberry Reservoir. Replacement water was then provided to the Daniel Irrigation

[8] Public Law 102-575

[9] See Water Supply Appendix (Volume 3) of the Utah Lake Drainage Basin Water Delivery System Supplement to the Bonneville Unit Definite Plan Report, page 2-5 section titled "The 44,400 Acre-Foot Fishery Flow Provision"

Company from Jordanelle Reservoir per Section 303 of the CUPCA legislation.[10] The 2,900 AF of Daniel Replacement Water is then exchanged from Strawberry Reservoir to Starvation Reservoir for use to maintain the lower Duchesne River target flows.

No-Action Alternative

The No-Action Alternative would have no effect on the Strawberry River, Duchesne River, or the Instream Flow Agreement Waters.

Proposed Action Alternative

There would be no effect to these rivers or the Instream Flow Agreement Waters from implementation of the Proposed Action Alternative. The Proposed Action Alternative is to convey and store 11,774 AF of non-project water as defined in Table 1-1 in the Starvation Collection System. The non-project water proposed for conveyance and storage would be used to help meet the operational and contractual demands of DCWCD, EDCWID, and Duchesne City. The hydrographs in Figures 3-4 and 3-5 illustrate the variable nature of the Strawberry and Duchesne river systems. This variability is a function of several factors:

- snowpack and precipitation patterns;
- reservoir elevation (Strawberry and Starvation reservoirs);
- unpredictable nature of water demand and timing; and
- water users calling for their different water supplies.

The Strawberry River monthly mean flows rate (between 1980 and 2018) ranges from a low of 85 cfs in January to 357 cfs in May as measured by the U.S. Geological Survey (USGS) near where the river enters the Starvation Reservoir. The minimum flow rate released from Starvation Dam to Strawberry River is 15 cfs. CUWCD operates and maintains the Soldier Creek Dam and Currant Creek Dam which both contribute to the flow of Strawberry River. The Duchesne River monthly mean flow rate (between 1970 and 2003) at Knight Diversion Dam, as measured by the USGS, ranges from a low of 150 cfs in February to over 1,000 cfs in June. The Proposed Action Alternative would not increase the flow rates above both the Strawberry and Duchesne rivers historical flow rates.

The conveyance and storage of non-project water would allow the DCWCD, EDCWID, and Duchesne City greater operational flexibility in determining which water source would be used and delivered to their respective customers. However, the Proposed Action would not affect the flow rate released from Starvation Reservoir to the Strawberry River or the water bypassed at Knight Diversion Dam to the Duchesne River. The Strawberry and Duchesne river flow rates would fall within the variability of their hydrographs. The Joint Lead Agencies are committed to maintaining the streamflow agreements for the Strawberry and Duchesne rivers.

The water sources (see Table 1-1) would be conveyed and stored in the Starvation Collection System, on space available basis, and used by DCWCD, EDWCID, and Duchesne City when needed by the users. The

[10] See Utah Lake Drainage Basin Water Delivery System Final Environmental Impact Statement, section 1.1.2.3.1 - Wasatch County Water Efficiency Project and Daniel Replacement Project on page 1-11.

Proposed Action would allow these agencies to more flexibly manage water deliveries. Each water source has use and delivery conditions as part of their respective water right.

The Proposed Action Alternative would allow DCWCD, EDCWID, and Duchesne City the ability to use their stored water in the reservoir when there is a water quality issue on the Duchesne River. Often during heavy rain and spring runoff events, the water in the Duchesne River can become highly turbid. If Duchesne River water has to be diverted into the reservoir to be treated at the DVWTP to meet water delivery obligation of the agencies during times of high turbidity it can cause operational concerns and increased costs. The Proposed Action would allow these agencies to convey and store their non-project water (on a space available basis) in the Starvation Collection System so the water is available for use at the DVWTP when Knight Diversion Dam has been shut down because of high turbidity or other issues on the Duchesne River.

The Proposed Action Alternative would have no effect on the Strawberry River (above or below Starvation Reservoir), Duchesne River (above or below Starvation Reservoir), and the Rediverted Instream Flow Agreement Waters. The hydrographs shown in Figures 3-4 and 3-5 demonstrate the variability of the flow patterns from year to year in these river systems. The overall flow rates of the Proposed Action would fall within the variability of the hydrographs. The sources listed in Tables 1-1, 2-1, 2-2, and 2-3 (and as defined in chapter 2 for Duchesne City water rights) as part of the Proposed Action currently flow in the Strawberry and Duchesne rivers; no new water sources would be added to the Strawberry River or Duchesne River. However, the leased water from Hanna Water and Sewer District (a total of 486 AF – 95 for DCWCD and 391 for EDCWID) and the 68 AF of irrigation water from Pioneer Canal Company (see Table 1-1) would flow further down the Duchesne River from their current respective diversions and into Starvation Reservoir at Knight Diversion Dam.

3.4 Endangered Species Act and State Listed Sensitive Species

Endangered Species Act

Section 7 of the Endangered Species Act (ESA) of 1973 (7 USC §136, 16 USC §1531 et seq.), as amended, requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) if listed species or designated critical habitat may be affected by a proposed federal project.

Table 3-2 lists the federally-listed ESA species that are known to occur within or near the Starvation Collection System. The Joint Lead Agencies used USFWS IPaC which provided the listed endangered and threatened species within the project area.

TABLE 3-2: ENDANGERED SPECIES LIST IN PROJECT STUDY AREA

Species	Status	Occurrence in the Study Area
Yellow-Billed Cuckoo (*Coccyzus americanus*)	Threatened	The project study area contains no critical habitat.
Ute ladies'-tresses *(Spiranthes diluvialis)*	Threatened	No impact to suitable habitat.

TABLE 3-2: ENDANGERED SPECIES LIST IN PROJECT STUDY AREA		
Species	**Status**	**Occurrence in the Study Area**
Barneby Ridge-cress *(Lepidium barnebyanum)*	Endangered	No impact to suitable habitat.
Canada Lynx *(Lynx canadensis)*	Threatened	The project study area contains no critical habitat.
Bonytail Chub *(Gila elegans)*	Endangered	The project study area contains no critical habitat.
Colorado Pikeminnow *(Ptychocheilus lucius)*	Endangered	The project study area contains no critical habitat.
Humpback Chub (*Gila cypha*)	Endangered	The project study area contains no critical habitat.
Razorback Sucker (*Xyrauchen texanus*)	Endangered	The project study area contains no critical habitat.

Source: https://ecos.fws.gov/ipac/

Utah Sensitive Species

The Utah Sensitive Species List identifies several conservation agreement or sensitive species in addition to federally-listed threatened and endangered species shown above. Of those, six have been documented to occur near the Starvation Collection System and are listed in Table 3-3.

TABLE 3-3: STATE SENSITIVE AND CONSERVATION AGREEMENT SPECIES IN PROJECT AREA	
Species	**Status**
Bluehead Sucker (Catostomus discobolus)	Conservation Agreement
Bald Eagle *(Haliaeetus leucocephalus)*	State Sensitive
Flannelmouth Sucker *(Catostomus latipinnis)*	Conservation Agreement
Roundtail Chub *(Gila robusta)*	Conservation Agreement
White-tailed Prairie Dog (*Cynomys leucurus*)	State Sensitive
Greater sage-grouse (*Centrocercus urophasianus*)	Conservation Agreement

Source: Utah Conservation Data Center and UNHP Data

No-Action Alternative

The No-Action Alternative would have no effect on any listed threatened, endangered, or candidate species and would have no effect on any state sensitive or conservation agreement species.

Proposed Action Alternative

The Proposed Action would have no effect on populations of listed threatened, endangered, candidate, or state sensitive species. The Proposed Action would not require any construction or ground disturbing activities. The volume and timing of the non-project water in the Strawberry River and Duchesne River would be minor and within the historical flow rates. The Proposed Action Alternative would not result in

any change in function of the existing Starvation Collection System and aquatic or riverine habitat along the Strawberry River and Duchesne River.

3.5 Recreation

Starvation State Park is located within the project study area and opened in 1972, two years after the construction of the Starvation Dam. It is managed by Utah Division of State Parks. At full operating capacity the reservoir is almost 3,300 acres of open water and is ideal for boating and other water recreational activities and offers a wide variety of opportunities such as camping, rental cabins, picnicking, fishing, boating, water sports, swimming, hiking, and mountain biking. Starvation Reservoir provides fishing for rainbow trout, brown trout, walleye, perch, and smallmouth bass. Strawberry River and Duchesne River offer a wide variety of recreational activities as well. These rivers provide fishing, camping, wildlife viewing, hiking, and other recreational opportunities.

No-Action Alternative

The No-Action Alternative would have no effect on recreational activities on or near the Starvation Collection System as well as the Strawberry and Duchesne rivers.

Proposed Action Alternative

The Proposed Action Alternative would have no effect to recreational activities on or near the Starvation Collection System. The Proposed Action Alternative would be within the limits of the active storage elevation of Starvation Reservoir as shown in Figure 3-1.

3.6 Water Quality

Starvation Reservoir is classified by use designations assigned by the Utah Department of Environmental Quality. The water quality of the reservoir is protected for the following beneficial uses (see section R317-2-6 of Utah Code Annotated):

- Class 1C – Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water.
- Class 2A – Protected for frequent primary contact recreation where there is a high likelihood of ingestion of water or a high degree of bodily contact with the water. Examples include, but are not limited to, swimming, rafting, kayaking, diving, and water skiing.
- Class 3A – Protected for cold-water species of game fish and other cold-water aquatic life, including the necessary aquatic organisms in their food chain.
- Class 4 – Protected for agricultural uses including irrigation of crops and stock watering.

The water sources for Starvation Reservoir are the Strawberry River and Duchesne River.

No-Action Alternative

The No-Action Alternative would have no effect on water quality of the Starvation Reservoir, or the Strawberry and Duchesne rivers.

Proposed Action Alternative

The Proposed Action Alternative would have no effect on water quality and would allow DCWCD, EDCWID, and Duchesne City the ability to use their water in the reservoir when there is a water quality issue on the Duchesne River. Often during heavy rain and spring runoff events, high turbidity water can flow in the Duchesne River. If Duchesne River water needs to be diverted into the reservoir to be treated at the DVWTP to meet water delivery obligation of the agencies during times of high turbidity it can cause operational concerns and increased costs. The Proposed Action would allow these agencies to convey and store their non-project water (on a space available basis) in the Starvation Collection System so the water is available for use at the DVWTP when Knight Diversion Dam has been shut down because of high turbidity or other issues on the Duchesne River.

3.7 Environmental Justice

Executive Order 12898 established Environmental Justice as a federal agency priority to ensure that minority and low-income groups are not disproportionately affected by federal actions. Implementation of the Proposed Action Alternative would not disproportionately or unequally affect any low-income or minority communities. The proposed project would not involve any facility construction, population relocation, health hazards, hazardous waste, property takings, or substantial economic impacts. This action would therefore have no adverse human health or environmental effects on minority and low-income populations.

No-Action Alternative

The No-Action Alternative would have no effect on Environmental Justice populations.

Proposed Action Alternative

Since there would be no change in existing or similar land or water uses, there would be no adverse human health or environmental effects to minority or low-income populations. The Proposed Action Alternative would have no effect on Environmental Justice populations.

3.8 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for federally recognized Indian tribes or individuals. Assets can be real property, physical assets, or intangible property rights, such as lands, minerals, hunting and fishing rights, and water rights. The U.S. Department of Interior's policy is to recognize and fulfill its legal obligations to identify, protect and conserve the trust resources of federally recognized Indian tribes and tribal members, and to consult with the tribes on a government-to-government basis whenever plans or actions affect tribal trust resources, trust assets, or tribal safety. Under this policy, the federal government is committed to carrying out its activities in a manner that avoids adverse impacts to ITAs when possible, and to mitigate or compensate for such impacts when it cannot. All impacts to ITAs, even those considered insignificant, must be discussed in the trust analyses in NEPA compliance documents and appropriate compensation or mitigation must be

implemented. The implementation of the Proposed Action Alternative would have no foreseeable negative impacts on Indian Trust Assets.

Federal Indian Reserved Water Rights (Winters Doctrine)

In *Winters v. United States*, the Supreme Court held that the establishment of an Indian reservation impliedly reserved the amount of water necessary to fulfill the purposes of the reservation (207 U.S. 564 (1908)). *Winters* rights are quantified based on what is needed to accomplish the reservation's purposes both for present and future needs, and Indian tribes with reserved water rights under the *Winters* Doctrine enjoy a priority date no later than the date of their reservation's establishment.

Water rights associated with the Uintah & Ouray Reservation for the Ute Indian Tribe and its members have been addressed in part in two federal court decrees and a 1965 deferral agreement between the Ute Indian Tribe, the United States, and the Central Utah Water Conservancy District ("1965 deferral agreement"). At the request of the Ute Indian Tribe and the State of Utah, Congress enacted the Ute Indian Rights Settlement in 1992, Title V of the Central Utah Project Completion Act, to quantify the Ute Indian Tribe's water rights, allow increased beneficial use of waters, and provide economic benefits to the Ute Indian Tribe in lieu of the storage projects envisioned in the 1965 deferral agreement. The Ute Indian Tribe's *Winters* reserved water rights have priority dates no later than 1861 and 1882, corresponding to two Executive Orders dated October 3, 1861, and January 5, 1882, establishing the Uintah Valley Reservation and the Uncompahgre Reservation, respectively.

No-Action Alternative

The No-Action Alternative would have no effect on Indian Trust Assets.

Proposed Action Alternative

The Proposed Action Alternative would have no effect on Indian Trust Assets. The water rights listed in Tables 2-1, 2-2, 2-3, and those listed in the "Description of Non-project Water for Duchesne City" are the only water rights considered for the Proposed Action Alternative. All of the water rights evaluated in this Final EA (see Table 1-1) are subject to Utah water law including priority dates and uses. The Federal Indian Reserved Water Rights have the highest priority dates in the Duchesne River watershed.

The state of Utah is a 'Prior Appropriation' water rights state. In 1903, the state legislature passed water laws consistent with prior appropriations doctrine. Per prior appropriation doctrine and Utah water law, the earliest in date water right users (that put the water to beneficial use) have the earliest legal rights to that water than subsequent users; in other words, "first in time is first in right". The Federal Indian Reserved Water rights have the earliest water right priority dates in the Uintah Basin (1861 and 1888 per two Executive Orders dated October 3, 1861 and January 5, 1882) and are senior and have priority to all junior water rights. The non-project water rights evaluated in the Final EA (see Table 1-1) have a later priority date and are junior to the Federal Indian Reserved Water rights in accordance with Utah water law and prior appropriations doctrine. The Proposed Action Alternative would have no effect on Federal Indian Reserved Water Rights.

3.9 Climate Change

Carbon dioxide (CO_2) makes up the largest component of greenhouse gas emissions. The Proposed Action Alternative would not cause an increase in CO_2 or other greenhouse gas emissions; therefore, it would not contribute to climate change, nor would it create vulnerability to climate change impacts.

No-Action Alternative

The No-Action Alternative would have no effect on climate change.

Proposed Action Alternative

The Proposed Action Alternative would have no effect on Climate Change. In addition, Climate Change would have no effect on the Proposed Action.

3.10 Cumulative Impacts

In addition to project-specific impacts, cumulative impacts were analyzed for the potential for adverse effects to resources affected by the project and by other past, present, and reasonably foreseeable activities. According to the CEQ's regulations for implementing NEPA (40 CFR §1508.7), a "cumulative impact" is an effect on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively larger actions taking place over a period of time. It focuses on whether the Proposed Action Alternative, considered together with any known or reasonably foreseeable actions by CUWCD, CUPCA Office, other federal or state agencies, or some other entity combined to cause an effect. The Joint Lead Agencies have determined that the Proposed Action Alternative would not have an adverse impact to any resource and therefore would not be contributing to other past, present, or reasonably foreseeable future actions.

CHAPTER 4: PROJECT COORDINATION

Chapter 4 describes the project coordination and public involvement activities for the proposed project.

4.1 Cooperating Agencies

Cooperating Agencies, as defined in the Council of Environmental Quality regulations 40 CFR 1501.06, participate in the preparation and review of the environmental document because of their jurisdiction by law or special expertise (e.g., Section 106 of the NHPA, Endangered Species Act, and Section 404 of the Clean Water Act). The Joint Lead Agencies invited the U.S. Bureau of Reclamation (Reclamation) and the Utah Reclamation Mitigation and Conservation Commission (Mitigation Commission) to be Cooperating Agencies. Both agencies accepted the invitation and assisted in the preparation of this Final EA.

4.2 Public and Agency Scoping Process

As part of the NEPA process, the Joint Lead Agencies initiated a public scoping process in May 2018 to inform the public and agencies about the Draft EA, the Proposed Action Alternative, the project's purpose and need, and to gather input regarding issues to be analyzed through the NEPA process.

The scoping period for the project started May 22, 2018 and ran through June 29, 2018. A letter dated July 31, 2018 was received from the Ute Indian Tribe requesting that the scoping period be extended. Therefore, the Joint Lead Agencies extended the scoping period to September 7, 2018 and the Joint Lead Agencies sent letters to interested parties and groups notifying them of the scoping period extension.

Information delivered as part of the scoping process consisted of:

- Listing the project proponents (the Joint Lead Agencies and the other water agencies – Duchesne County Water Conservancy District, East Duchesne Culinary Water Improvement District, and Duchesne City);
- Stating that a NEPA document will be prepared;
- Proposed Action;
- Project purpose and need;
- Soliciting comments as part of the scoping process; and
- Project contact information including telephone numbers, email, and web site address.

Activities used during the scoping process to notify the public and agencies about the proposed project consisted of:

- Interested parties letters and scoping newsletter;
- Development of a webpage with a copy of the newsletter and a means to provide comments on the Proposed Action;
- Newspaper ad with project information; and
- Native American Consultation Letters.

Comments Received During the Scoping Period

Comments were received from the Duchesne County Commission and from five individuals. The comments received as part of scoping have been addressed in the Draft EA and carried through to this Final EA.

4.3 Draft Environmental Assessment

The Joint Lead Agencies released the draft Environmental Assessment (Draft EA) on Tuesday, November 13, 2018 for public and agency review. The public and agency comment period ended Monday, December 17, 2018. Activities used to notify groups and agencies of the release of the Draft EA consisted of:

- Legal notice in Uintah Basin Standard newspaper (published November 13th and November 20th);
- Post cards were mailed to interested parties and to all those that commented during the scoping period. The post card provided information on the Draft EA and how to comment;
- Updating the project webpage with a copy of the Draft EA and a means to provide comments on the proposed project; and
- Native American Consultation letters sent on November 9, 2018.

Comments Received on the Draft Environmental Assessment

Two agencies submitted comments: Duchesne County Commissioners and the Ute Indian Tribe. A copy of each comment received, responses to those comments, and references to any related revisions are found in Table 4-1.

TABLE 4-1: COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL ASSESSMENT	
Comments Received	**Joint Lead Agencies Response**
Duchesne County Commission	
Supportive of the proposed project. Recommended that several clerical errors be corrected.	Thank you for your support of the proposed project. The clerical errors have been corrected.
Ute Indian Tribe	
Comment #1 Comment: Reference to the Tribe's present perfected, *Winters* reserved water rights, including the 1967 Midview Exchange Agreement and the Tribe's storage contract for 11,600 acre-feet of water in Starvation Reservoir, is absent from the background narrative.[1] Pursuant to the U.S. Supreme Court's 1908 decision in *Winters v. United States*,[2] and as recognized by the United States and the Central Utah Water Conservancy District under the Agreement of September 20, 1965,[3] the Tribe has a reserved water right appurtenant to 129,331 acres of Reservation land. Because these water rights became vested property rights upon the creation of the Reservation in 1861, they are "present perfected" water rights as the term is used in Article VIII of the 1922 Colorado River Compact.[4]	A discussion on Federal Indian Reserved Water Rights (Winter's Doctrine) has been added in the Final Environmental Assessment (Final EA) in section 1.5 – Permits, Contracts, and Authorizations in Chapter 1 and in section 3.8 - Indian Trust Assets. The following on Federal Indian Reserved Water Rights in section 1.5 has been added and states: "In Winters v. United States, the Supreme Court held that the establishment of an Indian reservation impliedly reserved the amount of water necessary to fulfill the purposes of the reservation (207 U.S. 564 (1908)). Winters rights are quantified based on what is needed to accomplish the reservation's purposes both for present and future needs, and Indian tribes with reserved water rights under the Winters Doctrine enjoy a priority date no later than the date of their reservation's establishment. Water rights associated with the Uintah & Ouray Reservation for the Ute Indian Tribe and its members have been addressed in part in two federal court decrees and a 1965 deferral agreement between the Ute Indian Tribe, the United States, and the Central Utah Water Conservancy District ("1965 deferral agreement"). At the request of the Ute Indian Tribe and the State of Utah, Congress enacted the Ute Indian Rights Settlement in 1992, Title V of the Central Utah Project Completion Act, to quantify the Ute Indian Tribe's water rights, allow increased beneficial use of waters, and provide economic benefits to the Ute Indian Tribe in lieu of the storage projects envisioned in the 1965 deferral agreement. The Ute Indian Tribe's Winters reserved water rights have priority dates no later than 1861 and 1882, corresponding to two Executive Orders dated October 3, 1861, and January 5, 1882, establishing the Uintah Valley Reservation and the Uncompahgre Reservation, respectively." Section 3.8 states the same as section 1.5 but the following has been added under the Proposed Action Alternative: "The Proposed Action Alternative would have no effect on Indian Trust Assets. The water rights listed in Tables 2-1, 2-2, 2-3, and those listed in the "Description of Non-project Water for Duchesne City" are the only water rights considered for the Proposed Action Alternative. All of the water rights evaluated in this Final EA (see Table 1-1) are subject to Utah water law including priority dates and uses. The Federal Indian Reserved Water Rights have the highest priority dates in the Duchesne River watershed. The state of Utah is a 'Prior Appropriation' water rights state. In 1903, the state legislature passed water laws consistent with prior appropriations doctrine. Per prior appropriation doctrine and Utah water law, the earliest in date water right users (that put the water to beneficial use) have the earliest legal rights to that water than subsequent users; in other words, "first in time is first in right". The Federal Indian Reserved Water rights have the earliest water right priority dates in the Uintah Basin (1861 and 1888 per two Executive Orders dated October 3, 1861 and January 5, 1882) and are senior and have priority to all junior water rights. The non-project water rights evaluated in the Final EA (see Table 1-1) have a later priority date and are junior to the Federal Indian Reserved Water rights in accordance with Utah water law and prior appropriations doctrine. The Proposed Action Alternative would have no effect on Federal Indian Reserved Water Rights."

TABLE 4-1: COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL ASSESSMENT	
Comments Received	**Joint Lead Agencies Response**
Comment #2 With the exception of flood control measures, the United States is required under Section 6 of the 1928 Boulder Canyon Project Act, 45 Stat. 1057, and Section 14 of the 1956 Colorado River Storage Project Act, 70 State. 105, to utilize storage infrastructure along the Colorado River to satisfy the Tribe's senior priority water rights before utilizing this infrastructure for other purposes.	The obligation of the United States is to preserve the Ute Indian Tribe's water rights under the *Winters* Doctrine as recognized by Congress under Title V of CUPCA, P.L. 102-575. Title V provided funding to complete various projects, as well as substantial federal funds in lieu of previously promised storage projects.
Comment #3 The portion of the Tribe's *Winters* reserved water rights sourced from the Lake Fork and Uinta Rivers were quantified via two federal decrees in 1923.[5] The 1967 Midview Exchange Agreement between the United States Bureau of Reclamation, Moon Lake Water Users Association (MLWUA) effectuated a transfer of a portion of the Tribe's federally decreed Winters reserved water rights in the Lake Fork River to the Duchesne River, thereby allowing the MLWUA sufficient water from the Lake Fork River. Under the Midview Exchange Agreement, the Tribe has a storage right in the Midview Reservoir. Section 10 of this Agreement states that the Bureau of Reclamation (USBR) and the MLWUA will furnish water from the Lake Fork River or other sources should the State exchanged rights fail to provide adequate water for the Tribe. In 1970, in order to meet its obligations under Section 10 of the Midview Exchange Agreement the USBR and BIA agreed to an 11,600 acre-foot storage contract for the beneficial use of the Ute Indian Tribe in Starvation Reservoir. This 1970 contract required that the Starvation Reservoir be used to augment the Tribe's water rights under the Midview Exchange Agreement to supplement natural flow of the Duchesne River. A 1977 USBR memorandum memorialized the Tribe's and MLWUA's reliance on the Starvation Reservoir to protect the ongoing validity of the Midview Exchange and provide storage for the Tribe's water rights from the Duchesne River. The memo states, "Starvation Reservoir will permit a continuation of the exchange and thus assure the Moon Lake Project of continued use of Lake Fork River water."[6]	Pursuant to the Midview Exchange Agreement between the United States and the Ute Indian Tribe, the operational point of diversion was modified. The Ute Indian Tribe has no storage right in Starvation Reservoir. However, the Uintah Indian Irrigation Project has storage rights to the extent necessary to fulfill the obligations of the Midview Exchange Agreement. Water stored in Starvation Reservoir (under junior Bonneville Unit water rights) would be available to augment the natural flow of the Duchesne River when needed for the Midview Exchange as prescribed in the Midview Exchange Agreement, as amended. In section 3.2 under the Proposed Action Alternative, the following has been added: "the Proposed Action Alternative would have no effect on the Midview Exchange Agreement." The Midview Exchange Agreement is now the subject of pending litigation and we can therefore provide no further discussion or comment on the Agreement in the EA. A summary of the Midview Exchange Agreement and its importance has been added in the Final EA, section 1.2 Project Information and Background.

TABLE 4-1: COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL ASSESSMENT	
Comments Received	**Joint Lead Agencies Response**
Comment #4 The Tribe recommends that the Project Information and Background section be amended to reflect the legal and factual reality that satisfaction of the Tribe's water and storage rights under the Midview Exchange Agreement and the Tribe's storage contract was a fundamental basis for the Starvation Reservoir. Further, the Ute Tribe's storage contract in Starvation Reservoir should be included in the Project Information.	The Proposed Action Alternative would have no impacts or effects on Federal Indian Reserved Water Rights, as protected under federal law, above or below the Starvation Collection System (e.g. Knight Diversion, Starvation Dam and Reservoir) since these water rights have the highest priority on the Duchesne River system as described in response to comment #1. The Final EA has been updated through-out the document to include this fact. Also, see responses to comments #1 and #3. Therefore, the proposal in the Ute Indian Tribe's comment #4 is not necessary to adequately analyze potential impacts of the Proposed Action Alternative and No Action Alternative.
Comment #5 Comment: There must be reference to compliance with federal water law throughout the document because the Ute Indian Tribe's reserved water rights are protected under federal law. The document as presently drafted suggests that only Utah State water law would be applicable to the Proposed Action. Page 6 of the Draft EA states, "[n]o additional water rights would be affected by the Proposed Action" without reference to the Tribe's Winters reserved water rights and without any supporting data showing how the proposed conveyance and storage of water will or will not adversely impact downstream users. The Ute Indian Tribe requests review of this statement in light of the Ute Indian Tribe's federal water rights, including an analysis with supporting information showing potential impacts on downstream water users. Federal agencies are potentially over-looking their duty as Federal trustee if only state water law is applied in the analysis of the Proposed Action.	The Proposed Action Alternative would have no impacts or effects on Federal Indian Reserved Water Rights, as protected under federal law, above or below the Starvation Collection System (e.g. Knight Diversion, Starvation Dam and Reservoir) since these water rights have the highest priority on the Duchesne River system as described in response to comment #1. The Final EA has been updated through-out the document to include this fact. In addition, see response to comments number #3. Because the Proposed Action Alternative and No-Action Alternative would have no impact on the Federal Indian Reserved Water Rights, the only remaining rights to be analyzed would be governed by Utah State law. See section 3.3 for explanation of how the Proposed Action water would be conveyed.

TABLE 4-1: COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL ASSESSMENT	
Comments Received	**Joint Lead Agencies Response**
Comment #6 Comment: The Draft EA fails to identify an actual purpose for the proposed action. Specifically, this section does not identify why the time, place and use of state water rights must be changed and stored in the Starvation Collection System. This section suggests there are "unmet needs of water users" however those "needs" and "water users" are not fully identified. There is no objective data to indicate need, harm to be remediated and whether the proposed action would address any need. Further, it is impossible to assess any purpose and need of the Proposed Action without a description of what would happen to the water rights subsequent to being re-conveyed and stored in the Starvation Reservoir. The Tribe recommends revisions to the purpose and need section in order to allow for a complete understanding of the project goals and purpose as well as detailed description of all changes (period of use, place of use, point of diversion, etc.) to involved water rights.	As Joint Lead Agencies, the Central Utah Water Conservancy District (District) and U.S. Department of Interior - Central Utah Project Completion Act Office developed the purpose and need statement in response to requests from water users and through public scoping. The purpose and need statement accurately reflects the underlying need and purposes of the proposed action in accordance with CEQ regulation 40 CFR 1502.13, which states: "The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." The purposes of the project now includes timing flexibility. See section 1.4, Purpose and Need for the Proposed Action. See sections 1.3 and 2.2 for detailed description of the Proposed Action. The following information regarding timing flexibility is found in section 3.6 Water Quality in Chapter 3 and has been added to section 1.4 Proposed Action in Chapter 1 of the Final EA: “The Proposed Action Alternative would allow DCWCD, EDCWID, and Duchesne City the ability to use their non-project water in the reservoir when there is a water quality issue on the Duchesne River. Often during heavy rain and spring runoff events, high turbidity water can flow in the Duchesne River. If Duchesne River water needs to be diverted into the reservoir to be treated at the DVWTP to meet water delivery obligation of the agencies during times of high turbidity it can cause operational concerns and increased costs. The Proposed Action would allow these agencies to convey and store their non-project water (on a space available basis) in the Starvation Collection System so the water is available for use at the DVWTP when Knight Diversion Dam has been shut down because of high turbidity or other issues on the Duchesne River.”
Comment #7 IV. Permits, Contracts and Authorizations Comment: This section wholly overlooks the application of federal common law and statutory law applicable to the Tribe's present perfected, Winters reserved water rights. Implementation of the proposed action must be consistent with those authorities. In addition, the Draft EA omits a plan to manage the re-conveyed and stored water, rendering it impossible to understand how the Agencies will manage the re-conveyed water without negative impacts on the Central Utah Project water rights, including the state and federal water rights benefiting the Tribe.	See responses to comments #1 and #3. See section 1.3 and 2.2 for a detailed explanation of the Proposed Action.
Comment #8 (Proposed Action Alternative) Comment: The Draft EA does not provide confirmation or any supporting evidence that the Tribe's storage contract in Starvation Reservoir would not be impacted.	See responses to comments #2 and #3.

TABLE 4-1: COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL ASSESSMENT	
Comments Received	**Joint Lead Agencies Response**
Comment #9 (Proposed Action Alternative) Comment: Figure 3-1 of the Draft EA shows that Starvation Reservoir typically fills during the year and there is little unused storage space. The Draft EA does not include a detailed explanation of unused storage space or objective evidence of any space available in the Starvation Collection System for the "non-project water". If the proposal envisions a change in reservoir operations, these modifications should be clearly stated.	The Joint Lead Agencies are not proposing any changes to the Project operations of the Starvation Collection System. All of the non-project waters listed in Chapter 2 would be conveyed and stored upon on a space available basis as mentioned in multiple paragraphs through-out the Final EA. Figure 3-1 shows that Starvation Reservoir has historically filled which then spills into the Strawberry River. However, there are times when Starvation Reservoir does not fill such as the year 2017. In addition, each year shows times when space is available for storage of non-project waters. Contracts allowing the conveyance and storage of non-project waters would include language that the non-project water has a priority 3, behind CUP waters (includes Midview Exchange Agreement waters) (Priority 1) and Rediverted Instream Flow Agreement Waters (Priority 2). At times when Starvation Reservoir is full and spills, the CUP waters are whole and are not lost. Also, see responses to comments #2 and #3.
Comment #10 (Proposed Action Alternative) Comment: The impacts of a changed time, place and use of all state water rights in Table 1-1 was not quantitatively evaluated in the Draft EA, making it impossible to fully understand the proposed action. Specifically, it is not clear from the Draft EA whether restrictions on existing rights are intended to be retained on water once transferred to the Starvation System, thereby making it impossible to evaluate the totality of the proposed action. Importantly, the Draft EA proposes storing the diversion volumes (as opposed to depletion volumes) for several water rights. Storing and consumptively using the entire diversion volume for an agricultural water right would typically exceed the water right's allowable depletion.	Any water conveyed and stored would be significantly junior to the Federal Indian Reserved Water Rights. In addition, the proposal is only for space available conveyance and storage above any project requirements and would be in compliance with state water law. Also, see responses to comments #1 and #3. More information regarding each water right being evaluated for the Starvation Warren Act has been added to Chapter 2 of the Final EA. All of the water, except 68 AF for Pioneer Canal Company Shares, is currently used for Municipal and Industrial purposes as defined by Utah water code. Therefore, the depletion volumes would not change as a result of the Proposed Action. All the waters evaluated in the Final EA are within and would remain in the Duchesne River basin. The conversion of the 68 AF of irrigation water use to M&I use would most likely require a reduction in volume due to its change of use under Utah water law and the change application process. The Joint Lead Agencies have determined to evaluate the 68 AF of irrigation water instead of speculating on any reduction required through an approved change application. Any change of a water right in point of diversion, place of use, period of use, nature of use, or storage of water would require the preparation of a change application which must be filed with the Utah State Engineer as stated throughout the Final EA.

TABLE 4-1: COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL ASSESSMENT	
Comments Received	**Joint Lead Agencies Response**
Comment #11 (Affected Environment and Environmental Consequences) Comment: Conversion of the water rights in Table 1-1 to storage rights will firm up their associated water supply and likely result in a new water marketing regime in Utah. This Draft EA fails to evaluate the socio-economic effects on the Tribe of such a dramatic change in the storage and delivery timing, as well as the change in place and type of use, of these water rights. Federal actions should not impair the viability of Indian trust assets and their potential for marketing. The Tribe requests a complete socioeconomic analysis to evaluate the impact on its trust assets.	All of the water, except the 68 AF of Pioneer Canal Company Shares discussed in the Final EA is covered under an existing municipal and industrial type uses according to Utah water law. The 68 AF of irrigation water would necessitate a change application process as outlined in Utah water law. Any change of a water right in point of diversion, place of use, period of use, nature of use, or storage of water would require the preparation of a change application which must be filed with the Utah State Engineer as stated throughout the Final EA. Indian Trust Assets are discussed in section 1.5 in Chapter 1 and section 3.8 in Chapter 3. The Proposed Action Alternative would have no effect on Indian Trust Assets. Also, see responses to comments #3 and #10.
Comment #12 (Starvation Collection System) Comment: The Tribe's present perfected, Winters reserved water rights, and the terms of 11,600 acre-foot storage contract in the Starvation Reservoir designed to ensure satisfaction of said Tribal water rights, should be specifically identified as having top priority in the order of listed priorities.	See responses to comments #1 and #3 and section 1.2, Midview Exchange Agreement and section 1.3 in the Final EA.
Comment #13 (Starvation Conduit and Knight Diversion Dam) Comment: The proposed action alternative section refers to flood control measures and reservoir operations but fails to cite which existing flood control protocols and reservoir operations might be affected or modified by the proposed action. The Tribe suggests references to, and changes of, specific flood control protocols and reservoir operations be included in this analysis.	See section 3.2 in Chapter 3 regarding that the Proposed Action Alternative will not modify or alter the required flood control measures for the Starvation Dam and Reservoir. No flood control measures or protocols will be changed as a result of the Proposed Action Alternative.
Comment #14 (Re-Diverted Instream Flow Agreement Waters) Comment: The proposed action alternative discussion states that "greater operational flexibility for all water users" is necessary but there is no objective data provided for support. If "operational flexibility" is core to the basis of this project, it should be part of the project purpose statement and related analysis. Further, statements of impacts of operational flexibility ought to be clearly defined and evaluated whether there are impacts on the Tribe's interests.	See response to comment #6.

TABLE 4-1: COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL ASSESSMENT	
Comments Received	**Joint Lead Agencies Response**
Comment #15 (Environmental Justice) Comment: This section does not adequately evaluate the anticipated socioeconomic effects of the re-conveyance and storage of non-Project water rights in the Starvation Reservoir. The Tribe requests an evaluation of the socioeconomic effects, with specific consideration given to any potentially disparate impacts to the Ute Indian Tribe.	See response to comment #11.
Comment #16 (Indian Trust Assets) Comment: The Tribe's storage contract in Starvation Reservoir protects Indian Trust Assets per the Midview Exchange Agreement. There must be evaluation of any potential impacts of the proposed re-conveyance on the Tribe's trust assets. The analysis should include potential impacts to other Ute Indian Tribe Trust Assets that might be affected by the re-conveyance and storage of the water rights in Table 1-1 of the Draft EA. Finally, there must be analysis whether the proposed action would impair any carriage agreements that relate to any Trust Assets.	See response to comment #3.
Comment #17 (Cumulative Impact) Comment: The Draft EA overlooks several cumulative impacts. The proposed action will have impacts on the original place of use of the water rights in Table 1-1 and those impacts should be evaluated as cumulative impacts. There should be evaluation of the cumulative impacts of changing existing water rights to year-round storage and diversion rights. The proposed actions will have several impacts on the Tribe and those should be fully evaluated in a cumulative impact analysis.	The Proposed Action Alternative will have no impact to the environment as discussed in Chapter 3. Since the Proposed Action Alternative has no impact, no cumulative impact analysis is required. Also, see responses to comments #3 and #10.

CHAPTER 5: LIST OF PREPARERS

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