Lake Powell Pipeline

FERC Project No. P-12966-004

Water Needs Assessment: Demand and Supply Update

Public Filing

1. Introduction

In April 2016, the state of Utah submitted Final Study Report 19, which included the Climate Change Report and Water Needs Assessment, as part of its license application for the Lake Powell Pipeline (LPP). In August of 2017, FERC issued a Request for Additional Information for total per capita water use data for the years 2011 to 2016. The Utah Division of Water Resources (UDWRe) informed FERC on October 10, 2017 that the data necessary to respond would be available in 2018. In July of 2017, the state of Utah released new population projections prepared by the Kem C. Gardner Policy Institute at the University of Utah (Institute). In June of 2018, UDWRe published its "2015 Municipal and Industrial Water Use Data" (M&I Report), which contained total per capita water use data for 2015.

In addition, after the 2016 submission of Study Report 19, both the U.S. Bureau of Reclamation (Reclamation) and the seven Colorado River basin states continued to model and monitor Colorado River flows, track Colorado River Storage Project (CRSP) reservoir storage levels, and develop "options and strategies" to reduce the risk of future Colorado River compact shortage. In 2018, the Applicant and Reclamation reached agreement in principle on an exchange contract involving the movement of water from below Flaming Gorge Reservoir to Lake Powell, where it could be diverted through the LPP.

In view of the above developments, Applicant is submitting the following supplemental information for purposes of ensuring that the FERC administrative record contains the most up-to-date information on water demand and supply and related information pertaining to the LPP.

2. Demand Projections

The new population projections and water use data will update the demand estimates set forth in Study Report 19.

2.1. Population Projections

The Institute prepared baseline, high and low population projections to address the uncertainty associated with high growth areas such as Washington County (Policy Institute 2018). Past projections have underestimated actual population growth in Washington County (Policy Institute 2018, UDWRe 2016). The Institute projections for Washington County anticipate a baseline of 468,830 by 2060 with a projected low population of 419,269 and a projected high population of 501,382 by 2060 (Table 1).

Table 1. WCWCD Population Projections

Year	Washington County Total Population - Baseline	WCWCD Service Population - Baseline	Washington County Total Population - High	WCWCD Service Population - High
2010	138,579	135,662	138,579	135,662
2020	186,618	182,689	187,078	183,140
2030	251,636	246,338	256,759	251,354
2040	320,956	314,199	337,051	329,955
2050	391,468	383,227	417,124	408,343
2060	468,830	458,960	501,382	490,827

Source: Policy Institute 2018, UDWRe 2018

2.2. Current and Projected Water Use

Utah has one of the most comprehensive water use accounting practices in the United States. Unlike other cities or states, Utah includes all secondary and reuse water in its gallons per capita per day (GPCD) reporting, thereby reflecting more complete water use information. The latest per capita water use numbers, as found in the M&I report, are in Table 2.

Table 2. 2015 Per Capita Per Day Water Use

Year[1]	Water Use (GPCD)	Washington County[2]			Kane County[2]		
		Culinary (potable)	Secondary (untreated)	Total[3]	Culinary (potable)	Secondary (untreated)	Total[3]
2015	Residential	177	16	193	129	58	187
	Commercial, Industrial, Institutional[4]	52	57	108	81	15	97
	Total System Water Use	229	73	302	210	73	283

Source: UDWRe 2018

Note:

[1] 2016 and 2017 water use information has been submitted to the Utah Division of Water Rights and the Utah Division of Water Resources is currently evaluating the data.

[2] Kanab-Virgin River Basin water use

[3] Differences between base values and totals due to rounding.

[4] The Division of Water Resources included second home water use (e.g., vacation or seasonal homes) in commercial, industrial, and institutional quantities in the 2010 M&I Water Use report. Second home water use is now included in residential quantities in the 2015 M&I Water Use report.

Key:

GPCD = gallons per capita per day

The 2015 M&I Water Use Data report employed a revised methodology to examine residential, commercial, industrial and institutional (CII) uses in comparison to the 2010 M&I Water Use Data report. The reports differed in approaches for determining service area populations, residential lot sizes, classification of second home water use, and estimates of secondary or

nonpotable use. Second home water use (e.g., vacation or seasonal homes) was included in the CII category in 2010, but was shifted to the residential category in 2015. Although water use of second homes is included in the GPCD numbers, second home occupants are not included in the population estimate. As a result, Washington County residential use reflects a substantial increase in GPCD due to second home water use.

Following the recent completion of a Legislative Water Audit, the State of Utah is developing updated regional water conservation goals. According to the state, "the purpose of [a] regional goal setting process is to combine scientific/engineering analysis with regional input to develop goals appropriate for different areas of the state." It is anticipated that the updated water conservation goals will be made public in coming months. The Districts, in coordination with area retail water providers, will consider the results of this initiative in updating their programs and establishing their future goals. In the interim, in WCWCD's current water resource planning, it has assumed further water use reductions from the reported 2015 per capita use by 20 percent by 2060. Table 3 below uses the 20 percent reduction from reported 2015 levels to calculate WCWCD per capita water use projections through 2060.

Table 3. WCWCD Per Capita Total System Water Use Projections with 2060 Conservation Goals

Year	WCWCD Total System GPCD with 20% Conservation
2010	325
2015	***302***
2020	296
2030	271
2040	250
2050	240
2060	***240***

Key:
GPCD = gallons per capita per day
WCWCD = Washington County Water Conservancy District

2.3. System Loss and Planning Reserve

The updated future demand projections integrate system loss and a 15 year planning reserve. Study Report 19 did not include either factor in the demand projections.

Consistent with nationwide averages (EPA 2013), Washington County water systems lose approximately 15 percent of supplied water due to pipe leakage and overflows, meter inaccuracies, and data/calculation errors. WCWCD is primarily a wholesale water supplier. In that capacity it does not directly control the commercial or residential water supply lines or water meters. These are the property and responsibility of the direct retail water providers. WCWCD

will, however, work with its municipal customers to reduce system loss county-wide. Much of this reduction will depend on the actions of municipal customers given that most of the identified system loss occurs in their systems.

As noted in Study Report 19, WCWCD has adopted a policy of maintaining a planning reserve equal to the estimated water demand for fifteen years. Water is simply not a "real time" commodity in the sense that it can be immediately produced upon request. The reserve will protect against:

- unanticipated variations in supply and demand related to climatic conditions
- system infrastructure failure or catastrophic events
- delays associated with complex permitting processes
- unanticipated population growth

Table 4 below represents future water demand taking into consideration all of the above information and factors. Figure 1 is a graphic representation of these demand projections.

Table 4. WCWCD Water Demand Projections

Year	WCWCD Water Demand (acre-feet)[1]		WCWCD Water Demand Plus 15-Year Planning Reserve (acre-feet)[1]	
	Baseline Population Growth	*High Population Growth*	*Baseline Population Growth*	*High Population Growth*
2010	56,923	56,923	78,483	79,363
2020	69,791	69,963	94,289	97,483
2030	86,370	88,128	107,999	114,610
2040	101,326	106,407	130,399	139,161
2050	118,909	126,702	155,250	165,997
2060	142,408	152,296	184,513	192,953

Key:
WCWCD = Washington County Water Conservancy District
Note:
[1] Demand projections based on State of Utah 2017 population and 2015 municipal water use updates.

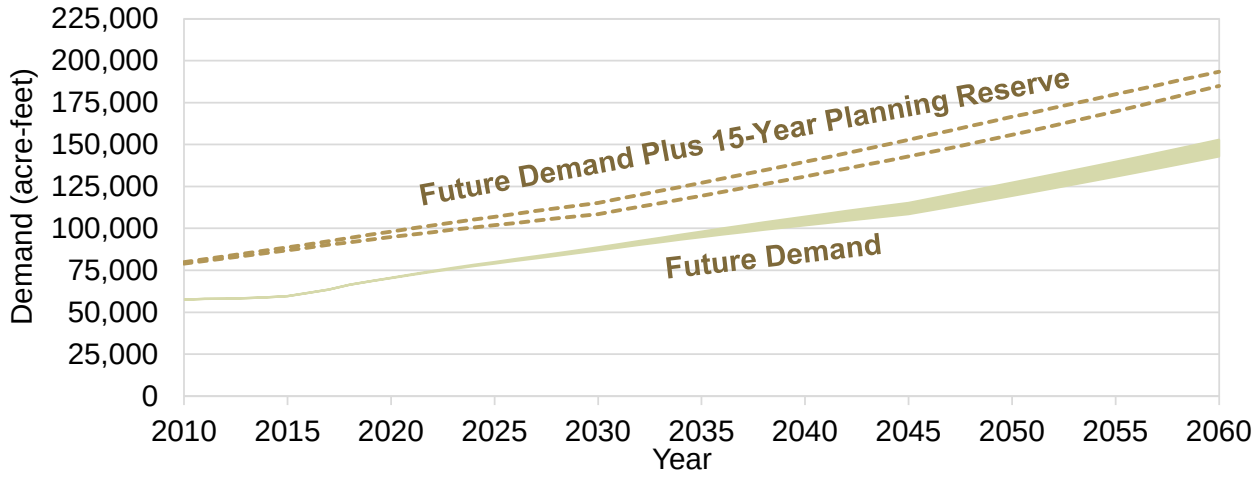

Figure 1. Demand Projections for Washington County Water Conservancy District

3. Supply Projections

Since the submission of Study Report 19, there have not been any significant modifications in the current and future local water supplies. The Virgin River Basin remains the sole surface water source of water supply for the rapidly growing area. Climate change will only elevate the risks associated with such sole source reliance. The development of a second water supply, i.e., Utah's Upper Colorado River allocation, remains essential.

3.1. Colorado River Developments

LPP will use a portion of Utah's remaining undeveloped Upper Colorado River Basin Compact allocation. Since the April 2016 filing, there have been a number of developments on the Colorado River system, both natural and human-induced, including those related to water levels in CRSP storage facilities.

3.1.1. U.S. Bureau of Reclamation Exchange Contract

In late 2017, Applicant and Reclamation reached agreement in principle on an Exchange Contract (see Appendix A). Under a 1996 assignment agreement with Reclamation (Reclamation and the State of Utah 1996), the State of Utah agreed that if it were to benefit from a CRSP facility in using the assigned water, the state would "enter into a water service contract with the United States." The Exchange Contract meets this requirement and its terms are mutually beneficial. The water, which as originally conceived would have been taken from the Green River upstream, will now flow downstream through both the Green and Colorado rivers to Lake Powell. The resulting instream flows will improve instream habitat and will "contribute to meeting the ESA Recovery Program requirements in reaches 1 and 2" on the Green River, and thereby "assist Reclamation in its obligations under the 2006 ROD covering the operation of

Flaming Gorge Dam" (see Appendix A). In turn, LPP will withdraw water from the existing Lake Powell Reservoir.

Final execution of the Exchange Contract will occur upon completion of the NEPA process. In the meantime, the parties have executed an interim letter agreement memorializing their understanding of the Contract (see Appendix A).

3.1.2. Colorado River Drought Response

The Bureau of Reclamation planned, constructed, and now operates the two key reservoirs in the Colorado River Basin. While both are Federal facilities, they were established by very different and separate acts of Congress. In 1928 the Boulder Canyon Project Act authorized Hoover/Boulder Dam which impounds Lake Mead. In 1956 the Colorado River Storage Project Act authorized Glen Canyon Dam which impounds Lake Powell. In common reference, Lake Mead was constructed mostly for the benefit of the Lower Division States of Arizona, Nevada, and California while Lake Powell was constructed mostly for the benefit of the Upper Division States of Colorado, Wyoming, New Mexico, and Utah.

The Long-Term Operating Criteria, Annual Operation Plans, and the Coordinated Operation of Lakes Powell and Mead (2007 Guidelines) are handled as seamlessly as possible by the Reclamation Team made up of staff from the Lower Colorado Region's Boulder City, Nevada office and the Upper Colorado Region's Salt Lake City, Utah offices.

The basic operation philosophy of the two reservoirs is, however, quite different. In the case of Lake Mead, because of the issues surrounding its origin and the subsequent history, the Secretary of the Interior (through Reclamation) acts as the Water Master for Lake Mead and the Lower Colorado River and delivers water by contract to the Lower Basin water users. In the case of Lake Powell, Reclamation operates the reservoir in close coordination with the Upper Division States and the Upper Colorado River Commission (Commission). Water delivery to Upper Basin users is the purview of the Upper Division States based upon their respective water rights processes. This distinction makes for considerable differences in the way these reservoirs are managed.

For the combined operations decisions for the Colorado River System, the seven Colorado River Basin States ("Basin States"), the Commission and Reclamation work closely together to assure that the Long Range Operating Criteria and all other operational criteria, including the 2007 Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead are adhered to. Moreover, Annual Operations planning and execution must be accomplished with review and consultation with a wide array of interested parties, and needed compliance with the NEPA and ESA must be satisfied.

Specifically, for the Lake Powell Pipeline the water supply will be derived from the Exchange Contract referenced above. As with the use of all water rights in the State of Utah, the Utah Division of Water Rights will administer the process.

It is important to understand that while each state administers is own water rights system the states have an allocation of water that can be used from the Colorado River. These allocations

are governed by the 1922 Colorado River Compact. In the Upper Basin, those quantities are also governed by the 1948 Upper Colorado River Basin Compact.

Reclamation's benchmark 2012 Colorado River Basin Study and associated climate model projections indicate a potential decrease in mean natural flow of approximately 9 percent over the next 50 years (Reclamation 2012). Recent modeling (Reclamation 2018) conducted by Reclamation for the Basin States in August 2018, taking into account future uses in the Upper Basin including the LPP, indicate a near zero percent chance of a declared Compact shortage for the Upper Basin through the year 2050 if hydrology remains similar to what the Basin has experienced over the last century. If the hydrology of the future looks more like the last 30 years, including the recent period of historic drought which is similar to drier, hotter climate change predictions, the risk of a declared Compact shortage rises to approximately 13 percent during the same period.

An important point of discussion is "What happens if there is not enough water in the Colorado River system to meet all the allocated uses?"[1] For Lower Division States, the generic answer is that shortages will be applied. For the Upper Division States, the issue is a bit more complicated. The 1922 and 1948 Compacts allocate a share of the total Colorado River supply to the Upper Division States and divide that share among the individual states using a percentage approach. In addition, the Upper Division States are required "not to deplete the flow reaching the Lower Basin" such that the 10-year rolling average at Lee Ferry (the basin dividing point) is less than 75 million acre feet. In the history of the administration of the system there has never been a time when the 10-year rolling average was not met. The 1948 Compact indicates that if such a situation were to occur, the Upper Division States would have to curtail their depletions to correct the problem. It goes on to say that the Commission will decide when and how much curtailment each Upper Division State will be required to take.

Just how this process would be implemented is not certain. Although there is some specific direction in the 1948 Compact, there are no additional, detailed implementation rules or procedures in place at this time. Such a shortage has never happened and is not currently very likely to happen in the near future given that the current 10-year rolling average of deliveries is near 90 million acre feet. Such a potential curtailment process would not be applied only to the Lake Powell Pipeline Project water right but to potentially all the post-1922 Compact water rights in the Upper Basin. The process would be administered from a basin-wide standpoint by the Commission, which is made up of representatives appointed by the Governors of the four Upper Division States and one representative appointed by the President of the United States. Individual state curtailment actions would be determined by the states in accordance with their water rights laws.

In addition, the above-referenced Basin Study identifies a number of "options and strategies to resolve supply and demand imbalances" and encourages the Compact states and stakeholders to

[1] Primarily due to the lack of upstream storage, some Upper Basin water users see a hydrologic shortage somewhere in the Basin nearly every year due to variable and localized dry hydrology.

work together in advancing the same. That work has been ongoing and continues to this day. By way of example:

- The states and stakeholders, including conservation organizations, initiated a "Moving Forward" effort designed to pursue the "next steps" identified in the Reclamation Study. These steps included the formation of a Coordination Team and several workgroups, including Municipal and Industrial Conservation and Reuse, Agricultural Water Conservation and Transfers, and Environmental and Recreational Flows. Each workgroup, in turn, identified future opportunities and potential actions (Reclamation 2015).
- Reclamation has been working on a Climate Change Adaptation Strategy and released a progress report in November 2016 (Reclamation 2014, 2016). The four goals of the Strategy include: an increase in water management flexibility, an enhancement of climate adaptation planning, the improvement of infrastructure resiliency, and the expansion of information sharing. The Climate Change Adaptation Strategy effort has advanced the science in this area and provided funding in furtherance of the implementation of drought response/climate change measures.
- The Basin States, including Utah, have also been actively engaged in the preparation of drought contingency plans (DCPs) designed to further reduce water shortage risks. The draft plans and process documents were released for public review on October 10, 2018 (Reclamation and Colorado River Basin States 2018). These Upper and Lower Basin DCPs will supplement the 2007 Interim Guidelines, which were themselves designed to reduce shortage risks. It is anticipated that the DCPs will be fully negotiated and implemented well in advance of any construction activity associated with LPP. The final DCPs may include a variety of voluntary state water use reductions, new reservoir drought operation protocols, demand management, and system conservation programs with associated water banking.
- Reclamation, in coordination with the Commission and Basin States, has begun to run what is being referred to as a "stress test" approach to modelling , utilizing the 1988 to 2015 hydrology, which includes the current historic drought. This recent 28-year period is a more conservative estimate of future water supply and assumes less water is available than under the climate change predictions used in the Basin Study. This conservative future supply scenario planning will assist the Basin States and Reclamation in identifying approaches to water development and use that will support future reservoir storage levels and avoid reservoir levels falling below critical elevations triggering shortage or interruption of hydroelectric power generation.

Though the Basin States are diligently working on risk mitigation strategies, there is no imminent threat to LPP supplies. It must not be forgotten that the availability of water under the governing Colorado River Compacts, unlike that available under state allocation systems, is not based on a priority or prior appropriation approach. Although LPP may be built later in time than other projects that does not mean LPP will be "called out" under the Compacts before other projects in the basin may suffer a curtailment.

3.1.3. Applicant Is Prepared for Any Interim Curtailment

Finally, it should be noted that even if there is an interruption of LPP deliveries due to a Colorado River system shortage declaration, it would be temporary in nature, may not entail more than a partial curtailment of LPP deliveries, and would be accommodated under applicable comprehensive water supply plans. Project beneficiaries would, for a period of time, rely on underground storage, enhanced groundwater pumping, and other interim measures. Such a low risk eventuality, for which a prudent back-up plan is nevertheless in place, does not affect the viability of this essential second source of supply for southwestern Utah. A determination of the level of acceptable risk should be, and has been, made at the state and local level.

4. References

Kem C. Gardner Policy Institute at the University of Utah (Policy Institute). 2018. Technical Memorandum: Washington County Long-Term Projection Scenarios. January.

U.S. Bureau of Reclamation (Reclamation). 2018. August 2018 Colorado River Modeling Results.

_____. 2016. Climate Change Adaptation Strategy: 2016 Progress Report. November.

_____. 2015. Colorado River Basin Stakeholders Moving Forward to Address Challenges Identified in the Colorado River Basin Water Supply and Demand Study: Phase 1 Report. May.

_____. 2014. Climate Change Adaptation Strategy. November.

_____. 2012. Colorado River Basin Water Supply and Demand Study. December.

U.S. Bureau of Reclamation (Reclamation) and Colorado River Basin States. 2018. Draft Agreement Concerning Colorado River Drought Contingency Management and Operations. October.

U.S. Bureau of Reclamation (Reclamation) and the State of Utah. 1996. Assignment of Water Right No. 41-3479 (A30414d) from the United States of America to the State of Utah. Available at: https://waterrights.utah.gov.

U.S. Environmental Protection Agency (EPA). 2013. Water Audits and Water Loss Control of Public Water Systems. Office of Water (4606M). EPA 816-F-13-002. July.

Utah Division of Water Resources (UDWRe). 2018. 2015 Municipal and Industrial Water Use Data. June.

_____. 2016. LPP Final Study Report 19, Climate Change Report and Water Needs Assessment. April.

Appendix A. U.S. Bureau of Reclamation Exchange Contract

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLORADO RIVER STORAGE PROJECT
FLAMING GORGE STORAGE UNIT

CONTRACT FOR EXCHANGE OF WATER
LAKE POWELL PIPELINE

BETWEEN THE UNITED STATES OF AMERICA
AND THE STATE OF UTAH

THIS CONTRACT, made this _____ day of _____, 20___, under the Act of June 17, 1902 (32 Stat. 388), and acts amendatory thereof and supplementary thereto, and particularly the Colorado River Storage Project (CRSP) Act of April 11, 1956 (43 U.S.C. §§ 620, et seq.) (CRSP Act), and the Reclamation Project Act of 1939, Section 14 (43 U.S.C. § 389), all collectively referred to as the Federal Reclamation Laws, is between the UNITED STATES OF AMERICA (United States), acting through the Bureau of Reclamation (Reclamation) represented by the Contracting Officer executing this Contract, and the STATE OF UTAH, Utah Board of Water Resources (Board).

RECITALS

a. The CRSP Act authorized construction and operation and maintenance (O&M) of facilities for the purposes of, among other things, making it possible for the states of the Colorado River Upper Basin, including the State of Utah to utilize their apportionments of water under the 1922 Colorado River Compact and the 1948 Upper Colorado River Basin Compact (collectively Compacts).

b. The United States constructed the Flaming Gorge (FG) Unit, as an initial storage unit of CRSP, as authorized by the CRSP Act. The FG Unit is located on the Green River in the State of Utah and impounds Flaming Gorge Reservoir which lies within the States of Utah and Wyoming. Flaming Gorge Dam is located on the upper main-stem of the Green River in northeastern Utah.

c. The United States constructed the Glen Canyon Unit (GC), as an initial storage unit of CRSP, as authorized by the CRSP Act. The GC Unit resides on the Colorado River in the State of Arizona and impounds Lake Powell which lies within the States of Arizona and Utah. Glen Canyon Dam is located in the Upper Colorado River Basin, approximately 15 miles upstream from Lee Ferry. The Colorado River Compact designates Lee Ferry as the point dividing the Upper and Lower Colorado River Basins.

d. Below the FG Dam, the Green River supports populations of four endangered native fishes. The Upper Colorado River Endangered Fishes Recovery Program (Recovery Program) was established in 1988 under an agreement signed by Reclamation and the states of Colorado, Utah and Wyoming to recover the endangered fishes while allowing for continued water development in the Upper Basin. Operation of FG Dam influences downstream flow and temperature regimes, the ecology of the Green River, and recovery of the native fishes. Downstream of the FG Dam the Green River is joined by the Yampa, White and Duchesne Rivers, and portions of each have been designated as critical habitat under provisions of the Endangered Species Act of 1973 (16 U.S.C. § 1531-1544) (ESA). Reclamation's current obligations for the recovery of the endangered fish in the Green River, through implementation of the ESA, were established in the 2006 Record of Decision (2006 ROD) on the Operation of Flaming Gorge Dam Final Environmental Impact Statement (FEIS).

e. Reclamation's commitment, as described in the 2006 ROD, is to manage FG Dam releases in Reach 1 (immediately below the dam) to meet Reach 2 flow targets, as measured with the United States Geological Survey (USGS) stream gauge on the Green River at Jensen, Utah. The assumption, based on the then projected hydrology and depletions in the 2006 ROD analysis, was that Reach 3 targets measured with the USGS stream gauge on the Green River at Green River, Utah, would be met once Reach 2 targets were met.

f. The CRSP Act authorized the construction of sixteen participating projects including the Central Utah Project (CUP). Because of its size and complexity, Reclamation divided the CUP into six units to be built in two phases. The "Initial Phase" of the CUP included four units, of which three have been fully constructed, with the remaining unit nearing completion. The "Ultimate Phase" of the CUP consisted of the Uintah and Ute Units with only the Uintah Unit being partially developed. In 1992, in the Central Utah Project Completion Act (CUPCA) (Pub. L. 102-575), Section 501(a)(3) Congress stated that there is no present intent to proceed with Ultimate Phase construction.

g. In 1996, when CUP funding was modified, Reclamation assigned the water right associated with the Ultimate Phase portion of the CUP, No. 41-3479 (A30414d) (as numbered by the Utah State Engineer), to the State of Utah through the Board of Water Resources (Assigned Water Right). The Board desires to put the Assigned Water Right to beneficial use.

h. The March 12, 1996 Assignment agreement for the Assigned Water Right (Assignment Agreement) includes the provision "Upon release from Flaming Gorge Reservoir, said water right can be developed, diverted and perfected by the State of Utah as permitted by law. The State of Utah agrees that if it stores water in or benefits directly from the

Colorado River Storage Project Facilities, the state of Utah will enter into a water service contract with the United States." (Assignment Provision) (Exhibit A).

i. This Contract is one of two contracts that will satisfy the Assignment Provision for the Board's interest in the Assigned Water Right. The Board is requesting to enter into two separate contracts for the Assigned Water Right; this contract is for 86,249 acre-feet of water and is intended for the development of the Lake Powell Pipeline Project which will divert from Lake Powell near Glen Canyon Dam. The remaining 72,641 acre-feet will be under a separate and distinct contract and is intended to be used in the development along the Green River (Green River Block).

j. The Lake Powell Pipeline Development Act (U.C.A. 73-28-101), enacted in 2006, provided for development, construction, operation, maintenance, repair and replacement of the project. No new federal infrastructure construction is required or anticipated as a result of this contract, nor does it contemplate or necessitate any change in the operations of the FG or GC Storage units.

k. The Board desires to develop the Assigned Water Right in a manner legally conforming to the Assignment Provision of the Assignment Agreement, and is willing to forbear the diversion of a portion of the natural flows to which the State is entitled under the Compacts, and allow these flows to contribute to meeting the ESA Recovery Program Requirements in Reaches 1 and 2. This will assist Reclamation in meeting its obligations under the 2006 ROD, and in addition, the Reach 3 responsibilities of Recovery Program parties. In exchange, the Board will deplete an equal amount of Project Water from FG Unit releases throughout the year and available for exchange at Lake Powell as more fully described herein. This Contract does not entitle the Board to call for releases from FG.

l. Under Section 14 of the Reclamation Project Act of 1939, (43 U.S.C. § 389), the Secretary is authorized to "enter into such contracts for exchange…of water [or] water rights…as in his judgment are necessary and in the interests of the United States."

m. The Secretary has determined that this exchange is in the interests of the United States because it supports both the Board's desire to develop its apportionment under the Compacts while improving Reclamation's ability to meet flow recommendations.

n. Under Utah Code section 73-10-14 the Board is authorized to enter into contracts with federal agencies "on behalf of the state for any purpose which relates to the development, conservation, protection and control of the water and power resources of the state." The Board authorized this Contract because it will allow Utah to develop its water allocation under the Compacts while improving Reclamation's ability to reach target flows for the endangered fishes.

NOW THEREFORE, in consideration of the mutual and dependent covenants herein contained, Reclamation and the Board agree as follows:

1. DEFINITIONS
   For purposes of this Contract only, the following terms are given the definitions below:

   (a) Assigned Water Right: means an interest in Application to Appropriate number A30414d (as numbered by the Utah State Engineer) for the diversion of 447,500 acre-feet with 158,890 acre-feet of depletion or segregated portions of A30414d and including change applications which have or will be filed based on A30414d.

   (b) Compact Entitlement Water: means the Utah apportionment of water under Article III of the Upper Colorado River Basin Compact ("Upper Basin Compact") and regulated by the State under Article XV(b) of the Upper Basin Compact which expressly recognizes each compacting state's rights and powers to regulate within its boundaries the appropriation, use, and control of water apportioned and available to the states by the Colorado River and Upper Colorado River Basin Compacts.

   (c) ESA Recovery Program Requirements: means the FG 2006 ROD Commitment 10, which requires coordination with the Recovery Program. A technical working group, consisting of biologists and hydrologists from Reclamation, the Western Area Power Administration, and the Fish and Wildlife Service, will annually propose to the existing Flaming Gorge Working Group an initial flow regime that implements, to the extent possible, the Flow and Temperature Recommendations. This process will concurrently fulfill informal consultation and coordination requirements of the ESA for the action agencies.

   (d) Project Water: means all CRSP water released from the Flaming Gorge Unit and delivered to Lake Powell.

   (e) Third-Party Contract: means any contract entered into between the Board and a third party for the beneficial use of the Assigned Water Right.

2. PURPOSE

   The purpose of this Contract is to comply with the Assignment Provision and authorize the exchange of the Assigned Water Right for Project Water. Additionally, the purpose of this Contract is to support compliance with the 2006 ROD by both Reclamation and the Board.

3. OTHER AGREEMENTS AND OBLIGATIONS

   a. This Contract will not alter, modify, or amend the duties, responsibilities,

relationships, or conditions outlined in any agreements not specifically mentioned in this Contract.

b. This Contract does not alter, modify, or amend the Assigned Water Right's priority date, points of diversion, nature of or places of use, or any other conditions not specifically mentioned in this Contract, nor does it result in any relinquishment of the Assigned Water Right.

c. Prior to the exercise of the exchange of portions of the Assigned Water Right owned by the Board for Project Water, the Board will be responsible for filing any necessary water right change applications, obtaining approval from the Utah State Engineer's Office, and providing copies of the application approval to the United States at no cost to the United States.

4. TERM

This Contract shall become effective upon written notification by the Board that the Lake Powell Pipeline is able to deliver any portion of the water available to the Board through diversions at Lake Powell and will remain in effect for fifty (50) years, unless terminated under the provisions of this Contract. The Board may request renewal of the Contract by providing written request to the United States on or before two years prior to the date of expiration. Reclamation will provide the Board written notice of the renewal deadline at least sixty (60) days prior to the deadline. Failure by either party to act will not act as an automatic termination of this Contract or preclude the opportunity for the parties to renew the Contract. Renewal shall be granted upon such terms and conditions as may be mutually agreeable between the United States and the Board based upon Federal Reclamation laws and policy in effect at the time of renewal, and will include an update of pricing, accounting and contract term provisions.

5. MODIFICATION AND TERMINATION

The terms and conditions of this Contract may be amended, or the Contract may be terminated on January 1 of any year, if the Board and the United States mutually agree in writing. It is the intent of the United States and the Board that this Contract remain in force for the full term of fifty (50) years, unless terminated or superseded by a mutually agreed upon contract.

6. EXCHANGE OF WATER

For this exchange, the Board will forbear the depletion of a portion of the Green River and tributary flows to which it is entitled, and instead allow that portion of the Compact Entitlement Water rights to contribute to meeting the ESA Recovery Program Requirements in Reaches 1 and 2. This will assist Reclamation in meeting its obligations under the 2006

ROD. In exchange, the Board is authorized to deplete an equal amount of Project Water that is released from the FG Unit and available for exchange at Lake Powell. On an annual basis, the direct flows that will be left in the river and used to meet ESA requirements will equal the FG project releases used for depletion by the Board under the Assigned Water Right. The Board will not make calls for releases from FG Unit storage; rather it will use the Project Water as released in accordance with the flexibility in Reclamations operations under the 2006 ROD.

7. AMOUNT OF WATER TO BE EXCHANGED

   a. The Board and the United States acknowledge that the implementation of the exchange contemplated in this Contract is consistent with and remains subject to Reclamation's Section 7 ESA Recovery Program requirements and obligations under the 2006 ROD.

   b. Each water year, the Board may deplete under this Contract up to 86,249 acre-feet, which is the amount of water that would have been available to deplete as part of its Compact Entitlement Water, but which has instead been forborne and designated to meet ESA Recovery Program Requirements in Reaches 1 and 2, or to meet other CRSP purposes.

   c. This Contract is intended only for the exchange of a portion of the Assigned Water Right for Project Water, and no other water right owned by the Board or any other person or entity. This Contract does not establish any precedent or right for other exchanges.

8. RATE AND METHOD OF PAYMENT

   a. The Board agrees to make annual payments to the United States as compensation for the benefits received under this Contract. The annual payment is based on the annual contract rate multiplied by the number of acre-feet depleted each year. The initial annual contract rate is $19.00 per acre-foot (Contract Rate). The Contract Rate for each acre-foot of exchange water depleted will be adjusted every 5 years by applying the estimated historical average of Reclamation's Construction Cost Index (CCI) of 2.05% annually. Calculation of indexing begins December 31, 2020, with the first Contract Rate adjustment occurring December 31, 2025. The 5 year adjustments of the Contract Rate through the contract term, as defined in Article 4, are listed in Exhibit B.

   b. The Board agrees to make annual payments to the United States for a proportionate share of the annual operation and maintenance costs allocable to consumptive use for the FG Unit. This amount is equal to $3.37 per acre-foot (O&M Assessment). This

will be assessed on the amount of annual depletions that occur under Third-Party Contracts.

c. The Board agrees to make annual payments to the United States for an Energy Savings Assessment. This assessment represents payment for the additional benefit the Board receives from the elevation of Lake Powell providing reduced pumping lift energy costs. The Board agrees to pay, per acre-foot depleted, 50 percent of the energy savings calculation as set forth in Exhibit C (Energy Savings Assessment). Upon the effective date of this Contract, as provided under Article 4, the Energy Savings Assessment will be calculated by Reclamation in accordance with the formula in Exhibit C. The annual Energy Savings Assessment will be reviewed and adjusted, applying the formula in Exhibit C, on the same schedule as the Contract Rate adjustment described in Article 8a.

d. The sum of the Contract Rate, O&M Assessment, and Energy Savings Assessment multiplied by the number of acre-feet depleted by the Board each year will be the amount of the "Annual Payment." The first Annual Payment will be due upon written notification from the Board to Reclamation as provided in Article 4. The amount of such payment shall be based upon the extent of depletions estimated to occur in the first year based on the water supply under one or more Third-Party Contracts. Subsequent payments shall be made in advance on or before April 1 of each year thereafter so long as this contract is in effect. The Board will provide Reclamation an estimate of annual depletions by January 31 of each year, based on the water supply under Third-Party Contracts and the United States will bill the Board by March 1 of each year based upon such estimate. The Board agrees to pay the United States within 30 days of receipt of said bill. If the actual amount of depletion is different from the amount estimated for the Annual Payment, any adjustments will be made by the Contracting Officer on the next annual billing.

e. The Board's payments made under this Contract will be credited to the Basin Fund, as required by Section 5 of the Colorado River Storage Project Act, 43 U.S.C. 620d.

9. ACCOUNTING

a. Water right applications will be filed with the Utah State Engineer in accordance with State Law for all diversions under A30414d. The Board agrees that applications it must authorize will:
   i. Establish the amount of water each water user is entitled to divert and deplete; and
   ii. Establish the points of diversion.

b. The Board agrees, by May 1, to provide to the Contracting Officer an annual verification that the water available in priority under the Assigned Water Right, as

determined by the Utah Division of Water Rights,meets or exceeds the estimated annual depletions provided by the Board under Article 8(d)

c. The Board will provide annual reports to the Contracting Officer that document, on at least a monthly basis, depletion amounts for the exchange water by January 31 for the previous calendar year.

d. The Board will hold the United States harmless for damage or claim of damage of any nature whatsoever, including property damage, personal injury or death arising out of or connected with the control, carriage, handling, use, disposal, or distribution of exchange water by the Board.

10. THIRD PARTY CONTRACTS

a. The Board will require, as a condition of its approval of the use of the Assigned Water Right a Third-Party Contract. Third-Party Contracts will be between the Board and third-party contractors.
b. The Board will require in all Third-Party Contracts:
    i. That water users install measuring devices on all exchange diversion points; and
    ii. That water users will provide to the Board annual reports of the quantity and beneficial uses of exchange water depleted.

c. The Board will provide the Contracting Officer a copy of each Third-Party Contract for Assigned Water Right water within 30 days of execution.

d. Third-party contracts entered into by the Board for the Assigned Water Right do not create an additional obligation for the United States to satisfy obligations under those Third-Party Contracts beyond its water delivery obligation provided for under this exchange Contract.

11. ENVIRONMENTAL COMPLIANCE

Compliance with the provisions of the National Environmental Policy Act (NEPA), as amended, and the Endangered Species Act (ESA), as amended, is a prerequisite to executing this Contract. Compliance was addressed through [NEPA reference document number], completed [date].

12. SEVERABILITY

If any provisions of this Contract or the application thereof to any person or circumstances shall be invalid or unenforceable to any extent, the remainder of this Contract and the application of such provisions to other persons or circumstances shall not be affected thereby and may be enforced to the greatest extent permitted by law.

13. NOTICES

Any notice, demand, or request authorized or required by this Contract shall be deemed to have been given to the United States, Reclamation, and the Contracting Officer, on behalf of the Board, when mailed, postage prepaid, or delivered to:

Regional Director
Upper Colorado Region
Bureau of Reclamation
125 South State Street
Room 8100
Salt Lake City, Utah, 84138-1102

and on behalf of the United States to the Board, when mailed, postage prepaid, or delivered to:

Director
Utah Board of Water Resources
1594 West North Temple
Salt Lake City, UT 84116

PO Box 146201
Salt Lake City, UT 84114-6201

14. STANDARD PROVISIONS

The Standard Provisions applicable to this contract are listed below. The full text of these articles is attached as Exhibit D and is hereby made a part of this contract.

a. CHARGES FOR DELINQUENT PAYMENTS
b. GENERAL OBLIGATION – BENEFITS CONDITIONED UPON PAYMENT
c. CONTINGENT UPON APPROPRIATION OR ALLOTMENT OF FUNDS
d. OFFICIALS NOT TO BENEFIT
e. ASSIGNMENT LIMITED – SUCCESSORS AND ASSIGNS OBLIGATED
f. BOOKS, RECORDS, AND REPORTS
g. PROTECTION OF WATER AND AIR QUALITY
h. RULES, REGULATIONS AND DETERMINATIONS
i. EQUAL EMPLOYMENT OPPORTUNITY
j. COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS

k. CERTIFICATION OF NONSEGREGATED FACILITIES
l. MEDIUM FOR TRANSMITTING PAYMENTS
m. CONTRACT DRAFTING CONSIDERATIONS
n. CONSTRAINTS ON THE AVAILABILITY OF WATER

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The United States and the Board agree, by their signatures below, to be bound to this contract beginning on the date written above.

UNITED STATES OF AMERICA

Approved:

Regional Director	Office of the Regional Solicitor
Bureau of Reclamation	

CONTRACTOR

State of Utah	
Director, Utah Board of Water Resources	AG's Representative

EXHIBIT D

STANDARD PROVISIONS

The Contractor, as referred to in the following Standard Provisions, shall be the State of Utah, acting through the Utah Board of Water Resources (Board).

(a) CHARGES FOR DELINQUENT PAYMENTS

(1) The Contractor shall be subject to interest, administrative, and penalty charges on delinquent payments. If a payment is not received by the due date, the Contractor shall pay an interest charge on the delinquent payment for each day the payment is delinquent beyond the due date. If a payment becomes 60 days delinquent, the Contractor shall pay, in addition to the interest charge, an administrative charge to cover additional costs of billing and processing the delinquent payment. If a payment is delinquent 90 days or more, the Contractor shall pay, in addition to the interest and administrative charges, a penalty charge for each day the payment is delinquent beyond the due date, based on the remaining balance of the payment due at the rate of 6 percent per year. The Contractor shall also pay any fees incurred for debt collection services associated with a delinquent payment.
(2) The interest rate charged shall be the greater of either the rate prescribed quarterly in the Federal Register by the Department of the Treasury for application to overdue payments, or the interest rate of 0.5 percent per month. The interest rate charged will be determined as of the due date and remain fixed for the duration of the delinquent period.
(3) When a partial payment on a delinquent account is received, the amount received shall be applied first to the penalty charges, second to the administrative charges, third to the accrued interest, and finally to the overdue payment.

(b) GENERAL OBLIGATION—BENEFITS CONDITIONED UPON PAYMENT

(1) The obligation of the Contractor to pay the United States as provided in this contract is a general obligation of the Contractor notwithstanding the manner in which the obligation may be distributed among the Contractor's water users and notwithstanding the default of individual water users in their obligation to the Contractor.
(2) The payment of charges becoming due pursuant to this contract is a condition precedent to receiving benefits under this contract. The United States shall not make water available to the Contractor through CRSP project facilities during any period in which the Contractor is in arrears in the advance payment of water rates or any operation and maintenance charges due the United States. The Contractor shall not deliver water under the terms and conditions of this contract for lands or parties that are in arrears in the advance payment of water rates and operation and maintenance charges as levied or established by the Contractor.

(c) CONTINGENT ON APPROPRIATION OR ALLOTMENT OF FUNDS

The expenditure or advance of any money or the performance of any obligation of the United States under this Contract shall be contingent upon appropriation or allotment of funds. Absence of appropriation or allotment of funds shall not relieve the Contractor from any obligations under this Contract. No liability shall accrue to the United States in case funds are not appropriated or allotted.

(d) OFFICIALS NOT TO BENEFIT

No Member of or Delegate to the Congress, Resident Commissioner, or official of the Contractor shall benefit from this Contract other than as a water user or landowner in the same manner as other water users or landowners.

(e) ASSIGNMENT LIMITED—SUCCESSORS AND ASSIGNS OBLIGATED

The provisions of this Contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this Contract or any right or interest therein by either party shall be valid until approved in writing by the other party.

(f) BOOKS, RECORDS, AND REPORTS

The Contractor shall establish and maintain accounts and other books and records pertaining to administration of the terms and conditions of this Contract. Subject to applicable Federal laws and regulations, each party to this Contract shall have the right during office hours to examine and make copies of the other party's books and records relating to matters covered by this Contract.

(g) PROTECTION OF WATER AND AIR QUALITY

(1) Project facilities used to make available and deliver water to the Contractor shall be operated and maintained in the most practical manner to maintain the quality of the water at the highest level possible as determined by the Contracting Officer: Provided, That the United States does not warrant the quality of the water delivered to the Contractor and is under no obligation to furnish or construct water treatment facilities to maintain or improve the quality of water delivered to the Contractor.

(2) The Contractor shall comply with all applicable water and air pollution laws and regulations of the United States and the State of Utah; and shall obtain all required permits or licenses from the appropriate Federal, State, or local authorities necessary for the delivery of water by the Contractor; and shall be responsible for compliance with all Federal, State, and local water quality standards applicable to surface and subsurface drainage and/or discharges generated through the use of Federal or Contractor facilities or Project water provided by the Contractor within the Contractor's Project Water Service Area.

(3) This article shall not affect or alter any legal obligations of the Secretary of the Interior to provide drainage or other discharge services.

(h) RULES, REGULATIONS, AND DETERMINATIONS

(1) The parties agree that the delivery of water or the use of Federal facilities pursuant to this contract is subject to Federal reclamation law, as amended and supplemented, and the rules and regulations promulgated by the Secretary of the Interior under Federal reclamation law.

(2) The Contracting Officer shall have the right to make determinations necessary to administer this contract that are consistent with its expressed and implied provisions, the laws of the United States [and the State(s) of Utah], and the rules and regulations promulgated by the Secretary of the Interior. Such determinations shall be made in consultation with the Contractor.

(i) EQUAL EMPLOYMENT OPPORTUNITY

(1) During the performance of this Contract, the Contractor agrees as follows:

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, disability, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, disability, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

(b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, disability, or national origin.

(c) The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the labor union or workers' representative of the Contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, as amended (EO 11246), and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Contractor will comply with all provisions of EO 11246, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The Contractor will furnish all information and reports required by EO 11246, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Contracting Agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be canceled, terminated or suspended, in whole or in part, and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in EO 11246, and such other sanctions may be imposed and remedies invoked as provided in EO 11246, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Contractor will include this clause (1), including all provisions of paragraphs (a) through (g), in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of EO 11246, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request that the United States enter into such litigation to protect the interests of the United States.

(2) The Contractor hereby agrees to incorporate, or cause to be incorporated, clause (1) as it appears above, including paragraphs numbered (a) through (g), into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 C.F.R., Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to grant, contract, loan, insurance, or guarantee or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee.

(3) The Contractor will be bound by clause (1) with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the Contractor so participating is a state or local government, clause (1) is not applicable to any agency, instrumentality, or subdivision of such government which does not participate in work on or under the contract.

(4) The Contractor will assist and cooperate actively with the Contracting Officer and the Secretary of Labor in obtaining the compliance of Contractors and subcontractors with this article, number 14, and the rules, regulations, and relevant orders of the Secretary of Labor; that it will furnish the Contracting Officer and the Secretary of Labor such information as they may require for the supervision of such compliance; and that it will otherwise assist the Contracting Officer in the discharge of his or her primary responsibility for securing compliance.

(5) The Contractor will refrain from entering into any contract or contract modification subject to EO 11246 with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts

pursuant to EO 11246 and will carry out such sanctions and penalties for violation of this article, number 14, as may be imposed upon contractors and subcontractors by the Contracting Officer or the Secretary of Labor pursuant to Part II, Subpart D, of EO 11246. In addition, the Contractor agrees that if it fails or refuses to comply with these undertakings, the Contracting Officer may take any or all of the following actions: cancel, terminate, or suspend, in whole or in part, this Contract; refrain from extending any further assistance to the Contractor under the program with respect to which its failure or refusal occurred until satisfactory assurance of future compliance has been received from the contractor; refer the case to the Department of Justice for appropriate legal proceedings.

(j) COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS

(1) The Contractor shall comply with Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352; 42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (Pub. L. 93-112, Title V, as amended; 29 U.S.C. § 791, et seq.), the Age Discrimination Act of 1975 (Pub. L. 94-135, Title III; 42 U.S.C. § 6101, et seq.), Title II of the Americans with Disabilities Act of 1990 (Pub. L. 101-336; 42 U.S.C. § 12131, et seq.), Title III of the Americans with Disabilities Act of 1990 (Pub. L. 101-336; 42 U.S.C. § 12181, et seq.), and any other applicable civil rights laws, and with the applicable implementing regulations and any guidelines imposed by the U.S. Department of the Interior and/or Bureau of Reclamation.

(2) These statutes prohibit any person in the United States from being excluded from participation in, being denied the benefits of, or being otherwise subjected to discrimination under any program or activity receiving financial assistance from the Bureau of Reclamation on the grounds of race, color, national origin, disability, or age. By executing this Contract, the Contractor agrees to immediately take any measures necessary to implement this obligation, including permitting officials of the United States to inspect premises, programs, and documents.

(3) The Contractor makes this agreement in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property discounts, or other Federal financial assistance extended after the date hereof to the Contractor by the Bureau of Reclamation, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Contractor recognizes and agrees that such Federal assistance will be extended in reliance on the representations and agreements made in this article and that the United States reserves the right to seek judicial enforcement thereof.

(4) Complaints of discrimination against the Contractor shall be investigated by the Contracting Officer's Office of Civil Rights.

(k) CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor hereby certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments and that it does not permit its employees to perform their services at any location under its control where segregated facilities are maintained. It certifies further that it will not maintain or provide for its employees any

segregated facilities at any of its establishments and that it will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Employment Opportunity clause in this Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, disability, or otherwise. The Contractor further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the Equal Employment Opportunity clause; that it will retain such certifications in its files; and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding $10,000 which is not exempt from the provisions of the Equal Employment Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually). Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

(l) MEDIUM FOR TRANSMITTING PAYMENTS

(1) All payments from the Contractor to the United States under this contract shall be by the medium requested by the United States on or before the date payment is due. The required method of payment may include checks, wire transfers, or other types of payment specified by the United States.1

(2) Upon execution of the contract, the Contractor shall furnish the Contracting Officer with the Contractor's taxpayer's identification number (TIN). The purpose for requiring the Contractor's TIN is for collecting and reporting any delinquent amounts arising out of the Contractor's relationship with the United States.

(m)CONTRACT DRAFTING CONSIDERATIONS

This Contract has been negotiated and reviewed by the parties hereto, each of whom is sophisticated in the matters to which this Contract pertains. Articles 1 through 14 of this Contract have been drafted, negotiated, and reviewed by the parties, and no one party shall be considered to have drafted the stated articles.

[1]This language may be modified to state Reclamation's selected method of payment.

(n) CONSTRAINTS ON THE AVAILABILITY OF WATER

(1) In its operation of the Project, the Contracting Officer will use all reasonable means to guard against a condition of shortage in the quantity of water to be made available to the Contractor pursuant to this Contract. In the event the Contracting Officer determines that a condition of shortage appears probable, the Contracting Officer will notify the Contractor of said determination as soon as practicable.

(2) If there is a condition of shortage because of inaccurate runoff forecasting or other similar operational errors affecting the Project; drought and other physical or natural causes beyond the control of the Contracting Officer; or actions taken by the Contracting Officer to meet current and future legal obligations, then no liability shall accrue against the United States or any of its officers, agents, or employees for any damage, direct or indirect, arising therefrom.

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