

ATTACHMENT NO. 1

3. PROJECT DESCRIPTION

In an effort to meet anticipated future demands and the effects of climate change, the Nevada Irrigation District (NID) is compelled to develop a supplemental water supply. Among the natural resources within Nevada and Placer Counties are the water resources of the Bear River. The Bear River and its tributaries – regional water resources sustained by local run-off as well as some imported water – travel through Nevada and Placer Counties. The Bear River is a substantial water supply source available to meet NID's future water supply demands.

NID is proposing to construct a new onstream storage facility. The new facility is the Centennial Dam and Reservoir. Centennial Dam will be constructed within the Bear River, approximately 8 miles downstream of the existing Rollins Dam. The Centennial Dam will impound 110,000 acre-feet of water. Future hydroelectric facilities are anticipated but are not part of this project. Water diverted at the Centennial Dam site will be conveyed down the Bear River, to points of rediversion at Combie Dam and Camp Far West Dam. From Combie Dam, water will be diverted by gravity to the various points of rediversion as authorized under NID's existing permits and licenses. From Camp Far West Dam water could be diverted by gravity to the place of use identified in License 11118 held by South Sutter Water District (SSWD). Additionally, Centennial Dam will become a point of rediversion for many of NID's existing water rights. Under separate filings, NID will be submitting revisions to pending change petitions and new change petitions as appropriate to add Centennial Dam as a point of rediversion.

There are multiple reasons why NID is in need of the additional water supply represented by this application. One is to meet future water supply needs occasioned by increased demand within NID's boundaries. NID's projected future demands are identified in its treated and raw water master plans. NID is proactive in operating its existing reservoirs in an efficient and conservative manner and to educate its customers on water conservation efforts. Another is to ensure that there is enough supply to meet NID's current demands as climate change impacts NID's operations of its facilities. Predicted changes in climate and future uncertainty in the regulatory requirements demonstrate that NID is more reliant on releases from storage to meet demand and that those releases will occur earlier in the year and more frequently. A substantial portion of NID's demand is met with water diverted by direct diversion. If direct diversion water is not available to be used for supplying at least some of the demand, NID currently does not have sufficient storage to cover current and projected future demands plus minimum carryover for even one full water season.

There is no dispute that predicted changes in California's climate will result in substantial changes in operations of NID's water system. Federal and State climate change predictions indicate more extreme high intensity, short duration precipitation events and longer periods of drought conditions. Predicted warming temperatures resulting in higher snow levels and reduced snow pack, the result is that there will be less available snowmelt for NID to capture under its existing pre and post 1914 water rights. Currently NID's system of reservoirs allow for the capture of runoff to fill the reservoirs while in the earlier part of the water year, direct diversion is utilized to supply demand before withdrawal from storage is necessary. With less runoff from the snow pack, NID will be forced to start releasing water from storage earlier in the year, pulling reservoir levels down earlier and also in larger quantities. This in turn requires more

snow/precipitation to refill the reservoirs and also impacts minimum reservoir carryover storage in times of drought. With reduced snowpack available, NID will become more reliant on runoff occurring nearly simultaneously with precipitation. As part of the predicted changes additional storage capacity to capture runoff from these events when they occur is needed. NID will require additional storage to meet demand as well as allow for larger carryover capacity for times of drought.

It is timely to begin this development now, given the extended period for regulatory review, in order to have these supplies available to meet these requirements when they occur.

In addition to the growing imbalance in NID's demand and its available supply, new storage is required to prudently meet the challenges posed by changing regulatory requirements. It is evident that over the past 3 years, periods of drought, coupled with increasing demand, including environmental regulatory requirements, will result an increasing likelihood that regulations will impose greater restrictions on water suppliers to refrain from direct diversions of instream flows so they may stay within the river system. These may include curtailing the exercise of post 1914 appropriative rights, as was mandated by the State Water Board this year, and future requirements may see more deep curtailments into riparian and pre 1914 rights.

The result of the foregoing is that a storage system that is sized and operated to rely on the use of direct diversion to meet demand is rapidly becoming inadequate; and storage must be added to meet current demand, anticipated growth, and to meet prudent carryover requirements. Furthermore, in times of drought, the storage made available could provide an ancillary regional benefit by directly and indirectly supplying consumptive water needs from storage while allowing natural flows to pass, thereby supporting other downstream users.

In addition, NID recognizes that the combination of limited sites, and the potential need for additional storage by entities dependent on the Bear River watershed for either wheeling/storage purposes, or as a source of consumptive water, means that any proposed storage reservoirs may be able to assist in meeting the regional requirements for storage as well. NID recognizes that while its demand for the full capacity of the additional storage is developing, the benefits of that storage may assist other agencies within the region on an interim basis. Historically, storage resources have been developed for the use of individual water suppliers. NID's planning for the facilities that are the subject of this application incorporates planning for sharing storage benefits, on an interim basis, with other entities with whom it shares the water supplies and conveyance/ storage capacity of the Bear River. The ability to benefit other entities in the region would be subject to acceptable agreements, but, to facilitate such agreements, this application represents a larger place of use that will accommodate such regional benefits. Agreements with regional beneficiaries would be conditioned upon acceptable agreements being reached that insure the storage is available to NID as its demand increases.

NID is committed to securing, protecting and providing reliable water supplies for its customers. Current and future demand, predicted changes in climate, rapidly evolving regulatory requirements, and the practicalities and time inherent in seeking a water right permit for a significant expansion of storage have led NID to move forward now with additional storage projects to secure its water future.

This application is submitted with a petition seeking assignment of State-filed application 5634 for the appropriation of water from the Bear River. The waters of the Bear River subject to Application 5634

originate within Nevada and Placer Counties, and NID is petitioning for the assignment of that application to meet future water needs within those Counties. The location of NID's Centennial Dam Project was identified by the District in a study performed in 1925. It is clear to NID that the 1927 State Filing (Application 5634), based solely on its location and size, was intended for NID's project.

PURPOSE AND NEED

Physical Setting

NID is a diversified water agency that supplies water to nearly 24,000 homes, farms and businesses in Nevada, Placer and Yuba counties in the foothills of Northern California's Sierra Nevada Mountains. Additionally NID provides municipal service to Nevada City, Grass Valley and a portion of Lincoln. NID collects water from the mountain snowpack and stores it in an extensive system of 10 major reservoirs. As water flows to customers in the foothills, it is used to generate clean hydroelectric energy and to provide public recreational opportunities. NID supplies both treated drinking water and irrigation water. NID uses over 450 miles of canals and another 300 miles of pipeline to transport water to customers.

NID's system is commonly divided, for descriptive purposes, into two categories: the Upper Division and Lower Division. The Upper Division is typically described as the source of NID's water supply, coupled with the associated facilities for diverting and storing water, upstream of Spaulding Reservoir which is owned by PG&E. The Lower Division primarily encompasses water rights that have sources and associated facilities downstream of Spaulding Reservoir.

From Upper Division reservoirs, NID water flows through the Bowman-Spaulding Canal, via Fuller Lake, to PG&E's Lake Spaulding. It is then routed either down the South Yuba Canal to Upper Deer Creek, Scotts Flat and the Nevada City-Grass Valley areas; or down the PG&E Drum System along the Bear River where water is used to generate power for NID and PG&E before supplying NID customers in southern Nevada County and Placer County. The development of NID's existing conveyance system in the Lower Division began during the mid-1800's. With proximity to the Sacramento urban area, an abundance of natural resources and spectacular beauty, both Nevada County and Placer Counties are home to a growing population currently estimated at more than 465,500 people. Overall, NID provides water to irrigate 32,000 acres, resulting in approximately \$98,000,000 dollars generated within Placer and Nevada Counties. In addition, while no expansion of its boundaries is contemplated in connection with this application, NID estimates that an additional 61,000 irrigable acres, within its boundaries, could become productive if water supplies were made available.

NID supplements Bear River with water diverted from the Middle Yuba River and Canyon Creek to meet some of the Bear River service area demand. This new storage project would allow NID to rely on that Middle Yuba River and Canyon Creek water to meet demand within the Yuba River watershed, which is served through its Deer Creek System.

Present NID Water Use

NID currently meets its needs through a variety of water supplies, extending those supplies through its implementation of various water conservation measures. NID utilizes approximately 180,000 acre-feet of water each year, from various pre-1914 rights and post-1914 appropriative permitted and licensed water rights. Additionally, NID can annually purchase additional water from PG&E, up to 54,361 acre-feet per year, but that water is supplied under a limited term contract, it is not guaranteed, and there is no assurance of its availability from year to year.

NID's mission is to secure a dependable, quality water supply, while striving to be good stewards of the watershed and conserve the available resources. NID has adopted an Urban Water Management Plan and is implementing many of the Demand Management Measures (DMM's). NID also has adopted a Drought Contingency Plan and an Agricultural Water Management Plan and has in its rules and regulations a policy against waste of water. NID's water conservation practices and conservative operation of its reservoirs allows it to stretch its precious water supplies as far as possible. NID has not expanded its storage capacity since 1962.

Projected Water Supply Needs

One third of California's water comes from the Sierra Nevada Mountains. A warming climate is expected to affect the supply of water in the Sierra Nevada, impacting nearly every resident of California, but also the uses and management of water in the foothills and valleys adjoining the Sierra Nevada. As predicted in the National Climate Assessment, warmer storms, more precipitation, reduced snow pack and snow pack runoff will put an emphasis on water storage to meet future demands. As described above, changes in regulatory requirements and anticipated future curtailments will also drive the need for additional storage.

NID's raw water master plan has projected increase in demands of approximately 47,000 acre-feet per year for new residential, agricultural and municipal development by year 2032, which includes 24,500 acre-feet per year for the Bear River service area. The time horizon for that demand is less than 18 years and growth within the District will continue to be greater beyond that time frame. In addition to future demand, the changes in California's climate are predicted to result in longer periods of moderate to extreme drought. To help offset those drought conditions, NID is proactively initiating the process today to increase its storage capacity. To protect its customers as the demands increase, carryover storage targets, and the capacity to meet those targets, also need to increase to have enough carryover storage available during extended dry conditions. The additional storage along with NID's prudent and conservative operation of its storage facilities will go a long way in helping protect NID customers during extended dry conditions.

PETITIONS AND APPLICATION

Petitions

NID requests that the State Board, pursuant to California Code of Regulations, Title 23, section 736(a), treat this application as a petition for assignment of Application 5634, filed pursuant to section 10500 *et seq.* of the Water Code. NID asks that the assigned portion of Application 5634 be conformed to the diversion, re-diversion, storage and regime proposed under this application.

Diversion Amounts and Rates

NID will utilize existing facilities and the new Centennial Dam and Reservoir to deliver water diverted under this application.

Beneficial Use

The water appropriated under this application will be put to use for domestic, municipal, irrigation, stock watering, recreational and power purposes within the place of use as shown on the attached map.

PRIOR RIGHTS

NID is seeking assignment of State-filed application for the appropriation of water from the Bear River. Though the Bear River is considered fully appropriated for a portion of the year, this petition and application are consistent with the Declaration of Fully Appropriated Stream Systems, which states that “petitions for assignment of existing state filings....together with accompanying applications, which implement Water Code section 10500 *et seq.*, and which propose appropriation of water from stream systems identified in the Declaration as fully appropriated, should be accepted for filing.” (In the Matter of the Declaration of Fully Appropriated Stream Systems in California (1998) Order WR 98-08, § 4.4).

The waters of the Bear River subject to Application 5634 originates within Nevada and Placer Counties, and NID is authorized to petition for the assignment of that application to meet future water needs within those Counties.

4. PURPOSE OF USE, DIVERSION/STORAGE AMOUNT AND SEASON

a. Purpose of Use

PURPOSE OF USE	DIRECT DIVERSION				STORAGE		
	Amount		Season of Diversion		Amount	Season of Collection	
	Rate (cfs)	Acre-feet per year	Beginning Date	Ending Date	Acre-feet per year	Beginning Date	Ending Date
Irrigation	400	111,400 ¹	January 1	December 31	110,000 ²	January 1	December 31
Municipal	400	111,400 ¹	January 1	December 31	110,000 ²	January 1	December 31
Industrial	400	111,400 ¹	January 1	December 31	110,000 ²	January 1	December 31
Domestic	400	111,400 ¹	January 1	December 31	110,000 ²	January 1	December 31
Recreation					110,000 ²	January 1	December 31
Incidental Power	400	111,400 ¹	January 1	December 31	110,000 ²	January 1	December 31

¹ Total annual amount requested under all uses for direct diversion is 111,400 Acre-Feet per annum.

² Total annual amount requested under all uses for storage is 110,000 Acre-Feet per annum.

The Bear River has been declared to be fully appropriated during a portion of the proposed diversion season. NID understands that any portion of this application that is not assigned to the State filing would be subject to the conditions of the fully appropriated stream determination and would have its season adjusted accordingly.

5. SOURCES AND POINTS OF DIVERSION/REDIVERSION

a. Sources and Points of Diversion (POD)/Points of Rediversion (PORD)

POD/ PORD #(51) Bear River thence Feather River (Centennial Reservoir Dam)

POD/ PORD #(57) Bear River thence Feather River (Centennial Pump Station)

POD/ PORD #(32) Bear River thence Feather River (Combie Reservoir Dam)

POD/ PORD #(30) Auburn Ravine, tributary to Eastside Canal thence Cross Canal thence Sacramento River (Auburn Ravine I Canal)

POD/ PORD #(31) Auburn Ravine, tributary to Eastside Canal thence Cross Canal thence Sacramento River (Hemphill Canal)

POD/ PORD #(33) Orr Creek thence Coon Creek (Orr Creek Diversion Dam)

POD/ PORD #(34) Coon Creek, tributary to Eastside Canal thence Cross Canal thence Sacramento River (Camp Far West Canal)

POD/ PORD #(35) Doty Ravine thence Coon Creek (Doty South Canal)

POD/ PORD #(24) Little Wolf Creek thence Bear River (Wolf-Hannaman Diversion Dam)

POD/ PORD #(53) Coon Creek, tributary to Eastside Canal thence Cross Canal thence Sacramento River (Whiskey Diggins Canal)

POD/ PORD #(52) Rock Creek tributary to Dry Creek thence Coon Creek (Rock Creek Dam)

POD/ PORD #(54) Bear River thence Feather River (Camp Far West Reservoir Dam)

b. State Planar and Public Land Survey Coordinate Description

POD/ PORD #¹	POINT IS WITHIN (40-acre subdivision)	SECTION	TOWNSHIP	RANGE	BASE AND MERIDIAN
#(51)	SW ¼ of NW ¼	30	T14N	R9E	MDB&M
#(57)	SE ¼ of NE ¼	32	T15N	R9E	MDB&M
#(32)	SW ¼ of NW ¼	2	T13N	R8E	MDB&M
#(30)	NE ¼ of NE ¼	14	T12N	R7E	MDB&M
#(31)	NW ¼ of NE ¼	13	T12N	R6E	MDB&M
#(33)	SE ¼ of NE ¼	18	T13N	R8E	MDB&M
#(34)	SW ¼ of SW ¼	13	T13N	R7E	MDB&M
#(35)	SW ¼ of NE ¼	36	T13N	R6E	MDB&M
#(24)	NW ¼ of NE ¼	28	T14N	R7E	MDB&M
#(53)	SW ¼ of NW ¼	23	T13N	R7E	MDB&M
#(52)	SE ¼ of SW ¼	28	T13N	R8E	MDB&M
#(54)	NE ¼ of SW ¼	21	T14N	R6E	MDB&M

¹ For uniformity, the POD/PORD numbering is same number system as identified on other District water rights/change petitions.

POD/ PORD #¹	NORTHING (Y)²	EASTING (X)²
#(51)	2,141,619	6,838,794
#(57)	2,168,618	6,848,547
#(32)	2,130,986	6,829,160
#(30)	2,089,852	6,801,484
#(31)	2,089,387	6,774,459
#(33)	2,120,103	6,811,494
#(34)	2,116,817	6,802,720
#(35)	2,103,976	6,774,044
#(24)	2,142,355	6,789,364
#(53)	2,113,991	6,798,445
#(52)	2,108,385	6,820,477
#(54)	2,144,774	6,755,732

² California Coordinates (CCS, Zone 2, NAD 83 Datum)

6. WATER AVAILABILITY

a. Physical Availability

NID presently diverts, captures and stores water from the Bear River for consumptive and other beneficial uses. Pacific Gas and Electric (PG&E), SSWD and Camp Far West Irrigation District (CFWID) also divert water from the Bear River. Extensive monitoring data (including USGS gages) and modeling of the Bear River establishes that, even after current uses by existing diverters, the water available for appropriation is significantly greater than NID is now requesting for consumptive uses within Placer and Nevada Counties. In the last 25 years, Rollins Dam (just upstream of this project) spilled an average of 214,572 Acre-Feet per year, with a high of 534,700 Acre-Feet. NID will submit further water availability analysis as information is developed in their environmental review of the project.

b. Fully Appropriated Stream Exception

The portion of the Bear River which NID proposes to divert water has been declared to be fully appropriated during a portion of the proposed diversion season. However, the State Board has determined that request for assignment of existing state filings that implement Water Code section 10500 et seq., and which propose appropriation of water from stream systems identified by the State Board as being fully appropriated, should nonetheless be accepted for filing as they are consistent with the Declaration of Fully Appropriated Stream Systems. (In the Matter of Declaration of Fully Appropriated Stream Systems in California (1998) Order WR 98-08, § 4.4.

Legal Availability

As described above, NID petitions the State Board to assign to them Application 5634, filed by the State pursuant to Water Code section 10500 et seq.

7. PLACE OF USE

NID's overall boundary encompasses approximately 287,000 acres. The place of use identified under this application is 198,205 acres. The water sought under this application and petition is intended to be put to use within the existing service area boundaries that are already authorized under other water rights, both pre- and post-1914 held by NID and under License 11118, held by SSWD. During NID's recent change petitions, several existing powerhouses were added as places of use under its various existing appropriative rights. These existing powerhouses are also part of the place of use for this application. The powerhouses are Centennial Powerhouse, Combie North Powerhouse, Combie South Powerhouse, Wise #1 Powerhouse, Wise #2 Powerhouse and Camp Far West Powerhouse. This Place of Use is delineated on the accompanying Place of Use Map.

9. JUSTIFICATION OF AMOUNTS REQUESTED

(a) Irrigation

CROP	ACRES ¹	METHOD OF IRRIGATION (sprinklers, flooding, etc)	WATER USE (Acre-foot/yr)	SEASON OF WATER USE	
				Beginning date (month & day)	Ending date (month & day)
Irrigated Pasture	15,878	Various	65,100	April 1	Oct 31
Hay, Alfalfa, etc.	671	Various	2,751	April 1	Oct 31
Nuts	224	Various	918	April 1	Nov 30
Fruits	895	Various	3,670	April 1	Nov 30
Grains-Rice, Corn, Wheat	224	Various	918	April 1	Oct 31
Family Gardens/Orchard	3,578	Various	14,670	April 1	Nov 30 ²
Parks, Golf Courses	895	Sprinkler/Drip	3,670	April 1	Nov 30 ²

¹Acres listed are from the District's 2011 Raw Water Master Plan projection for 2032.

²There is some year round use.

Currently, approximately 17,535 acres are being irrigated within the Bear River service area of the District. The District's 2011 Raw Water Master Plan (RWMP) planning horizon is 2032 and projects an additional 4,830 of irrigated acres. There is potential for even greater demand further out in the future. The area that can be reasonably irrigated based on soil type, slope, aspect, etc. has been estimated at 30,625 acres within the District's Bear River service area.

(b) Domestic

Presently in its Bear River service area the District has 4,941 service connections providing service to approximately 13,835 people. The RWMP 2032 projection is for service to increase by an additional 15,000 people. Current demand is 3,375 Acre Feet/Yr. The RWMP 2032 projection is for a demand of 6,900 Acre Feet/Yr. Future demand may increase even further depending on county general plan updates and growth. Population growth projections prepared by Demographic Research Unit of the California Department of Finance in January 2013 has Nevada County population increasing by almost 22% by 2035 and Placer County population increasing by almost 34%.

(c) Stockwatering

Types of livestock within the District vary, but includes cattle, sheep, goats and horses. The maximum number of stock is unknown. Type of operation varies, and includes both commercial and family farms.

(d) Recreational

Type of recreational uses will include camping, boating, fishing and swimming. Presently at the District's Rollins Reservoir on the Bear River there are over 100,000 Recreation Days/Year reported. Due to the proposed Centennial Reservoir's close proximity to urban areas it is expected that recreation demand would be similar to what is experienced at Rollins Reservoir.

(e) Municipal

Presently NID is providing service to a portion of the City of Lincoln. NID is planning to build a 40 MGD regional water treatment plant to serve the projected demand for the portion of the City of Lincoln within NID service area. The projected demand for the City of Lincoln within NID service area is 11,790 Acre-Feet/Year. Currently there are 3,383 service connections and the annual demand is 1,665 Acre-Feet/Year.

10. DIVERSION AND DISTRIBUTION METHOD

NID's appropriation of water is made possible and will occur through both new and existing NID facilities. The proposed Centennial Dam will be constructed on the Bear River within NID property. The dam will be the point of diversion and will impound water appropriated from the Bear River under this application, along with acting as a point of rediversion under this application and NID's other water rights. Water will be released, either through the proposed powerhouse or through the low level outlet by gravity unto the Bear River downstream, where it will then be rediverted to and conveyed through existing NID facilities.

11. CONSERVATION AND MONTIORING***(a) What methods will you use to conserve water***

Domestic systems are fully metered and NID has an inclining rate structure that encourages conservation. Agricultural systems are measured and recorded by standard methods. Portions of open canal are concrete lined or replaced with pipe each year. NID proactively pursues working with the community to reduce water consumption and has one full time staff person who provides education in water conservation and efficient watering practices to the community and individual customers. NID provides seminars and workshops on irrigation efficiency. NID supports the use of efficient irrigation practices and provides information on local drought tolerant and native plants. NID works closely with the University of California Agriculture and Natural Resources Cooperative Extension for Placer and Nevada Counties to provide information to customers on ways to reduce water use. NID has adopted an Urban Water Management Plan and is implementing many of the DMM's. NID also has adopted a Drought Contingency Plan, an Agricultural Water Management Plan and has in its rules and regulations a policy against waste of water.

(b) Diversion Monitoring

A measurement structure or meter will be incorporated into the design of the outlet structure(s) to measure the flow being released from the reservoir. Staff gages and a manometer will record the reservoir elevation. Additionally a full range in stage gage may be necessary in the Bear River below Centennial Dam to measure spill quantities and any instream flow releases that may be required.

12. RIGHT OF ACCESS

NID owns the land where the proposed Centennial Dam and hydroelectric facilities will be constructed, along with access rights to that location. NID currently does not own all properties potentially impacted once water is collected behind the dam. NID will secure those properties either through negotiations with affected landowners or eminent domain proceedings.

13. EXISTING WATER RIGHTS AND RELATED FILINGS

The State of California has taken steps to assure that the areas in which water originates will have an adequate supply for their reasonable, beneficial use when those areas' water needs require its use. This policy is evidenced by Water Code section 10500, et seq., which provides for the reservation of priority applications for future development and that the priority of state-filed applications may not be released, nor may such applications be assigned such that the county of origin is deprived of water covered by the application necessary for its development. The waters of the Bear River applied for under this application originate within Nevada and Placer Counties, and NID can assert these statutory protections to provide for future beneficial needs within the Counties. NID is petitioning the SWRCB for assignment of Application 5634.

The project place of use identified in this application is also served under existing NID pre- and post-1914 water rights and in License 11118 held by SSWD.

15. MAP REQUIREMENTS

The points of direct diversion, diversion to storage, points of rediversion and powerhouses, both new locations sought under this application and existing facilities, are shown on the attached map.

16. COUNTY PERMITS

In most cases, NID facilities are not subject to local zoning regulations. Subdivision (e) of Government Code Section 53091 provides: (e) Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code, or electrical substations in an electrical transmission system that receives electricity at less than 100,000 volts. Zoning ordinances of a county or city shall apply to the location or construction of facilities for the storage or transmission of electrical energy by a local agency, if the zoning ordinances make provision for those facilities.

17. STATE/FEDERAL PERMITS AND REQUIREMENTS

a. Additional state and federal permits required

NID will make all necessary applications to the Federal Energy Regulatory Commission to obtain its approval for the proposed hydroelectric facilities. Due to the nature of the proposed projects and working within the stream bed, NID will make all necessary applications to the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, California Department of Water Resources (Division of Safety of Dams). Due to the locations of existing state and federal lands that may be impacted, NID will be contacting U.S. Bureau of Land Management and California Department of Parks and Recreation to identify if any permits are warranted from those agencies.

b. Agency Contact Information

NID will be making the appropriate contacts with all agencies identified in section (a) above once the application with the SWRCB Division of Water Rights has been filed.

c. Stream bed alteration

The Centennial Dam and Reservoir will be constructed on a section of the Bear River, located just upstream of the existing Combie Dam and Reservoir and downstream of the existing Rollins Dam and Reservoir. Significant alteration of the existing stream bed, banks and riparian habitat will occur at the Centennial Dam site. This will include the construction of the new dam and hydroelectric facilities, as well as an outlet tunnel and temporary coffer dams to divert water away from the dam foundation and inlet tower construction zones.

18. ENVIRONMENTAL DOCUMENT

In accordance with the State Water Board's policies, NID is the lead agency in preparing the appropriate environmental documentation under CEQA. NID is an Independent Public Agency and plans to prepare an Environmental Impact Report (EIR), acting as Lead Agency pursuant to the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. The EIR will consider a range of reasonable alternatives to the project, a no project alternative, and potential impacts, mitigation measures and monitoring requirements. The Draft and Final EIRs, along with the notice of determination, will be submitted to the State Board.

20. ARCHEOLOGY

With information obtained during FERC relicensing and other projects that have been constructed in the general vicinity, there is high potential for archeological and historic sites to be within the project area. NID will be performing research and studies in the project area as part of its environmental documentation under CEQA.

21. ENVIRONMENTAL SETTING

The Bear River originates about 20 miles west of the crest of the Sierra Nevada in northern Placer County within the boundaries of the Tahoe National Forest. The Bear River is fed by the Drum Canal from Spaulding Lake (located on the South Yuba River) which enters the river at the Drum Afterbay, a few miles downstream of the headwaters. The small reach above the Drum Afterbay is termed the Upper Bear River. Flowing out of the Drum Afterbay is the Middle Bear, which enters Dutch Flat Reservoir where the waters of the Boardman Canal enter after running through Alta Powerhouse. The Bear River continues to roughly parallel I-80. Just before the Bear River flows into Rollins Reservoir, it merges with Steephollow Creek, the largest tributary in the upper watershed. The Bear River discharges from Rollins Reservoir and flows southwest into Lake Combie near the community of Meadow Vista and near an area with heavy development pressure. The Bear River turns west and is fed by Wolf Creek and then enters into Camp Far West Reservoir, the largest reservoir in the Bear River Watershed. The Bear joins the Feather River south of Yuba City/ Marysville. The Bear River contains a large volume of mining sediment stored in its main channel that is subject to continual erosion. The high volume of mining sediment, in combination with restricting levees, has caused the Lower Bear channel to become deeply incised.

Mixed conifer dominates the upper watershed, which includes ponderosa pine, Douglas-fir, and incense cedar among others. The Upper Bear River valley also supports excellent wet meadow and riparian habitat. At the foothill elevations the watershed becomes home to oak woodlands and chaparral communities and then transitioning to grassland and agricultural lands in the lower elevations. The project sites are located within the foothill elevations.

There are more than 990 miles of streams, creeks, and rivers within the Bear River Watershed. The watershed also contains more than 2,000 miles of roads, creating one of the highest road densities of any watershed in the Sierra Nevada region. Consequently, approximately 45% of the streams in the watershed are within 100 meters of a public road.

Bear River flows in the project stretch of the river vary widely and the flow patterns are typical of foothill streams with high winter and spring flows and very low summer and fall flows. In the last 25 years, the average spill at Rollins Dam was 214,572 Acre-Feet, with a high of 534,700 Acre-Feet.

Attachment No. 3 has pictures of the stream channel both immediately above and below the proposed dam site as well as several pictures that represent a sample of the place of use to be served.