Commission Staff Report - *DRAFT*

June 21, 2017

COMMISSION MEETING DATE: July 27, 2017

SUBJECT: Delegate to the General Manager authority to enter into one or more agreements, with a total not-to-exceed for all agreements of $2,500,000 for repair, restoration and/or replacement of portions of the Beaver Creek Reservoir and related facilities at the NCPA Hydroelectric Project.

AGENDA CATEGORY: Discussion/Action

FROM:	Ken Speer	**METHOD OF SELECTION:**
	Assistant General Manager	N/A
Division:	Generation Services	
Department:	Hydroelectric	

IMPACTED MEMBERS:

All Members	☐	**City of Lodi**	☒	**City of Shasta Lake**	☐
Alameda Municipal Power	☒	**City of Lompoc**	☒	**City of Ukiah**	☒
Bay Area Rapid Transit	☐	**City of Palo Alto**	☒	**Plumas-Sierra REC**	☒
City of Biggs	☐	**City of Redding**	☐	**Port of Oakland**	☐
City of Gridley	☐	**City of Roseville**	☒	**Truckee Donner PUD**	☐
City of Healdsburg	☒	**City of Santa Clara**	☒	**Other**	☐

If other, please specify.

SR: XXX:17

RECOMMENDATION:

Authorize the General Manager to enter into one or more agreements, with a total not-to-exceed for all agreements of $2,500,000 for repair, restoration and/or replacement of portions of the Beaver Creek Reservoir and related facilities at the NCPA Hydroelectric Project.

BACKGROUND:

Beaver Creek Diversion Dam is part of the North Fork Stanislaus River Hydroelectric Project, FERC Project No. 2409, which consists of a system of four reservoirs, two hydroelectric power plants, two diversion tunnels, and one power tunnel. The purpose of Beaver Creek Diversion Dam ("Dam") is to provide for the diversion of water to McKays Point Reservoir and the Collierville powerhouse via a forebay for the Beaver Creek Diversion Tunnel and Penstock. The Beaver Creek Reservoir ("Reservoir") itself serves to provide reliable regulation of penstock flows and minimum fish flow releases, as required by one or more regulatory agencies, as well as serving as a sediment trap to protect the fish screen from frequent plugging. The Dam also provides water for power generation and water consumption purposes.

The January and February 2017 unusually heavy storms and related flooding nearly completely filled the Reservoir and plugged the diversion fish screen and the Dam's low-level outlet preventing water diversion into McKays. The level of reservoir sedimentation and debris left by the 2017 storms is approximately 11,400 cubic yards as determined by a reservoir survey conducted on May 1st. Annual average hydroelectric income attributable to the Dam and related facilities is approximately $1,700,000. Immediate clearing of the fish screen, the low-level outlet, and a portion of the Reservoir basin is required to restore the functionality of the Dam and to re-establish the ability to reliably generate hydropower with available water supplies.

On May 25, 2017, the NCPA Commission approved Resolution 159:17, authorizing the General Manager to enter into one or more agreements, with a total not-to-exceed for all agreements of $1,000,000 for repair, restoration and/or replacement of portions of the Beaver Creek Reservoir and related facilities at the NCPA Hydroelectric Project. At the current time, contracts have been released and work commenced to:

- Remove dead hazard trees and clear vegetation from the construction access road;
- Clear the concrete top deck of the Beaver Creek facility of sediment and debris;
- Utilize divers to suction dredge sediment and debris away from the fishscreen trashrack and low level outlet to allow for reservoir dewatering.

The primary remaining task (representing the largest portion of project costs) is to release a contract for mechanical excavation "in-the-dry" and off-haul trucking to a permanent disposal location.

Subsequent to the approval of Resolution 159:17, several developments have led to an anticipated potential increase in total project costs, including:

- There is more sediment and debris in the facility than anticipated. Resolution 159:17 anticipated 20 – 30% of reservoir capacity remaining. Current estimates indicate potentially less than 13% reservoir capacity remaining.

- US Forest Service denial of a request to stockpile the material on USFS land and/or to use a portion of the sediments for beneficial use on USFS land. Now all material is anticipated to be trucked substantially further than originally hoped.
- The three (3) bids for underwater suction dredging were more costly than anticipated, and in addition, the suction dredging work has been less efficient than originally anticipated due to the presence of substantial quantities of vegetation debris, which plugs the suction pumps.
- There is the possibility that resource agency permits and approvals may be able to be expanded to allow for removal of accumulated sediment in excess of the material which accumulated just during the January and February 2017 storms.

Based on these developments, and to take advantage of the possibility of leveraging mobilization and permitting efforts to more completely restore the reservoir condition and facility functionality, it is recommended that General Manager authority for this project be increased from $1,000,000 to $2,500,000.

ENVIRONMENTAL ANALYSIS:

CEQA Guidelines section 15269 states that a project is exempt from CEQA review when the project is to "repair, restore, … or replace property or facilities damaged or destroyed as a result of a disaster in a disaster stricken area in which a state of emergency has been proclaimed by the Governor…." Also exempt are: "specific actions necessary to prevent or mitigate an emergency."

The Dam was rendered completely inoperable due to the 2017 storms. The Dam and Reservoir are each located in counties declared to be disaster-stricken by both the Governor and the federal government. Without the Project, NCPA may not be able to meet the various regulatory environmental requirements relating to stream flows and other matters dependent on proper operation of the Dam and Reservoir. While the emergency classification exempts the Project from CEQA, all other environmental permit requirements remain in force with agency-specific emergency provisions with which NCPA must comply.

Staff initiated consultation with the below listed agencies with jurisdiction over the proposed action, and has obtained the necessary permits:

- United States Army Corps of Engineers (ACOE)
- California Department of Fish and Wildlife (CDFW)
- Regional Water Quality Control Board (RWQCB)
- State Water Quality Control Board (SWQCB)
- United States Fish and Wildlife (USFWS)
- Federal Environmental Protection Agency (EPA)
- State Office of Historical Preservation (SHPO)
- United States Forest Service (USFS)
- California Division of Safety of Dams (DSOD)
- Federal Energy Regulatory Commission (FERC)
- Sierra Pacific Industries (SPI)

FISCAL IMPACT:

Annual average hydroelectric generation attributable to the Beaver Creek Dam is approximately $1,700,000.

The Project is currently estimated to cost less than $2,500,000. As of May, 2017, the costs were estimated at $1,000,000; however, Staff Report 159:17 noted that "*If the projected Project costs increase as the work proceeds, staff will return to the Commission for additional authorizations as may be necessary.*"

In February 2017, the NCPA Commission passed Resolution 17-16 finding and declaring a state of emergency with respect to the NCPA Calaveras Hydroelectric Generation Project and authorizing the General Manager to take such steps as necessary to obtain funds to maintain, repair, restore, or replace the project. Staff has notified the Federal Emergency Management Agency (FEMA) and NCPA's insurance broker of the 2017 loss. In a letter dated June 13, 2017 NCPA's Insurance Underwriters indicated that coverage is afforded for damages to the dam structure, tunnel, penstock, and associated equipment at the Beaver Creek Diversion dam, but that no coverage is afforded for land including the upstream creek which has built up sediment. Discussions are ongoing with the Insurance Underwriters to further clarify the extent of coverage specifically for this project. NCPA's insurance deductible is $500,000. In similar Beaver Creek storm-related sedimentation historical losses, NCPA received FEMA reimbursements due to the 2006 flood incident, but not due to the 1997 incident. FEMA requires that the applicant demonstrates that it first pursued insurance reimbursement prior to FEMA providing funding. FEMA reimbursement looks favorable for a substantial part of the non-insurance project costs.

To date, $550,000 has been collected for Beaver Creek Sediment removal as part of ongoing Hydroelectric Project Capital Development Reserve funding. An additional $125,000 is proposed for collection as part of the FY18 budget, resulting in a total of $675,000 available after July 1, 2017. Remaining needed funds are proposed to be drawn from the McKays Cleanout Capital Development Reserve Account and/or the Hydroelectric Project Maintenance Reserve Account. Both funds can be refunded by FEMA or insurance reimbursements if they ultimately materialize.

COMMITTEE REVIEW:

Pending Committee Review.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments: (1)

- Resolution

SR: XXX:17

RESOLUTION 17-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY DELEGATING TO THE GENERAL MANAGER AUTHORITY TO ENTER INTO ONE OR MORE AGREEMENTS NOT-TO-EXCEED $2,500,000 FOR REPAIR, RESTORATION, AND/OR REPLACEMENT OF PORTIONS OF THE BEAVER CREEK RESERVOIR AND RELATED FACILITIES AT THE NCPA HYDROELECTRIC PROJECT

(reference Staff Report #XXX:17)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains the Beaver Creek Reservoir and related facilities on behalf of the project participants in the North Fork Stanislaus River Hydroelectric Development Project; and

WHEREAS, the Hydroelectric Facility's Beaver Creek Reservoir has received debilitating volumes of sediments and debris during the January and February 2017 unusually heavy storms; and

WHEREAS, the Beaver Creek Reservoir is currently inoperable, and requires immediate sediment removal and related work to ensure its safe and environmentally compliant operation, to re-establish the functionality of the Reservoir and related facilities, and to have the ability to reliably generate hydropower with available water supplies; and

WHEREAS, water diversion from Beaver Creek Reservoir provides critical and substantial generation volumes and capacity; and

WHEREAS, the Commission on February 23, 2017, declared an Emergency for all January 2017 storm related damages; and

WHEREAS, the Commission on May 25, 2017, delegated to the General Manager authority up to $1,000,000 for repair, restoration, and/or replacement of portions of the Beaver Creek Reservoir and Related facilities; and

WHEREAS, additional significant work needs to be performed for the repair, restoration and/or replacement of portions of the Reservoir and related facilities; and

WHEREAS, additional funds are required to completely restore the reservoir condition and facility functionality; and

WHEREAS, this Project is exempt from CEQA under Regulation 15269 relating to emergencies; and

WHEREAS, the Commission finds that immediate action is required to mitigate the impairment of essential public services; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager to enter into one or more agreements, with a total not-to-exceed for all agreements of $2,500,000 for repair, restoration and/or replacement of portions of the Beaver Creek Reservoir and related facilities at the NCPA Hydroelectric Project.

PASSED, ADOPTED and APPROVED this _____ day of_____, 2017 by the following vote on roll call:

	Vote	Abstained	Absent
Alameda			
BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

GARY PLASS
COMMISSION VICE-CHAIR

ATTEST: CARY A. PADGETT
ASSISTANT SECRETARY