



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO: Commissioners Mital, Simpson, Helgeson, Manning and Brown
FROM: Mel Damewood, Engineering Manager, and Mike McCann, Generation Manager
DATE: February 17, 2015
SUBJECT: Emergency Declaration for Construction Services – Leaburg Roll Gate #1
OBJECTIVE: Information Only

Issue

On December 23, 2014, the hydraulic motor drive for Leaburg Dam Roll Gate No. 1 failed and left the roll gate in a closed position. This left EWEB with only a single operating roll gate at Leaburg Dam, necessitating the implementation of an incident management team to coordinate EWEB's response. Since then, EWEB engineering and operations staff, working with Knight Construction Co., Deer Park, WA, has returned the previously failed Roll Gate No. 2 to service and Leaburg Dam now has two operating roll gates. It is imperative that all three roll gates be operational and because time is of the essence, EWEB has declared an emergency to begin repairs on Roll Gate No. 1. The purpose of this memo is to inform the Board about the declaration and the process moving forward to secure resources and order long-lead items to repair the roll gate in an expeditious manner.

Background

On January 8, 2015, EWEB staff met with staff from the Federal Energy Regulatory Commission (FERC) from the Portland, Oregon Dam Safety office. The purpose of the meeting was to facilitate an information sharing and discussion session about the roll gate motor failures (both No. 1 and 2) and the future operation of the remaining gate motor (No. 3). At that time, FERC staff showed great concern about the failures of the hoist motors and potential flooding scenarios that could occur without functioning roll gates. FERC directed EWEB to repair the roll gate(s) as expeditiously as possible, and is considering an order directing EWEB to replace the hydraulic motor in Roll Gate No. 3 as a precautionary measure. At the conclusion of the meeting, FERC verbally indicated that EWEB should have Roll Gate No. 1 repaired in time for next winter (rainy season of 2015). In order to meet that schedule, EWEB will need to expedite the procurement of new hoist motor and associated components, and secure the existing contractor (Knight Construction) because of their expertise, knowledge and experience with the roll gates gained through completion of the Roll Gate No. 2 repair.

Discussion

EWEB staff has begun the Request for Proposal (RFP) process with Knight Construction to get a proposal on replacement of the failed hydraulic motor in Roll Gate No. 1 with an electric motor

identical to the one installed for Roll Gate No. 2. EWEB will also receive a proposal to replace the hoist and motor for Roll Gate No. 3 so we can evaluate any cost savings by combining the projects. EWEB staff recommends this approach over a design-bid-build process because time is of the essence on procuring long-lead items and Knight Construction is now well experienced and familiar with the issues at Leaburg Dam.

The following is the expected sequence of events that staff is establishing with Knight Construction:

1. EWEB will issue a change order under the existing Roll Gate No. 2 contract with Knight to aid in the removal of the damaged hydraulic motor so that engineering forensics can begin to be initiated offsite. It will be to EWEB's benefit to initiate this work immediately while Knight Construction is already mobilized at the site, finishing work on Roll Gate No. 2. This will produce time efficiencies as well as financial savings on the Roll Gate No. 1 effort.
2. EWEB will request from Knight, a proposal containing a not to exceed amount, for the entire scope of work needed to repair Pier House No.1 and install a new electric motor hoist system for Roll Gate No. 1. EWEB will also receive a proposal for replacement of the hoist and motor of Roll Gate No. 3.
3. After thorough review and evaluation of the proposal, EWEB may issue a notice to proceed (NTP) to Knight Construction to begin ordering long-lead items for the work, and to begin the necessary modifications to Pier House No. 1.
4. At the April 7, 2015 Board Meeting, EWEB staff will summarize the contract to the Board for final approval. This approval will be a confirmation of our approach with moving forward in initiating the contract with Knight to meet the critical timeline. We will also present a recommendation of moving forward or deferring work on Roll Gate No. 3.

TBL Assessment

A triple bottom line assessment was not completed for this work.

Recommendation

This is for information only. No action needed at this time.

Requested Board Action

If you have any questions or need further information please contact Mel Damewood at 541-685-7145 or email mel.damewood@eweb.org or Mike McCann, at 541-685-7379 or email mike.mccann@eweb.org.

Attachment: Emergency Declaration Form

FINDINGS TO SUPPORT DECLARATION OF EMERGENCY

DATE: February 5, 2015

REQUESTOR: Mark Zinniker, Mike McCann, and Mel Damewood

ESTIMATED COST: To Be Negotiated

In accordance with ORS 279A.065, ORS279A.025, 279B.080, 279B.145, 279C.335(5); 279C.380(4) and all applicable EWEB Rules:

The Purchasing Manager, with the concurrence of the General Manager and/or an affected LT Manager, may approve award of a public contract for goods, services, or work as an emergency procurement.

Emergency means circumstances that:

- (A) Could not have been reasonably foreseen;
- (B) Create a substantial risk of loss, damage or interruption of services or a substantial threat to property, public health, welfare or safety; and
- (C) Require prompt execution of a contract to remedy the condition. (See ORS 279A.010((1)(f))

Such circumstances may also include, but are not limited to:

- (a) EWEB moving forward as quickly as possible to prevent interruption to vital services, restoration of vital services, or to
- (b) Prevention of loss to EWEB,
- (c) Protection of the quality of services, or
- (d) Other circumstances necessary to responsibly carry out EWEB's services to its customers

279B.145 Finality of determinations. The determinations under ORS 279B.055 (3) and (7), 279B.060 (3) and (10), 279B.075, 279B.080, 279B.085 and 279B.110 (1) are final and conclusive unless they are clearly erroneous, arbitrary, capricious or contrary to law.

NATURE OF THE EMERGENCY:

On Tuesday, December 23rd, Roll Gate No. 1 at Leaburg Dam experienced a catastrophic failure of the hydraulic motor that hoists the gate. This failure, combined with the previous failure of the hydraulic motor for Roll Gate No. 2, left Leaburg Dam with only one operational spillway gate. With one operable gate, the available discharge capacity for Leaburg Dam is only approximately 32,000 cfs, equivalent to approximately an 8-year flood event. In this condition, any river flows greater than 32,000 cfs would result in abnormally high water levels in Leaburg Lake. As Leaburg Lake levels get higher, the dam would overtop and there would be considerable risk of damage to EWEB facilities, adjacent hatchery facilities, private properties and improvements bordering the lake, and Highway 126. EWEB was very fortunate to return Roll Gate No. 2 to service in mid-January (re-establishing the dam's capacity to pass a 100-year flood) before there were any significant high flow conditions. However, this recent situation exposed the substantial risk that exists when one of the dam's redundant spillway gates is out of service. Any complication with one of the remaining two gates (and there are many potential complications ranging from flood debris blockage to a variety of hoist system equipment malfunctions) can result in an immediate reduction of the dam's flood discharge capacity to an unacceptable level. EWEB was extremely fortunate with weather conditions in late December 2014 and January 2015, but can certainly not expect similar good fortune in the future.

Given the demonstrated risk of operating Leaburg Dam without spillway gate redundancy, EWEB staff recommend returning Roll Gate No. 1 to service before the 2015/2016 wet weather season. In addition to EWEB's internal desire to mitigate a significant dam safety risk, this recommendation is motivated by an expectation that the Federal Energy Regulatory Commission (FERC) Dam Safety Division will not approve a more extended schedule for returning Roll Gate No. 1 to service. FERC dam safety staff expressed high levels of concern when Roll Gate No. 1 failed and during a site visit to Leaburg Dam on January 8th, they indicated that an expedited effort to restore the gate to service would be required. FERC staff also expressed concern about EWEB's continued reliance on the hydraulic motor that is used to operate Roll Gate No. 3. They share EWEB staff concerns about the reliability of the one remaining hydraulic motor hoist system and EWEB expects that they will require a more reliable hoist system for Roll Gate No. 3 as well.

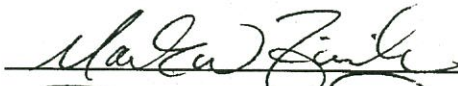



As a result of the schedule urgency for restoring Roll Gate No. 1 to service, it is not feasible for EWEB to contract for the hoist replacement using standard public procurement processes. The need for ordering long lead time equipment does not leave time to prepare customized Roll Gate No. 1 design documents for conventional competitive bidding. The only feasible way to accomplish a return to service before the 2015/2016 wet weather season is to amend EWEB's existing contract for the Roll Gate No. 2 replacement, allowing application of the approved submittals for Roll Gate No. 2 toward procurement of equipment Roll Gate No. 1. The existing contract with Knight Construction can be relatively easily and rapidly amended to include replacement of the Roll Gate No. 1 hoist. Knight was competitively awarded the Roll Gate No. 2 hoist replacement work in April 2014. Since Knight was the only contractor to submit a responsive/responsible bid for the Roll Gate No. 2 replacement project, a protest of EWEB's decision to amend the contract to include this additional work is unlikely. The schedule of values that Knight Construction submitted for the Roll Gate No. 2 also puts EWEB in a good position to negotiate a fair price for the nearly identical amendment work. Knight's performance on the Roll Gate No. 2 work was satisfactory and their continued participation on additional hoist replacement work is expected to yield similar high quality results. EWEB would require Knight Construction to provide the same key staff for implementation of the amended scope of work.

Due to EWEB and FERC concern about the reliability of the remaining hydraulic motor used to operate Roll Gate No. 3, staff also recommend requesting a proposal from Knight Construction to replace that hoist system as well. EWEB staff expect that there would be cost and schedule efficiencies associated with using Knight to perform the work and would like to have a negotiated price for Roll Gate No. 3 if FERC requires an expedited replacement schedule.

Given the severe time constraints for restoring Leaburg Dam roll gates to reliable service, EWEB needs to declare an emergency condition so as to negotiate directly with Knight Construction and authorize an amendment for work that would otherwise be competitively bid. The recent work on Roll Gate No. 2 puts EWEB in a good position to negotiate fair pricing and EWEB can appeal to the FERC for schedule flexibility in the unlikely event that Knight Construction does not propose reasonable costs for the work. EWEB staff expect to be able to report back to the Board on the negotiated pricing at the April Board meeting and will recommend whether to pursue a contract amendment for the replacement of one or both roll gate hoist systems

Since this emergent work was not anticipated in the 10-year Capital Plan, EWEB plans to rely on reserves for funding the construction contract amendment.

APPROVALS

Department Supervisor:		Date:	2/5/2015
Purchasing Manager:		Date:	2/5/2015
LT Manager:		Date:	2/5/2015
General Manager:		Date:	2/9/2015
Additional Comments:			

Vendor/Contractor: _____

Buyer Name: _____

P.O. Number: _____