

**Report to Congress for Future Water Resources Development (WRRDA 7001) Submission
Package**

Proposal Name: Lowell Creek Tunnel O&M Authority

Submission Date: 06/07/2017

Proposal ID Number: 3d3f083d-eda9-4f4b-bb89-eac8e80b9a02

Purpose of Proposal: Section 5032 of the Water Resources Development Act of 2007 requires the Secretary of the Army to evaluate an alternative method of flood diversion in the Lowell Canyon area of Seward. The objectives underlying a new approach include reducing the risk of flooding, and reducing the long-term costs to the USACE of maintaining the system. Section 5032 also transferred the “long term” maintenance responsibility back to the Army Corps for a period of fifteen years. The authority expires November 8, 2022. The Corps is currently responsible for replacing or repairing worn out portions of the concrete lined tunnel, the tunnel inlet, and the tunnel outlet structures, or returning a deteriorated feature of the tunnel, the tunnel inlet, or the tunnel outlet structures back to original condition. The City of Seward is responsible for annual removal of sediments and debris from the tunnel and stilling basin at the outfall of the tunnel and repairs necessary to fences and ladders, and the maintenance of diversion dam. The City of Seward has also repeatedly funded major gravel removal efforts in the stilling basin and in Resurrection Bay during major flood events. In 2016, the Army Corps initiated a feasibility study to determine what, if any, alternatives exist to the current diversion system. The analysis, development and construction of a new alternative diversion system will likely take ten years or more. The City requests the existing Section 5032 sunset date on the long-term maintenance of the tunnel be eliminated until such time as the Corps identifies and constructs an alternative flood diversion system which resolves the recognized design deficiencies. Under this proposal, the City would continue to maintain the diversion levee, perform the annual debris removal, and removal the gravel accumulating in the stilling basin and on Lowell Point Road.

1. Administrative Details

Proposal Name: Lowell Creek Tunnel O&M Authority

by Agency: City of Seward, Alaska

Locations: AK

Date Submitted: 06/07/2017

Confirmation Number: 3d3f083d-eda9-4f4b-bb89-eac8e80b9a02

Supporting Documents

File Name	Date Uploaded
Lowell Canyon Mayor Transmittal.pdf	06/07/2017

2. Provide the name of the primary sponsor and all non-Federal interests that have contributed or are expected to contribute toward the non-Federal share of the proposed feasibility study or modification.

Sponsor	Letter of Support
City of Seward, Alaska(Primary)	Section 5032 of the Water Resources Development Act of 2007 requires the Secretary of the Army to evaluate an alternative method of flood diversion for Lowell Canyon in Seward, Alaska. The objectives underlying a new approach include reducing the risk of flooding, and reducing the long-term costs to the USACE of maintaining the system. Section 5032 also transferred the “long term” maintenance responsibility back to the Army Corps for a period of fifteen years. This authority expires on November 8, 2022. The City of Seward, Alaska has partnered with the Army Corps to develop a feasible alternative to the existing flood control diversion system. The City does not have the financial resources to maintain and repair the existing tunnel structure due to the substantial flood events that are occurring every year in the Lowell Canyon watershed. The City is requesting a change to Section 5032 to extend the long-term maintenance authority until a technically viable and economically achievable alternative is constructed.

3. State if this proposal is for a feasibility study, a modification to an authorized USACE feasibility study or a modification to an authorized USACE project. If it is a proposal for a modification, provide the authorized water resources development feasibility study or project name.

[x] Modification to an Authorized USACE Project : Lowell Creek Tunnel, Seward, Alaska Section 5032 WRDA '07

4. Clearly articulate the specific project purpose(s) of the proposed study or modification. Demonstrate that the proposal is related to USACE mission and authorities and specifically address why additional or new authorization is needed.

Section 5032 of the Water Resources Development Act of 2007 requires the Secretary of the Army to evaluate an alternative method of flood diversion in the Lowell Canyon area of Seward. The objectives underlying a new approach include reducing the risk of flooding, and reducing the long-term costs to the USACE of maintaining the system. Section 5032 also transferred the “long term” maintenance responsibility back to the Army Corps for a period of fifteen years. The authority expires November 8, 2022. The Corps is currently responsible for replacing or repairing worn out portions of the concrete lined tunnel, the tunnel inlet, and the tunnel outlet structures, or returning a deteriorated feature of the tunnel, the tunnel inlet, or the tunnel outlet structures back to original condition. The City of Seward is responsible for annual removal of sediments and debris from the tunnel and stilling basin at the outfall of the tunnel and repairs necessary to fences and ladders, and the maintenance of diversion damns. The City of Seward has also repeatedly funded major gravel removal efforts in the stilling basin and in Resurrection Bay during major flood events. In 2016, the Army Corps initiated a feasibility study to determine what, if any, alternatives exist to the current diversion system. The analysis, development and construction of a new alternative diversion system will likely take ten years or more. The City requests the existing Section 5032 sunset date on the long-term maintenance of the tunnel be eliminated until such time as the Corps identifies and constructs an alternative flood diversion system which resolves the recognized design deficiencies. Under this proposal, the City would continue to maintain the diversion levee, perform the annual debris removal, and remove the gravel accumulating in the stilling basin and on Lowell Point Road.

5. To the extent practicable, provide an estimate of the total cost, and the Federal and non-Federal share of those costs, of the proposed study and, separately, an estimate of the cost of construction or modification.

	Federal	Non-Federal	Total
Study	\$0	\$0	\$0
Construction	\$10,000,000	\$0	\$10,000,000

Explanation (if necessary)

The Corps has budgeted roughly \$3 million in FY '16 and FY '17 to engage in the rehabilitation and repair of the tunnel structure. Using this as an average cost per five years, we estimate additional costs for a 15 year period would approach \$10 million.

6. To the extent practicable, describe the anticipated monetary and nonmonetary benefits of the proposal including benefits to the protection of human life and property; improvement to transportation; the national economy; the environment; or the national security interests of the United States.

Seward experienced what at the time was considered a 100-year event in October, 1986. The 1986 event came within six inches of the spillway crest. The Army Corps determined that a blockage of the tunnel or tunnel failure would have put the town of Seward in potentially catastrophic flood danger. The area flooded repeatedly between 1986 and the present. The Corps is currently investigating an alternative to the existing structure. The current Alternatives study will take years. Seward experienced major flooding in the fall of 2012 (the mountains above the city received an estimated 52 inches of rainfall over five days) and experienced more flood damage in the fall of 2013. Through the Lowell Creek Flood Diversion System, the storm runoff from the mountain was uncontrollable and deposited more than one hundred-thousand (120,000) yards of mostly gravel into the City, damaging Alaska SeaLife Center's critical infrastructure, surrounded a previously flood-damaged aquaculture facility, nearly destroyed the Lowell Creek Bridge, damaged a sewer lift station, and created havoc for residents and visitors. The Seward Public Works Department was forced to work around the clock to protect people, property and prevent further damage to the City. The most recent flooding occurred in June 2016 when the area experienced unseasonably warm weather, triggering significant melt water from the Harding Ice Field. If the tunnel deteriorates and collapses during the significant flood event, the Corps has stated that the threat to human life and safety would be "immediate and catastrophic". The natural flood path runs right through the center of the downtown area, and includes residential areas, the hospital, the community health center, and senior housing. It is critical to the health, safety, and welfare of the citizens of Seward, tourists, and visitors that the Corps continues to repair and rehabilitate the tunnel to maintain its structural integrity.

7. Does local support exist? If 'Yes', describe the local support for the proposal.

Yes

Local Support Description

Yes, this has been one of the City of Seward's highest priorities for the last three decades. The Army Corps hosted a public briefing on the dangers posed by the potential failure of the tunnel and levee. The Seward City Council has discussed the issue in numerous work sessions and during Council deliberations. The City began requesting assistance from the Congress and the Army Corps on the tunnel in 2000, and it has remained the community's highest priority.

8. Does the primary sponsor named in (2.) above have the financial ability to provide for the required cost share?

No

Primary Sponsor Letter of Support

(As uploaded)

Lowell Canyon Mayor Transmittal.pdf



June 1, 2017

Lt. General Todd T. Semonite
Chief of Engineers
U.S. Army Corps of Engineers
441 G St. NW
Washington, D.C. 20314

Dear General Semonite:

I am writing on behalf of the City of Seward, Alaska in support of the proposal being submitted to the U.S. Army Corps pursuant to Section 7001 of WRDA '14 and titled "Lowell Canyon Tunnel O&M Authority".

Section 5032 of the Water Resources Development Act of 2007 requires the Secretary of the Army to evaluate an alternative method of flood diversion for Lowell Canyon in Seward, Alaska. The objectives underlying a new approach include reducing the risk of flooding, and reducing the long-term costs to the USACE of maintaining the system. Section 5032 also transferred the "long term" maintenance responsibility back to the Army Corps for a period of fifteen years. This authority expires on November 8, 2022. The City of Seward, Alaska has partnered with the Army Corps to develop a feasible alternative to the existing flood control diversion system. The City does not have the financial resources to maintain and repair the existing tunnel structure due to the substantial flood events that are occurring every year in the Lowell Canyon watershed above the city. The City is requesting a change to Section 5032 to extend the long-term maintenance authority until a technically viable and economically achievable alternative is constructed.

The City of Seward is requesting that this legislative request be included in the Section 7001 Report to Congress. Thank you in advance for considering our views.

Sincerely,

A handwritten signature in blue ink that reads "Jean Bardarson".

Jean Bardarson, Mayor
City of Seward, Alaska
P. O. Box 167
Seward, Alaska 99664