WASHOE COUNTY

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STAFF REPORT

BOARD MEETING DATE: April 23, 2019

DATE: April 5, 2019

TO: Board of County Commissioners

FROM: Ben Jesch, P.E., Licensed Engineer
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THROUGH: Dwayne Smith, P.E., Division Director, Engineering and Capital Projects
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SUBJECT: Recommendation to retroactively authorize the emergency purchase of the temporary flood mitigation system from US Flood Control Corp [in the amount of $210,909], to protect residential homes most vulnerable to immediate water elevation increases of Swan Lake in the areas of Pompe Way and Shane Way in Lemmon Valley. The purchase was conducted pursuant to NRS 332.112 and 338.011. (Commission District 5.)

SUMMARY

As part of the on-going direction by the Washoe County Commission to respond to threats to the life safety, health and welfare of residents and to protect homes located in the Swan Lake area, the Washoe County Community Services Department (CSD) initiated an emergency set of additional temporary flood mitigation barriers in area of Pompe Way and Shane Way as shown on Exhibit A.

This action was in response to the continuing and rapid rise of Swan Lake water levels resulting from intense rain and snow fall the area experienced beginning in January and February 2019. These precipitation events and snow melt added significant water to the lake that already contains excessive amounts of water received during the 2017 regional floods. As a result Swan Lake continues to rise and has now exceeded the peak water levels experienced in March 2017.

In response Washoe County staff initiated the acquisition and installation of flood mitigation barriers on private properties for an area of previously unprotected residential homes. Installed to the same protection elevation and working in harmony with the existing HESCO barriers, Swan Lake is now contained within a managed flood-barrier system that includes inflatable dams, berms, HESCO barriers and pumps. One property, 310 Pompe Way, did not provide authorization for Washoe County to enter private property to install these temporary water barriers to protect the home and respectful of private property rights, no entry was made.

As required by NRS 332 and NRS 338, as a result of an emergency which threatens the health, safety or welfare of the public, the public body may let contracts without complying with the typical requirements of the chapter required under normal circumstances. Subsequently the NRS requires staff to report the contract or contracts to the Commission at the next regularly scheduled meeting.

AGENDA ITEM # _____

Strategic Objective supported by this item: Safe, secure and healthy communities.

PREVIOUS ACTION

On April 9, 2019, the Board of County Commissioners authorized Assistant County Manager, Dave Solaro, to enter into all necessary emergency agreements and construction contracts for the continued development and implementation of the 2019 mitigation and response measures associated with the Lemmon Valley Wastewater Treatment Plant for access road and berm improvements [not to exceed $500,000], and for seepage, bypass, and backup pumping systems associated with the treatment plant and collection system [not to exceed $150,000], pursuant to NRS 332.112 and 338.011.

On April 9, 2019, it was requested the Board discuss and provide policy direction to staff related to the closed East Lemmon Valley Hydrographic Basin to include next steps to address lasting elevated lake levels.

On February 23, 2017, the Board of County Commissioners ratified a Declaration of a State of Emergency by the Washoe County Manager due to flooding and rising lake elevations. Subsequent emergency flood mitigations were enacted to protect the community, and those measures have been maintained perpetually since.

BACKGROUND

Washoe County, through its Community Services Department, continues to manage the ongoing impacts from the 2017 regional flood events including maintaining the existing temporary flood barriers and associated storm water pumps.

Washoe County staff has been monitoring Swan Lake levels closely as they have risen over the winter of 2018/2019. Recent observations of the lake by Washoe County staff have noted a direct and immediate influence of local precipitation raising the Lake elevation due to saturated conditions of the surrounding areas. As Swan Lake elevations have matched and exceeded the high water mark of the 2017 flooding events, it was recognized that additional flood mitigation was necessary for the residences along Pompe Way and Shane Way.

In response, Washoe County staff identified a reasonable alignment to protect the resident's homes and identified the best temporary inflatable dam product for this circumstance. Due to the need to install the inflatable flood barrier system on private property, Washoe County staff reached out to and coordinated with each property owner to identify the most suitable alignment through the properties and executed appropriate rights-of-entry with the property owners allowing access to install, maintain, and remove the flood protection measures. At time of writing, all property owners except for 310 Pompe Way had provided signed right-of-entry's allowing access to install the protective barriers to protect their homes from increasing lake levels.

To determine the best-suited solution for the project, County staff reviewed and spoke with a number of manufacturers of different water-filled dam products. Ultimately, staff selected the US Flood Control Tiger Dam system, which is an anchored, water-filled dam system. The product was selected due to its ease of deployment in standing water and saturated soil conditions; its anchored installation, which ensures stability while maintaining a narrow-width footprint; and its durability and longevity while deployed for

extended, potentially multi-year, periods in high UV conditions. The dams are placed and then filled with water directly from Swan Lake. Additional mechanical pumps were deployed along the new length of flood barrier to control seepage and manage any stormwater collected on the outside of the flood barrier.

Because the area had already become inundated with water, HESCO barriers, used elsewhere around the lake, could not be easily installed; therefore, staff identified and purchased an alternative flood mitigation system, comprised of anchored, water-filled dams, which will provide flood protection for these residences to the same elevation as existing measures around the lake. These emergency responses are in accordance with the Board of County Commissioners' directive to protect the life safety, health, and welfare of the citizens of Washoe County.

FISCAL IMPACT

Following the Declaration of a State of Emergency by the Washoe County Manager due to flooding and rising lake elevations of Swan Lake on February 23, 2017, a project was set up in the General Fund to track ongoing flood mitigation operating expenses in March of 2017. There is sufficient budget authority in FY19 in fund 100 in the 2017 N. Valley Flood Project (GF140617) in service and supplies.

RECOMMENDATION

It is recommended that the Board of County Commissioners retroactively authorize the emergency purchase of the temporary flood mitigation system from US Flood Control Corp [in the amount of $210,909], to protect residential homes most vulnerable to immediate water elevation increases of Swan Lake in the areas of Pompe Way and Shane Way in Lemmon Valley. The purchase was conducted pursuant to NRS 332.112 and 338.011.

POSSIBLE MOTION

Should the Board agree with staff's recommendation, a possible motion would be: "Move to retroactively authorize the emergency purchase of the temporary flood mitigation system from US Flood Control Corp [in the amount of $210,909], to protect residential homes most vulnerable to immediate water elevation increases of Swan Lake in the areas of Pompe Way and Shane Way in Lemmon Valley. The purchase was conducted pursuant to NRS 332.112 and 338.011. "