

## ATTACHMENT 7: DISADVANTAGED COMMUNITY ASSISTANCE

---

### Determination of DAC Status

DACs are defined as communities with an annual Mean Household Income (MHI) that is less than 80% of the Statewide annual MHI (PRC Section 75005 (g)). Per Appendix G of the 2015 IRWM Grant Program Guidelines, 80% of the Statewide annual MHI is calculated as \$48,875 based on the American Community Survey (ACS) data for the years 2009-2013.

Project 2. LBRID Water Supply Protection and Enhancement Project, will serve the community of Berryessa Estates in Napa County. An income survey was conducted for Berryessa Estates, which showed that the MHI for Berryessa Estates was \$45,000 based on a response rate of 72.3% (102 respondents out of 141 households surveyed). Therefore, the population served by the LBRID Sewer Collection System Upgrade project has an MHI of less than \$48,875 and is a DAC according to Appendix B of the 2015 IRWM Grant Program Guidelines. The income survey report (Berryessa Estates Median Household Income Survey Final Report) is included in this Attachment.

Although the LBRID Water Supply Protection and Enhancement Project meets the DAC criterion, the project will not be waiving local cost share requirements.

The other two proposed projects do not meet the DAC criterion, although there are DACs that will benefit from the projects.

### Meeting a Critical Water Supply Need of a DAC

The LBRID Water Supply Protection and Enhancement Project will serve the community of Berryessa Estates, which relies on Putah Creek as its sole source of water supply. In the summer of 2014, LBRID declared a drought emergency and imposed a limit of 50 gallons per day per household since there was zero baseflow in Upper Putah Creek. This restriction was lifted in December 2014. As of July 29, 2015, flow in the creek at the Putah Creek near Guenoc river station upstream of LBRID was 0 cfs. At the LBRID intake, there remains a pool fed by groundwater baseflow that meets residents needs at present. However, if the current drought continues, LBRID may implement water use restrictions again in 2015.

In addition to the drought-related challenges, Putah Creek has also suffered raw sewage spills due to deficiencies of the LBRID sewage collection system, most of which was installed in the 1960s. During major rain events in the 1990s and 2000s, raw sewage ranging from 7,500 gallons to 5.5 million gallons spilled into Putah Creek at a location upstream of LBRID's water supply intake. The potential for sanitary sewer overflows to Putah Creek constitutes a serious threat to primary drinking water standards compliance and impose health risks to residents.

The current deficiencies of the sewage collection system include the following:

- The lift stations do not have sufficient pumping capacity to convey the 10-year design storm or the 100-year design storm. During significant rainstorms the system has spilled due to the inability of the pumps to keep up with the increased flow rate.
- Three of the lift stations do not have backup power supply, making them vulnerable to outages during significant rainstorms.
- The lift stations are equipped with a type of pump that is vulnerable to grit and other solids typically found in raw wastewater, reducing reliability and increasing maintenance costs. Moreover, the lift stations are unable to pass, macerate, or remove larger solids typically found in raw wastewater that can accumulate in lift station wet wells and clog or damage pumps.
- The existing 6-inch force main has been in service for about 50 years and is constructed of asbestos cement pipe of unknown condition and pressure class.

In addition, the deficiencies in the sewage collection system also negatively impact the operation of LBRID Water Treatment Plant (WTP). The WTP's filter backwash water is discharged to the sewer collection system. During severe rain storms, when the sewer collection system was close to or already spilling, LBRID has been forced shut down the WTP to avoid discharging the filter backwash water to the sewer system.

The proposed LBRID Water Supply Protection and Enhancement Project will meet the critical water quality need of the community by implementing critical upgrades to the sewer collection system in order to eliminate sewage spills into its sole water supply source during severe rain storms. The project will upgrade the existing sewage pumps to new ones that are less prone to clogging and being damaged, add backup power supply and upgrade other electrical systems for the lift stations to improve reliability, and replace approximately 3,000 feet of the existing aging force main with new 8-inch High Density Polyethylene (HDPE) pipes. These improvements will enable the LBRID sewer collection system to convey the 100-year design storm, and upgrade parts of the system that are most vulnerable to breaks and leaks, thereby preventing sewage overflows into Putah Creek.

The proposed project will also meet the community’s critical water supply need as follows:

- The sewer system upgrades described above will ensure that the WTP can maintain operations and does not need to be shut down during rainstorm events when there is a high volume of wastewater flows into the sewer system.
- The proposed project includes treatment of the filter backwash water from the WTP and reusing it as a potable water supply. The project will be capable of providing 2,880 gpd on average of additional potable water, which is approximately 6% of average water demand.

**Table 7.1: Addressing the Critical Water Quality or Supply Need of a DAC**

<b>Critical Water Quality or Supply Need Criteria<sup>1</sup></b>	<b>LBRID Water Supply Protection and Enhancement Project</b>
<p><b>Critical Water Quality Need:</b> Replacement or rehabilitation of wastewater collection systems necessary to abate or prevent surface or groundwater contamination</p>	<p>The project will replace 3,000 feet of existing sewer main and upgrade sewage pumps to enable the sewer collection system to convey the 100-year design storm, thereby preventing contamination from sewage overflows into Putah Creek.</p>
<p><b>Critical Water Supply Need:</b> SWRCB Safe Drinking Water SRF Priority List Ranking Criteria, E: Water systems with water outages, significant water quantity problems caused by source water capacity, or water delivery capability that is insufficient to supply current demand</p>	<p>In the summer of 2014, LBRID imposed a limit of 50 gallons per day per household since there was zero baseflow in Upper Putah Creek. As of July 2, 2015, flow in the creek is less than 1 cfs, and if the current drought continues, LBRID may enact water use restrictions again in 2015.</p> <p>The project will 2,880 gpd on average of additional potable water, which is approximately 6% of average water demand, by treating the Water Treatment Plant’s filter backwash wastewater to potable standards.</p> <p>In addition, the project’s sewer system upgrades will ensure that the LBRID Water Treatment Plant can maintain operations during rainstorm events when there is a high volume of wastewater flows into the sewer system.</p>

<sup>1</sup> Excerpted from Table 9, page 85 of 2015 IRWM Grant Program Guidelines