Memorandum

To: Water Supply Advisory Committee members

From: Karen Raucher and Robert Raucher, Stratus Consulting Inc.; and Gary Fiske,

Gary Fiske and Associates

Date: 4/24/2015

Subject: Program C recommended: New information

This memorandum provides a summary of additional information developed by Gary Fiske using the *Confluence* model (with input from Shawn Chartrand and others) on the amount of water available and system reliability improvements from the use of Program C recommended (Program C Rec). Additional information is provided in Attachment 1.

Program CA-03 is a collection of conservation program measures that reduce demand. The current assumption regarding annual water savings associated with Program C Rec is 188 million gallons (mg), with 129 mg of that in the peak-season and the remaining 59 mg in the off-peak season. (Note that this assumption is likely to change as further information is developed, and an updated assessment indicates annual savings of about 210 mg.)

Key Findings

Under climate change during worst-year flows, the peak season demand-supply gap is reduced by 90 mg by implementing Program C Rec, given current assumptions regarding water savings, demand forecasts, etc. Under historical conditions, the worst-year peak-season shortage is reduced by about 130 mg.

Across all hydrologic conditions, the average reduction in peak-season shortage is about 25 mg with historical flows and 100 mg with climate change. In many hydrologic years, the benefit is greater than the actual demand reduction because of the in-lieu storage in Loch Lomond that results from the demand reductions, which is illustrated in Attachment 1.

Attachment 1. Modeling Results: CRec Conservation Programs