

# Memorandum

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**To:** Water Supply Advisory Committee members  
**From:** Carolyn Wagner Bob Raucher, and Karen Raucher, Stratus Consulting Inc.  
**Date:** 6/2/2015  
**Subject:** June Meeting Summary: Demand-Side Consolidated Alternatives

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In this memorandum, we present an update on the technical work performed on the demand-side consolidated alternatives (CAs) since the March Water Supply Advisory Committee (WSAC) meeting. The focus of the technical work has been on CA-01 Peak Season Reduction, and CA-03 Water Conservation Measures (Program C Rec). Additional information on these two CAs is provided separately. The status of the all demand-side alternatives is as follows:

- ▶ **CA-01 Peak Season Reduction:** The peak season reduction subcommittee met with the Water Department several times in May 2015 to develop a joint enrichment session focused on peak season demand and potential water use reduction strategies. The subcommittee is the process of preparing a summary report that will then be evaluated by the technical team.
- ▶ **CA-02 Water Neutral Development:** This alternative has been set aside for now because (1) it provides a limited amount of expected water savings (it may, however, accelerate when savings are realized), (2) several critical issues pertaining to how the program might be paid for need to be addressed including the equity and related issues associated with placing the direct financial burden on builders/developers and homeowners/renters, and (3) the costs escalate over time as opportunities for water saving investments become increasing scarce and expensive. The technical team also points out that this CA and the suite of associated issues has been examined recently by the Water Commission.
- ▶ **CA-03 Water Conservation Measures (Program C Rec):** A separate memorandum titled, “Clarification of Program C Recommended,” is provided and provides a listing of the various measures contained within that program. That memorandum also describes how the program measures are assessed within the Maddaus Water Management DSS Model, in terms of inputs and assumptions, model specification, and interpreting the outputs of the modeled results.
- ▶ **CA-04 WaterSmart Home Water Reports:** This alternative has been removed from further separate consideration due to the fact that it is also included within CA-03 (Program C Rec). Please note that the initial water savings and costs reported for CA-04 are different than the modeled savings and cost included as part of C Rec. This is because the measure, as analyzed for C Rec, assumes a participation rate of 20% of residential customers, whereas the calculations for the separate CA-04, WaterSmart Home Water

Reports program, assumed full participation (i.e., that all residential customers would receive water reports). Both calculations reported in the April 2015 packet assumed every customer receiving a report reduces water use, with savings of 3%. The Water Department assumes that sending a Water Report to all customers would not be cost effective as the expected savings from customers who are already low-water users are likely to be very small and not worth the administrative costs. If the city was to send water reports to all customers, then the water savings rate, currently 3%, would need to be revised to reflect that the average savings would be reduced.

- ▶ **CA-05 Home Water Recycling and CA-06 Commercial Scale Graywater:** No additional work has been conducted on these CAs since the memorandum that was provided as part of the packet for the April/May 2015 WSAC meeting.

Table 1 provides the preliminary water savings and costs estimated for the CAs. This table has not been updated since the April 2015 meeting and is intended as a reminder rather than an update.

**Table 1. Summary of CAs 01-05 with preliminary water savings and costs**

<b>CA-# and title</b>	<b>30-year PV savings (MG)</b>	<b>30-year PV cost (\$)</b>	<b>30-year PV cost/30-year PV saved (\$/MG)</b>	<b>30-year average savings (MG)</b>	<b>30-year average cost (\$)</b>	<b>Energy saved over 30 years (MWh)</b>	<b>Energy saved per year, on average (MWh)</b>
CA-01 Peak Season Reduction	In progress	In progress	In progress	In progress	In progress	In progress	In progress
CA-02 Water Neutral Development	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CA-03 Water Conservation Measures (Program C Rec) <sup>a</sup>	2,788	\$23.1 million	8,301	173	\$1.31 million	6,318	277.4
CA-04 WaterSmart Home Water Reports	770	\$3.17 million	4,119	37	\$151,529	1,766	58.9
CA-05 Home Water Recycling	229	\$7.8 million	34,061	11.9	N/A	571	19.0

MG: million gallons; MWh: megawatt hours; PV: present value.

a. Values reported for CA-03 are for a 25-year period, rather than a 30-year period.