

## Section 9. FINDINGS AND CONCLUSIONS

*IN SECTION 2 OF THE WSIP, VARIOUS WATER SUPPLY INFRASTRUCTURE AND SUPPLY ISSUES WERE IDENTIFIED AND, THROUGH THE BODY OF THE WSIP REPORT, THESE ISSUES WERE ADDRESSED IN SOME MANNER WITH A PHYSICAL OR OPERATIONAL SOLUTION IN TERMS OF THE DESIGN OF THE WATER SYSTEM OR THE OPERATIONAL CRITERIA OF THE CONJUNCTIVE USE SYSTEM. THIS SECTION SUMMARIZES THE USE THIS DOCUMENT BY THE AUDIENCE FOR WHICH IT WAS INTENDED, PROVIDES SOME GENERAL GUIDELINES FOR WHEN TO REFRESH THE WSIP, AND RECOMMENDS SOME FURTHER ACTIONS BASED ON THE CURRENT PLANNING AND INSTITUTIONAL ENVIRONMENT THAT ZONE 40 OVERLIES.*

### 9.1 Introduction

There are three primary users of the WSIP: 1) the water supply planner, 2) the water supply facility designer, 3) the improvement plan and tentative map reviewer, and 3) the water facility operator. Each of these positions has an interest in this document and each can use the document and associated tools in different ways.

It is also recognized that there is a persistent underlying question of whether the WSIP contains the most current information and understanding of the water supply portfolio, the institutional framework, and SCWA design criteria, that essential decisions can be based upon in the everyday activities of designing, reviewing, and running a water supply system. For this reason, it is necessary to understand when this document should be refreshed and perhaps what other studies should be contemplated in the near future to provide the highest level of confidence in decision-making and to be proactive in responding to the land use authorities that Zone 40 overlies.

### 9.2 Use of WSIP by Water Supply Planners

Water Supply Planners are individuals who need to know the past, present and future, for purposes of developing master plans, fee programs, and allocation of resources within the organization. While the entire WSIP is a planning document, **Table 9-1** provides a short list of how the WSIP responds to the planning needs of the SCWA.

**Table 9-1. Water Supply Planning Uses for WSIP**

<b>Task</b>	<b>Use of WSIP</b>	<b>Relevant Sections of WSIP</b>
Zone 40 Water Supply Master Plan	As mentioned in Section 1 of the WSIP, this document is intended to complement the WSMP in terms of clearly defining the water facility and operational requirements. The WSIP should be used in any updates to the WSMP for defining the projected water demands, the locations and sizes of larger water facility components and the identification of costs.	Section 2 Service Area Description Section 3 Water Demand Evaluation Section 6 Infrastructure Requirements
Zone 40 Fee Program	The Zone 40 Fee Program requires a careful study of the nexus between the water facilities required for new and existing development and the needed rates and fees. Any debt financing can rely on the WSIP to fully describe the facilities that are needed and that will be paid for under a bond issuance	Section 8 Financial Assessment
Resource Allocation	Resource Allocation implies both staffing and monetary resources and is based on the intensity of growth that is projected to take place under this WSIP. During periods of increased construction of water facilities, higher labor and monetary resources are expected and should be planned for accordingly.	Section 8 Financial Assessment

### **9.3 Use of WSIP by Water Supply Facility Designers**

Water Supply Facility Designers need to know when a specific water facility is required, what size, and how is it integrated with other water facilities. Along with this are other responsibilities in terms of being a project engineer such as preliminary designs, cost estimates, budget requests, etc. The WSIP provides to a preliminary design level all of the major water facility requirements as indicated in **Table 9-2** below.

**Table 9-2. Water Supply Facility Designers**

<b>Task</b>	<b>Use of WSIP</b>	<b>Relevant Sections of WSIP</b>
Water Facility Design Parameters	The WSIP provides the design criteria and operating goals for which all water facilities in Zone 40 are designed. Consistency in the application of the design criteria insure a better integration of facilities and a known level of expectation.	Section 5.5 SCWA Water System Design Criteria
Water Facility Phasing	Phasing of the various water facility components is roughly estimated in the WSIP based primarily on expected water demands and the construction of the Vineyard SWTP and its two phases. The larger water facility components, their location, and their approximate size are provided for the three service areas of the WSIP.	Section 6 Infrastructure Requirements
Preliminary Design	The WSIP provides at a schematic level of detail, the necessary components of the larger groundwater treatment and well facilities and the larger pipeline facilities. The new groundwater treatment plants each have a schematic figure in the Infrastructure Workbook included as Appendix D of the WSIP.	Appendix D. Infrastructure Workbook

### **9.4 Use of WSIP for Water Supply Plan Check and Tentative Map Review**

The review of improvement plans by SCWA staff is perhaps one of the most relevant functions to the purpose of the WSIP. It is typically at the time of the tentative map when the first opportunity arises for conditioning new development areas for water related requirements such as land purchases, completion of water studies, determination of needed larger water facility requirements, etc. Then, at the improvement plan submittal or preliminary design stage, water pipe sizes, alignments, and other infrastructure requirements have to be determined and then communicated to development engineers and their clients for inclusion on the overall improvement plan submittal. There is a process that is currently being used by SCWA that should be followed with the

acceptance of this WSIP as a supporting document. This process is outlined in **Table 9-3** below.

**Table 9-3. Water Supply Plan Check and Map Review**

<b>Task</b>	<b>How To Use WSIP</b>	<b>Relevant Sections of WSIP</b>
Initial Review	Tentative Map review should be completed for consistency with the WSIP insofar as the need for any land for wells, water treatment plants, tanks, etc. In addition, conditions should be placed on the map for a water study especially if changes in land use are proposed that may change the outcome of the WSIP.	Appendix D. Infrastructure Workbook
Water Study Preparation and Review	The improvement plan check person should require a separate water study that sizes the distribution mains and integrates this study with the water distribution model of the WSIP. Review of the Water Study should be completed for consistency with the WSIP and for appropriate phasing of water facilities and coordination with the SCWA Water Design Group.	
WSIP Model Update	Upon approval of the water study for each project, the water distribution model should be incorporated into the WSIP model to initiate the completion of an as-built model over time.	

## **9.5 Use of WSIP by Water Facility Operators**

Water Supply Facility Operators are the ultimate end user of the WSIP. With the proper implementation of the WSIP, the operator should be left with a well designed, well integrated water treatment and distribution system that can be readily maintained and operated. The challenge that is left to the operator is the conjunctive use element of the Zone 40 program that the WSIP strives to optimize. Unlike most water systems, the Zone 40 system, will have sufficient redundancy in delivery capacity such that a deliberate educated decision has to be made to achieve the conjunctive use goals outlined in **Section 7 Conjunctive Use Operations**.

## **9.6 Future WSIP Updates**

Given that time constantly brings change to the planning environment, the information contained within the WSIP has a certain lifespan. Meaning, there is a period of time where the information contained within the WSIP is relevant to the policies and institutional planning environment that Zone 40 overlies; however, even as incorporation of the City of Rancho Cordova or the adoption of a new City or County General Plan can change other infrastructure requirements, it can do the same to water supply.

The Water Forum Agreement also was signed under the premise that there needed to be a successor effort that addressed changed conditions. The WSIP is no different. There will be issues that have not been considered in this WSIP raised in the planning arena as various planning agencies working for their respective land use authorities seek water supplies to support growth or other desired uses. How and when the WSIP is updated is a question that needs consideration.

There are several key events that may trigger the need for at least a cursory update of the WSIP. These are as follows:

- Water Supply Master Plan Update
- Development Fee Program Update

- Sale of Bonds for Debt Financing
- Change in Water Forum Agreement
- Mix of Water Supplies Change (i.e., recycled water, water conservation, firm surface water, etc.)
- Change in General Plans for Cities or County
- Change in Agreements with City of Sacramento, City of Elk Grove, Aerojet, McDonnell Douglas, Golden State Water Company.

These are listed because they may have a direct impact on what gets built when and for how much money. A complete update to the WSIP should be considered when there is an expansion of the 2030 study area of the Zone 40 WSMP or agreements are entered into that obligate Zone 40 to supply water above and beyond that contemplated in the WSIP. An example of when a thorough revision would be necessary would be if the City of Rancho Cordova approves a General Plan that expands growth beyond the current 2030 study area and the Water Forum Successor Effort is under negotiation in identifying how the area will be served with limited water supplies. The revision, or update, would be done in parallel with any negotiation effort to provide the technical support that justifies the solution of how the area will ultimately be provided water. The Zone 40 WSMP will also have to follow in the update process to reflect the most current Zone 40 capital program.

In the end, the three documents, the Zone 40 WSMP, the WSIP, and the Central Basin GMP all need to be coordinated and updated upon changes in the planning environment.