

Meeting Agenda
Yolo County Storm Water Resources Plan
Kick-Off Meeting

Location: Yolo County Flood Control and Water Conservation District Boardroom,
 34274 State Highway 16, Woodland 95695

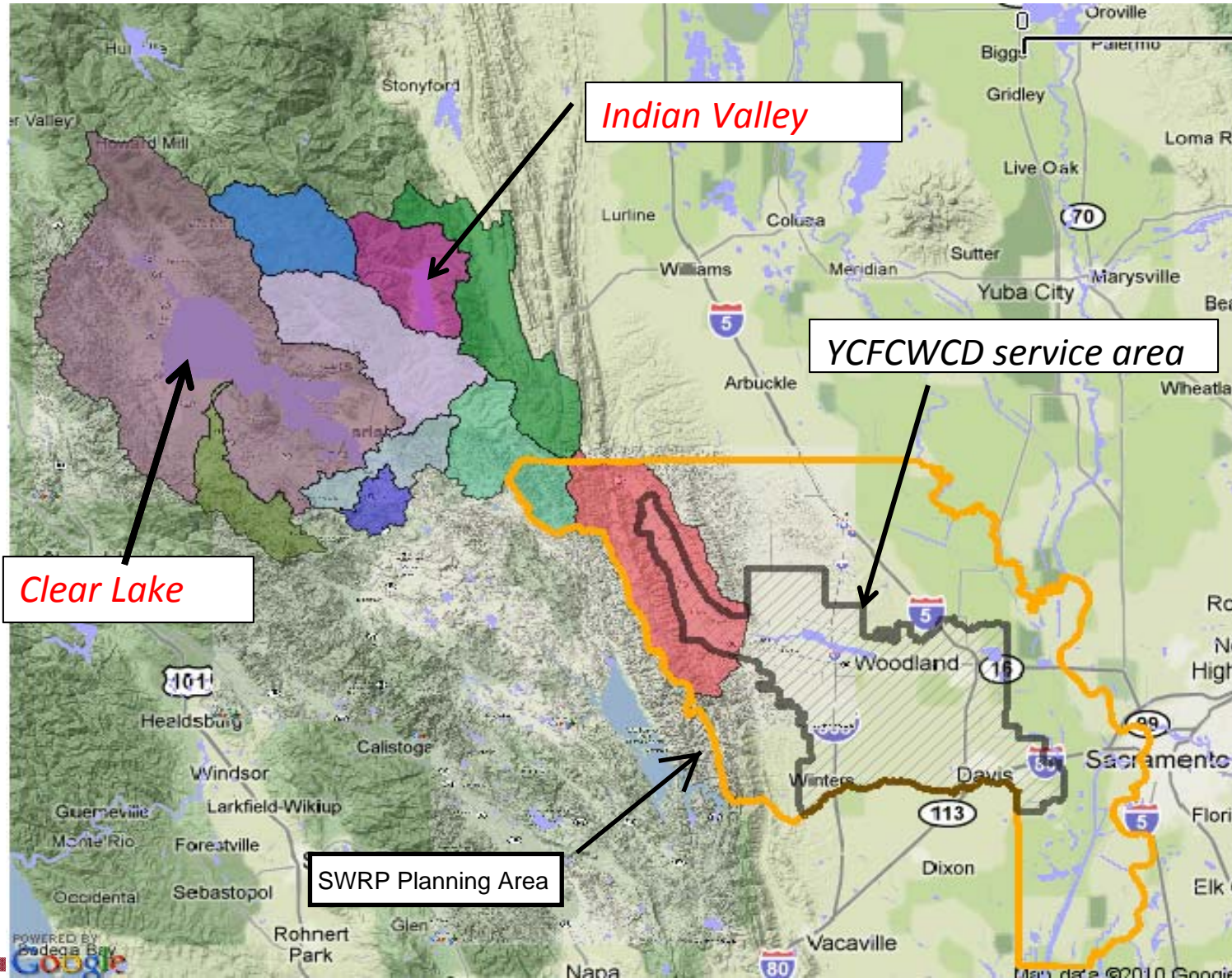
Date/Time: 02 March 2017, 10:30 AM

1	Introductions and Safety Moment	5 minutes
2	<p>Storm Water Resources Plan (SWRP) Background</p> <ul style="list-style-type: none"> • 2016 IRWMP Guidelines requirement for 2018 Implementation Funding <ol style="list-style-type: none"> 1. Link to SWRP Guideline: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/swgp/docs/prop1/swrp_finalguidelines_dec2015.pdf 2. Link to Proposition 1 Grant Guidelines: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/swgp/docs/prop1/prop1_swgpguidelines_final_dec2015.pdf • Planning Area (Handout #1) • Review SWRP Checklist (Handout #2) • Review SWRP Workplan approved by Water Board (Handout #3) 	15 minutes
3	<p>Projects Discussion</p> <ul style="list-style-type: none"> • Project Selection Process • Quantification of Project Benefits <ol style="list-style-type: none"> 1. SEI-WEAP Model Update for Potential Regional Projects 2. Other quantification methods • Project Types <ol style="list-style-type: none"> 1. Projects not on Westside Sacramento IRWM Plan list? See Handout #4 2. Identification of potential projects through GIS 	30-45 minutes
4	Discussion of other storm water related activities for SWRP	15 minutes

**Yolo County Storm Water Resources Plan
Kick-Off Meeting
02 March 2017**

5	<p>Tentative Schedule</p> <hr/> <p>TC Kickoff Meeting 2-Mar-17</p> <hr/> <p>TC Meeting - SWRP Outline, Checklist, Data Gaps Apr-17</p> <hr/> <p>TC Meeting - Watershed Identification and Water Quality Compliance May-17</p> <hr/> <p>TC Meeting - Project Selection, Prioritization Process, and Call for Projects (8 Weeks) Jun-17</p> <hr/> <p>EDA/DAC Meetings (x2) Jun-17</p> <hr/> <p>TC Meeting - Organization, Coordination, and Collaboration Aug-17</p> <hr/> <p>TC Meeting - Implementation of Strategy and Schedule Sep-17</p> <hr/> <p>TC Meeting - Identification and Prioritization of Projects Oct-17</p> <hr/> <p>TC Meeting - Quantitative Methods Nov-17</p> <hr/> <p>TC Meeting - Education, Outreach, and Public Participation Dec-17</p> <hr/> <p>TC Meeting - Draft SWRP Feb-18</p> <hr/> <p>Final SWRP and Signed Self-Certification Checklist Mar-18</p> <hr/> <p>WRA and TC Meeting - Final SWRP Apr-18</p> <hr/> <p>IRWM Meeting - Final SWRP Jun-18</p> <hr/> <p>Draft IRWMP PSP for Implementation Spring 2018</p> <hr/> <p>Storm Water Implementation Funding Round 2 Tentative 2018</p>	5 minutes
7	Other Discussion/Questions	10 minutes
6	<p>Handouts</p> <ol style="list-style-type: none"> 1. Planning area map 2. SWRP Checklist 3. SWRP Workplan 4. List of Projects currently on Sacramento Westside IRWM Plan Project List 	

Handout #1 - Yolo SWRP Planning Area



Handout #2

Appendix A: Checklist and Self-Certification

Checklist Instructions:

For each element listed below, review the applicable section in the Storm Water Resource Plan Guidelines and enter ALL of the following information.

- A. Mark the box if the Storm Water Resource Plan, or a functional equivalent Plan, meets the provision
- B. In the provided space labeled References, enter:
 1. Title of document(s) that contain the information;
 2. The chapter/section, and page number(s) where the information is located within the document(s);
 3. The entity(ies) that prepared the document(s);
 4. The date the document(s) was prepared, and subsequent updates; and
 5. Where each document can be accessed (website address or attached).

A.1 WATERSHED IDENTIFICATION (GUIDELINES SECTION VI.A)

a. Plan identifies watershed and subwatershed(s) for storm water resource planning. [10565(c), 10562(b)(1), 10565(c)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
b. Plan is developed on a watershed basis, using boundaries as delineated by USGS, CalWater, USGS Hydrologic Unit designations, or an applicable integrated regional water management group, and includes a description and boundary map of each watershed and sub-watershed applicable to the Plan.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
c. Plan includes an explanation of why the watershed(s) and sub-watershed(s) are appropriate for storm water management with a multiple-benefit watershed approach;	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

d. Plan describes the internal boundaries within the watershed (boundaries of municipalities; service areas of individual water, wastewater, and land use agencies, including those not involved in the Plan; groundwater basin boundaries, etc.; preferably provided in a geographic information system shape file);	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
e. Plan describes the water quality priorities within the watershed based on, at a minimum, applicable TMDLs and consideration of water body-pollutant combinations listed on the State's Clean Water Act Section 303(d) list of water quality limited segments (a.k.a impaired waters list);	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
f. Plan describes the general quality and identification of surface and ground water resources within the watershed (preferably provided in a geographic information system shape file);	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
g. Plan describes the local entity or entities that provide potable water supplies and the estimated volume of potable water provided by the water suppliers;	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
h. Plan includes map(s) showing location of native habitats, creeks, lakes, rivers, parks, and other natural or open space within the sub-watershed boundaries; and	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

i. Plan identifies (quantitative, if possible) the natural watershed processes that occur within the sub-watershed and a description of how those natural watershed processes have been disrupted within the sub-watershed (e.g., high levels of imperviousness convert the watershed processes of infiltration and interflow to surface runoff increasing runoff volumes; development commonly covers natural surfaces and often introduces non-native vegetation, preventing the natural supply of sediment from reaching receiving waters).	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

A.2 WATERSHED QUALITY COMPLIANCE (GUIDELINES SECTION V)

a. Plan identifies activities that generate or contribute to the pollution of storm water or dry weather runoff, or that impair the effective beneficial use of storm water or dry weather runoff. [10562(d)(7)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
b. Plan describes how it is consistent with and assists in, compliance with total maximum daily load implementation plans and applicable national pollutant discharge elimination system permits. [10562(b)(5)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
c. Plan identifies applicable permits and describes how it meets all applicable waste discharge permit requirements. [10562(b)(6)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		

**A.3 ORGANIZATION, COORDINATION, COLLABORATION
(GUIDELINES SECTION VI.B)**

a. Local agencies and nongovernmental organizations were consulted in Plan development. [10565(a)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
b. Community participation was provided for in Plan development. [10562(b)(4)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
c. Plan includes description of the existing integrated regional water management group(s) implementing an integrated regional water management plan.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
d. Plan includes identification of and coordination with agencies and organizations (including, but not limited to public agencies, nonprofit organizations, and privately owned water utilities) that need to participate and implement their own authorities and mandates in order to address the storm water and dry weather runoff management objectives of the Plan for the targeted watershed.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
e. Plan includes identification of nonprofit organizations working on storm water and dry weather resource planning or management in the watershed.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
f. Plan includes identification and discussion of public engagement efforts and community participation in Plan development.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

g. Plan includes identification of required decisions that must be made by local, state or federal regulatory agencies for Plan implementation and coordinated watershed-based or regional monitoring and visualization.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
h. Plan describes planning and coordination of existing local governmental agencies, including where necessary new or altered governance structures to support collaboration among two or more lead local agencies responsible for plan implementation.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
i. Plan describes the relationship of the Plan to other existing planning documents, ordinances, and programs established by local agencies.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
j. (If applicable) Plan explains why individual agency participation in various isolated efforts is appropriate.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

A.4 QUANTITATIVE METHODS (GUIDELINES SECTION VI.C)

a. For all analyses: Plan includes an integrated metrics-based analysis to demonstrate that the Plan's proposed storm water and dry weather capture projects and programs will satisfy the Plan's identified water management objectives and multiple benefits.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

<p>b. For water quality project analysis (section VI.C.2.a): Plan includes an analysis of how each project and program complies with or is consistent with an applicable NPDES permit. The analysis should simulate the proposed watershed-based outcomes using modeling, calculations, pollutant mass balances, water volume balances, and/or other methods of analysis.</p> <p>Describes how each project or program will contribute to the preservation, restoration, or enhancement of watershed processes (as described in Guidelines section VI.C.2.a)</p>	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
<p>c. For storm water capture and use project analysis (section VI.C.2.b): Plan includes an analysis of how collectively the projects and programs in the watershed will capture and use the proposed amount of storm water and dry weather runoff.</p>	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
<p>d. For water supply and flood management project analysis (section VI.C.2.c): Plan includes an analysis of how each project and program will maximize and/or augment water supply.</p>	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
<p>e. For environmental and community benefit analysis (section VI.C.2.d): Plan includes a narrative of how each project and program will benefit the environment and/or community, with some type of quantitative measurement.</p>	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
<p>f. Data management (section VI.C.3): Plan describes data collection and management, including: a) mechanisms by which data will be managed and stored; b) how data will be accessed by stakeholders and the public; c) how existing water quality and water quality monitoring will be assessed; d) frequency at which data will be updated; and e) how data gaps will be identified.</p>	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

A.5 IDENTIFICATION AND PRIORITIZATION OF PROJECTS
(GUIDELINES SECTION VI.D)

a. Plan identifies opportunities to augment local water supply through groundwater recharge or storage for beneficial use of storm water and dry weather runoff. [10562(d)(1)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
b. Plan identifies opportunities for source control for both pollution and dry weather runoff volume, onsite and local infiltration, and use of storm water and dry weather runoff. [10562(d)(2)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
c. Plan identifies projects that reestablish natural water drainage treatment and infiltration systems, or mimic natural system functions to the maximum extent feasible. [10562(d)(3)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
d. Plan identifies opportunities to develop, restore, or enhance habitat and open space through storm water and dry weather runoff management, including wetlands, riverside habitats, parkways, and parks. [10562(d)(4)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
e. Plan identifies opportunities to use existing publicly owned lands and easements, including, but not limited to, parks, public open space, community gardens, farm and agricultural preserves, school sites, and government office buildings and complexes, to capture, clean, store, and use storm water and dry weather runoff either onsite or offsite. [10562(d)(5), 10562(b)(8)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		

f. For new development and redevelopments (if applicable): Plan identifies design criteria and best management practices to prevent storm water and dry weather runoff pollution and increase effective storm water and dry weather runoff management for new and upgraded infrastructure and residential, commercial, industrial, and public development. [10562(d)(6)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
g. Plan uses appropriate quantitative methods for prioritization of projects. (This should be accomplished by using a metrics-based and integrated evaluation and analysis of multiple benefits to maximize water supply, water quality, flood management, environmental, and other community benefits within the watershed.) [10562(b)(2)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
h. Overall: Plan prioritizes projects and programs using a metric-driven approach and a geospatial analysis of multiple benefits to maximize water supply, water quality, flood management, environmental, and community benefits within the watershed.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
i. Multiple benefits: Each project in accordance with the Plan contributes to at least two or more Main Benefits and the maximum number of Additional Benefits as listed in Table 4 of the Guidelines. (Benefits are not counted twice if they apply to more than one category.)	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

**A.6 IMPLEMENTATION STRATEGY AND SCHEDULE
(GUIDELINES SECTION VI.E)**

a. Plan identifies resources for Plan implementation, including: 1) projection of additional funding needs and sources for administration and implementation needs; and 2) schedule for arranging and securing Plan implementation financing.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
b. Plan projects and programs are identified to ensure the effective implementation of the storm water resource plan pursuant to this part and achieve multiple benefits. [10562(d)(8)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
c. The Plan identifies the development of appropriate decision support tools and the data necessary to use the decision support tools. [10562(d)(8)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
d. Plan describes implementation strategy, including: a) Timeline for submitting Plan into existing plans, as applicable; b) Specific actions by which Plan will be implemented; c) All entities responsible for project implementation; d) Description of community participation strategy; e) Procedures to track status of each project; f) Timelines for all active or planned projects; g) Procedures for ongoing review, updates, and adaptive management of the Plan; and h) A strategy and timeline for obtaining necessary federal, state, and local permits.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

e. Applicable IRWM plan: The Plan will be submitted, upon development, to the applicable integrated regional water management (IRWM) group for incorporation into the IRWM plan. [10562(b)(7)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
f. Plan describes how implementation performance measures will be tracked.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

A.7 EDUCATION, OUTREACH, PUBLIC PARTICIPATION (GUIDELINES SECTION VI.F)

a. Outreach and Scoping: Community participation is provided for in Plan implementation. [10562(b)(4)]	Mandatory?	Yes
	Meets Requirement?	
<u>References:</u>		
b. Plan describes public education and public participation opportunities to engage the public when considering major technical and policy issues related to the development and implementation.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
c. Plan describes mechanisms, processes, and milestones that have been or will be used to facilitate public participation and communication during development and implementation of the Plan.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
d. Plan describes mechanisms to engage communities in project design and implementation.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

e. Plan identifies specific audiences including local ratepayers, developers, locally regulated commercial and industrial stakeholders, nonprofit organizations, and the general public.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
f. Plan describes strategies to engage disadvantaged and climate vulnerable communities within the Plan boundaries and ongoing tracking of their involvement in the planning process.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
g. Plan describes efforts to identify and address environmental injustice needs and issues within the watershed.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		
h. Plan includes a schedule for initial public engagement and education.	Mandatory?	No
	Meets Requirement?	
<u>References:</u>		

DECLARATION AND SIGNATURE

I declare under penalty of perjury that all information provided is true and correct to the best of my knowledge and belief.

Signature	Title	Date
Signature	Title	Date

Handout #3

YOLO COUNTY SWRP WORKPLAN

Task 5a: Project Administration

Task 5a.1 – Grant Administration

This task includes the support of administration of the planning grant. For the grant administration, the Kennedy/Jenks will provide a monthly invoice report that will support WRA/YCFCWD in the following reports, as discussed in the Draft Planning Grant Agreement Template:

- Quarterly Progress Reports
- As Needed Reports
- Annual Progress Summaries

- Final Reports
 - Draft Planning Report
 - Final Planning Report
 - Final Planning Summary

Kennedy/Jenks will provide monthly invoice reports which will be used to notify WRA/YCFCWD of any proposed changes in scope, cessation or delay of work, monitoring activities, project publicity events, and/or work completion. Kennedy/Jenks invoices will be prepared monthly and submitted by WRA/YCFCWD quarterly to the SWRCB Grant Manager.

Task 5a.2 – SWRP Management and Coordination

This task is for management of the SWRP Team (i.e. Kennedy/Jenks and SEI) and includes bi-weekly status update conference calls with the up to 2 Kennedy/Jenks' staff and the WRA/YCFCWD's designated Project Director.

Task 5b: Planning, Design, Engineering, & Environmental

This task is for the preparation of the SWRP and is anticipated to be a 16-month process. This includes 13 months for the drafting of the SWRP and 3 months for presentation of the SWRP to the WRA and the Westside Integrated Regional Water Management (IRWM). The approach, which is similar to the preparation of the Westside IRWM, includes an interactive process that will use the monthly standing meetings of the WRA Technical Committee (TC) to present SWRP content including identifying key SWRP goals and objectives, reviewing technical content such as model results, as well as soliciting, reviewing and prioritization of projects, and reviewing draft SWRP sections.

With the support of WRA staff and Project Director for communications, the SWRP Team Project Manager, Sachi Itagaki, will lead the SWRP Team through the following tasks to complete the SWRP.

Task 5b.1 – Initial Coordination & Inventory of Current Resources

The SWRP Team Project Manager will hold an initial kickoff meeting with the SWRP Team and WRA TC where they will define the goals and objectives of the planning process and evaluate the current resources (plans, studies, personnel) available to develop the SWRP. Attachment 5 of the planning grant application provides an overview of the available resources identified to date that will be used to inform much of the SWRP content. Using the SWRP Self-Certification Form as a roadmap, gaps in required content will be identified. Initial gaps that have been identified include quantitative analysis of the SWRP planning area. Water Evaluation and Planning (WEAP) modeling for a smaller area has occurred and WEAP modeling will be expanded for the entire SWRP planning area in Task 5b.2.4 by SEI.

Key resources that will inform the SWRP are: the 2007 Yolo IRWM Plan, the 2013 Westside IRWM Plan and associated Geographic Information System (GIS) files, the individual stormwater management plans (SWMP) prepared by each agency for storm water compliance, the WEAP modeling that has been completed to date, data generated in connection with the North Gibson Pond Study, as well as individual modeling efforts by the agencies. Additional work necessary to complete the SWRP to meet the needs of the WRA are described in the tasks in Item 5b.2.

Deliverable: List of TC Members, Roles and Responsibilities, and Affiliations; TC Kickoff Meeting Summary; GIS Database, Annotated List of Data and Reports (for deliverable for submittal to SWRCB)

Task 5b.2 – Research/Writing of SWRP

The SWRP will address all 51 of the mandatory and suggested elements provided in Appendix A of the SWRP guidelines published by the SWRCB. A detailed SWRP Outline will be prepared for submittal to SWRCB as a deliverable. The following tasks correspond to the seven categories of elements that will be addressed.

Task 5b.2.1 – Watershed Identification

SWRP Guidelines: Section VI.A

Water Code Sections: 10565(c), 10562(b)(1)

The SWRP will be developed, using boundaries as delineated by USGS and informed by the Westside IRWM Plan boundaries as defined in the planning grant application. The SWRP will describe the planning area's internal boundaries, as well the surface and ground water resources, potable water sources and water quality priorities within the planning area. Maps showing the location of native habitats, creeks, lakes, rivers, parks, and other natural or open spaces will be developed using GIS files from the Westside IRWM Plan and provided by agency participants which. The SWRP will discuss the natural watershed processes that occur within the planning area. Some of the unique features of the watershed include significant modifications to the alluvial fan drainages as a result of the acres of agricultural cultivation in the planning area as well as the pockets of urbanization within this largely rural planning area. Irrigation canals present a significant opportunity to intercept and deliver storm water for recharge.

Deliverable: Draft Watershed Identification Plan Section (for deliverable for submittal to SWRCB).

Task 5b.2.2 – Water Quality Compliance

SWRP Guidelines: Section V

Water Code Sections: 10562(d)(7), 10562(b)(5, 6)

As described in planning grant Workplan Section 9, there are several Total Maximum Daily Load (TMDL) and permitting related topics within the SWRP planning area, as well as agencies that are required to comply with the Phase 2 Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permit. The SWMP for each agency, identified in planning grant Attachment 5, will be a valuable source of information describing individual agency water quality challenges. The SWRP will identify activities that contribute to the pollution of storm water and dry weather runoff. The SWRP will identify the applicable TMDL plans such as the mercury TMDL with source areas outside the SWRP Planning area, other NPDES permits for industrial storm water permits and for wastewater treatment facilities and waste discharge permits such as for reclamation of wastewater and landfill operations within the planning area. The SWRP will identify how the proposed SWRP projects will be consistent with these plans and permits (Section 9 of the planning grant workplan provides some early examples). The SWRP will describe how each project contributes to the preservation, restoration, or enhancement of watershed processes through actions such as on-site infiltration, waterway restoration, and other measures that could result in pollutant load reduction.

Deliverable: Draft *Water Quality Compliance* Plan Section (for deliverable for submittal to SWRCB).

Task 5b.2.3 – Organization, Coordination, Collaboration

SWRP Guidelines: Section VI.B

Water Code Sections: 10565(a), 10562(b)(4)

Sections 3 and 4 of the planning grant workplan describe how the input of Disadvantaged Community (DAC)/ Economically Distressed Areas (EDA)/ Non-governmental Organization (NGO) and other stakeholders for this SWRP effort will occur through the existing WRA meetings and the Westside IRWM meetings. This task includes up to 4 outreach meetings specific to the DAC/EDA/NGO communities. These outreach efforts when combined with efforts in Task 5b.2.7 will ensure that local agencies, non-governmental organizations, nonprofit organizations, and the community are identified and consulted - throughout the SWRP development.

The SWRP will build off of the existing Yolo and Westside IRWM Plans, agency SWMPs, drainage plans, and other planning documents, ordinances, and programs established by local agencies, summarized in planning grant Attachment 5. The SWRP will develop SWRP sections using portions of this existing body of work.

The SWRP will identify the decisions that must be made by local, state or federal regulatory agencies for SWRP implementation. In some cases it may be necessary to create new or altered governance structures to support collaboration among two or more lead local agencies

responsible for Plan implementation. Several broader efforts such as FloodSAFE Yolo, FloodProtect, the Bay-Delta Conservation Plan, and other regional/statewide efforts that incorporate state and federal agencies will also be discussed in the SWRP.

Deliverables: Draft *Organization, Coordination, Collaboration* Plan Section and agendas/attendee lists of DAC/EDA/NGO meetings (for deliverable for submittal to SWRCB).

Task 5b.2.4 – Quantitative Methods

SWRP Guidelines: Section VI.C
Water Code Sections: n/a

Various quantitative methods will be applied based on the specific projects proposed in the SWRP. At a minimum, all projects will be evaluated using GIS to identify optimal locations for implementation projects on a SWRP Planning area scale, and an integrated metrics-based analysis to demonstrate that the project will satisfy identified water management objectives and multiple benefits. This analysis will inform the prioritization of projects in Task 5b.2.5. It is anticipated that the North Gibson Pond Study will further inform feasibility of the opportunities for groundwater enhancement and maximizing multiple benefits within the City of Woodland's South Urban Growth Area and the Willow Slough Shed.

GIS mapping layers including the SWRP Planning Area boundary, location of surface water features including irrigation canals, depth to groundwater, Soil Conservation Service soil type (which is indicative of soil permeability), location of drainage and flooding areas and other relevant information will be georeferenced to a single coordinate system. Then, the GIS layers will be analyzed, at a SWRP planning area scale (of over 250,000 acres) to identify where the best opportunities to capture, divert, recharge, and/or treat storm water and dry weather runoff may occur. Once feasible opportunities are identified, further screening and analysis in WEAP (described below) will occur to evaluate the likely benefit of the opportunities.

The quantitative methods used in the SWRP preparation will vary by geographic scale and depend on whether the project offers water quality, water supply, flood, or other benefits. For example, quantitative water quality benefits in the Yolo SWRP planning area are more appropriate at a project-specific scale since most water quality focused projects will occur in the more urbanized areas, which comprise a small portion of the planning area. Water quantity benefits can be described at a SWRP planning area scale, primarily because of an existing WEAP model (described below under water supply and flood management project analysis) that can be efficiently expanded. The expanded WEAP model can be used to identify and quantify opportunities to operate the water resources infrastructure in a manner to maximize stormwater recharge.

For projects focused on improving water quality, the Kennedy/Jenks Project Team will simulate the proposed water quality outcomes using modeling, calculations, pollutant mass balances, water volume balances, and/or other methods of analysis. As an example, the Simple Method may be used as a basis for a project-specific pollutant load reduction tool. The Simple Method can be applied as a spreadsheet-based model that estimates stormwater runoff pollutant loads for urban areas. Combined with characteristic pollutant removal efficiencies, it can provide a general planning estimate of likely storm pollutant reduction as a result of implementing projects

at the scale of a development site, catchment or subwatershed. The technique requires a modest amount of information, including the subwatershed drainage area and impervious cover, stormwater runoff pollutant concentrations, and annual precipitation from the WEAP model. Stormwater pollutant concentrations can be estimated from local or regional data, or from national data sources.

For water quality projects that are focused on implementing pollution control measures through green infrastructure, total maximum daily load requirements, and/or MS4 management practices, modeling of water quality improvements by the project proponents may be required in order to integrate the benefits into the region-wide analysis. Example models include Simple Method discussed above or the US Environmental Protection Agency's System for Urban Stormwater Treatment and Analysis IntegratioN (SUSTAIN). These tools will be provided to project proponents to analyze the water quality benefits of individual project concepts.

For storm water capture and use projects, the Kennedy/Jenks Project Team will analyze how the project will capture and use the proposed amount of storm water and dry weather runoff using development/drainage area, impervious area, soil permeability from the Soil Conservation Service, and intensity duration and frequency information for precipitation events from the National Oceanic and Atmospheric Administration (NOAA).

For water supply and flood management projects, the Kennedy/Jenks Project Team will assess the SWRP planning area to identify opportunities to maximize and/or augment water supply. Under a National Aeronautics and Space Administration (NASA) grant, a WEAP model was prepared by the SEI in partnership with YCFCWCD for a portion of the SWRP planning area as shown on planning grant workplan Figure 5. WEAP is a user-friendly software tool that takes an integrated approach to water resources planning. WEAP aims to incorporate supply, demand, water quality and ecological considerations into a practical yet robust tool for integrated water resources planning.

Under separate agreement between WRA/YCFCWCD and SEI, the SWRP will include an expansion of the WEAP model by SEI for the entire planning area and investigate the impacts of existing and potential new stormwater management strategies, of water purveyors within this expanded area plus YCFCWCD that will address the following questions:

- What are the opportunities for co-benefits of augmented groundwater recharge with storm water and the resulting increased summer irrigation water availability?
- What do individual recharge plans mean at a collective scale for the planning area/county?
- How will this improve the water system resiliency in the face of climate change/variability

SEI will lead the collection of data such as land use, climate, water rights, operations, existing and planned storm water recharge projects from the agencies (estimated at up to three agencies including Reclamation District 108) in the expanded WEAP model area. Kennedy/Jenks will share GIS and other data obtained in the course of the SWRP with SEI. SEI will update the model schematic based on the results of SWRP- Planning area GIS analysis, update model inputs, calibrate against existing historical information, add storm water management as a model component, , and integrate individual project benefits. Up to 15 runs will be conducted with varying assumptions of climate and runoff availability. YCFCWCD is

also implementing Supervisory Control and Data Acquisition (SCADA) that will provide valuable on-the-ground information for the SWRP as discussed in Task 5b.2.4. SCADA data, when integrated with automatic gates in its irrigation infrastructure, can be used quantify and capitalize on this stormwater capture opportunity.

Once the WEAP model is updated, it is anticipated that the above questions will be answered by the model outputs: groundwater recharge volume, groundwater quality impacts/improvements, water supply availability for agricultural irrigation, and financial impacts. In addition, the WEAP model will contextualize project benefits and their significance of storm water capture on the overall water supply portfolio, as well as financial impacts and sustainability. These model updates and associated analyses and results will be provided in narrative and graphical form by SEI for inclusion in the SWRP.

Based on the updated data made available through the SWRP preparation, the SWRP will describe how data will be managed, stored and accessed by stakeholders and the public. Also discussed, as applicable, will be the assessment of existing water quality and water quality monitoring, the frequency at which data will be updated, and how data gaps will be identified.

Deliverable: Draft *Quantitative Methods* Plan Section (to be adapted into a Tech Memo for submittal to SWRCB) including model information provided by SEI.

Task 5b.2.5 – Identification and Prioritization of Projects

SWRP Guidelines: Section VI.D

Water Code Sections: 10562(d)(1-6), 10562(b)(2, 8)

The SWRP Team Project Manager will work with the WRA/YCFCWD Project Director to publish a Call for Projects, which will direct stakeholders to submit projects using a common information form, for inclusion in the SWRP. Projects submitted for consideration must contribute to the attainment of the SWRP Goals and Objectives. Discussion of the information form and assistance in completing the form will occur in one of the WRA TC meetings in Task 5b.2.7.

Once the list of projects has been compiled, the Kennedy/Jenks Project Team will prioritize this list using a metric-driven approach and a geospatial analysis (GIS) of project location and multiple benefits. Project prioritization criteria will be developed in collaboration with stakeholders during one of the meetings in Task 5b.2.7. At a minimum the process shall include:

1. Identify potential opportunities and multi-benefit storm water projects that augment water supply, water quality, flood protection, environmental benefits, and other community benefits within the watershed using the developed approach.
2. Screen potential opportunities and projects for feasibility and potential benefits by conducting site visits, gathering supplemental information, and using the developed approach.
3. Evaluate each feasible multi-benefit project and develop a list of prioritized projects using the developed approach.
4. Complete the evaluation of feasibility, and multiple benefits provided by the North Gibson detention ponds project. SWRCB has requested a summary describing an

approach for an enhanced assessment and prioritization of storm water management needs and opportunities to maximize multiple benefits of the planned North Gibson detention ponds. It is assumed that written documentation regarding the North Gibson detention ponds will be provided from which to prepare a brief summary.

Each project will contribute to at least two or more Main Benefits and the maximum number of Additional Benefits as listed in Table 4 of the SWRP Guidelines.

The project prioritization will also draw upon the integrated metrics-based analysis undertaken in Task 5b.2.4 for the projects and/or the planning area as derived from the WEAP model. High priority will generally involve the following elements, as appropriate:

- Augmentation of local water supply through groundwater recharge or storage for beneficial use of storm water and dry weather runoff
- Use of source control
- Re-establishment of natural water drainage treatment and infiltration systems
- Mimicking of natural system functions
- Development, restoration, or enhancement of habitat and open space
- Use of existing publicly owned lands and easements
- Identification of design criteria and best management practices for new and upgraded infrastructure

The projects and the associated prioritization will be summarized in the SWRP in tables and figures and project-specific information will be included as appendices to the SWRP.

Deliverable: Draft *Identification and Prioritization of Projects* Plan Section including results of project prioritization and North Gibson Pond evaluation summary (for deliverable for submittal to SWRCB).

Task 5b.2.6 – Implementation Strategy and Schedule

SWRP Guidelines: Section VI.E

Water Code Sections: 10562(d)(8), 10562(b)(7)

Project information collected during the Call for Projects will include implementation strategies such as funding sources for individual projects, permitting requirements, schedules, and other implementation related topics. In addition, the SWRP will identify resources necessary to implement the SWRP, including a projection of additional funding needs and sources for administration and implementation needs and a schedule for arranging and securing implementation financing.

Where appropriate, the SWRP will identify the development of appropriate decision support tools suggested for successful Plan implementation.

The Plan's implementation strategy will include:

- Specific implementation actions, and the entities responsible for each action;
- A strategy and timeline for obtaining necessary Federal, state, and local permits;

- Timelines for all active or planned projects and procedures to track the status of each project;
- A system for tracking implementation performance measures;
- Consideration for community participation; and
- Procedures for ongoing review, updates, and adaptive management of the Plan.

The implementation strategies and schedules will be documented in a SWRP section.

Deliverable: Draft *Implementation Strategy and Schedule* Plan Section (to be adapted into a Tech Memo for submittal to SWRCB).

Task 5b.2.7 – Education, Outreach and Public Participation

SWRP Guidelines: Section VI.F

Water Code Sections: 10562(b)(4)

The SWRP Team Project Manager will work with the WRA/YCFCWD Project Director to schedule a series of public meetings, in alignment with monthly WRA TC meetings to present the SWRP content and elicit feedback on major technical and policy issues related to the development and implementation of the SWRP. Outreach to the Westside IRWM is included in this task including participation in quarterly Westside IRWM coordinating calls. Additionally, the Project Team will develop mechanisms to engage communities in design and implementation of the projects proposed in the SWRP.

Key SWRP sections and project updates will be posted to the WRA website. Audiences include local ratepayers, developers, locally regulated commercial and industrial stakeholders, nonprofit organizations, and the general public.

The Project Team will consider environmental justice needs and issues in the development of the Plan. Disadvantaged and/or climate vulnerable communities within the Plan boundaries will be specifically targeted during DAC/EDA outreach meetings in Task 5b.2.3. Additional DAC/EDA involvement in the planning process will be tracked through mechanisms such as sign-in sheets at the regular WRA TC meetings and attendance at the DAC/EDA meetings.

Deliverable: Draft *Education, Outreach and Public Participation* Plan Section; Meeting Agenda, Notes, Sign-In Sheets and Action Items of WRA TC and Westside IRWM meetings/calls (for deliverable for submittal to SWRCB).

Task 5b.3 – Draft/Final SWRP Preparation

The draft sections of the SWRP developed in Task 5b.2 above will be compiled into a single draft SWRP document for review and comment by the stakeholders. Once a single set of comments has been received, the comments will be incorporated into a final SWRP document.

Deliverables: Detailed SWRP Outline; Stakeholder Plan; Draft SWRP in pdf form (includes compiling individual SWRP elements developed in Tasks 5.b.2. and Draft Self Certification Checklist; Summary of Comments; Final SWRP (up to 20 hard copies and electronic pdf) and Final Self-Certification Checklist; Final SWRP (up to 20 hard copies and electronic pdf) and Final Self-Certification Checklist.

Task 5b.4 – Presentation of Plan to WRA & IRWM

Upon completion of the final SWRP, the Project Team will present their findings to the WRA and Westside IRWM groups. This is expected to take place over a three-month period.

Projects Located within the SWRP Planning Area

No	Project Name	Lead Agency	Project Location
124	Lower Cache Creek Campground and Habitat Restoration	Yolo County Parks	1479 Highway 16, Rumsey, CA 95679
1	Bees Lakes Preserve	West Sacramento Area Flood Control Agency	
3	Apricot Draw Bank Stabilization	Solano County Water Agency	3,000 feet of Apricot Draw to confluence with Putah Creek at Lake Solano
4	Dry Creek Wildlife Migration Corridor Feasibility Study	Solano County Water Agency	2 miles of Dry Creek above the confluence with Putah Creek inclusive.
5	Duncan-Giovannoni Channel Restoration Feasibility Study	Solano County Water Agency	1 mile of river channel mostly upstream of the Dry Creek Confluence.
8	Lower McNamara Pool Channel Reconfiguration Feasibility Study	Solano County Water Agency	2.5 miles east of 505
10	Mace to Road 106A Channel Restoration Feasibility Study	Solano County Water Agency	2.7 miles of channel between Mace Blvd and Road 106A
11	Nishikawa Channel Restoration Feasibility Study	Solano County Water Agency	11,258 feet of channel between Stevenson Bridge and Pedrick Road
17	Road 106A to Yolo Bypass Channel Restoration Feasibility Study	Solano County Water Agency	6000 feet of channel between Road 106A and the Yolo Bypass
19	Stevenson Bridge Channel Restoration Feasibility Study	Solano County Water Agency	2100 feet of channel centered on Stevenson Bridge
20	Thompson Canyon Bank Stabilization Design and Permits	Solano County Water Agency	All 30 miles of Putah Creek from Monticello Dam to the west wall of the Yolo Bypass
22	Warren Weed Control	Solano County Water Agency	North bank east of Yolo Housing
45	Lower Cache Creek Flood Risk Reduction Project	City of Woodland / floodSAFE Yolo Pilot Program	
52	Implementation of the Cache Creek Resources Management Plan	Cache Creek Conservancy	15 miles of lower Cache Creek (Capay Dam to the town of Yolo)
54	Wastewater Treatment Plant Secondary and Tertiary Improvements	City of Davis	45400 County Rd, Davis, CA 95616
80	Cache Creek Anadromous Fish Reintroduction Project	Tuleyome, Inc.	
83	Lower Sacramento and Delta North Regional Flood Management Plan	West Sacramento Area Flood Control Agency	Yolo, Solano, Sacramento and parts of Sutter counties (proposed - subject to DWR approval)
84	Winters Main Canal Modernization Project: Integrated Precision Water Mgmt.	Yolo County Flood Control and Water Conservation District	YCFCWCD Service Area
85	Abandoned Well Incentive Program	Yolo County Flood Control and Water Conservation District	Sacramento Westside IRWM Region
86	County Service Area (CSA) #6 Levee Repair Project	Yolo County Service Area #6	
93	Rural Disadvantaged Community (DAC) Partnership Project	Rural Community Assistance Corporation	Westside Sacramento IRWM
95	Sacramento River Joint Intake Project	Reclamation District 2035	County Road 117 (River Mile 70.8), Yolo County
96	Mid Valley, Knights Landing Repair Project	Knights Landing Ridge Drainage District	
97	Form Task Force/Subcommittee to strategize and implement Watershed Education and Outreach	Knights Landing Ridge Drainage District	
110	Davis-Woodland Water Supply Project	Woodland-Davis Clean Water Agency	Yolo County - eastern area
112	Deep Water Ship Canal Navigation Levee Repair	West Sacramento Area Flood Control Agency	
113	Port of West Sacramento North and South Levee Repair	West Sacramento Area Flood Control Agency	
114	Sacramento River Levee Repair	West Sacramento Area Flood Control Agency	Right bank of the Sacramento River from approximately River Mile 63.0 to approximately River Mile 46.0
115	Sacramento River Recreational Trail	West Sacramento Area Flood Control Agency	
116	Sacramento Bypass-Yolo Bypass Levee Repair Phase II	West Sacramento Area Flood Control Agency	
118	Conjunctive Water Use Program	Yolo County Flood Control and Water Conservation District	YCFCWCD Service Area
119	Moore Siphon Reliability/Restoration Project	Yolo County Flood Control and Water Conservation District	YCFCWCD Service Area
120	Yolo County Airport Drainage Plan	Yolo County	Yolo County Airport
121	Analysis of BDCP's Yolo Bypass Conservation Measure and Other Measures	County of Yolo	Yolo Bypass, Yolo County, California
122	Cache Creek Parkway Plan	Yolo County, Natural Resources Division	Lower Cache Creek (approx. 15 miles, from Capay Dam to town of Yolo)
123	Clarksburg Flood Protection Feasibility Study	Yolo County	Clarksburg Region of Yolo County
125	Methylmercury Impacts Analyses for the Yolo Bypass	County of Yolo	Yolo Bypass, Yolo County, California
127	Agricultural Drain, Slough and Canal Riparian Habitat Enhancement	Yolo County Resource Conservation District	
129	Native Plant Nursery to Support Putah-Cache Ecotype Restoration	Putah Creek Council	Winters, CA
130	Pollution Prevention and Watershed Education Project	Putah Creek Council	Winters, CA
135	Tule Canal Habitat Enhancement & Sediment Removal	Reclamation District 2035	
136	Levee Repairs/Maintenance- Segments 150, 173 and 297	Reclamation District 2035	
137	Installation of Groundwater Wells	Reclamation District 2035	
138	Groundwater Studies	Reclamation District 2035	
139	Floodway Corridor Project	Reclamation District 2035	
140	Cross Bypass Canal Modernization	Reclamation District 2035	
141	Conjunctive Use Study	Reclamation District 2035	
131	Pacific Flyway Center/Delta Gateway	Yolo Basin Foundation	
132	Lower Putah Creek Restoration from Toe Drain to Putah Creek Diversion Dam (Yolo Bypass Wildlife Area Element)	Yolo Basin Foundation	
133	Yolo Bypass Wildlife Area Public Use Improvements	Yolo Basin Foundation	