REV7

PROP 1 GSP
GSP GRANT APPLICATION

October 11, 2017

Eastern San Joaquin
Groundwater Authority

Key Tasks

- Task 1: Project Management and Coordination
- Task 2: Grant Strategy, Eligibility, and Guideline Updates
  - Review PSP
  - Determine Eligibility
  - Recommend County-wide Strategy
- ~~Task 3: Collect Compliance Documentation (Optional)~~ Optional task not required
  - ~~*completion of* Groundwater Management Plans~~
  - ~~*inclusion in the* California Statewide Groundwater Elevation Monitoring *(CASGEM)* program~~
  - ~~*completion of* Urban Water Management Plans and Agricultural Water Management Plans~~
  - ~~*filing of* surface water diversion reports~~
  - ~~*establishment of* water conservation (SBx7-7) targets~~
- Task 4: Authority Member Outreach
- Task 5: Meetings with ESJ Groundwater Authority
- Task 6: Grant Writing and Submittal

Key Points

- $2,176,660 Total GSP Cost Estimate
- Apply for a Disadvantaged Community Waiver
  - If approved, local cost share is reduced to 25%.
- Apply for the Maximum $1.5M Grant Amount
- Cost Estimate Sufficient to Ensure Funds are Adequate for Substantially Compliant GSP
- Standard is Substantial Compliance
- Optional Task to Construct Monitoring Wells
- Propose a Budgetary Approach Expend Only What Needed
- Compressed Schedule:
  - Effective Completion Date - June 30, 2019

Cost Estimate Summary

			85% Auth.
1. Project Management	$115,240	5%	$97,950
2. Develop Fundamental Tools			
2.1 Communicatons & Engagement Plan and Tracking System	$44,560	2%	$37,880
2.2 Data Management System	$193,600	9%	$164,560
2.3 Water Accounting & Sustainable Management Framework	$68,800	3%	$58,480
2.4 Monitoring Wells (Optional)	$208,400	10%	$0
3. Administrative Information	$263,560	12%	$224,030
4. Communications and Engagement	$465,900	21%	$396,020
5. Basin Setting	$129,600	6%	$110,160
6. Groundwater Conditions	$117,360	5%	$99,760
7. Water Budget	$80,280	4%	$68,240
8. Sustainable Management Criteria	$121,080	6%	$102,920
9. Projects and Management Actions	$103,640	5%	$88,090
10. Establish Monitoring Networks	$210,120	10%	$178,600
11. Submit Groundwater Sustainability Plan to DWR	$54,280	2%	$46,140
Total	$2,176,420	100%	$1,672,830

DAC Waiver Granted Scenario

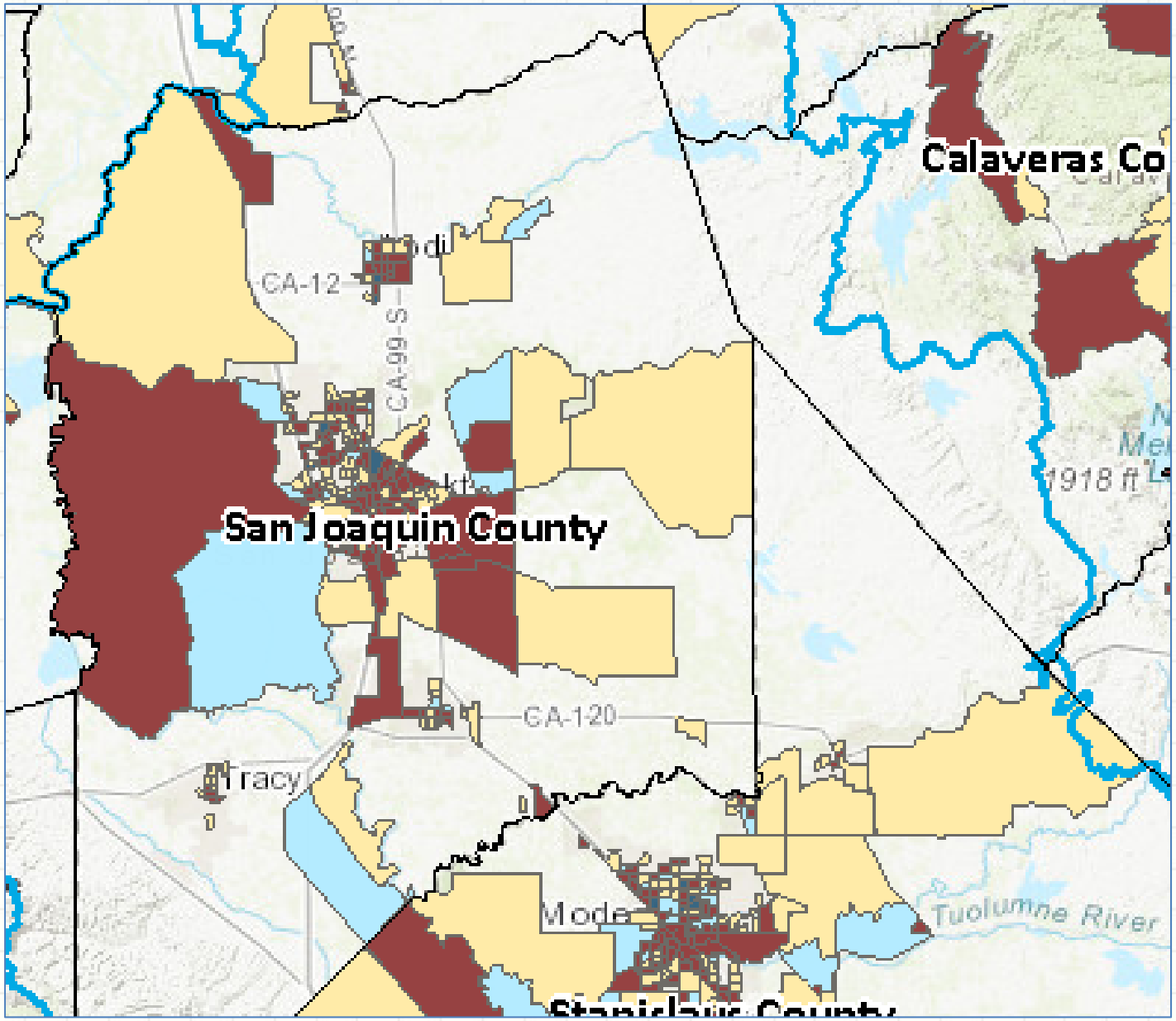
- Total Work Plan Cost = $2,176,420
- Max. DWR Share with DAC Waiver = $1,500,000
- Local Cost Share = $676,420
- Zone 2 Contribution = $450,000
- Remaining Difference = $226,420

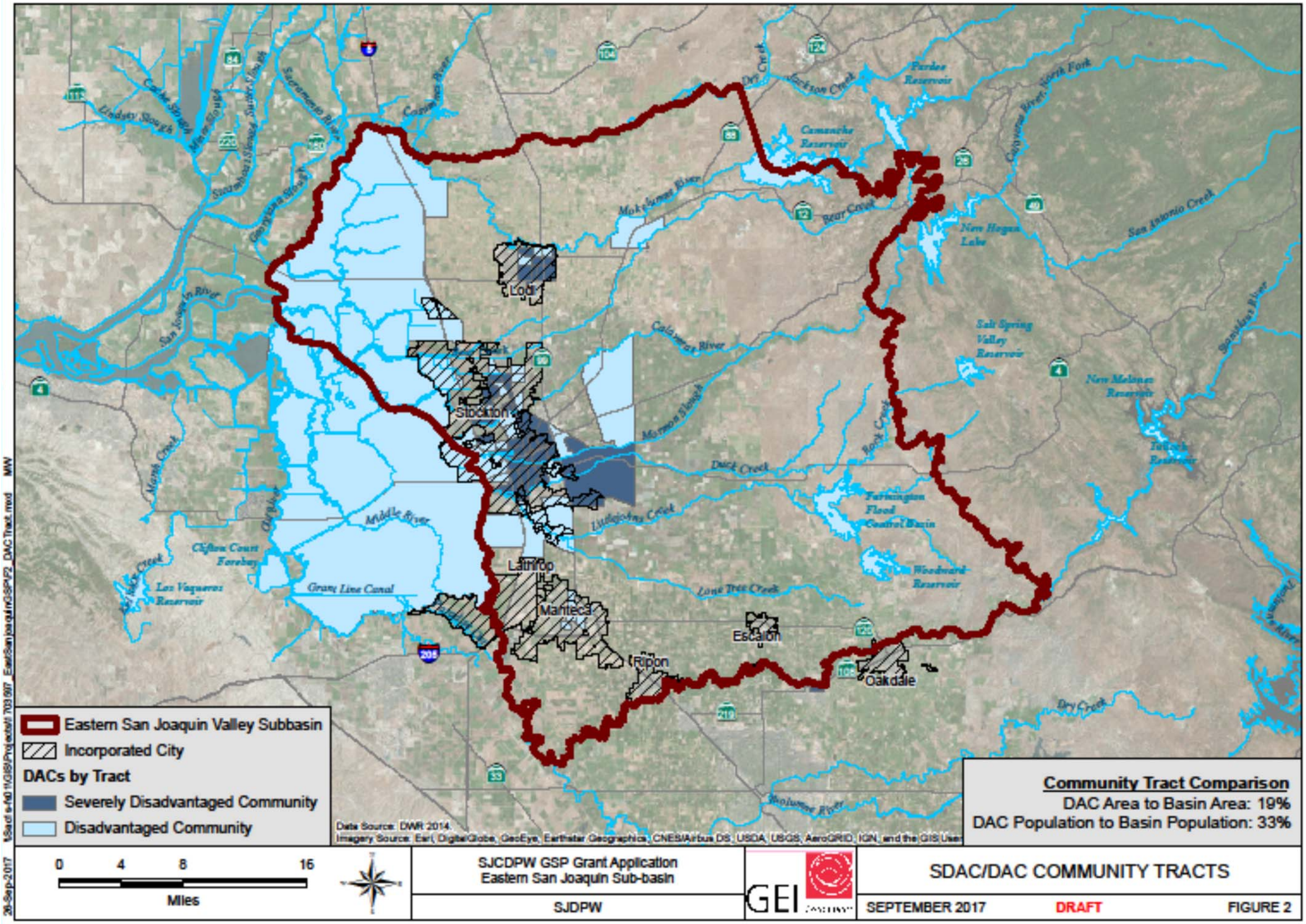
GSP Grant Near-Term Schedule

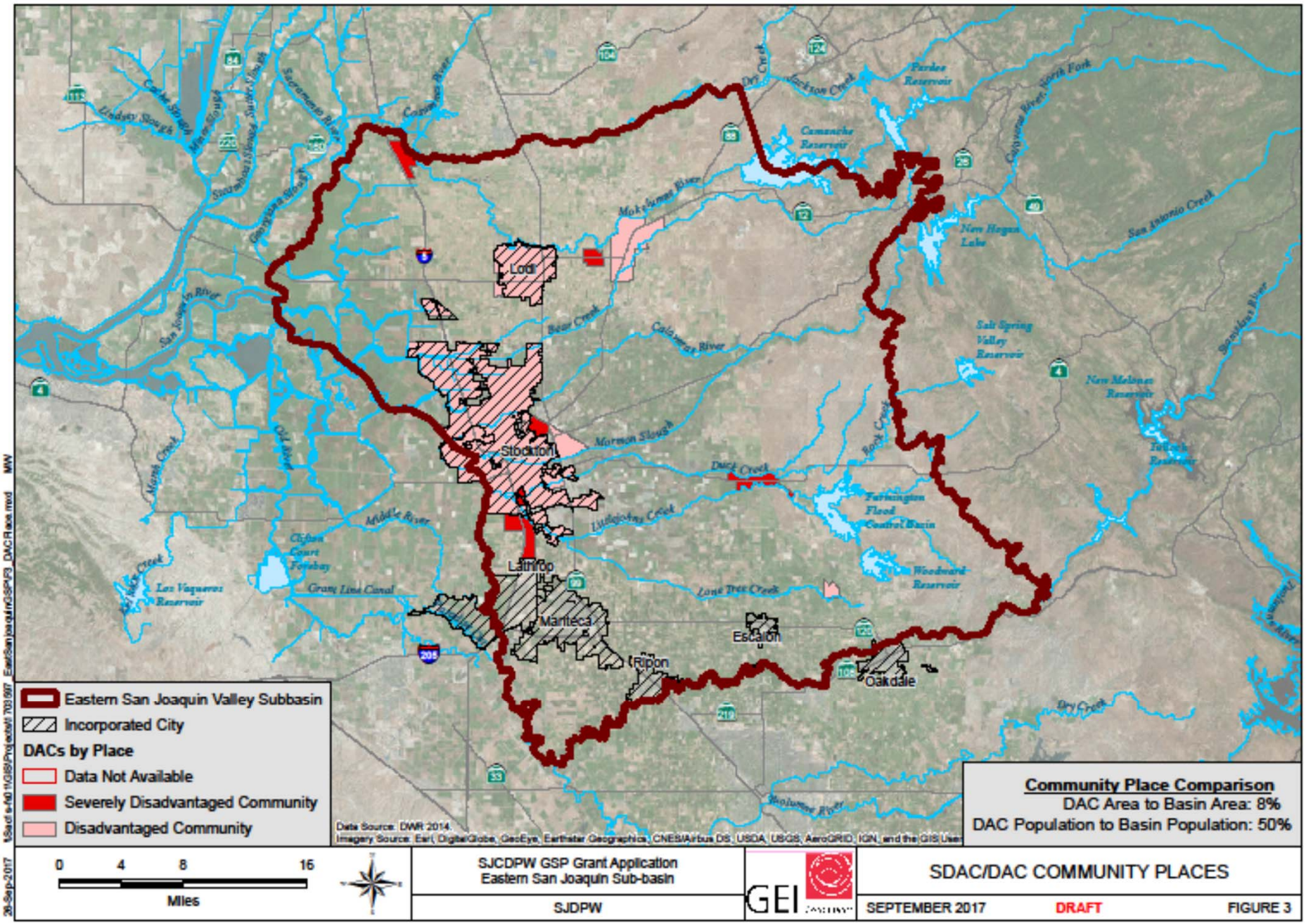
- October 11
  - Present GSP Application
  - Approve Resolution Authorizing Submittal of Application
  - Action can be Deferred to November 8 Authority Board Meeting
- No Later Than November 13
  - Submit Final Application.
  - Eligibility Documentation (CASGEM, etc.)
  - Letters of Support for DAC Waiver.
  - Concurrent Release of Request for Proposals for GSP Development to Select Consultant
- February
  - Cost-allocation Plan Finalized and Agreed to by GSAs
  - Authority to Approve Funding Agreement with DWR

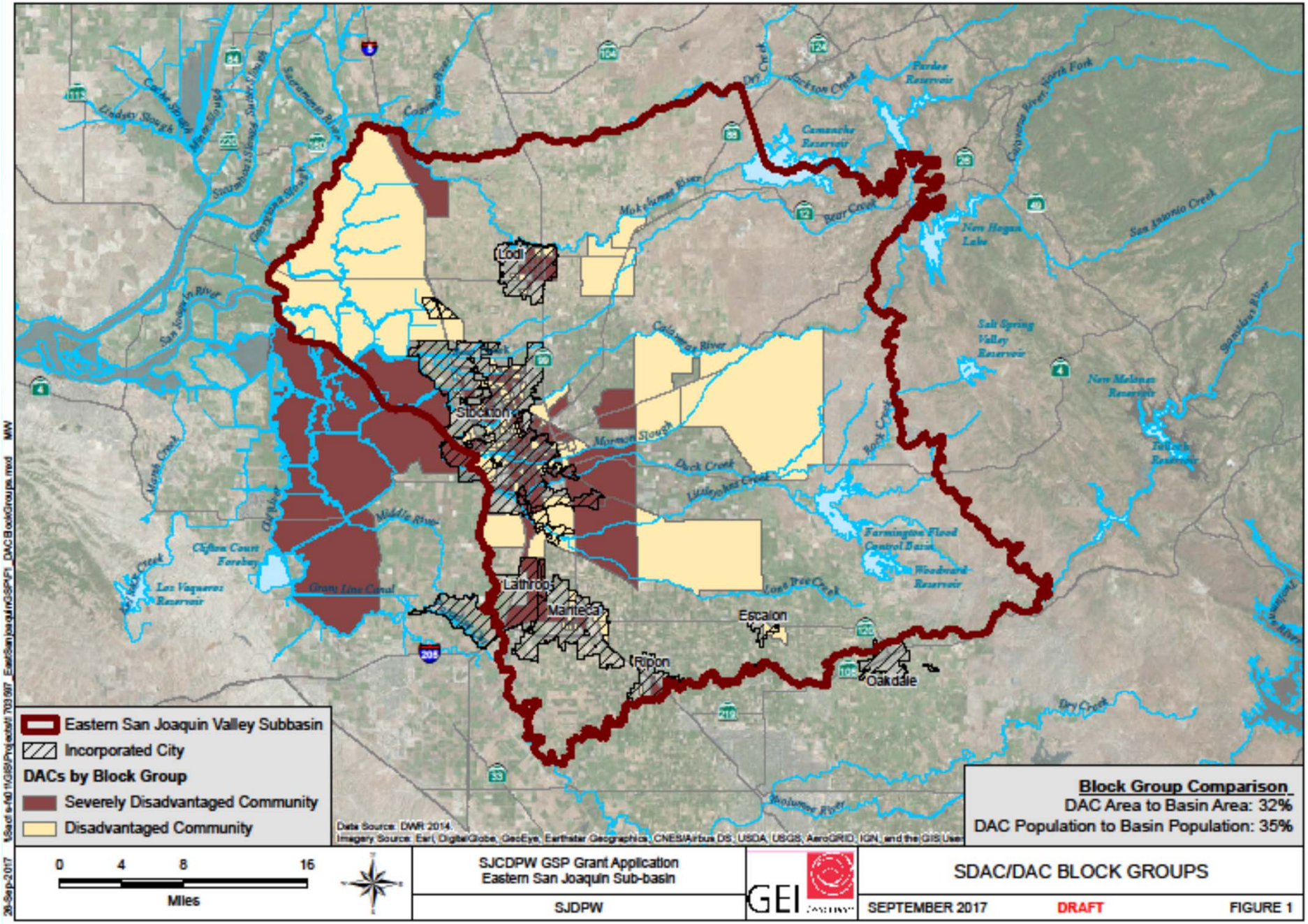
Technical Slides

DAC Area = Less than 50% of Basin




Eastern San Joaquin Valley Subbasin
Incorporated City
DACs by Tract
Severely Disadvantaged Community
Disadvantaged Community
Community Tract Comparison
DAC Area to Basin Area: 19%
DAC Population to Basin Population: 33%
Data Source: DWR 2014.
Imagery Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
0 4 8 16
Miles
Lodi
Stockton
Lathrop
Manteca
Ripon
Escalon
Oakdale
Mokelumne River
Calaveras River
Mormon Slough
Duck Creek
Littlejohns Creek
Lone Tree Creek
Middle River
Grant Line Canal
Clifton Court Forebay
Los Vaqueros Reservoir
San Joaquin River
Camanche Reservoir
Pardee Reservoir
New Hogan Lake
Salt Spring Valley Reservoir
New Melones Reservoir
Tulloch Reservoir
Farmington Flood Control Basin
Woodward Reservoir
Bear Creek
Dry Creek
Rock Creek
San Antonio Creek
Tuolumne River
SJCDPW GSP Grant Application
Eastern San Joaquin Sub-basin
SJDPW
GEI
SDAC/DAC COMMUNITY TRACTS
SEPTEMBER 2017
DRAFT
FIGURE 2


Eastern San Joaquin Valley Subbasin
Incorporated City
DACs by Place
Data Not Available
Severely Disadvantaged Community
Disadvantaged Community
Community Place Comparison
DAC Area to Basin Area: 8%
DAC Population to Basin Population: 50%
Data Source: DWR 2014
Imagery Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Lodi
Stockton
Lathrop
Manteca
Ripon
Escalon
Oakdale
Farmington Flood Control Basin
New Hogan Lake
Camanche Reservoir
Pardee Reservoir
Salt Spring Valley Reservoir
New Melones Reservoir
Tulloch Reservoir
Woodward Reservoir
Los Vaqueros Reservoir
Clifton Court Forebay
Old River
Middle River
Mormon Slough
Bear Creek
Calaveras River
Mokelumne River
Littlejohns Creek
Duck Creek
Lone Tree Creek
Grant Line Canal
Dry Creek
Jackson Creek
San Joaquin River
Stanislaus River
Tuolumne River
0 4 8 16
Miles
SJCDPW GSP Grant Application
Eastern San Joaquin Sub-basin
SJDPW
GEI
SDAC/DAC COMMUNITY PLACES
SEPTEMBER 2017
DRAFT
FIGURE 3


Eastern San Joaquin Valley Subbasin
Incorporated City
DACs by Block Group
Severely Disadvantaged Community
Disadvantaged Community
Data Source: DWR 2014
Imagery Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Block Group Comparison
DAC Area to Basin Area: 32%
DAC Population to Basin Population: 35%
0 4 8 16
Miles
SJCDPW GSP Grant Application
Eastern San Joaquin Sub-basin
SJDPW
GEI
SDAC/DAC BLOCK GROUPS
SEPTEMBER 2017
DRAFT
FIGURE 1
Lodi
Stockton
Lathrop
Manteca
Ripon
Escalon
Oakdale

1. Project Management

1.1. Kick-off Meeting
1.2. Coordination Meetings
1.3. Grant Management
1.4. Reporting

- 24 Monthly Meetings
- 9 Quarterly Grant Management Reports
- $115K (5%)

2. Develop Fundamental Tools

Fundamental tools to shape the work to be done and guide level of effort ($307K, 14%)

2.1. Develop Stakeholder Communication & Engagement Plan and Tracking System

2.2. Develop Data Management System

2.3. Develop Water Accounting & Sustainable Management Framework

- Hydrologic Assessments and Forecasting
- Water Shortage and Cost Allocation Strategy
- Approach for Setting Sustainable Management Criteria
- Approach to Identifying & Filling Data Gaps

2.4 Construct Monitoring Wells (5 pairs) along Stream Channels (optional)

- $208K (10%)

3. Administrative Information

3.1. Background
- Plain-language Executive Summary
- List of references and technical studies
- Agency Information
- Maps
- Description of Plan Area & Jurisdictions

3.2. Water Resource Monitoring and Management Programs

3.3. Land Use Elements of General Plans

3.4. Additional GSP Elements Characterizing Subbasin Conditions
- Control of saline water intrusion
- Migration of contaminated groundwater
- Well abandonment and well destruction program
- Replenishment of groundwater extractions
- Conjunctive use and underground storage
- Impacts on groundwater dependent ecosystems

- Rely on IRWMP & Updated Model
- New topics including Groundwater Dependent Ecosystems
- $264K (12%)

4. Communications and Engagement

4.1. Perform Outreach and Communication

- 4.1.1. Description of beneficial uses and users
- 4.1.4. Decision-making process
- 4.1.5. Public engagement

4.2. Summarize Notifications and Communications

4.3 Stakeholder Involvement

- 4.3.1 Groundwater Authority JPA Meetings
- 4.3.2 Technical Committee Meetings
- 4.3.2 Other Committee Meetings

- $466K (21%)

5. Basin Setting

5.1. Physical Setting and Characteristics

5.2. Hydrogeologic Conceptual Model

- 5.2.1. Physical Components
- 5.2.2. Regional Geologic and Structural Setting
- 5.2.3. Lateral Basin Boundaries
- 5.2.4. Definable Bottom of Basin
- 5.2.5. Principal Aquifers and Aquitards
- 5.2.6. Cross-Sections and Maps
- 5.2.7. Map of Recharge Areas

5.3. Identification of Data Gaps and Uncertainty

- Rely on IRWMP and Updated Model to extent possible
- $130K (6%)

6. Groundwater Conditions

6.1. Description of Current and Historical Groundwater Conditions
- Summarize Groundwater Elevations
- Calculate Change in Storage

6.2. Describe Groundwater Quality Issues

6.3. Describe Interconnected Surface Water Systems

6.4. Describe Groundwater Dependent Ecosystems

6.5. Surface Water Supply
- Water used or available for groundwater recharge

6.6. Management Areas
- Reason for creation of each management area
- Minimum thresholds and measurable objectives for each management area
- Level of monitoring and analysis
- Description of how management areas will not cause undesirable results to adjacent areas

- Use Updated Model for Current and Historical Conditions
  - Includes 1995-2015 only
- $117K (5%)

7. Water Budget

7.1. Apply Groundwater Modeling
- Quantify Overdraft
- Estimate Sustainable Yield

7.2. Historical Water Budget Evaluation
- Evaluate Surface Water Reliability
- Evaluate Aquifer Response Relative to Supply and Demand
- Estimate Uncertainty in Supply and Response

7.3. Projected Water Budget
- Estimate Future Baseline Supply, Demand and Response
- Estimate Aquifer Response to Plan Implementation
- Estimate Uncertainty in Supply and Response

- Use Updated Model for Current and Historical Condition
  - Includes 1995-2015 only
- $80K (4%)

8. Sustainable Management Criteria

8.1. Establish Sustainability Goals

8.2. Develop Processes and Criteria to Define Undesirable Results

- Description of undesirable results
- Cause of groundwater conditions that would lead to undesirable results
- Criteria used to define undesirable results for each sustainability indicator
- Potential effects of undesirable results on beneficial uses and users of groundwater

8.3. Establish Minimum Thresholds and Sustainability Indicators

- Description of each minimum threshold and how they were established for each sustainability indicator

8.4. Define Measurable Objectives to Obtain Goals in 20 Years

- Description of establishment of the measurable objectives for each sustainability indicator
- Description of how a reasonable margin of safety was established for each measurable objective
- Description of interim milestones

- $121K (6%)
- Simplified accounting method will substantially reduce effort

9. Projects and Management Actions

9.1. Determine Projects and Management Actions

9.2. Evaluate Response to Projects and Management Actions

9.3. Describe Projects and Management Actions

- Measurable objective that is expected to benefit from each project and management action
- Management of groundwater extractions and recharge
- Overdraft mitigation projects and management actions
- Estimated costs and plans to meet those costs
- Public noticing
- Permitting and regulatory process
- Time-table for initiation and completion
- Expected benefits and how they will be evaluated
- Legal authority required

- Use IRWMP Project List
- Include Management Actions
- $104K (5%)

10. Establish Monitoring Networks

10.1. Description of monitoring network (density, frequency, rationale)
10.2. Description of monitoring network objectives
10.3. Describe Monitoring Protocols
10.4. Describe Representative Monitoring
10.5. Assessment and Improvement of Monitoring Networks
10.6. Report Monitoring Data to DWR

- Reduced costs from representative monitoring
- Reduced costs from simplified accounting
- Reduced costs from minimizing number of management areas
- $210K (10%)

11. Submit Groundwater Sustainability Plan to DWR

11.1. Publish Draft Plan

11.2. Public Hearing

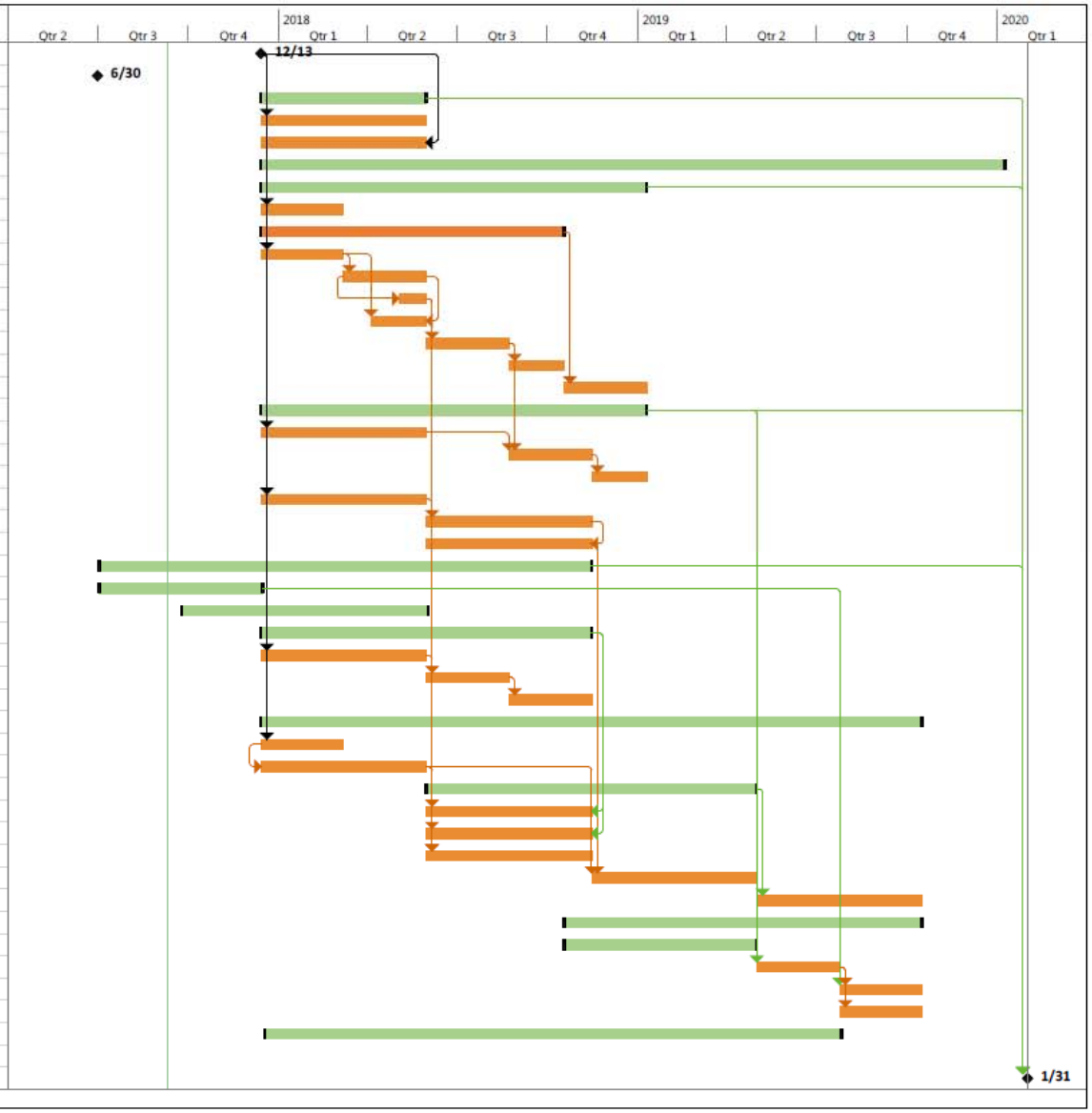
- 11.2.1. Provide public notice on intent to adopt plan
- 11.2.2. Hold public hearing (90 days after notice)

11.3. Adoption by GSAs (after public hearing)

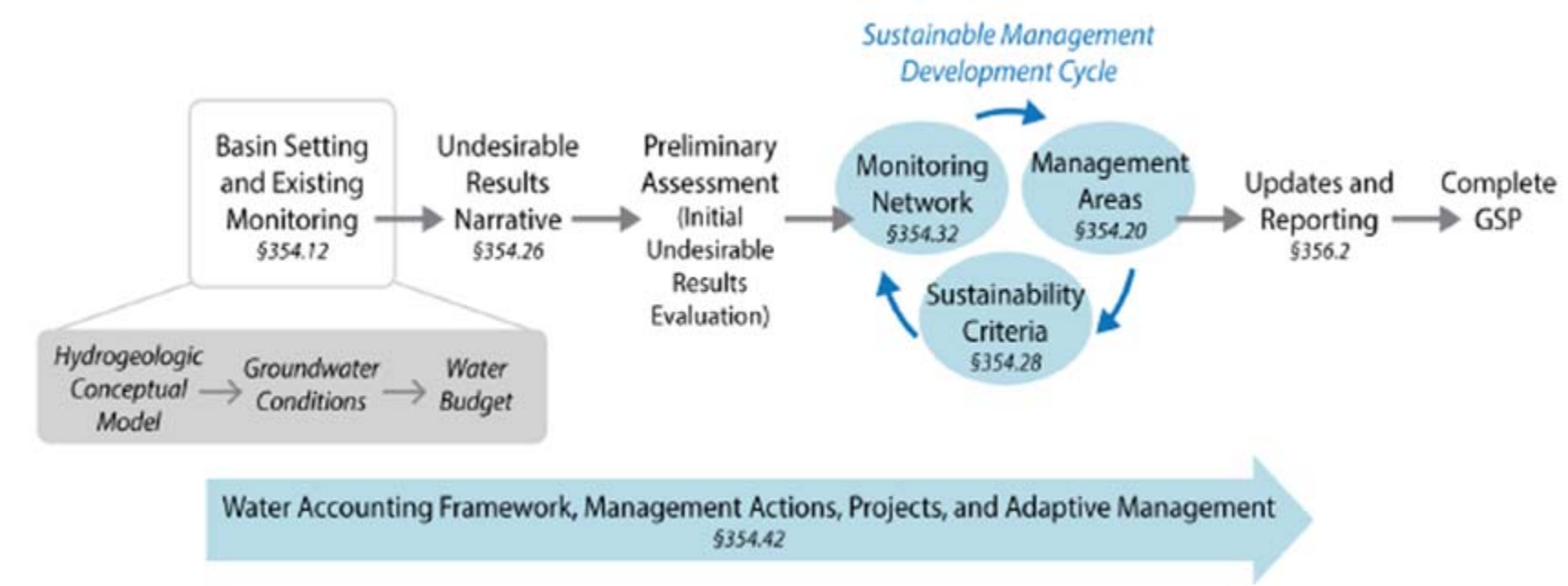
11.4. Submit GSP

- Target Completion Date – June 30, 2019
- $54K (2%)

ID	Task Mode	Task Name
1		Approve Work Plan
2		GSAs and JPA formed
3		**ADMINISTRATIVE INFORMATION**
4		Agency Information
5		Description of Plan Area
6		**NOTIFICATIONS AND COMMUNICATIONS**
10		**BASIN SETTING**
11		Physical Setting and Characteristics
12		**Hydrogeologic Conceptual Model**
13		Physical Components
14		Regional Geologic and Structural Setting
15		Lateral Basin Boundaries
16		Definable Bottom of Basin
17		Principal Aquifers and Aquitards
18		Cross-Sections and Maps
19		Identification of Data Gaps and Uncertainty
20		**GROUNDWATER CONDITIONS**
21		Description of Current and Historical Groundwater Conditions
22		Summarize Groundwater Elevations
23		Calculate Change in Storage
24		Describe Groundwater Quality Issues
25		Describe Interconnected Surface Water Systems
26		Describe Groundwater Dependent Ecosystems
27		**WATER BUDGET**
28		**Develop Groundwater Model**
34		**Develop Historical Water Budget**
38		**Develop Projected Water Budget**
39		Estimate Future Baseline Supply, Demand and Response
40		Estimate Aquifer Response to Plan Implementation
41		Estimate Uncertainty in Supply and Response
42		**SUSTAINABLE MANAGEMENT CRITERIA**
43		Establish Sustainability Goals
44		Develop Processes and Criteria to Define Undesirable Results
45		**Establish Minimum Thresholds and Sustainability Indicators**
46		Chronic Lowering of Groundwater Levels
47		Reduction in Groundwater Storage
48		Degraded Water Quality
49		Depletions of Interconnected Surface Water
50		Define Measureable Objectives to Obtain Goals in 20 Years
51		**ESTABLISH MONITORING NETWORKS**
52		**Describe Monitoring Networks**
56		Describe Representative Monitoring
57		Assessment and Improvement of Monitoring Networks
58		Report Monitoring Data to DWR
59		**PROJECTS AND MANAGEMENT ACTIONS**
63		
64		Submit Groundwater Sustainability Plan to DWR



Requirements in SGMA Regulations



Key Assumptions

1. Interactive Process
2. Steady Progress
3. GSA Responsibilities
4. Short Implementation Horizon
5. Probable Overdraft
6. Solution & Surface Supply
7. Define Solutions & Prove They're Working
8. Keep it Simple & Regional
9. Minimize Management Areas
10. Consider Range of Solutions
11. Subbasin-Wide Data Management
12. Empirical Proof

Factors that Might Decrease or Increase the GSP Effort

1. Streamline the Stakeholder Involvement process
2. Use updated model efforts to characterize current conditions and water budget
3. Number of Management Areas selected for the basin
4. Simplified water use accounting
5. Subbasin-wide accounting for natural recharge
6. Use representative monitoring sites

- Develop GSP Scope
- Prepare Application
- Submit