



Unified Water Plan for the San Joaquin Valley

Water Blueprint Board Meeting 4/15/2026

FRESNO
STATE

California Water
Institute

**Water
Blueprint**

for the San Joaquin Valley

Agenda

1. Report Preparation Status and Schedule
2. Chapter 6 – Overview
3. Next Steps

Report Development Status and Schedule

Chapter Number	Chapter Title	Status
1	Introduction	Received comments, revising.
2	Water Supply Problems, Needs, and Opportunities	Received comments, revising.
3	Flood Management Problems, Needs, and Opportunities	Received minor comments, revising.
4	Environmental Enhancement	Received minor comments, revising.
5	Potential Projects and Actions	Received comments, revising.
6	Implementation Strategies	Draft provided on 4/13, comment period through 5/1/2026.
7	References	In Progress – included with each chapter for review.

Over 800 Projects Identified

Sub-basin Specific (Local) Projects, and Supply / Demand Projections:

Over 80 GSAs

- Estimated water needs
- Collaborated on projects and actions



42 GSPs

- Quantify supply and demand
- Identify about 800 projects and actions



16 Sub-basins

- Supply and demand gaps
- Basin-specific projects and actions

Regional Projects that Benefit Multiple Sub-basins:

GSPs

+

Other Sources

+

**Blueprint
Concepts**

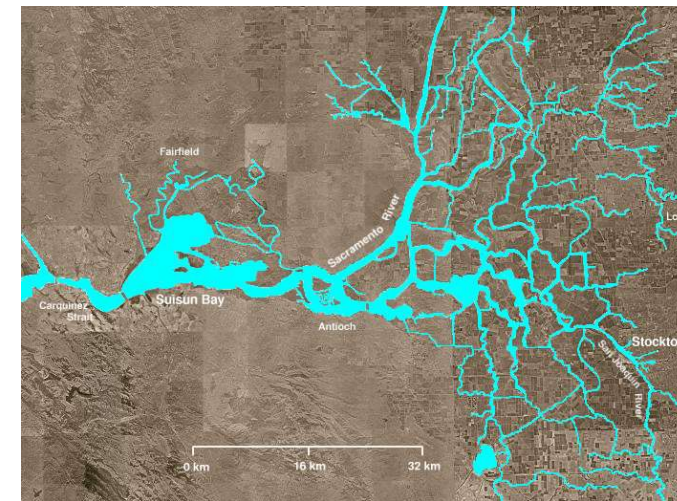
Evaluation Scenarios Demonstrate Ranges of Effects



Scenario 1
**Restore Existing
Infrastructure**



Scenario 2
**Improve
Management of
In-Valley Supplies**



Scenario 3
**Increase Access
to Delta Water
Supplies**

Project Categories Included in Evaluation Scenarios

Project Category	Included in Scenario 1	Included in Scenario 2	Included in Scenario 3
RESTORE AUTHORIZED FACILITY CAPABILITY			
Restore authorized design capacity of subsidence-impacted CVP and SWP canals	X	X	X
Restore south Delta flood-flow capacity and reservoir storage capacity	X	X	X
IMPROVE MANAGEMENT OF IN-VALLEY SUPPLIES			
Upper watershed actions that improve timing and volume of reservoir inflow		X	X
Re-operate in-valley reservoirs (FIRO/I-FIRM)		X	X
Non-structural actions in the Delta to increase diversions with existing facilities		X	X
Local conveyance, recharge, storage, and other water supply projects		X	X
Expanded east-west conveyance capacity to increase recirculation of recaptured SJRRP flows and facilitate additional in-Valley water transfers		X	X
INCREASE ACCESS TO DELTA WATER SUPPLIES			
Modify diversion facilities in the Delta			X
Increase north-of-Delta storage capacity			X
Increase south-of-Delta storage capacity			X
Enlarge existing south-of-Delta conveyance capacity			X
Expand south-of-Delta conveyance capacity			X

Scenario 1 - Restore Authorized Facility Capacity

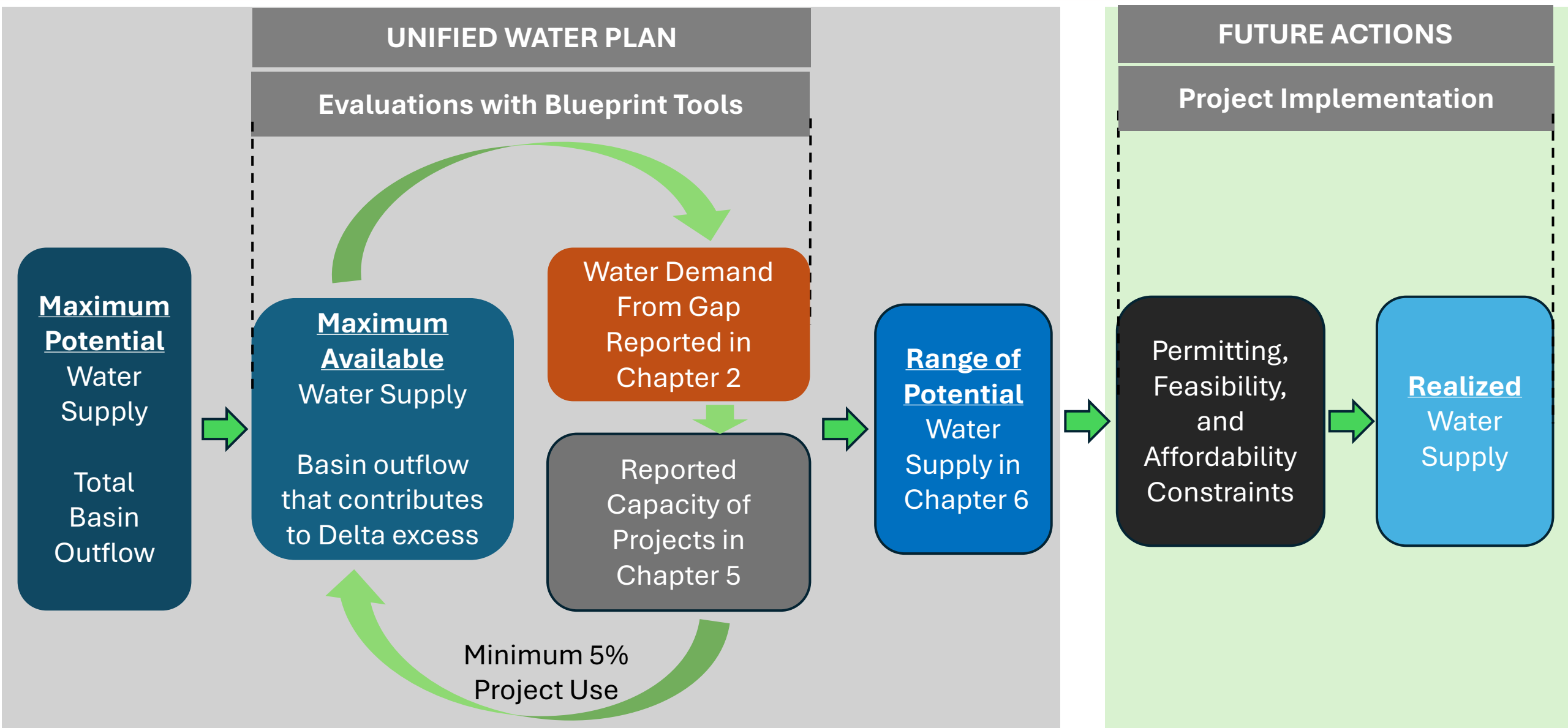
Scenario 1 projects are foundational to avoid further reductions in water supply, flood management and ecosystem conditions, and ***will be needed*** to achieve the benefits associated with many of the projects evaluated in Scenarios 2 and 3.

Project	Cost (Q4 2025 Dollars \$Million)
Restore design capacity of the San Luis Canal and California Aqueduct	\$4,100
Restore design capacity of the Delta Mendota Canal	\$850
Restore design capacity of the Friant-Kern Canal	\$1,100
Dredge south delta channels	\$1,150
Remove sediment from reservoirs to restore authorized capacity	Unknown
TOTAL	\$7,200

Restoring design capacity of existing facilities, particularly CVP and SWP canals, is ***essential***.

Scenario 1 was not evaluated using Blueprint Analytical Tools – Shortages not included in Supply-Demand Gap

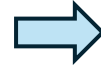
Estimating Project Benefits for the UWP and Beyond



Blueprint Analytical Tools

Delta Flows Model

- Identifies “excess” Delta flows, defined as flows that exceed requirements to meet water quality and minimum flow standards.



Watershed Outflow Model

- Estimates local surface water supplies available for diversion from major rivers in the San Joaquin Valley.
- Constrained by instream flow requirements, downstream demands, and Delta Flows Model “excess” conditions.



Infrastructure Optimization Model

- Selects sets of projects to maximize water delivery, subject to following constraints:
 - Water supply availability
 - Subbasin demands
 - Project capability (yield)
 - Project utilization

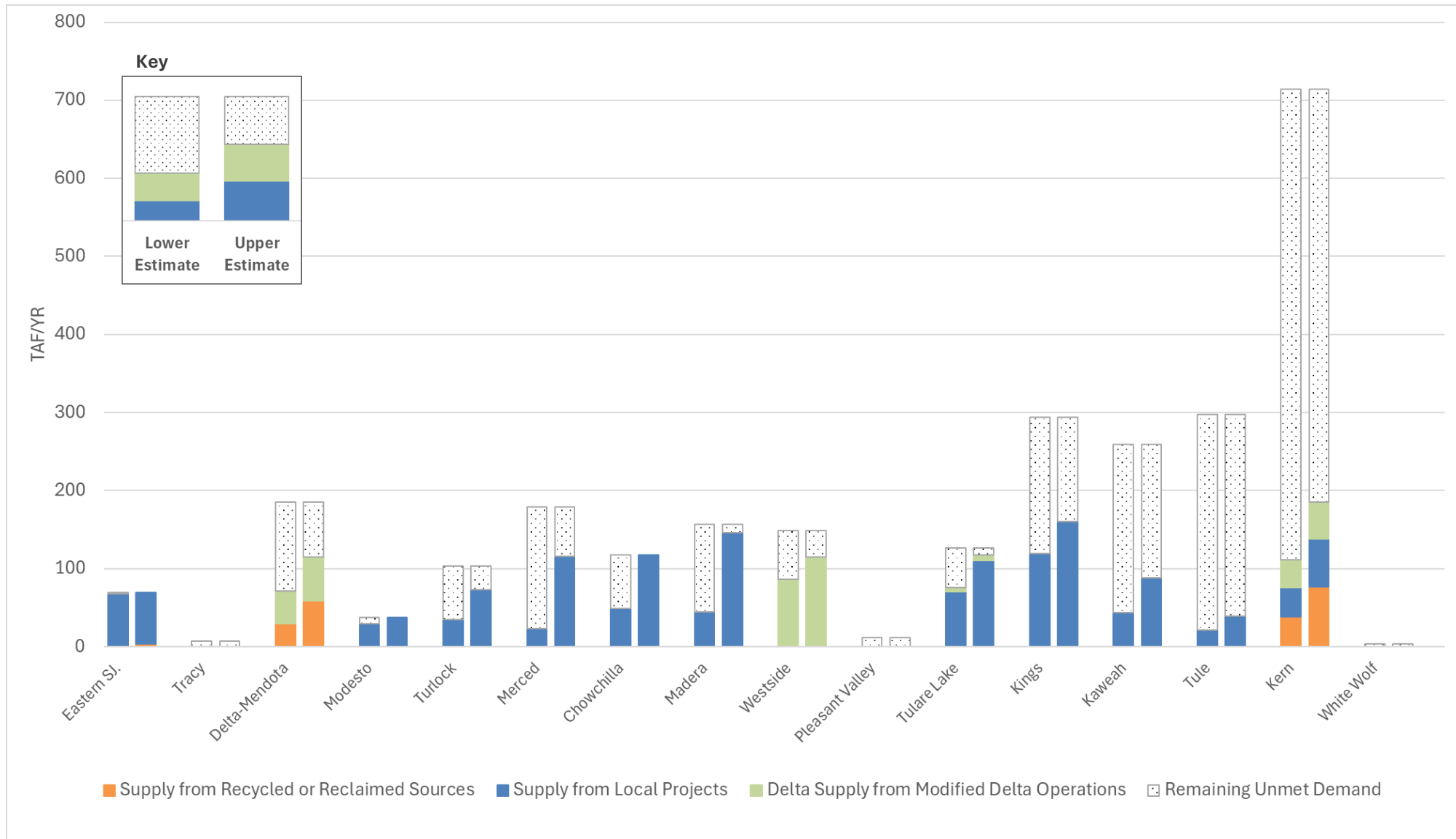
Scenario 2 – Improve Management of In-Valley Supplies

Project Types	Average Annual Potential Water Supply (TAF/YR)	Capital Cost (\$ billion)	Remaining Water Supply-Demand Gap (TAF/YR)	Agricultural Acreage Subject to Repurposing (1,000 acres)
Projects in Scenario 1	Baseline Restoration	\$7.2	2,700	-
Scenario 2	800 – 1,400	\$9 – \$13	1,300 – 1,900	470 - 610
Total	800 – 1,400	\$9 – \$13	1,300 – 1,900	470 - 610



Incremental Annual Potential Water Supply (TAF/YR)	800 – 1,400
<i>Supply from Recycled or Reclaimed Sources</i>	80 – 140
<i>Supply from Identified Local Projects</i>	550 – 870
<i>Supply from Unidentified Local Projects (Assumed in Blueprint Model)</i>	0 – 160
<i>Non-Structural Delta Actions</i>	170 – 230

Scenario 2 Results by Subbasin

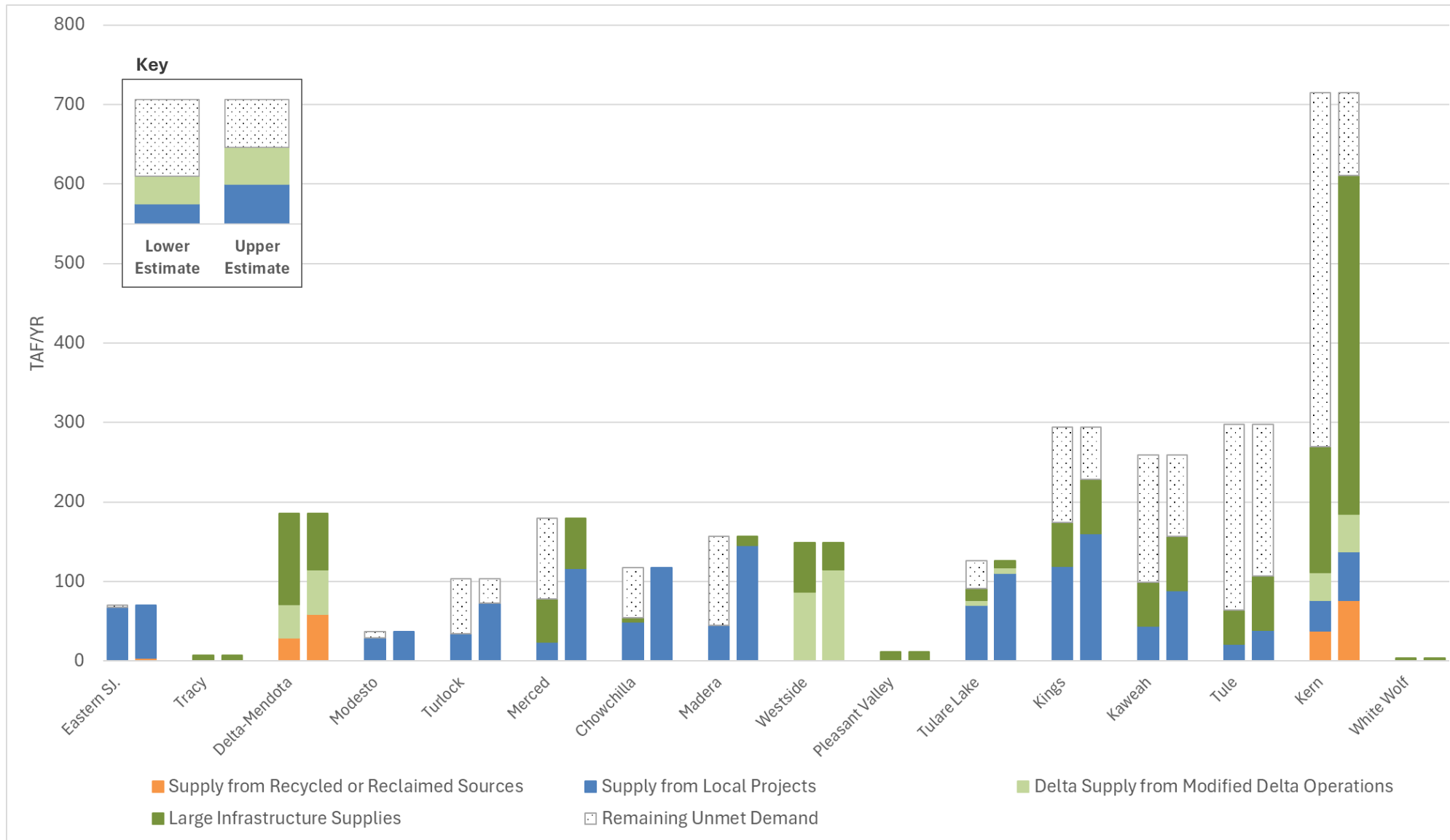


NOTE: Implementation is subject to available water supply, economic feasibility, and funding availability. It is unlikely that the water supply benefits associated with upper limit simulations can be fully realized.

Scenario 3 – Increase Access to Delta Water Supplies

Project Types	Average Annual Potential Water Supply (TAF/YR)	Capital Cost (\$ billion)	Remaining Water Supply-Demand Gap (TAF/YR)	Agricultural Acreage Subject to Repurposing (1,000 acres)
Scenario 1	Baseline Restoration	\$7.2	2,700	-
Scenario 2	800 – 1,400	\$2.8 – \$5.8	1,300 – 1,900	470 - 610
Scenarios 3	600 - 800	\$2.7 – \$6.4	500 – 1,100	180 - 410
Total	1,400 – 2,200	\$12.7 – \$19.4	500 – 1,100	180 – 410

Scenario 3 Results by Subbasin



NOTE: Implementation is subject to available water supply, economic feasibility, and funding availability. It is unlikely that the water supply benefits associated with upper limit simulations can be fully realized.

Key Findings

~\$7B to restore existing project capacity

Lost capacity of existing projects limits opportunity. Restoring design capacity of existing facilities preserves baseline deliveries and enables local projects

> 4 MAF/YR capacity of identified local projects

Identified local project capability exceeds the gap. Project selection will be driven by supply, permitting, economic, and affordability constraints.

1.3 – 1.9 MAF supply-demand gap after local projects

Local projects will not be sufficient. Additional water supplies from the Delta are needed to support local projects and reduce the supply-demand gap.

Total investments of ~\$20B needed

Affordability will constrain implementation. State and Federal funding, and partnerships with urban entities are needed.

With ~\$20B invested, up to 410,000 acres still repurposed

Farmland conversion will be necessary. It should be strategically planned to improve environmental, community and economic conditions.

Preliminary Recommendations

Local and Regional Agencies

1. Restore authorized project capacities.
2. Implement non-structural actions to improve operations.
3. Implement local projects identified in GSPs / accelerate shovel-readiness.
4. Invest in regional / statewide projects
5. Leverage regional partnerships.
6. Develop strategic farmland conversion plan.

Preliminary Recommendations

Local and Regional Agencies	State and Federal Agencies
1. Restore authorized project capacities.	1. Restore authorized project capacities.
2. Implement non-structural actions to improve operations.	2. Establish non-traditional funding mechanisms to support project implementation.
3. Implement local projects identified in GSPs / accelerate shovel-readiness.	3. Acceleration implementation of non-structural actions
4. Invest in regional / statewide projects	4. Streamline permitting process
5. Leverage regional partnerships.	5. Establish single place of use for CVP and SWP supplies
6. Develop strategic farmland conversion plan.	6. Promote GW recharge and communicate funding needs

Recommendations and Next Steps

Local and Regional Agencies	State and Federal Agencies	Next Steps for CWI/Blueprint
<ol style="list-style-type: none">1. Restore authorized project capacities.2. Implement non-structural actions to improve operations.3. Implement local projects identified in GSPs / accelerate shovel-readiness.4. Invest in regional / statewide projects5. Leverage regional partnerships.6. Develop strategic farmland conversion plan.	<ol style="list-style-type: none">1. Restore authorized project capacities.2. Establish non-traditional funding mechanisms to support project implementation.3. Acceleration implementation of non-structural actions4. Streamline permitting process5. Establish single place of use for CVP and SWP supplies6. Promote GW recharge and communicate funding needs	<ol style="list-style-type: none">1. Develop recommended project selection approach2. Coordinate regional partnerships and advocacy.3. Prepare regular UWP updates.

Next Steps

- Comments on Chapter 6 (send to CWI) by May 1 - Board
- Full draft of the UWP in May for review – Stantec/CWI



Thank you