

# Schedule for GSP Delivery

	2019					2020
	August	September	October	November	December	January
<b>Basin Team GSP Activity</b>	Submit Final Draft for Public Comment	Public Comment Period			Address Comments	Submit Plan to DWR (Jan 30)
<b>SFKGSA Board Mtgs &amp; Workshops</b>	Approve SFKGSA Input to GSP	Review Final Draft	Workshop to Discuss Final Draft	Public Hearing for Comments	Review Final Plan	Vote to Approve Final Plan
<b>SFKGSA TAG/Consultants</b>	Support/Facilitate			Document & Submit to Basin Team	Support/Facilitate	

- Once Final Draft for public comment is released, the procedural clock dictates schedule for delivery of GSP to DWR. Planning on 5 months to accommodate 90-day public comment period plus time for Basin Team to address comments and prepare Final Plan
- SFKGSA Input to Final Draft (Monitoring and Projects/Management Actions) needs to be approved in August
- SFKGSA to accept public comments in November and provide to Basin Team for Final Plan

# Schedule for GSP Preparation

- Draft Chapters 2-4 will be reviewed by Technical Team and comments submitted. Board to receive Draft Chapters with comments for discussion starting in March.
- SFKGSA will provide input on sections related to Monitoring & Data Management (Chap 5) and Projects/Management Actions (Chap 6) within SFKGSA
- This input will be discussed and approved by the Board via two memo/white papers prepared by the consultant team and reviewed by the Technical Advisory Group.

	2019					
	March	April	May	June	July	August
<b>Basin Team GSP Activity</b>	Prepare GSP Chapters					Submit Final Draft for Public Comment
	↓	↓				↑
<b>SFKGSA Board Mtgs &amp; Workshops</b>	Discuss Chapter 3 + Measurment	Discuss Chapter 4 + Memo Status	Discuss Monitoring, Measurement, and Projects & Mgmt Actions Memos			Approve SFKGSA Input to GSP
			↑			
<b>SFKGSA TAG/Consultants</b>	Prepare Monitoring, Measurement, and Projects & Mgmt Actions Memos		Support/Facilitate			

# Upcoming SFKGSA Board Decisions

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South Fork Kings GSA  
GSA Board Technical Workshop  
February 20, 2019

Geosyntec<sup>®</sup>  
consultants



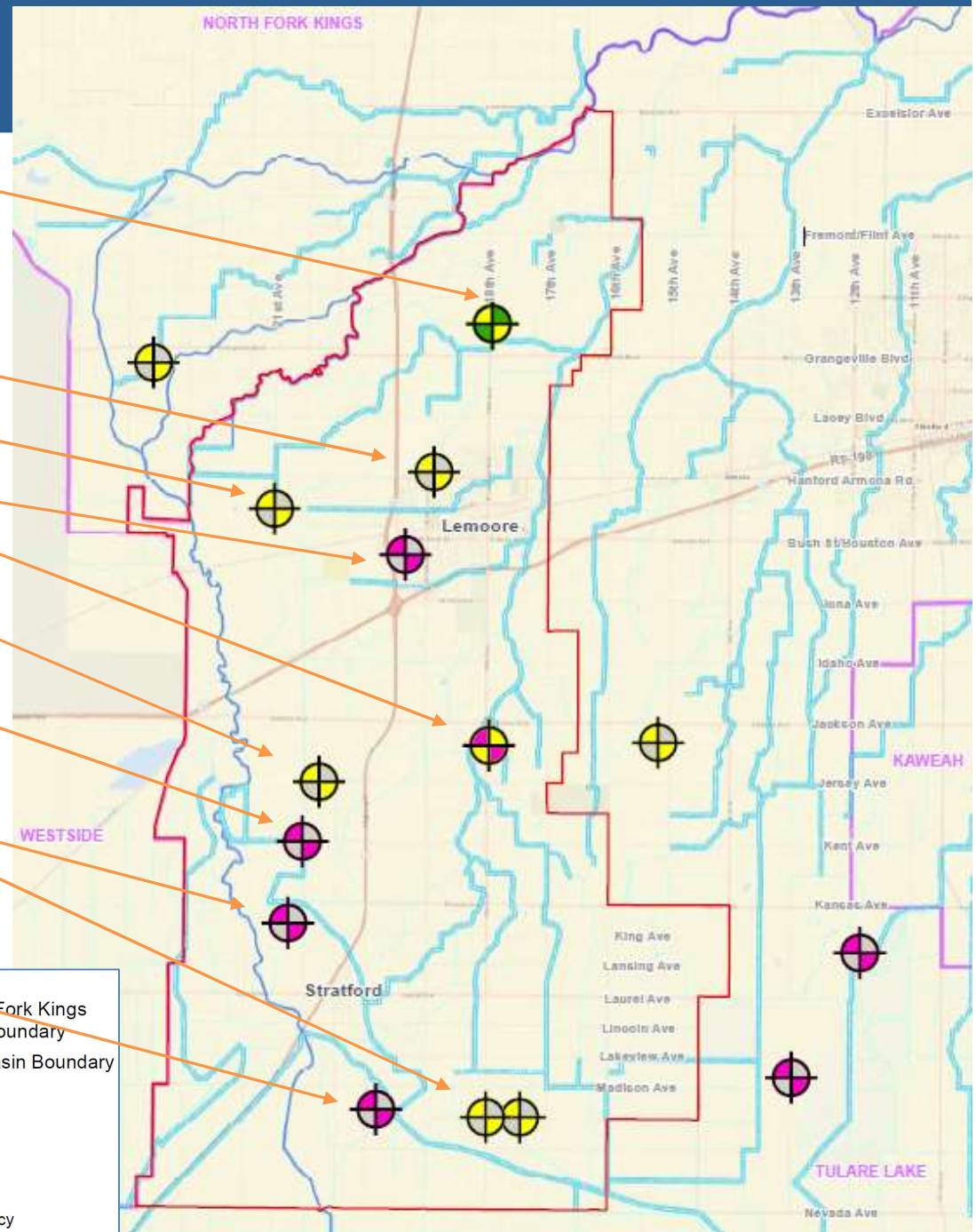
- Monitoring Update
- Quick refresher from last meeting
- Implementation Issues:
  - Correcting overdraft vs maintaining sustainability
  - General Considerations
  - Legal considerations
- Upcoming Board Decisions





# Short List of Wells: In S. Fork Kings GSA

- KRCD: 40-60 (A); 260-280 (B); 440-460 (B)
- DWR: 118-132 (B)
- DWR: 303-429 (B)
- Lemoore: 822-958 (C)
- CU Elem: 90-200 (B); 670-820 (C)
- KRCD: 340-360 (B); 430-450 (B)
- Stone Land Co: 660-920 (C)
- DWR: 750-1980 (C)
- KRCD: 295-315 (B); 500-520 (B)
- DWR: 914-1921 (C)



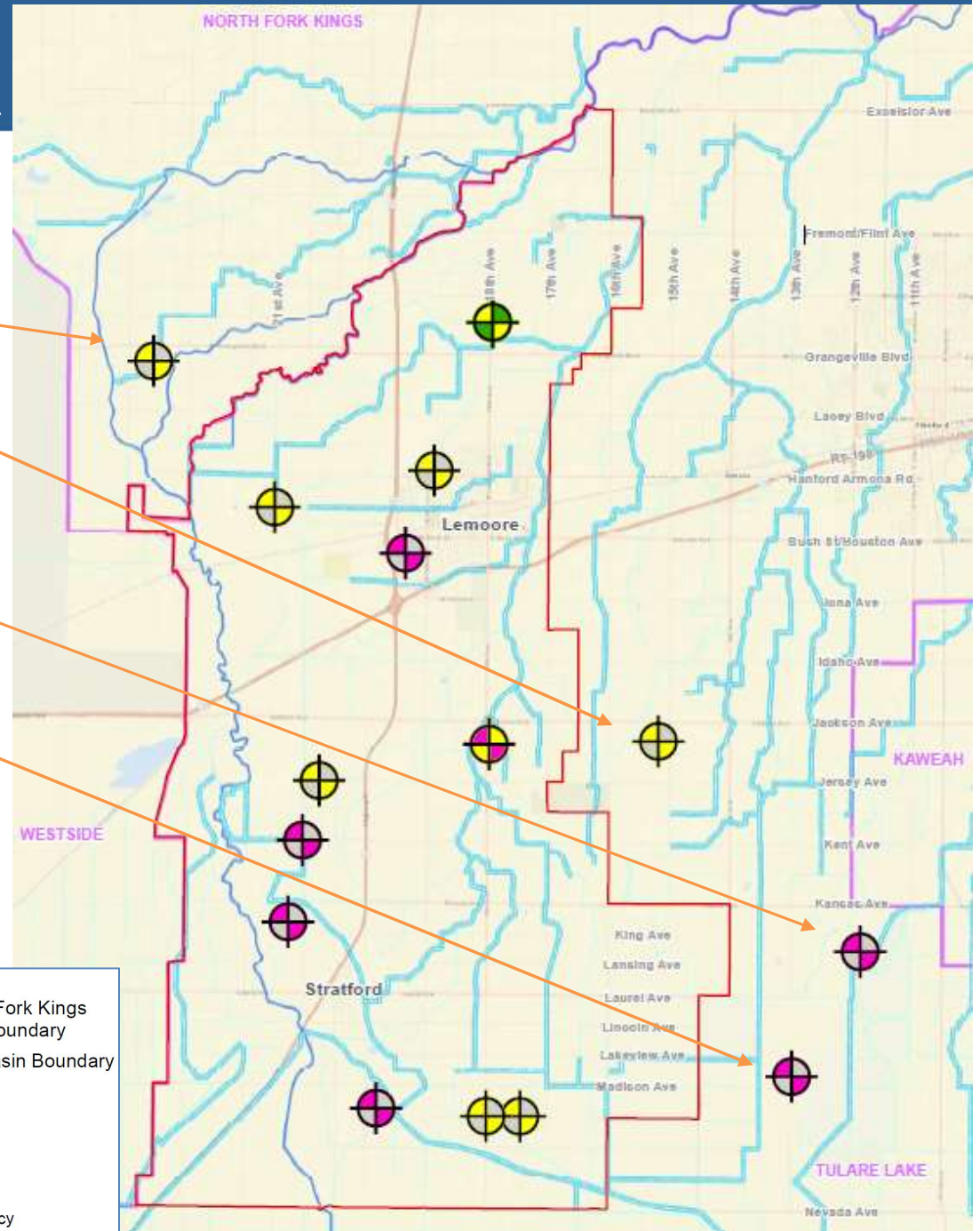
## Legend

- Hydrostratigraphic Zone B
- Hydrostratigraphic Zone C
- Nested Zone A and B Well
- Nested Zone B and C Well
- River
- Aqueduct
- Ditch/Canal/Stream/Creek
- Other Waterways
- South Fork Kings GSA Boundary
- Sub-Basin Boundary

**Note**  
GSA = Groundwater Sustainability Agency

# Short List of Wells: Outside S. Fork Kings GSA

- Laguna ID: 258-498 (B)
- Kings County WD: 290-500 (B)
- TL WSD: 558-798 (C)
- TL WSD: 624-1444 (C)



## Legend

- Hydrostratigraphic Zone B
- Hydrostratigraphic Zone C
- Nested Zone A and B Well
- Nested Zone B and C Well

- River
- Aqueduct
- Ditch/Canal/Stream/Creek
- Other Waterways

- South Fork Kings GSA Boundary
- Sub-Basin Boundary

**Note**  
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# Potential Data Gaps

## A-zone

- 1 well in current network











## B-zone

- Southwest of Stratford

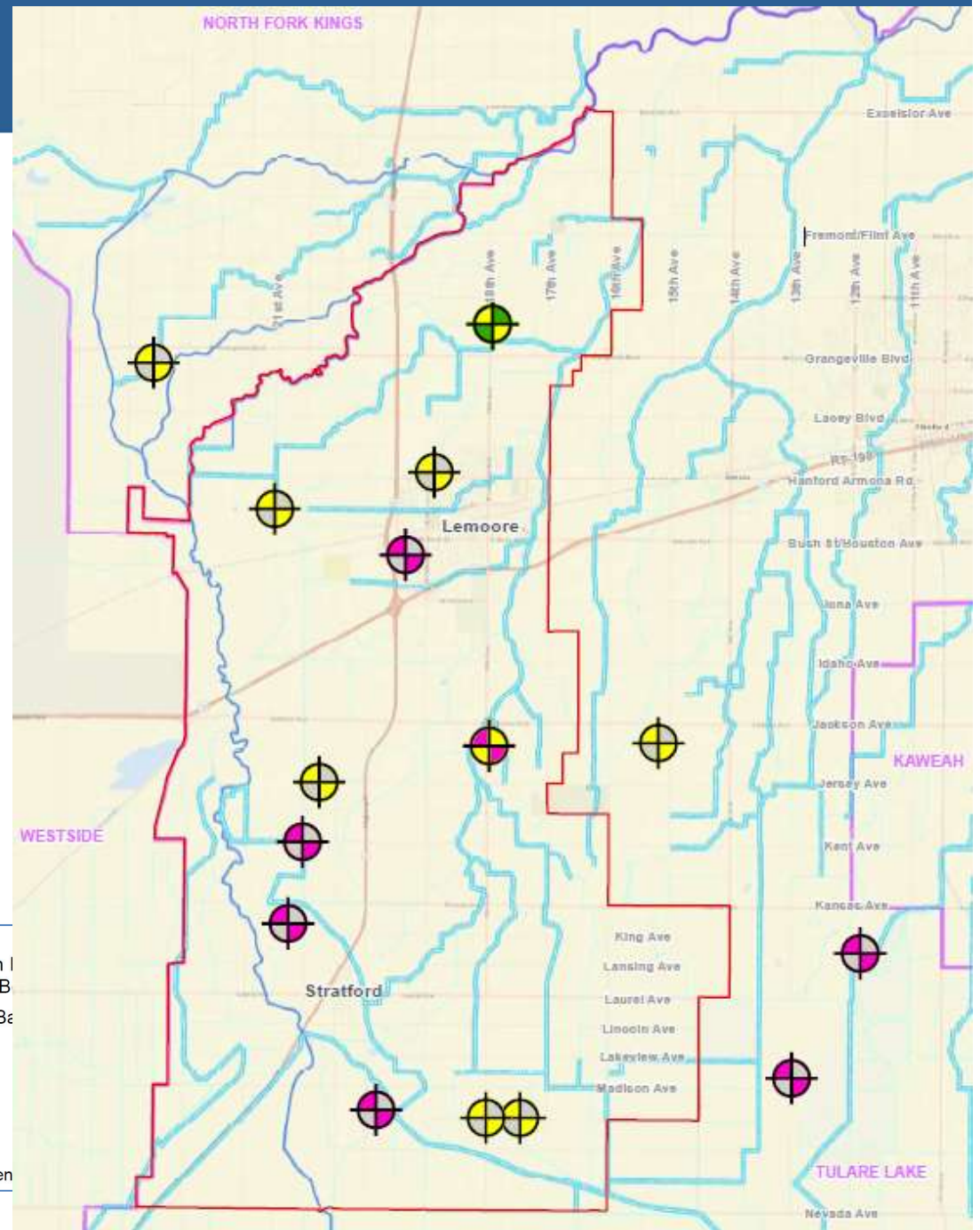
## C-zone

- North of Lemoore;  
East of Stratford

### Legend

- |   |                           |   |                          |   |         |
|---|---------------------------|---|--------------------------|---|---------|
|  | Hydrostratigraphic Zone B |  | River                    |  | South I |
|  | Hydrostratigraphic Zone C |  | Aqueduct                 |  | GSA B   |
|  | Nested Zone A and B Well  |  | Ditch/Canal/Stream/Creek |   | Sub-Ba  |
|  | Nested Zone B and C Well  |  | Other Waterways          |   |         |

Note  
GSA = Groundwater Sustainability Agen







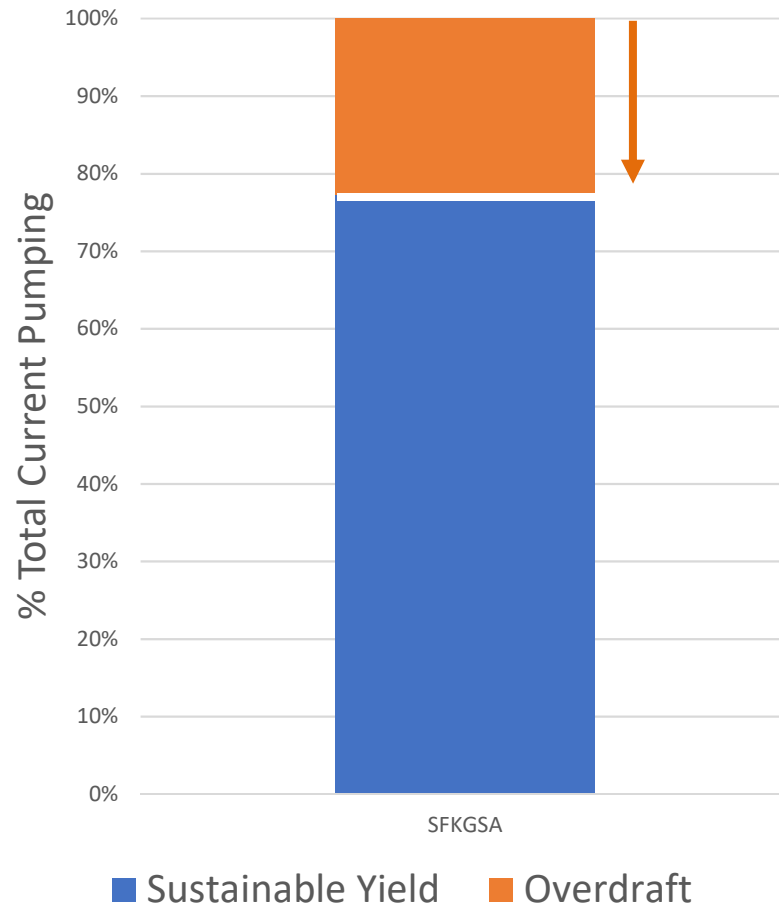
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<b>SFKGSA TAG/Consultants</b>	Prepare Projects & Mgmt Actions Memo	Submit Projects & Mgmt Actions Memo	Support/Facilitate			

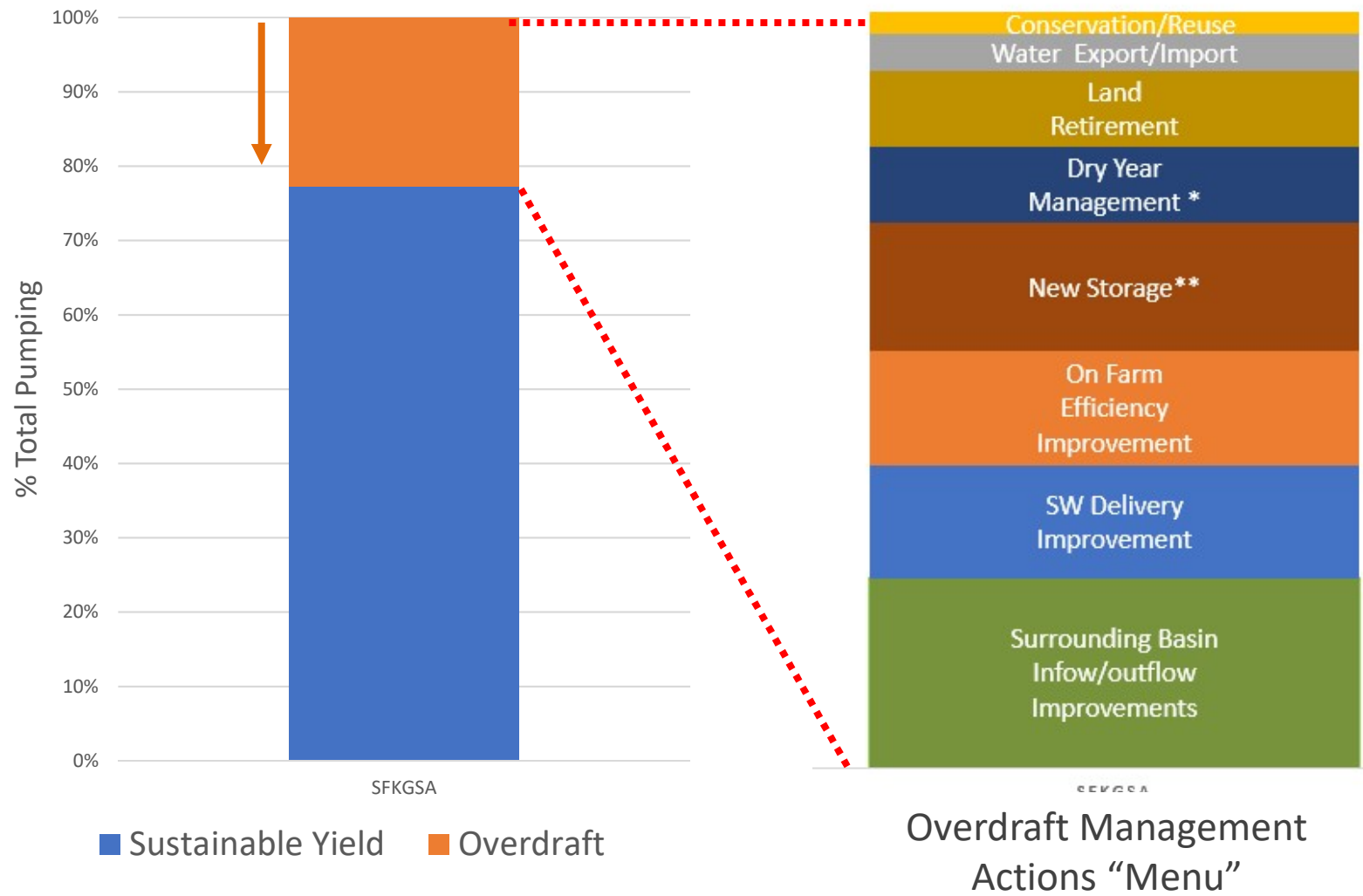


# 3 Steps to Sustainability



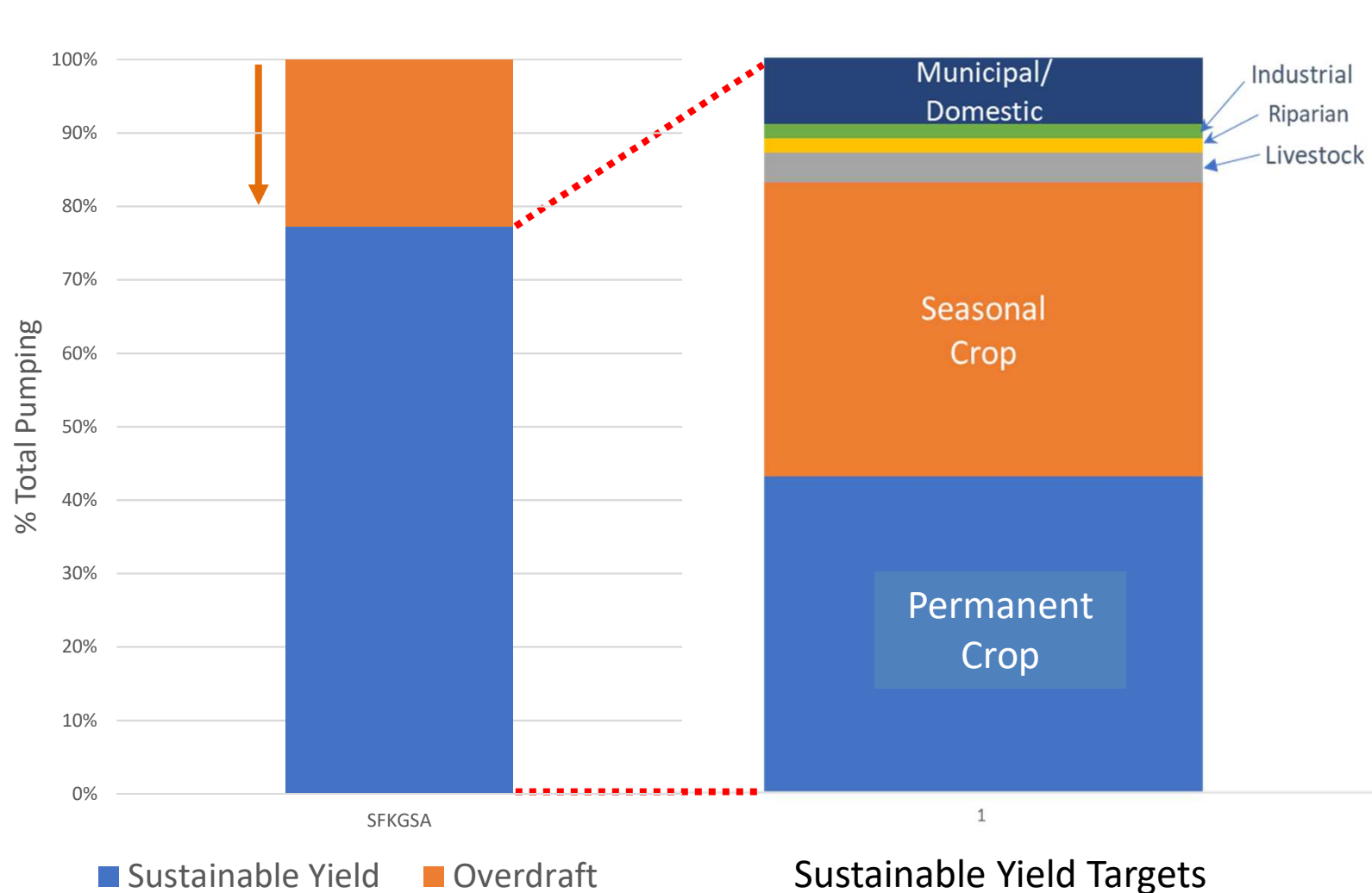
1. Correct overdraft (2040)
2. Maintain Sustainability
3. Adaptive Management

# Overdraft Reduction Targets





# Sustainable Yield Targets



# Two “Portfolios”

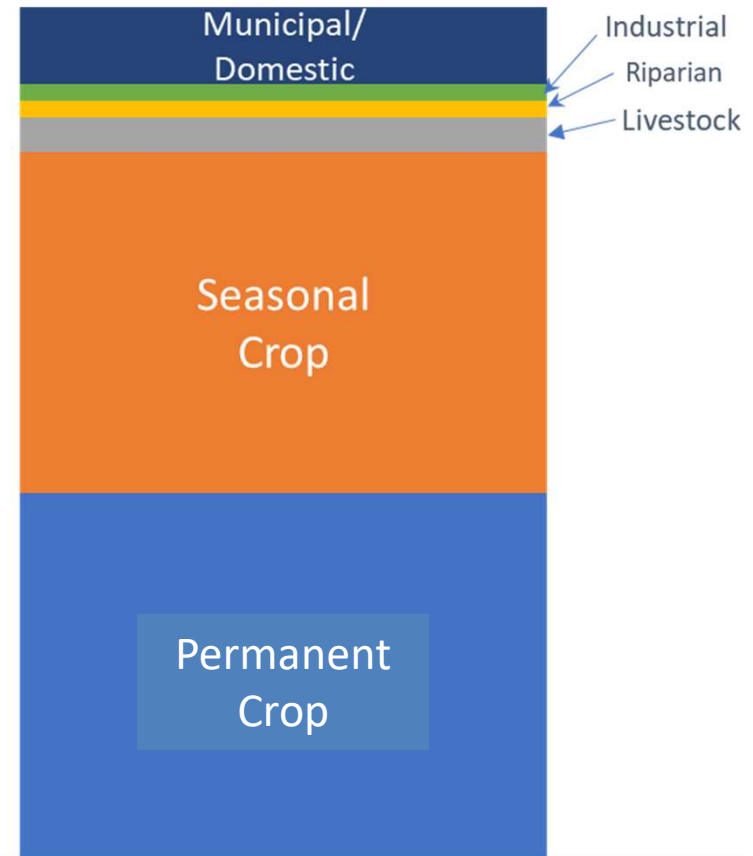
“Getting there”... by 2040



SFKGSA

Overdraft Reduction  
Actions “Menu”

“Staying there”... After 2040



1

Sustainable Yield Targets



## Article 5: Plan Contents



### SUBARTICLE 5: PROJECTS AND MANAGEMENT ACTIONS

- Realistic and sufficient projects and actions to achieve sustainability.
- Developed to a level that demonstrates GSAs have the resources, knowledge, and stakeholder acceptance to implement them.
- Known timeframe and general cost.
- Projects do not need to be designed.
- Supplemental plans and actions to address future uncertainties.
- All projects and management actions do NOT have to be implemented just because they are listed in the GSP.



# Implementation Considerations

1

Foundational  
Considerations

2

Project Specific  
Considerations

3

General Considerations

From : *Trading Sustainably: Critical Considerations for Local Groundwater Markets Under the Sustainable Groundwater Management Act, 2017.*  
*UC Berkeley School of Law, Wheeler Water Institute*





# Implementation Considerations

1

## Foundational considerations



Measuring  
groundwater extractions



Setting overall pumping limits



Establishing individual  
groundwater extraction  
allocations

2

## Project Specific Considerations

3

## General Considerations

# Implementation Considerations

1

## Foundational considerations



Measuring  
groundwater extractions



Setting overall pumping limits



Establishing individual  
groundwater extraction  
allocations

2

## Project Specific Considerations

3

## General considerations



Monitoring



Oversight and  
enforcement



Evaluation



Modification



Transparency and public  
engagement

### Resources

Human  
capacity



Physical and technological  
infrastructure



Funding



# Implementation Considerations

1

## Foundational considerations



Measuring  
groundwater extractions



Setting overall pumping limits



Establishing individual  
groundwater extraction  
allocations

2

## Project Specific Considerations

Water Rights  
and  
Legal Doctrine

Water Quality Law  
Clean Water Act

Land Use Law  
CEQA

3

## General considerations



Monitoring



Oversight and  
enforcement



Evaluation



Modification



Transparency and public  
engagement

### Resources

Human  
capacity



Physical and technological  
infrastructure



Funding



# Management Actions and Water Rights



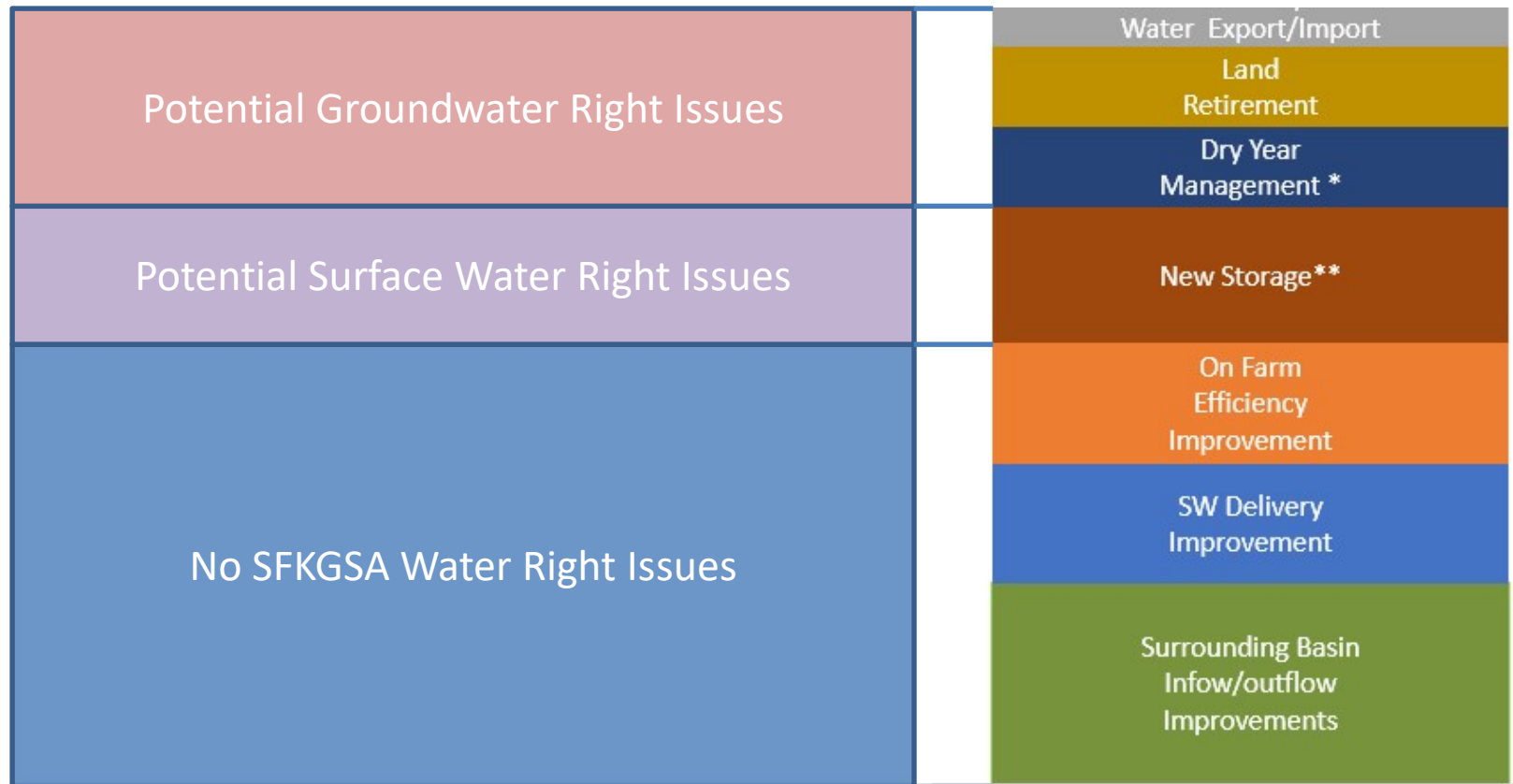
From : *Navigating Groundwater-Surface Water Interactions under the Sustainable Groundwater Management Act*  
UC Berkeley School of Law, Wheeler Water Institute





Focus on voluntary actions

“Getting there” ... by 2040

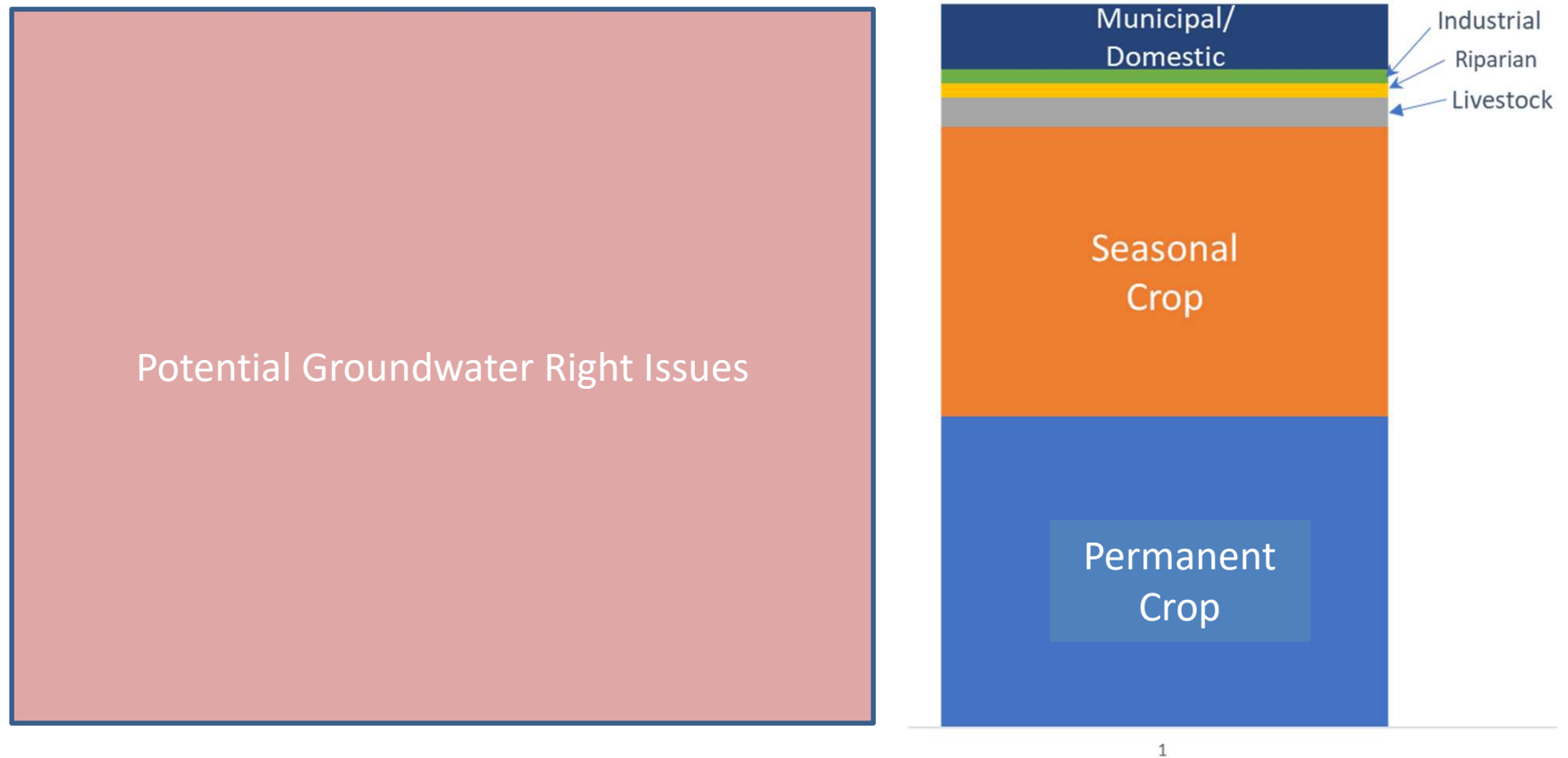


SFKGSA  
Overdraft Management  
Actions “Menu”



# SFKGSA Sustainable Pumping

“Staying there” ... After 2040



# How will the GSP address overdraft?

## Current thinking is:

The initial GSP will NOT quantify or prioritize the amount of overlying, appropriative or prescriptive groundwater rights in the SFKGSA

The initial GSP will NOT define overdraft correction or sustainable groundwater yield in terms of area (i.e. AF/Acre) in the SFKGSA

## “Getting there”...



## “Staying there”...



# How will the GSP address overdraft?

The initial GSP will :

1. Identify the initial overdraft and sustainable yield target as a total volume.
2. Outline the menu/portfolio of projects & management actions under consideration.
3. Distinguish issues related to surface water rights versus groundwater rights
4. Describe an initial 5-year program that focuses on
  - a. Monitoring to reduce pumping uncertainty
  - b. “Low hanging fruit” projects

“Getting there”...



“Staying there”...



# First GSP 5-Year Update

## The First 5-Year GSP Update will :

1. Update overdraft and sustainable yield target
2. Describe results of initial 5-year program
  - a. Monitoring & measurement
  - b. “Low hanging fruit” projects
3. Update/refine specific actions. This may include actions that involve water rights or area-based allocation.

## “Getting there”...



## “Staying there”...





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# Upcoming SFKGSA Board Decisions

## Planning Elements:

- **Adopt Overdraft Target**
  - Model vs data
- **Adopt Sustainable Yield Target**
  - Model vs data
- **Adopt Monitoring Network/Thresholds**
  - Enhancement/refinement process
- **Adopt Adaptive Management Approach**
  - First 5-years (monitoring + low hanging fruit) vs next 5-years
- **Adopt Project & Management Action List**
  - Water efficiency, storage, infrastructure, reporting

## Implementation Elements:

- **Adopt Measurement Approach**
  - Methods and accuracy
- **Adopt Data Management Approach**
  - Structure, access, reporting functions
- **Adopt Oversight and Enforcement Approach**
  - GSA/County/City/Voluntary Actions
- **Adopt Resources and Budgeting Approach**
  - GSA and basin resources
  - Infrastructure and personnel
- **Confirm Capacity to Implement GSP**
  - Organizational, financial



# Thank You

## Questions/Discussion

