

DWR's Sustainable Groundwater Management Implementation

Action Item: Consideration of Groundwater Basin Boundary Emergency Regulations



California Water Commission
October 21, 2015
Yuba City, CA

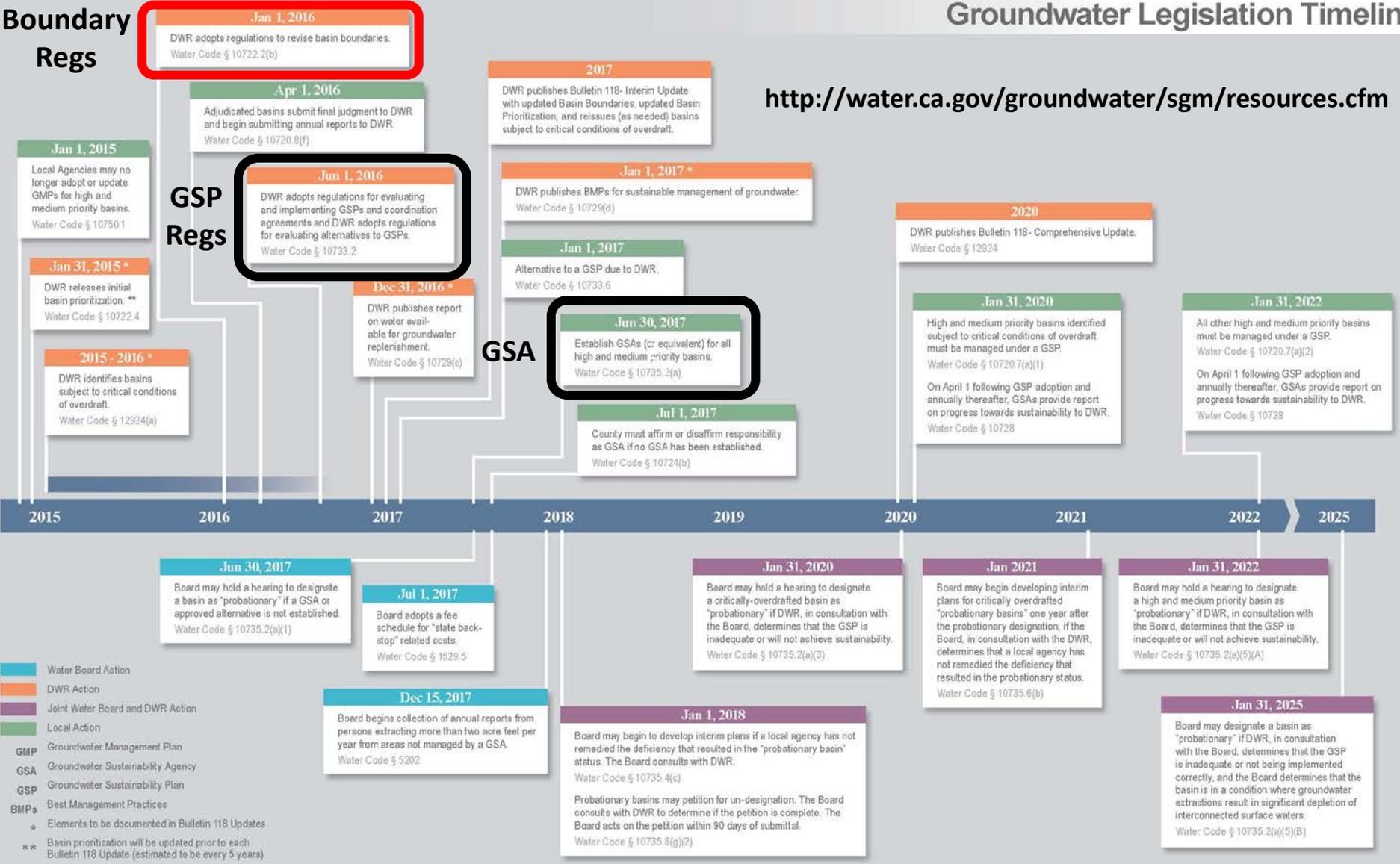
Presentation Overview

- **Summary of Emergency Regulations Development**
- **Overview of Proposed Emergency Regulations**
- **Future Steps - Roles and Responsibilities**

SGMA Milestones

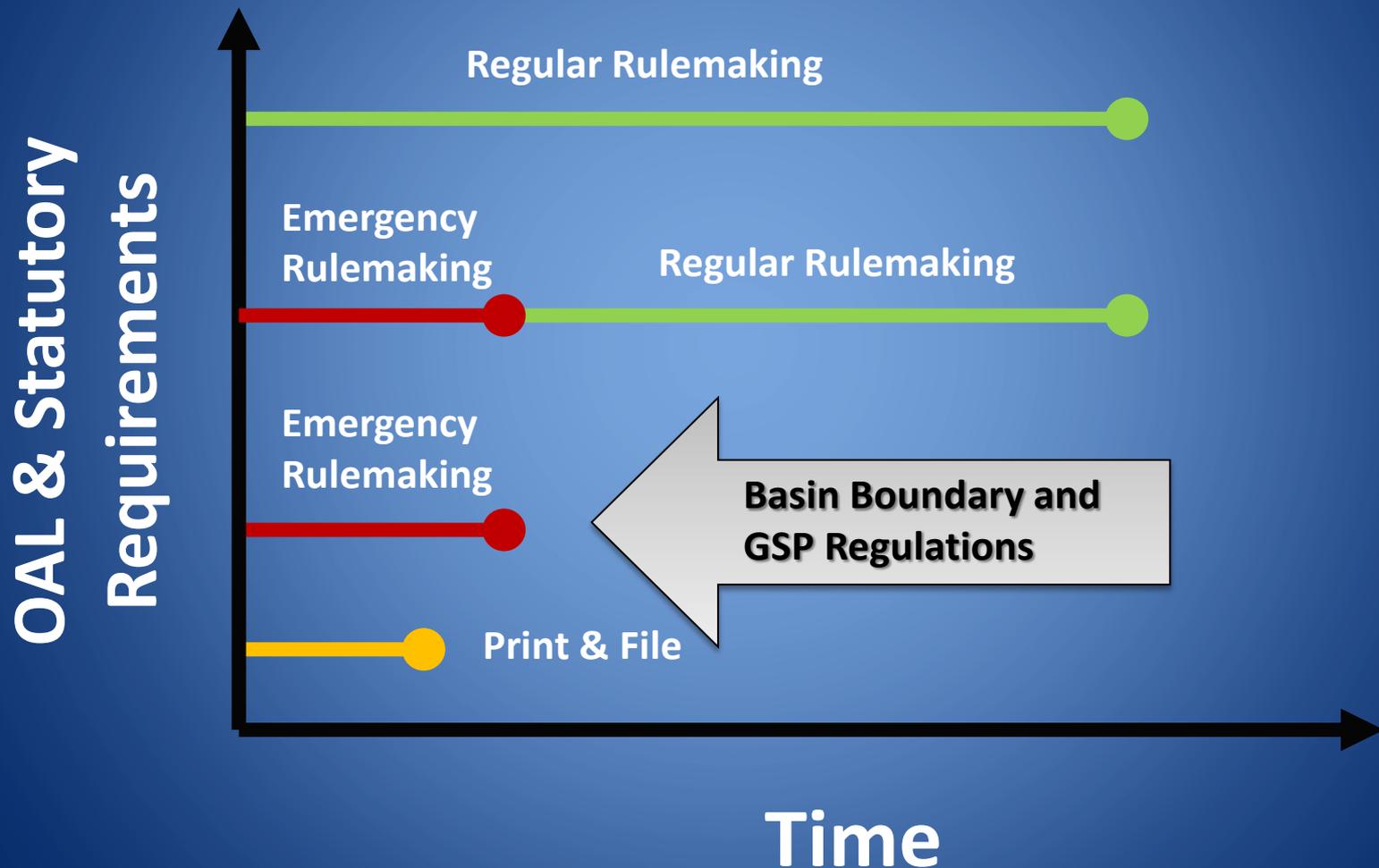
Groundwater Legislation Timeline

<http://water.ca.gov/groundwater/sgm/resources.cfm>



- Water Board Action
- DWR Action
- Joint Water Board and DWR Action
- Local Action
- GMP Groundwater Management Plan
- GSA Groundwater Sustainability Agency
- GSP Groundwater Sustainability Plan
- BMPs Best Management Practices
- * Elements to be documented in Bulletin 118 Updates
- ** Basin prioritization will be updated prior to each Bulletin 118 Update (estimated to be every 5 years)

OAL Regulation Processes



Applicability

➤ **515 Groundwater Basins and Subbasins**

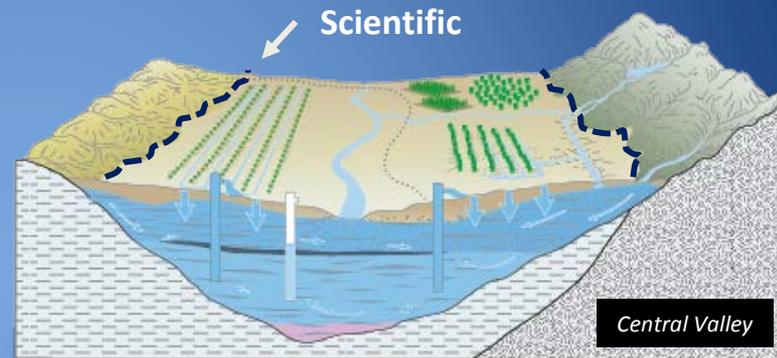


Applicability

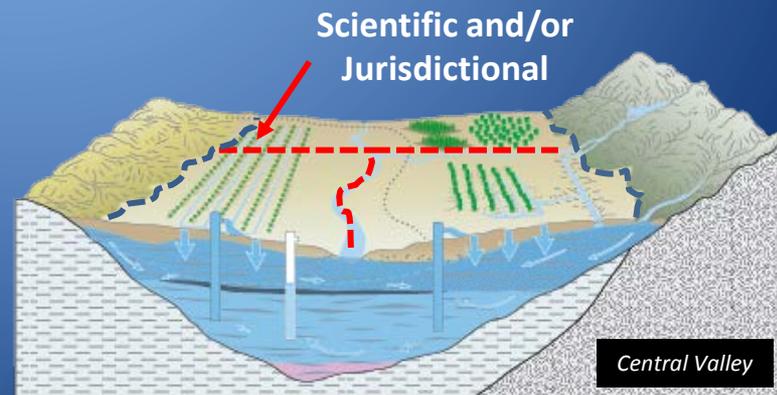
➤ 515 Groundwater Basins and Subbasins



Basin



Subbasin



Communication and Outreach



Basin Boundary Regulations Development

Jan-April

April-May

July-Sept

Oct

Scoping

- Notify OAL
- Collect Issues from Stakeholders
- Coordinate with SWRCB & CWC

Draft Framework

- Public Listening Sessions
- Present and Receive Input from Advisory Groups and Public

Draft Emergency Regulations

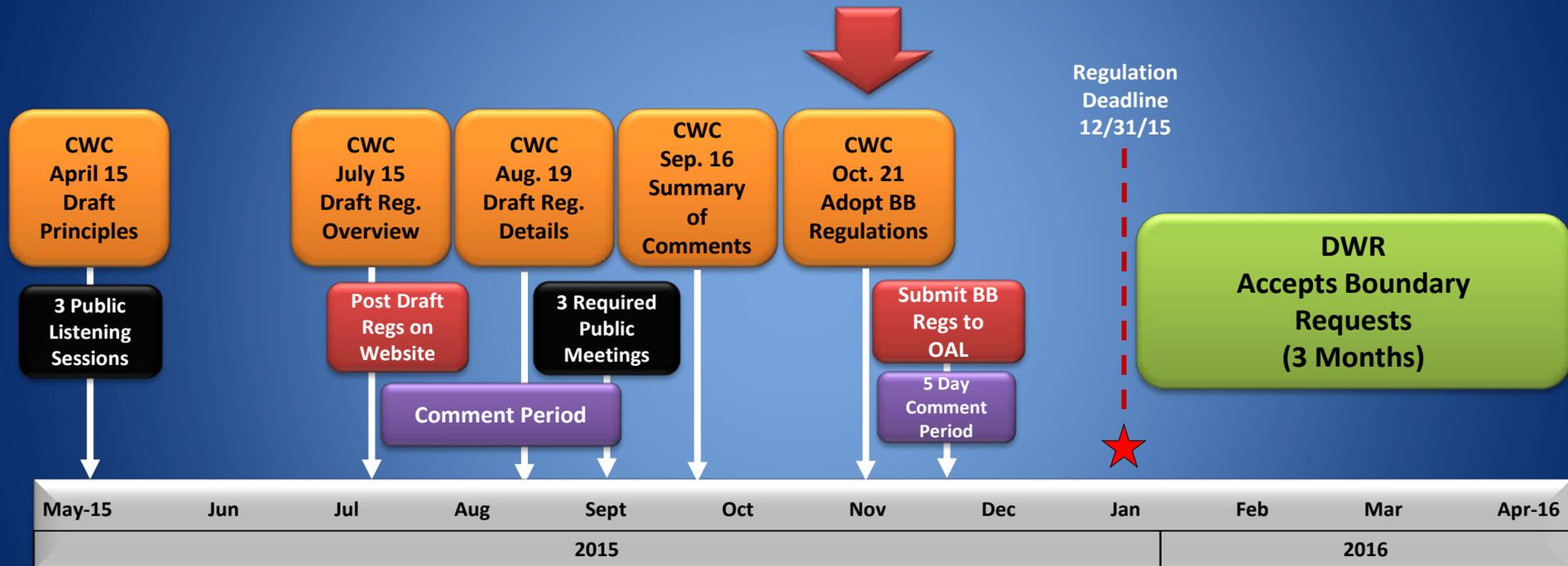
- Required Public Meetings
- Present and Receive Input from Advisory Groups and Public

Adopt Emergency Regulations

- CWC Approval
- Noticing and Submittal to OAL

Input and Feedback from the CWC and SWRCB

Basin Boundary Regulations Development



 = Advisory Group Meetings

Outreach – Informal Input

- 515 Basins and Subbasins
- **Extensive Stakeholders Outreach (Phased)**
 - **Phase 1 – Informal Input**
 - 5 – CA Water Commission Briefings



Outreach – Informal Input

➤ 515 Basins and Subbasins

➤ Extensive Stakeholders Outreach (Phased)

➤ Phase 1 – Informal Input

➤ 5 – CA Water Commission Briefings

➤ 3 – Public Listening Sessions

➤ 40+ Advisory Group Meetings

1. Practitioners Advisory Panel
2. Tribal Advisory Group
3. Non-Governmental Organizations
4. Association of California Water Agencies
5. Northern California Water Association
6. San Joaquin Tributaries Authority
7. San Luis & Delta Mendota Water Authority
8. Central Coast Area
9. RCRC & CSAC
10. Agricultural Community
11. Tulare Lake Hydrologic Group

Outreach – Formal Input

- **49 Day Public Comment Period**
- **3 Public Meetings** – Sacramento, Bakersfield, Santa Ana



July 17th

49 Day Comment Period

Sept. 4th

Summary of Public Comments

- 
- **49 Day Public Comment Period**
 - **3 Public Meetings** – Sacramento, Bakersfield, Santa Ana
 - **38 Comments From a Diverse Group of Stakeholders**
 - Tribal Governments
 - Regional and Local Governments and Agencies
 - Non-Governmental Organizations
 - Public Water Systems
 - The Public

July 17th

49 Day Comment Period

Sept. 4th

Summary of Public Comments

- 
- A map of California with orange dots indicating public comment locations. Three black stars are placed on the map, corresponding to the locations of public meetings in Sacramento, Bakersfield, and Santa Ana.
- **49 Day Public Comment Period**
 - **3 Public Meetings** – Sacramento, Bakersfield, Santa Ana
 - **38 Comments From a Diverse Group of Stakeholders**
 - Tribal Governments
 - Regional and Local Governments and Agencies
 - Non-Governmental Organizations
 - Public Water Systems
 - The Public

July 17th

49 Day Comment Period

Sept. 4th

Overview of Proposed Emergency Regulations

SGMA Requirements

WC §10722.2

- **Emergency Regulations to Establish a Process For Local Agencies to Request Changes to Existing Basin Boundaries**
 - **DWR Shall Adopt by January 1, 2016**
 - **Instructions to Local Agencies on Submittal of:**
 1. Information demonstrating proposed basin can be sustainably managed
 2. Technical information on boundaries and conditions in proposed basin
 3. Consultation with interested local agencies and public water systems in the affected basins
 4. Other information DWR deems necessary to justify revision
 - **Methodology and Criteria on how to assess:**
 1. Likelihood proposed basin can be sustainably managed
 2. Whether proposed basin would limit the SGM of adjacent basins
 3. Whether there is a history of SGM of groundwater levels in the proposed basin

Overall Regulatory Approach

Stakeholder Input

Local Agency Boundary Modification Requests
(WC 10722.2 - SGMA Established Process)

DWR's Existing Authority and Stewardship of Basin Boundaries
(WC 12924 – Bulletin 118)

Sustainable
Groundwater
Management

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RESOURCES

Report No. 2

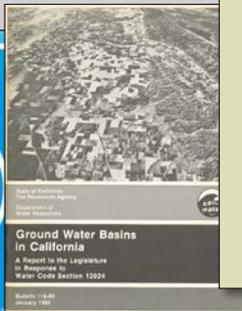
GROUND WATER BASINS
IN CALIFORNIA

November, 1952

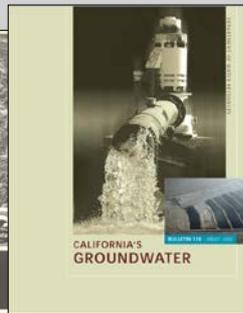
1952



Bulletin 118
1975



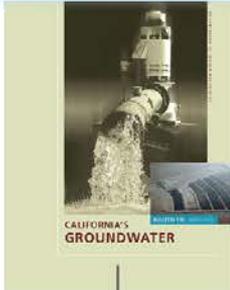
Bulletin 118
1980



Bulletin 118
2003

Basin Boundary Modification Process

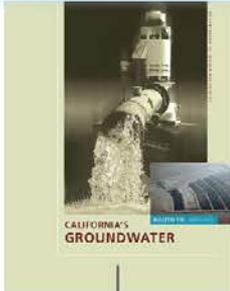
All basins begin
with existing Bulletin 118
boundaries.



Boundary
modification
requested by local
agency?

Basin Boundary Modification Process

All basins begin
with existing Bulletin 118
boundaries.



Boundary
modification
requested by local
agency?

NO

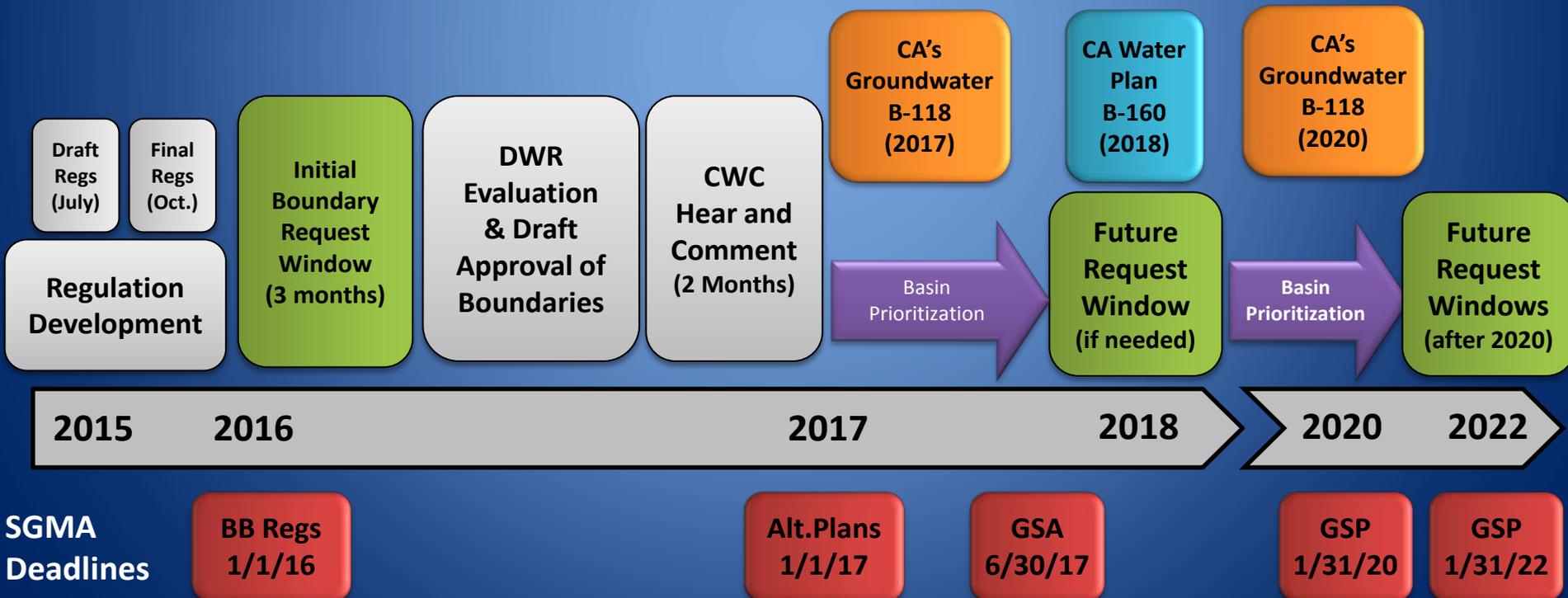
GSA/GSP formed in existing basin(s)

Approved Boundaries
Published in
*California's Groundwater
Bulletin 118 Updates*
(2017 and years ending
in 0 and 5)

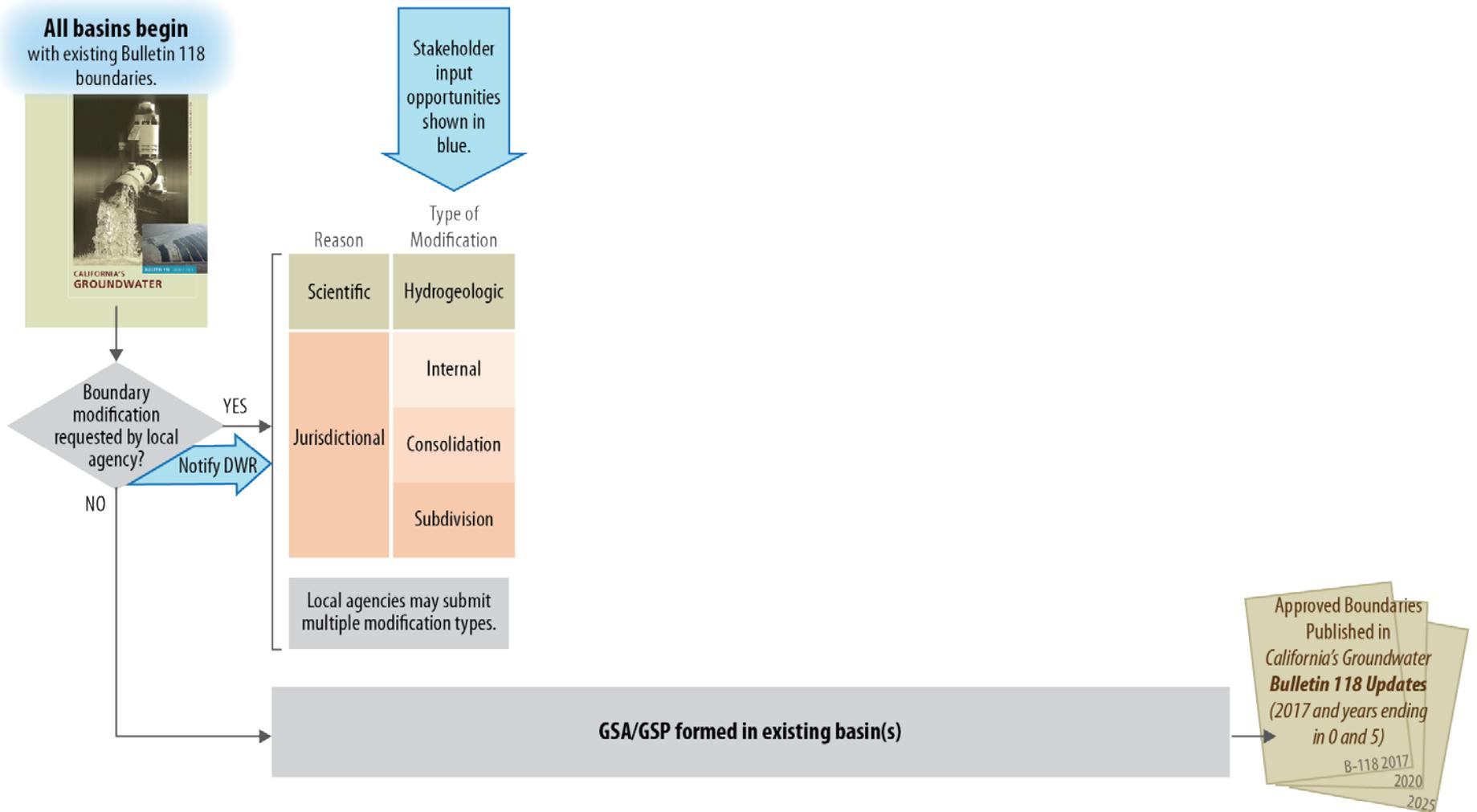
B-118 2017
2020
2025

Boundary Modification Opportunities

- Initial Boundary Modification Request “Window” of 3 months.
- Future Request “Windows” Linked to B-118 updates or more frequent if needed.



Basin Boundary Modification Process



Types of Modification

Article 3

- **Scientific** - Based on Geologic or Hydrologic Conditions that Define the Basin
- **Jurisdictional** - Promote Sustainable Groundwater Management.

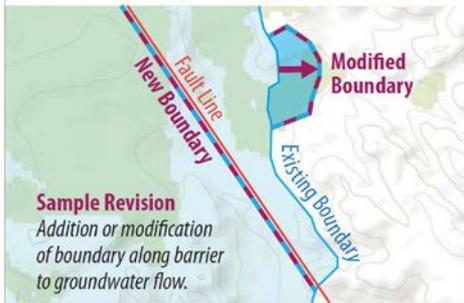
Types of Modification

Article 3

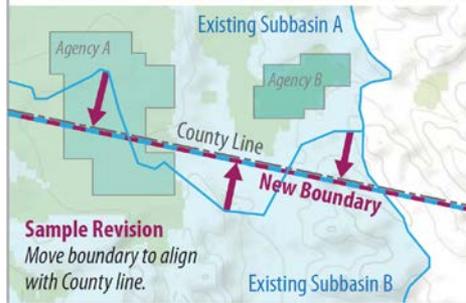
Scientific

Jurisdictional

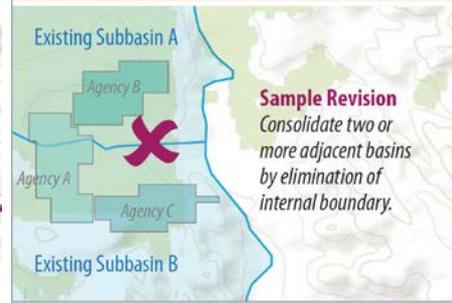
Scientific



Internal (Jurisdictional)



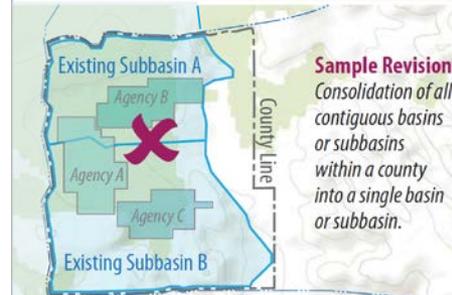
Consolidation (Jurisdictional)



Subdivision (Jurisdictional)

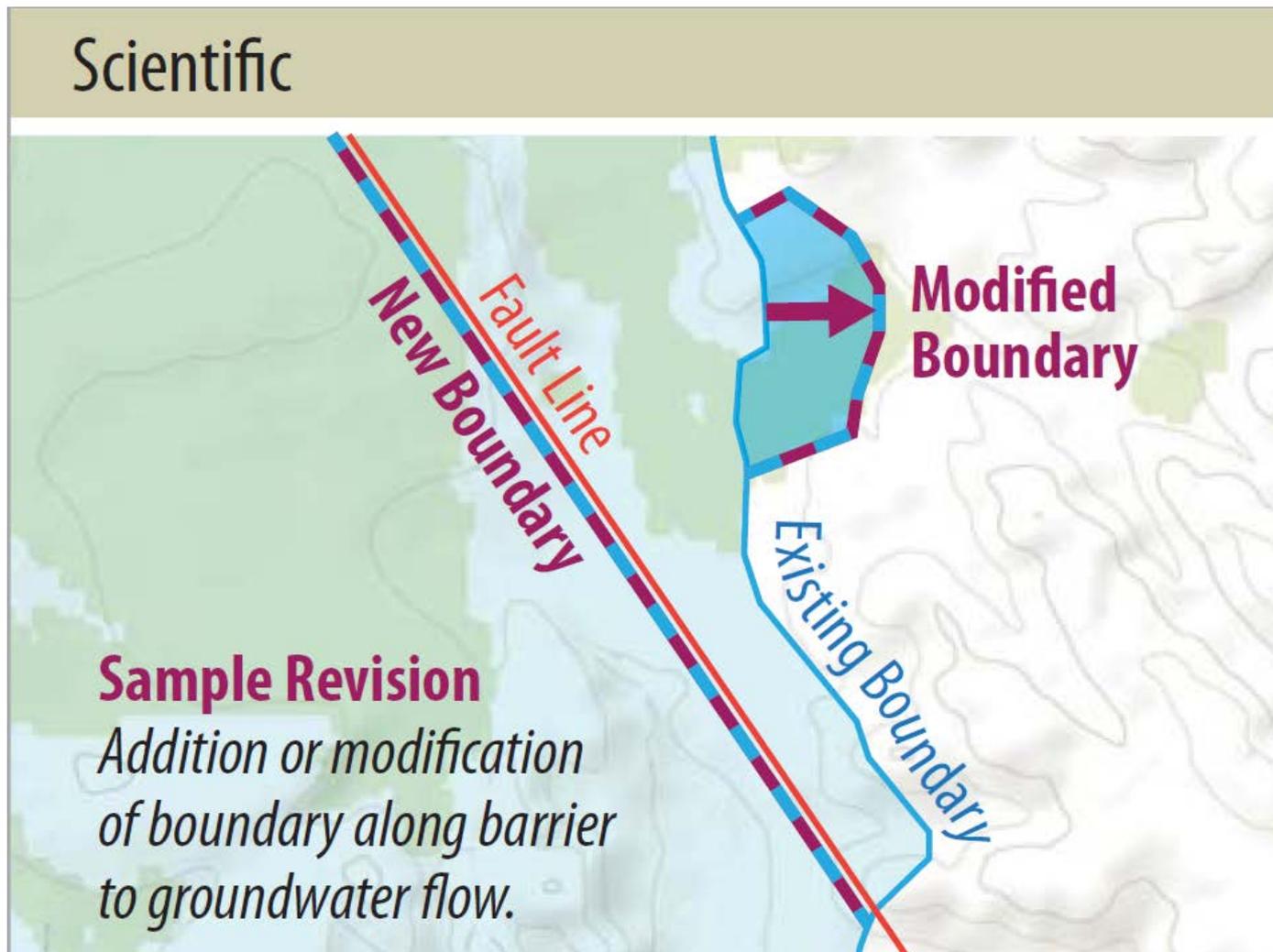


County Consolidation (Jurisdictional)



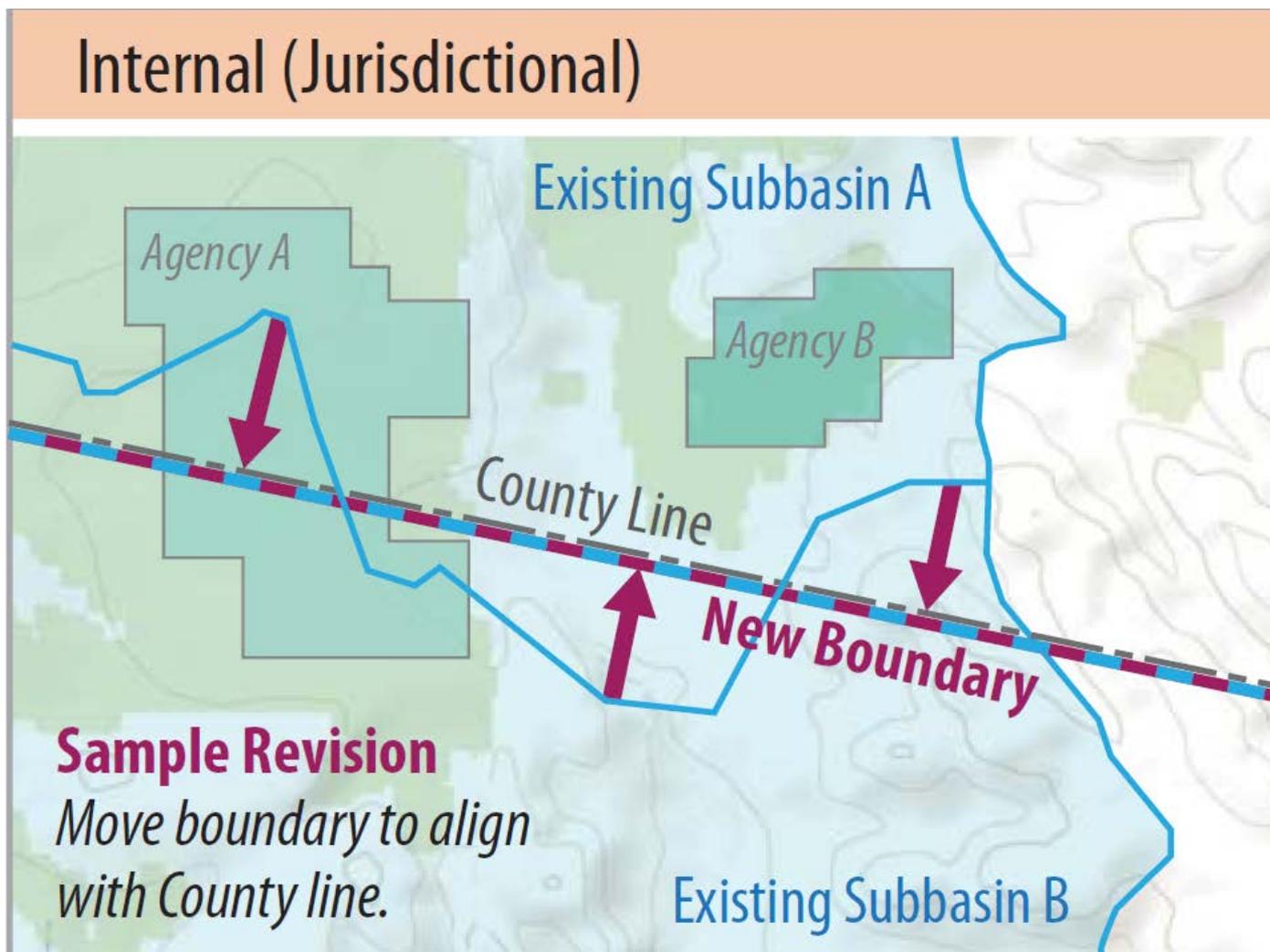
Types of Modification

Article 3



Types of Modification

Article 3



Types of Modification

Article 3

Consolidation (Jurisdictional)

Existing Subbasin A

Agency B



Agency A

Agency C

Existing Subbasin B

Sample Revision

Consolidate two or more adjacent basins by elimination of internal boundary.

County Consolidation (Jurisdictional)

Existing Subbasin A

Agency B



Agency A

Agency C

Existing Subbasin B

County Line

Sample Revision

Consolidation of all contiguous basins or subbasins within a county into a single basin or subbasin.

Types of Modification

Article 3

Subdivision (Jurisdictional)

Sample Revision

*Further divide existing subbasin
at request of local agencies.*

Agency A

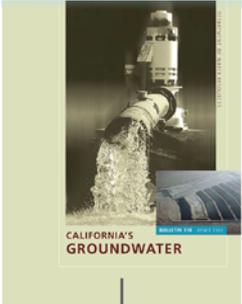
New Boundary

Agency B

Agency C

Existing Boundary

All basins begin with existing Bulletin 118 boundaries.



CALIFORNIA'S GROUNDWATER

Boundary modification requested by local agency?

YES
Notify DWR

NO

Stakeholder input opportunities shown in blue.

Agency Information and Resolution
Notification & Consultation

(1) Local Info

Required Components of Submittal

Information required is dependent upon type of modification.

Reason	Type of Modification	Agency Information and Resolution	Notification & Consultation
Scientific	Hydrogeologic	✓	✓
Jurisdictional	Internal	✓	✓
	Consolidation	✓	✓
	Subdivision	✓	✓

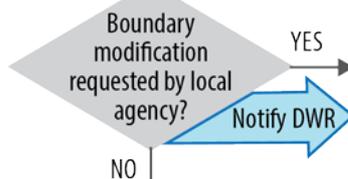
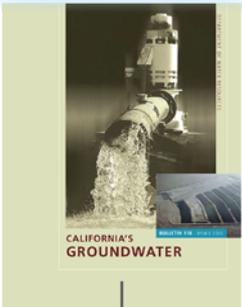
Local agencies may submit multiple modification types.

If any required components are missing, request may not be approved and original boundaries will be used.

GSA/GSP formed in existing basin(s)



All basins begin with existing Bulletin 118 boundaries.



Stakeholder input opportunities shown in blue.

Required Components of Submittal
Information required is dependent upon type of modification.

(1) Local Info (2) Local Agency Input

Reason	Type of Modification	Agency Information and Resolution	Notification & Consultation	Affected Agencies and Systems - Must be Notified - Provided an Opportunity to Support or Oppose	Supported by 75% of Agencies and Systems
Scientific	Hydrogeologic	✓	✓	✓	
Jurisdictional	Internal	✓	✓	✓	
	Consolidation	✓	✓	✓	
	Subdivision	✓	✓		✓

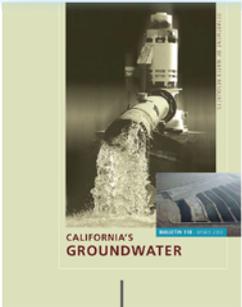
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GSA/GSP formed in existing basin(s)



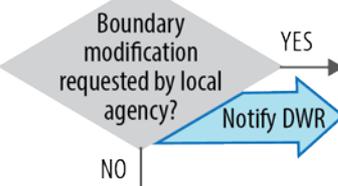
All basins begin with existing Bulletin 118 boundaries.



Stakeholder input opportunities shown in blue.

Required Components of Submittal		
Information required is dependent upon type of modification.		
(1) Local Info	(2) Local Agency Input	(3) Technical Information
Agency Information and Resolution	Notification & Consultation	Affected Agencies and Systems - Must be Notified - Provided an Opportunity to Support or Oppose
		Supported by 75% of Agencies and Systems
		Desc. of Basin Boundaries (Map, GIS data)
		Existing Water Management in Basin
		Hydrogeologic Conceptual Model
		Historic and Current Conditions
		Technical Study

Reason	Type of Modification	(1) Local Info	(2) Local Agency Input	(3) Technical Information
Scientific	Hydrogeologic	✓	✓	✓
Jurisdictional	Internal	✓	✓	✓
	Consolidation	✓	✓	✓
	Subdivision	✓	✓	✓



Local agencies may submit multiple modification types.

If any required components are missing, request may not be approved and original boundaries will be used.

GSA/GSP formed in existing basin(s)



¹ DWR may waive this requirement if the requesting agency is able to demonstrate that the proposed boundary modification is unlikely to affect sustainable groundwater management.

All basins begin with existing Bulletin 118 boundaries.



CALIFORNIA'S GROUNDWATER

Boundary modification requested by local agency?

YES
Notify DWR

NO

Stakeholder input opportunities shown in blue.

Required Components of Submittal
Information required is dependent upon type of modification.

(1) Local Info (2) Local Agency Input (3) Technical Information

Reason	Type of Modification	Agency Information and Resolution	Notification & Consultation	Affected Agencies and Systems - Must be Notified - Provided an Opportunity to Support or Oppose	Supported by 75% of Agencies and Systems	Desc. of Basin Boundaries (Map, GIS data)	Existing Water Management in Basin	Hydrogeologic Conceptual Model	Historic and Current Conditions	Technical Study
Scientific	Hydrogeologic	✓	✓	✓	✓	✓	✓	✓	✓	✓
Jurisdictional	Internal	✓	✓	✓	✓	✓	✓	✓ ¹	✓	✓
	Consolidation	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Subdivision	✓	✓	✓	✓	✓	✓	✓	✓	✓

Request Review Process

Summer 2016

Local agencies may submit multiple modification types.

If any required components are missing, request may not be approved and original boundaries will be used.

Review process may determine modification is not acceptable.

GSA/GSP formed in existing basin(s)



¹ DWR may waive this requirement if the requesting agency is able to demonstrate that the proposed boundary modification is unlikely to affect sustainable groundwater management.

² Public input submittal must rely on similar scientific and technical information as the request to which it is addressed.

All basins begin with existing Bulletin 118 boundaries.



CALIFORNIA'S GROUNDWATER

Boundary modification requested by local agency?

YES
Notify DWR

NO

Stakeholder input opportunities shown in blue.

Required Components of Submittal
Information required is dependent upon type of modification.

(1) Local Info (2) Local Agency Input (3) Technical Information

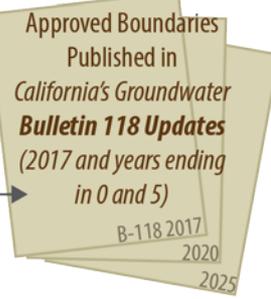
Reason	Type of Modification	Required Components of Submittal									Request Review Process	
		Agency Information and Resolution	Notification & Consultation	Affected Agencies and Systems <i>- Must be Notified - Provided an Opportunity to Support or Oppose</i>	Supported by 75% of Agencies and Systems	Desc. of Basin Boundaries (Map, GIS data)	Existing Water Management in Basin	Hydrogeologic Conceptual Model	Historic and Current Conditions	Technical Study	Opportunity for Public Input?	DWR Review & Public Notification
Scientific	Hydrogeologic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	DRAFT APPROVAL
Jurisdictional	Internal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Consolidation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Subdivision	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Local agencies may submit multiple modification types.

If any required components are missing, request may not be approved and original boundaries will be used.

Review process may determine modification is not acceptable.

GSA/GSP formed in existing basin(s)



Summer 2016

Jan 1st, 2016

32
Q1, 2017

All basins begin with existing Bulletin 118 boundaries.



CALIFORNIA'S GROUNDWATER

Boundary modification requested by local agency?

YES
Notify DWR

NO

Stakeholder input opportunities shown in blue.

Required Components of Submittal
Information required is dependent upon type of modification.

(1) Local Info (2) Local Agency Input (3) Technical Information

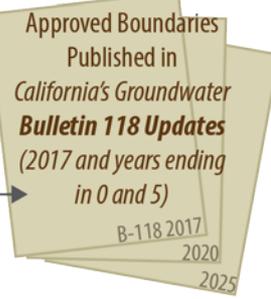
Reason	Type of Modification	Required Components of Submittal									Request Review Process		
		Agency Information and Resolution	Notification & Consultation	Affected Agencies and Systems <i>- Must be Notified - Provided an Opportunity to Support or Oppose</i>	Supported by 75% of Agencies and Systems	Desc. of Basin Boundaries (Map, GIS data)	Existing Water Management in Basin	Hydrogeologic Conceptual Model	Historic and Current Conditions	Technical Study	Opportunity for Public Input?	DWR Review & Public Notification	CA Water Commission Review
Scientific	Hydrogeologic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Jurisdictional	Internal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Consolidation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Subdivision	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Local agencies may submit multiple modification types.

If any required components are missing, request may not be approved and original boundaries will be used.

Review process may determine modification is not acceptable.

GSA/GSP formed in existing basin(s)



Summer 2016

All basins begin with existing Bulletin 118 boundaries.



CALIFORNIA'S GROUNDWATER

Boundary modification requested by local agency?

YES

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NO

Stakeholder input opportunities shown in blue.

Required Components of Submittal
Information required is dependent upon type of modification.

(1) Local Info (2) Local Agency Input (3) Technical Information

Reason	Type of Modification	Agency Information and Resolution	Notification & Consultation	Affected Agencies and Systems - Must be Notified - Provided an Opportunity to Support or Oppose	Supported by 75% of Agencies and Systems	Desc. of Basin Boundaries (Map, GIS data)	Existing Water Management in Basin	Hydrogeologic Conceptual Model	Historic and Current Conditions	Technical Study	Opportunity for Public Input?	DWR Review & Public Notification	CA Water Commission Review
Scientific	Hydrogeologic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	DRAFT APPROVAL	HEAR & COMMENT
Jurisdictional	Internal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Consolidation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Subdivision	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Local agencies may submit multiple modification types.

If any required components are missing, request may not be approved and original boundaries will be used.

Review process may determine modification is not acceptable.

GSA/GSP formed in existing basin(s)

Summer 2016

Request Review Process

If DWR determines requested modification is acceptable, **Boundary Modification is Approved**

Approved Boundaries Published in California's Groundwater Bulletin 118 Updates (2017 and years ending in 0 and 5)

B-118 2017
2020
2025

Technical Assistance and Data Availability

Clearinghouse for Boundary Modification Information

DWR Basin Boundary Regulation Website

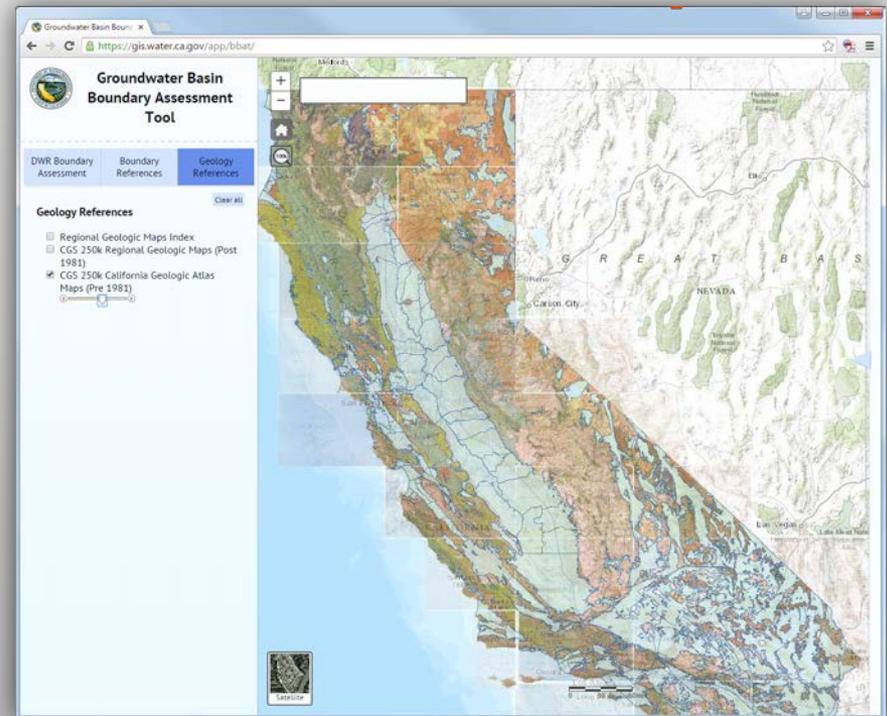
http://www.water.ca.gov/groundwater/sgm/basin_boundaries.cfm



The screenshot shows the California Department of Water Resources (DWR) website. The header includes the CA.GOV logo and navigation links for HOME, NEWSROOM & EVENTS, ISSUES, and ABOUT US. The main content area is titled "Basin Boundary Regulations" and features a sub-header "Proposed Basin Boundary Emergency Regulations Are Available Below". The text explains the Sustainable Groundwater Management Act (SGMA) and provides definitions for groundwater basins and subbasins. A sidebar on the right, titled "GROUNDWATER HOME", lists various resources such as Basin Boundary Regulations, Public Comments, Boundary Assessment Tool, and Groundwater Sustainability Agencies.

DWR Basin Boundary Assessment Tool

<https://gis.water.ca.gov/app/bbat/>



The screenshot shows the DWR Basin Boundary Assessment Tool (BBAT) interface. It features a map of California with a legend on the left side. The legend includes "DWR Boundary Assessment", "Boundary References", and "Geology References". The "Geology References" section lists "Regional Geologic Maps Index", "CGS 250k Regional Geologic Maps (Post 1981)", and "CGS 250k California Geologic Atlas Maps (Pre 1981)". The map displays various geological features and basin boundaries across the state.

Next Steps - Roles and Responsibilities

- **October 21st** - Present Proposed Emergency Regulations for adoption by CWC.
- **October – November** – DWR Submits Adopted Emergency Regulations to Office of Administrative Law.
- **January 1, 2016** – DWR Starts Accepting Boundary Modification Requests (3 Month period).
- **Sep. 2016*** – DWR Approves Draft List of Boundaries and Presents to CWC to Hear and Comment.
- **Early 2017*** – DWR Approves & Publishes Final Boundaries
- **Future Revisions to Regulations.** – Re-adopted by CWC.

**Estimated – Subject to Change*

Thank You