

Pilot Telemetry Project Overview

State Water Resources Control Board
Division of Water Rights



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graph TD; SWB[State Water Board] --> DWRT[Division of Water Rights]; DWRT --> DMG[Data M&G Section]; DMG --> TRU[Telemetry Research Unit];
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State Water Board

Division of Water Rights

Data M&G Section

Telemetry Research Unit

UPWARD California

UPWARD
Updating
Water
Rights
Data
for
California

CalWATRS
System

- California Water Accounting Tracking and Reporting System,
- eWRIMS Replacement

Digitization Team

- Scanning 7 Million Paper Records
- Electronic Content Management (ECM)

Telemetry Unit

- Improving Telemetry Capabilities by Working with Reporters

Current Data Challenges



Water Reports can be up to 18 months later



SB88 data is unstandardized



Data is sometimes inaccurate

Telemetry

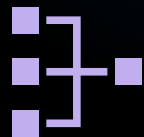
Real-time data for timely, targeted management



Automatically measured



Automatically transmitted



Standardized data

Pilot Telemetry Project - Overview



Collaborate with CA Water Data Consortium



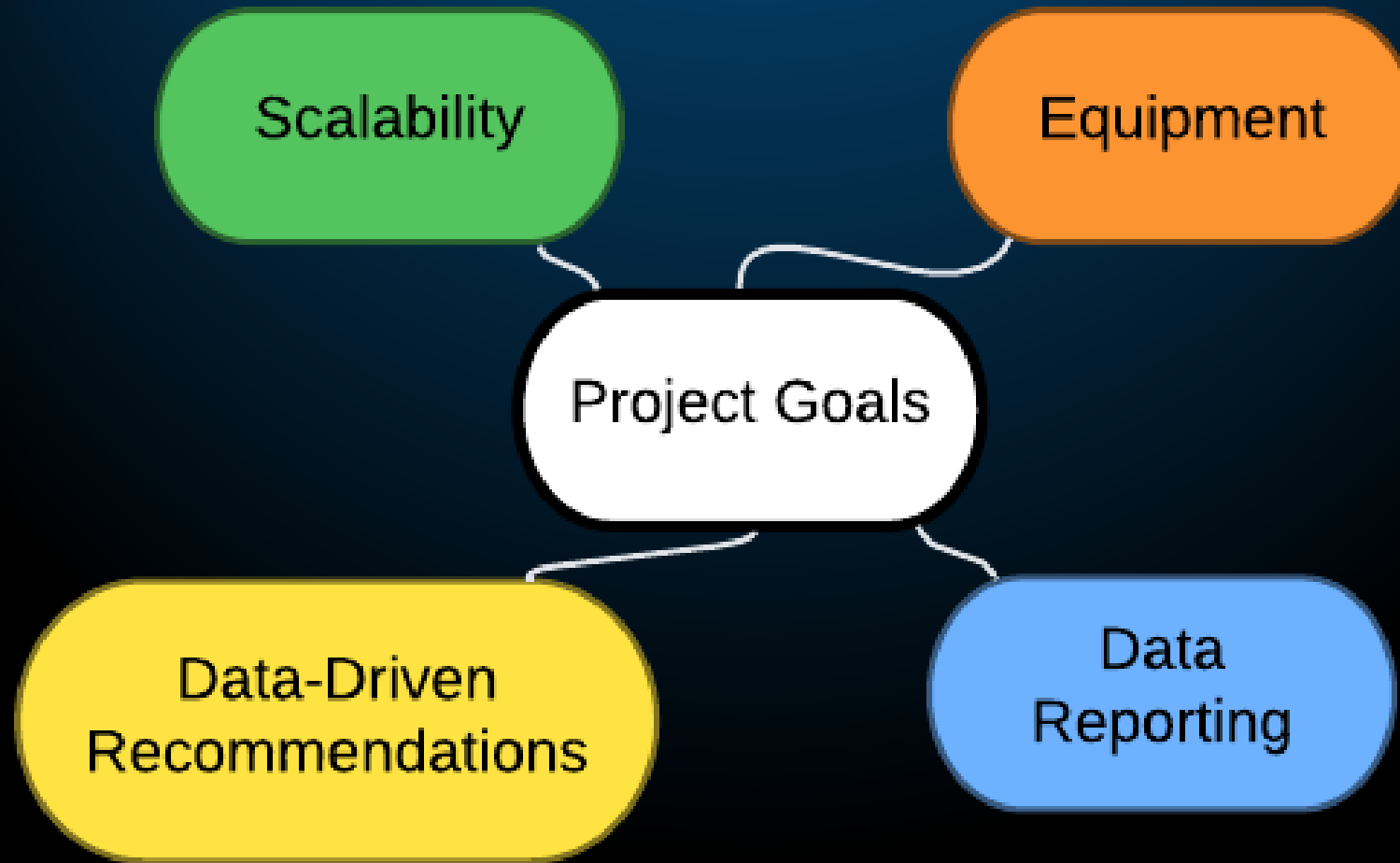
Install new or upgrade equipment at 75-125 sites

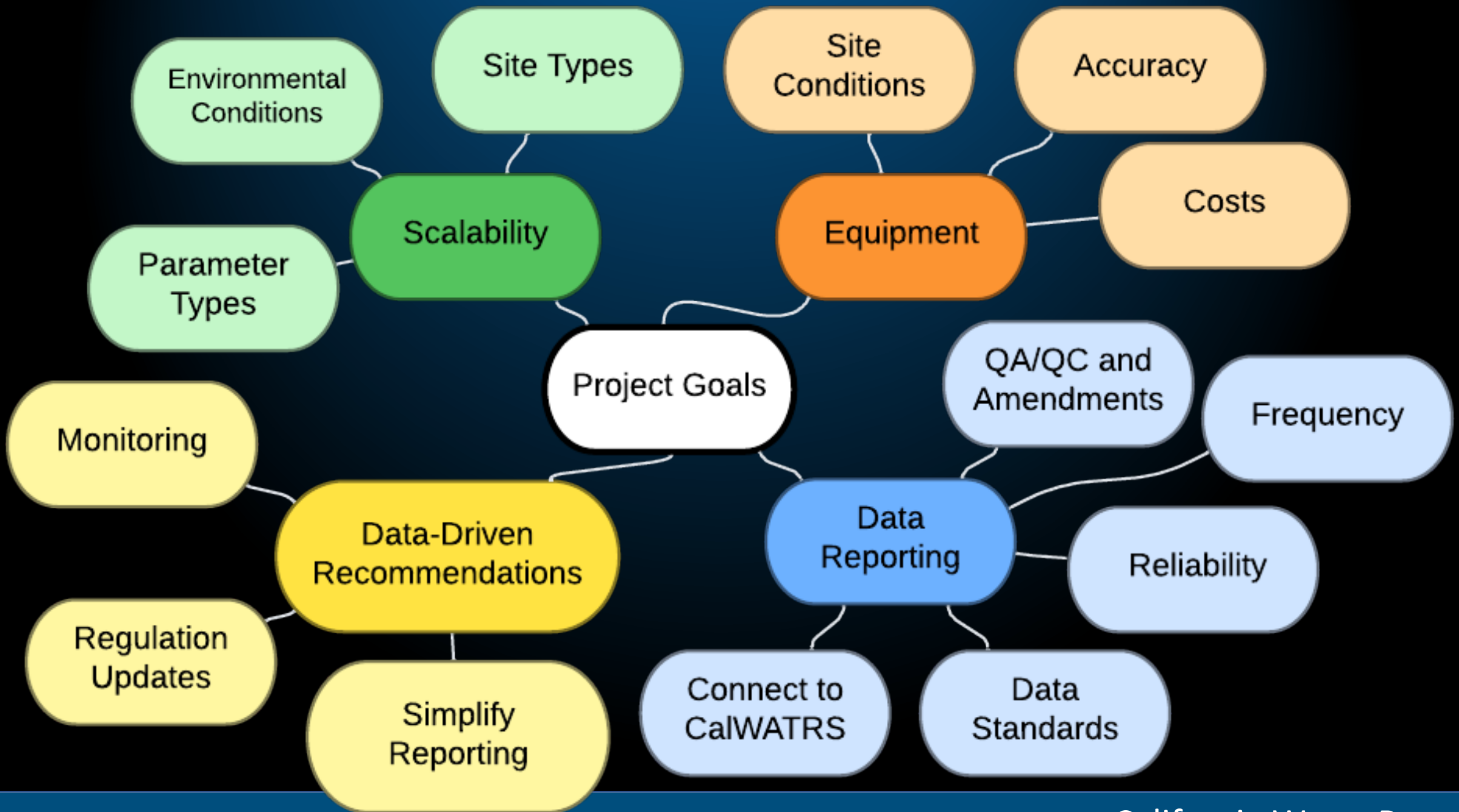


Conduct telemetered water monitoring

Project is for research only.

Pilot Telemetry Project - Goals





Pilot Telemetry Project - Goals

Gain knowledge from community members and evaluate real-world conditions

Collaboration with CA Water Data Consortium

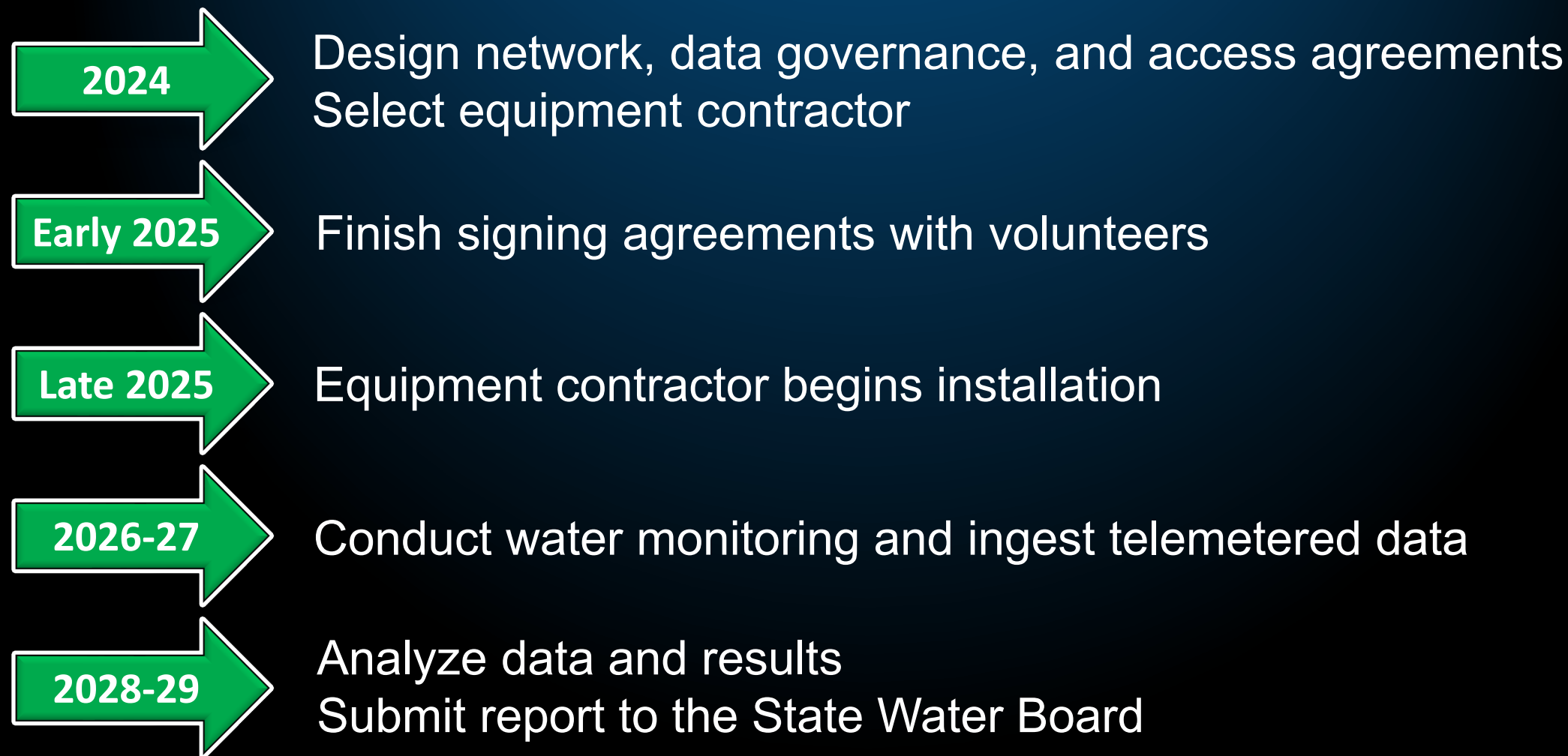
- California Water Data Consortium is an independent, non-profit organization
- Consortium is performing initial outreach and project scoping
 - Watershed recommendation for Pilot Project



Consortium recommended the Russian River watershed for the Pilot Telemetry Project

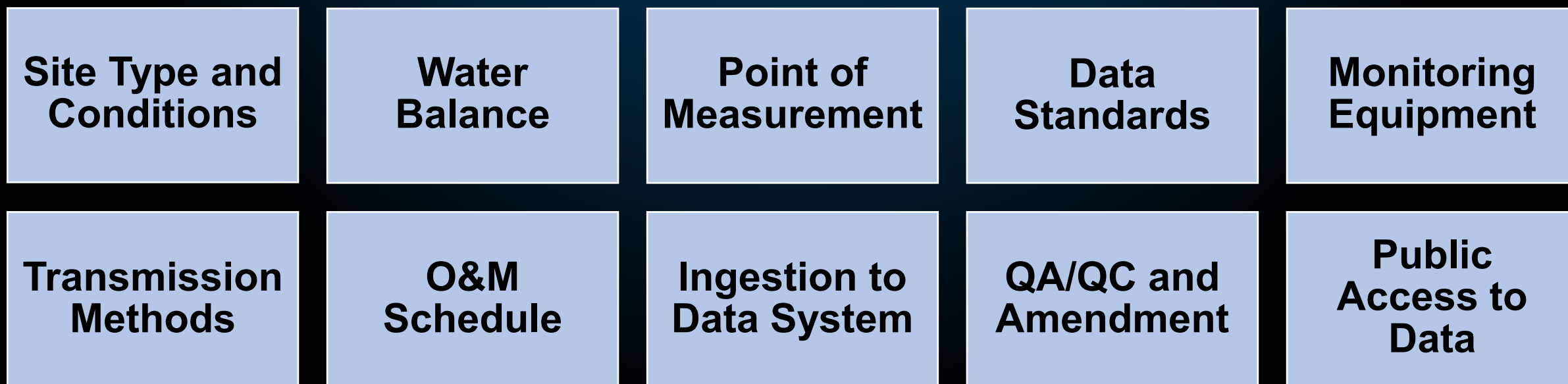
- Can benefit from improved water monitoring
 - SB19, Priority Fish Species, North Coast Instream Flow Policy, CA Water Action Plan
- Previous successful Board and community collaboration
- Hydrologic complexity reflecting CA's diverse hydrology

Pilot Telemetry Project - Anticipated Timeline



Pilot Telemetry Project - Design

Research plan is still in development. It will incorporate feedback from Consortium and 2024 outreach events.



Pilot Telemetry Project - Scope



Sites

- Diversions*
- Instream*
- Storage*
- Groundwater*



Parameters

- Flow*
- Volume*
- Water Quality*



Transmission

- Cellular*
- Radio*
- Satellite*

Project - Data Governance

- Data will be stored in a research database that mimics CalWATRS
- Aggregated data will be publicly available
- Site-specific data will be private to each community partner
- QA/QC management is a Project research goal



Project - Roles and Responsibilities



Telemetry Research Unit



California Water Data Consortium



Equipment Contractor



Community Partners



Telemetry Research Unit

Telemetry Research Unit will:

- Form access agreements with community partners
- Manage the equipment contractor
- Coordinate among contractor and community partners
- Perform all data ingestion and management



California Water Data Consortium

Consortium will:

- Research and provide independent technical recommendations on telemetered water monitoring
 - Recommend a watershed for the Pilot Project
- Conduct initial outreach in watershed
- Recommend a project design that is responsive to local issues

Equipment Contractor

Equipment contractor will:

- perform all installation, calibration, O&M, and site remediation
- Project will require 10-20 full time field staff

Request for Proposals anticipated late summer 2024

Community Partners

Volunteers in the Russian River watershed who will provide land, equipment, or data access



Land Access

Provide access to their land to install telemetered water monitoring equipment



Equipment Access

Provide access to existing equipment and allow upgrades to telemetered monitoring



Data Access

Provide access to their existing telemetered data

Benefits of Volunteering

- Option to keep equipment at Project end
 - Telemetered equipment
 - Training documents
- Equipment configured by staff
 - Connect to state data systems
 - Report SB88-required data
- Due date adjustment for Annual Reporting and SB88 Reporting during Pilot Project
- Feedback to staff about real-world conditions
- Support Project efforts to simplify reporting in future



Questions? Comments? Want to be kept informed?

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- CA Water Data Consortium Lead
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