CV-SALTS: So What?

Water Association of Kern County
Kern County Farm Bureau

Bakersfield Museum of Art
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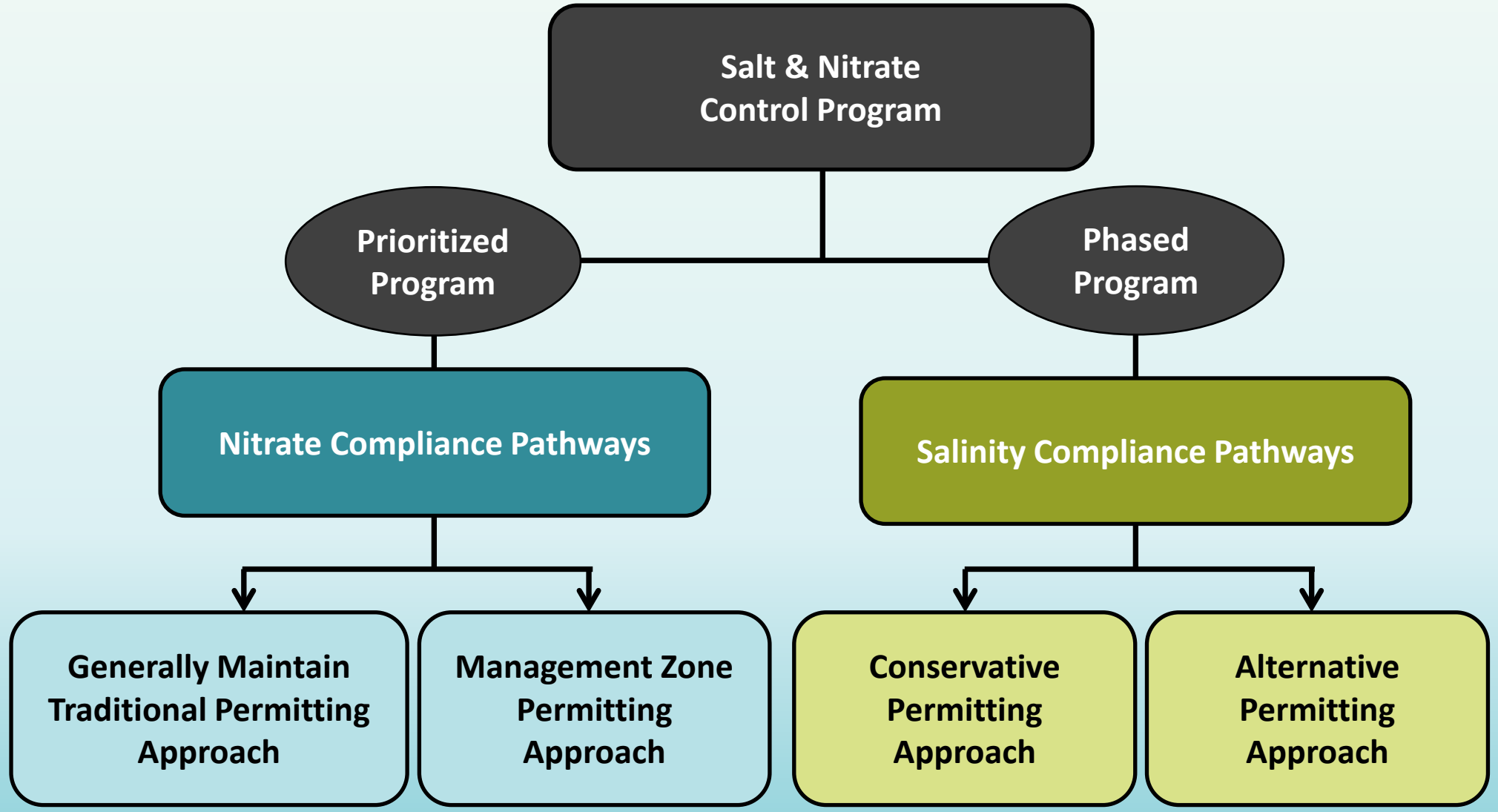
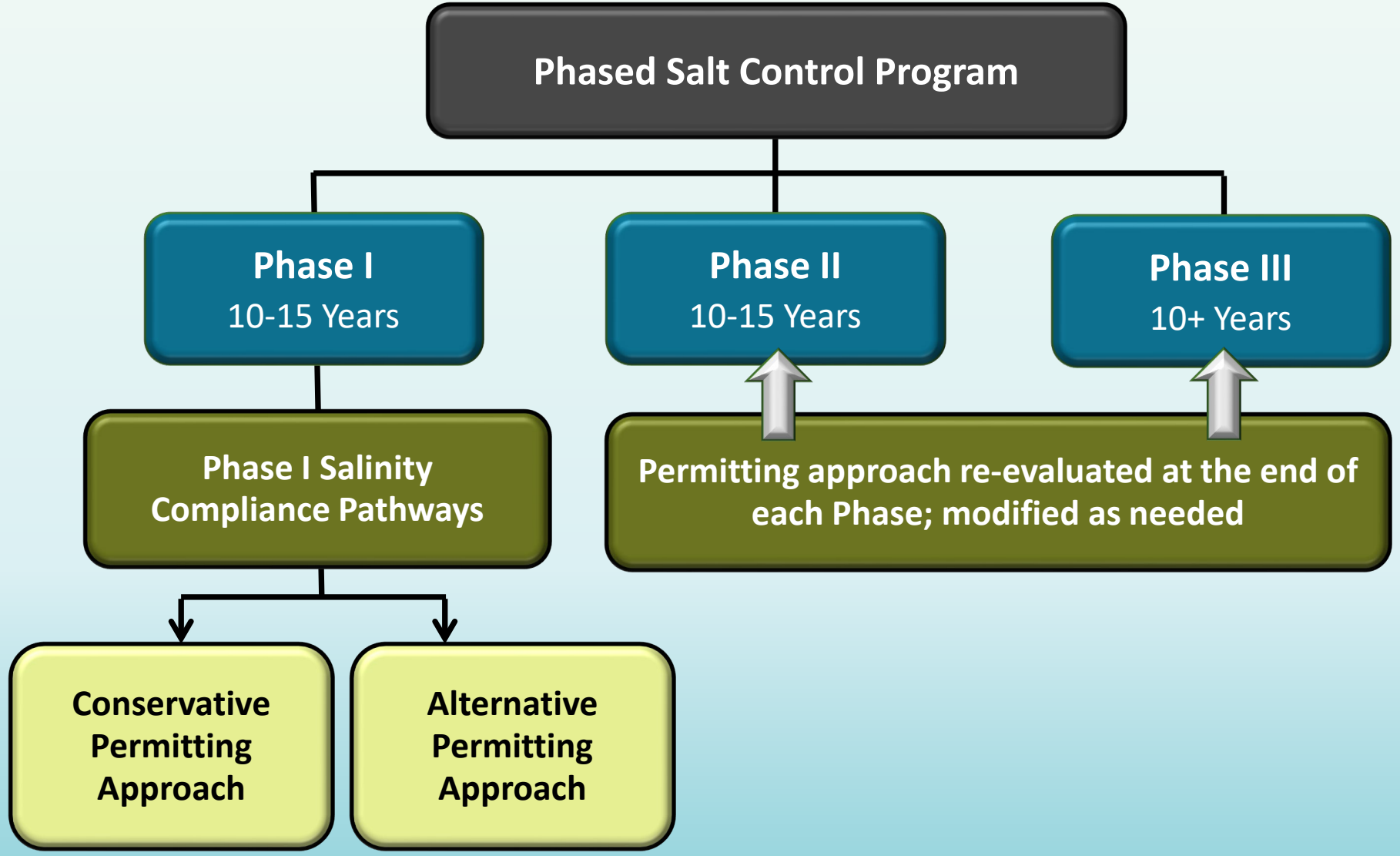
CV SALTS
Central Valley Salinity Alternatives for Long-term Sustainability

CENTRAL VALLEY SALINITY COALITION

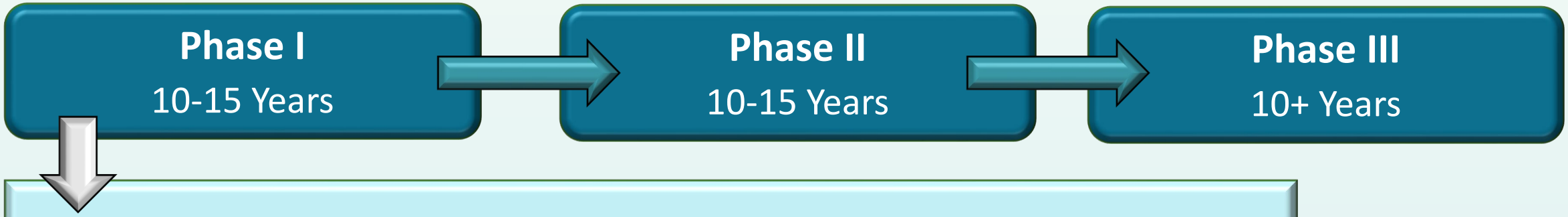
SALT & NITRATE CONTROL PROGRAM - OVERVIEW



PHASED SALT CONTROL PROGRAM



SALT CONTROL PROGRAM – PHASE I



Implement the Prioritization and Optimization Study (P&O Study)

Purpose: Develop a long-term salt management strategy that achieves salt sustainability in the Central Valley Region

SALT CONTROL PROGRAM – PHASE I

Prioritization & Optimization Study

- ✓ Develop data for sensitive/non-sensitive areas by hydrologic regions, including guidelines to protect salt sensitive crops;
- ✓ Identify salinity sources and actions that impact salinity concentrations;
- ✓ Evaluate impacts of state policies and programs;
- ✓ Identify/prioritize preferred **physical projects** for long-term salt management (e.g. regulated brine line(s), salt sinks, de-salters, recharge areas, deep well injection, etc.)
- ✓ Develop preferred physical project conceptual designs/assess environmental permitting requirements/costs for projects;
- ✓ Identify **non-physical projects** and plan for implementation; and
- ✓ Develop a governance structure and funding plan.

SALT CONTROL PROGRAM – PHASES II & III

Phase I
10-15 Years

Phase II
10-15 Years

Phase III
10+ Years

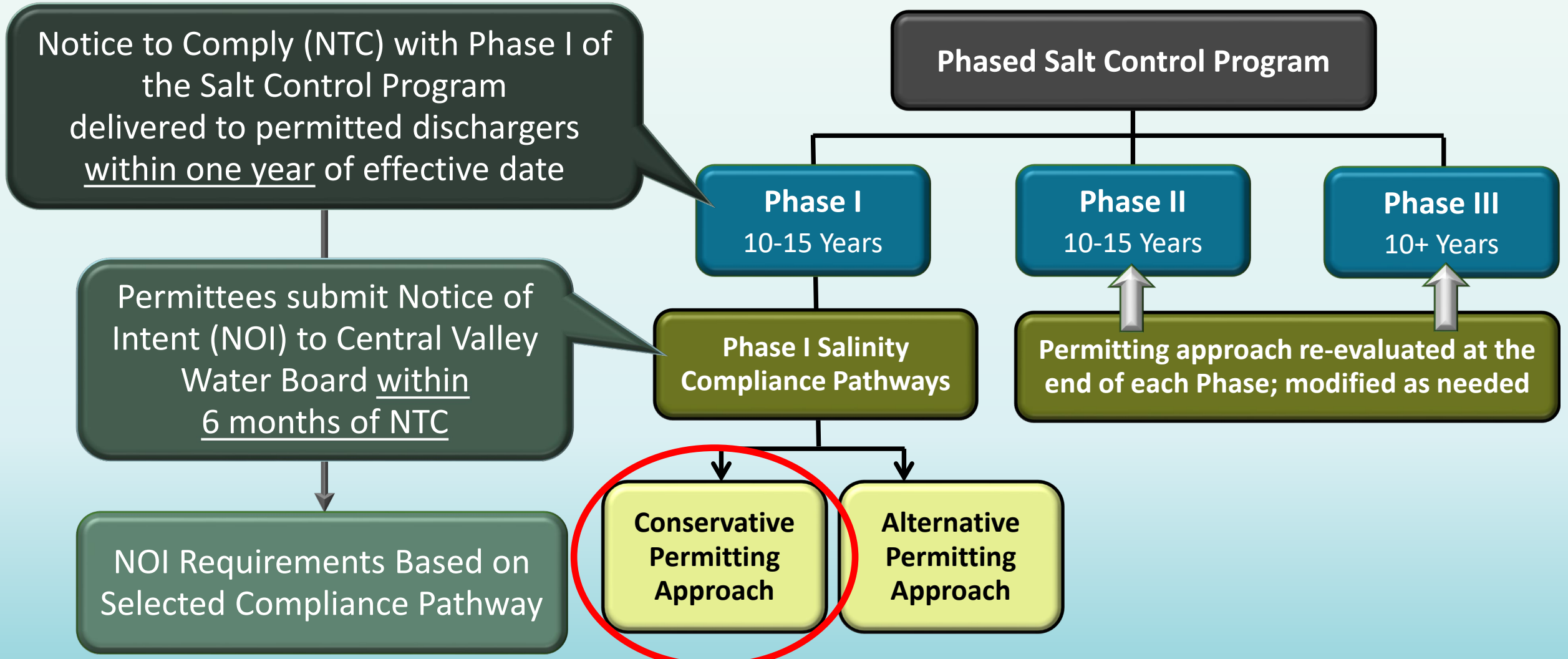
Project Development & Acquisition of Funds

- ✓ Obtain long-term funding;
- ✓ Complete environmental permitting and engineering/ design for physical projects identified in Phase I;
- ✓ Implement non-physical projects

Project Implementation

- ✓ Construct salt management projects as designed in previous phases

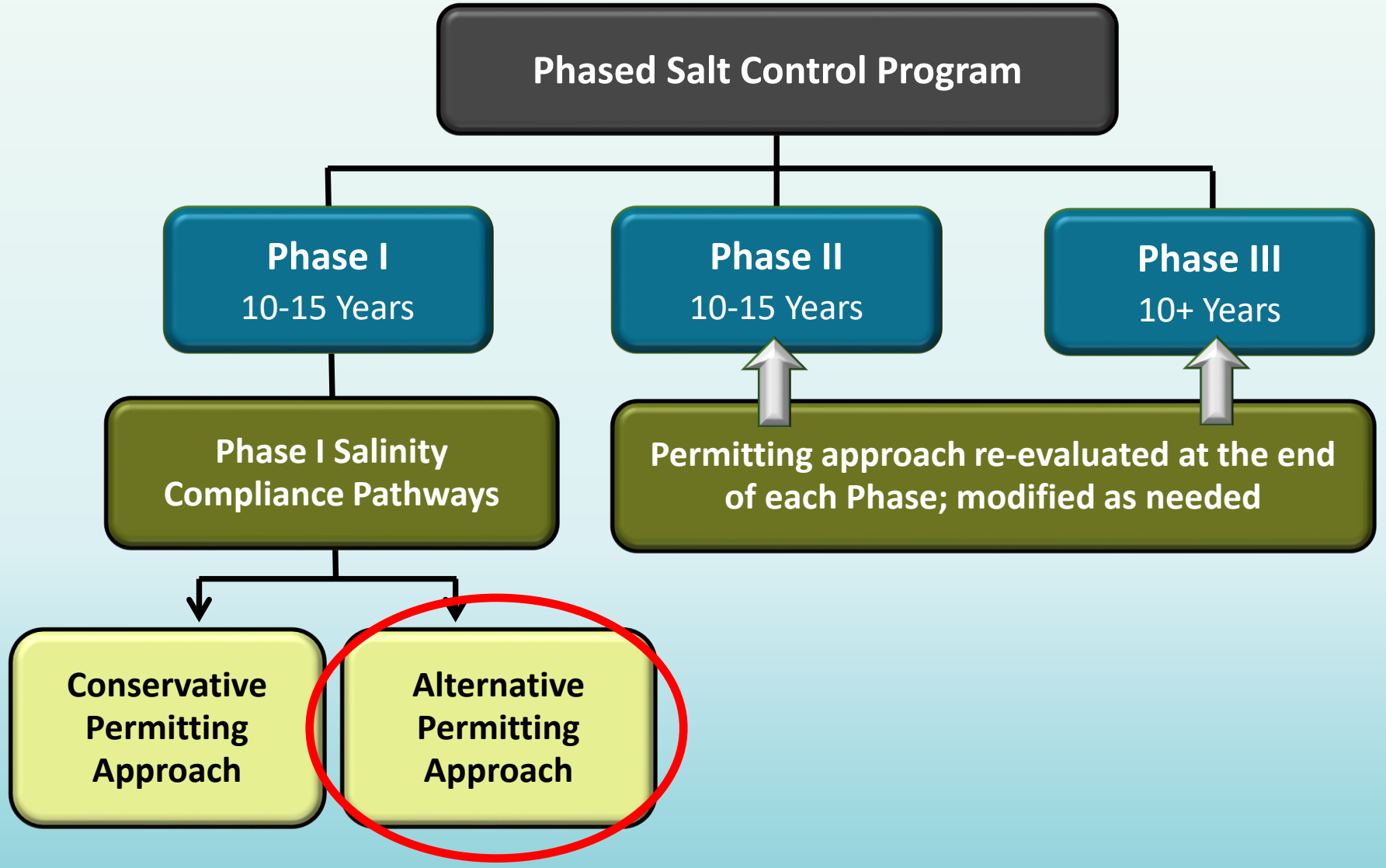
PHASED SALT CONTROL PROGRAM – PERMITTING DURING PHASED IMPLEMENTATION



CONSERVATIVE PERMITTING APPROACH – NOTICE OF INTENT SUBMITTAL

- Demonstrate ability to comply with following conservative permitting requirements:
  - Conservative effluent limits: 700 µS/cm Electrical Conductivity (EC) to protect AGR beneficial use (monthly average); 900 µS/cm EC to protect MUN use (annual average) (or site-specific objective, if applicable)
  - Demonstrate no degradation in the receiving water now or in the future over a long-term planning horizon, under all anticipated hydrologic conditions
  - Compliance demonstration based solely on existing source water, treatment controls and current operations
- Discharger not eligible for an exception (groundwater) or a variance (surface water)
- Central Valley Water Board has limited discretion to authorize (a) new or expanded allocation of assimilative capacity; or (b) a compliance or time schedule order
- CV-SALTS is currently developing a "*Guidance for Demonstrating Compliance with the Conservative Permitting Approach*"

PHASED SALT CONTROL PROGRAM



ALTERNATIVE PERMITTING APPROACH – NOTICE OF INTENT SUBMITTAL

- Support the Phase I P&O Study - Lead Entity: Central Valley Salinity Coalition (CVSC)
- NOI submittal to Central Valley Water Board - Documentation that your facility has provided the minimum required level of financial support to the CVSC to support implementation of the P&O Study
- Continue/maintain existing salt management program
- Participate as a stakeholder in the P&O Study at the level desired

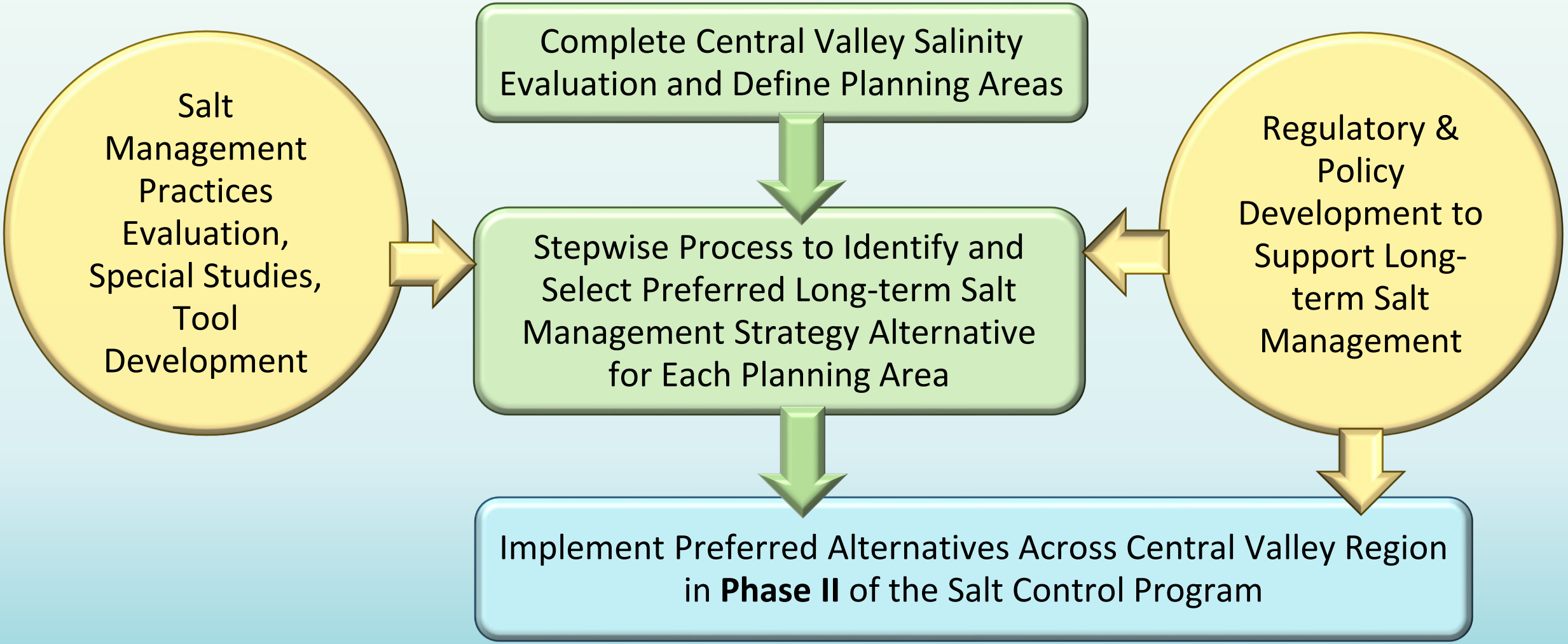
SALINITY CONTROL PROGRAM

Prioritization & Optimization Study

REGULATIONS ESTABLISH P&O STUDY MILESTONES/ DELIVERABLES

Milestones/Deliverables	Schedule per Notice to Comply (NTC)
Phase I Workplan	6 months from NTC
Phase I Funding & Governance Plan	Within 12 months of NTC
Special Studies (e.g., emerging salt technologies, trace constituents, recycled water management)	Per Workplan
Long-term Funding and Governance Plans for Phases II and III	9 years from NTC
Basin Plan Amendment Recommendations for Phase II	9 years from NTC
Initial, Interim and Final Project Reports – *Final Phase I Report – Plan to achieve long-term salt sustainability in the Central Valley Region*	• Initial - 1 year after Workplan approval • Interim – Year 5 • Final – Year 10

DRAFT P&O STUDY WORKPLAN – OVERVIEW



DRAFT P&O STUDY WORKPLAN – TASKS

Tasks	Key Components
Task 1 – Stakeholder Coordination	• Phase I stakeholder process • Outreach to economic sectors, planning areas
Task 2 – Programmatic Activities	• P&O Study Workplan Management • Phase I and Long-term Funding & Governance Plans • Reporting, Phase II Basin Plan Recommendations
Task 3 – Central Valley Salinity Evaluation	• Central Valley Region characterization (water quality, existing and planned salt management activities) • Establish appropriate salt targets • Special studies (e.g., treatment technology) • Establish appropriate Salt Planning Areas • Salt sustainability analysis
Task 4 - - Develop Long-term Salt Management Strategies for Salt Planning Areas	• Develop sustainable long-term salt management approach for each salt planning area (existing controls + non-physical/physical projects) • Develop salt management plans for implementation in Phase II

DRAFT P&O STUDY WORKPLAN – DEVELOPMENT OF LONG-TERM SALT MANAGEMENT STRATEGIES

Task 4 – Steps to Prepare Salt Plans for Phase II Implementation

Step 1: Identify and Quantify Expected Benefits from Potential Non-Physical Projects

Step 2: Identify Potential Physical Projects to Address Salt Sustainability Gap

Step 3: Develop and Evaluate Salt Management Alternatives

Step 4: Select a Preferred Salt Management Alternative

Step 5: Prepare Phase II Implementation Plan

CONCEPTUAL OUTCOMES OF P&O STUDY - SALT PLANS FOR PHASE II IMPLEMENTATION

Area A Plan - Project Portfolio

- Implement existing/planned projects
- Supplement with non-physical projects I & II
- No new physical projects required

Area B Plan - Project Portfolio

- Implement existing/ planned projects
- Supplement with:
  - Non-physical projects III & IV (Collaborate with Areas C & D, respectively)
  - Five local physical projects
- Collaborate with Area C on subregional physical project

Area C Plan - Project Portfolio

- Implement existing/ planned projects
- Supplement with:
  - Non-physical project III (Collaborate with Area B)
  - Three local physical projects
- Collaborate with Area B on a subregional physical project
- Collaborate with Area D on a regional physical project

Area D Plan - Project Portfolio

- Implement existing/ planned projects
- Supplement with:
  - Non-physical project IV (Collaborate with Area B)
  - Five local physical projects
- Collaborate with Area C on a regional physical project

PHASED SALT CONTROL PROGRAM - SUMMARY

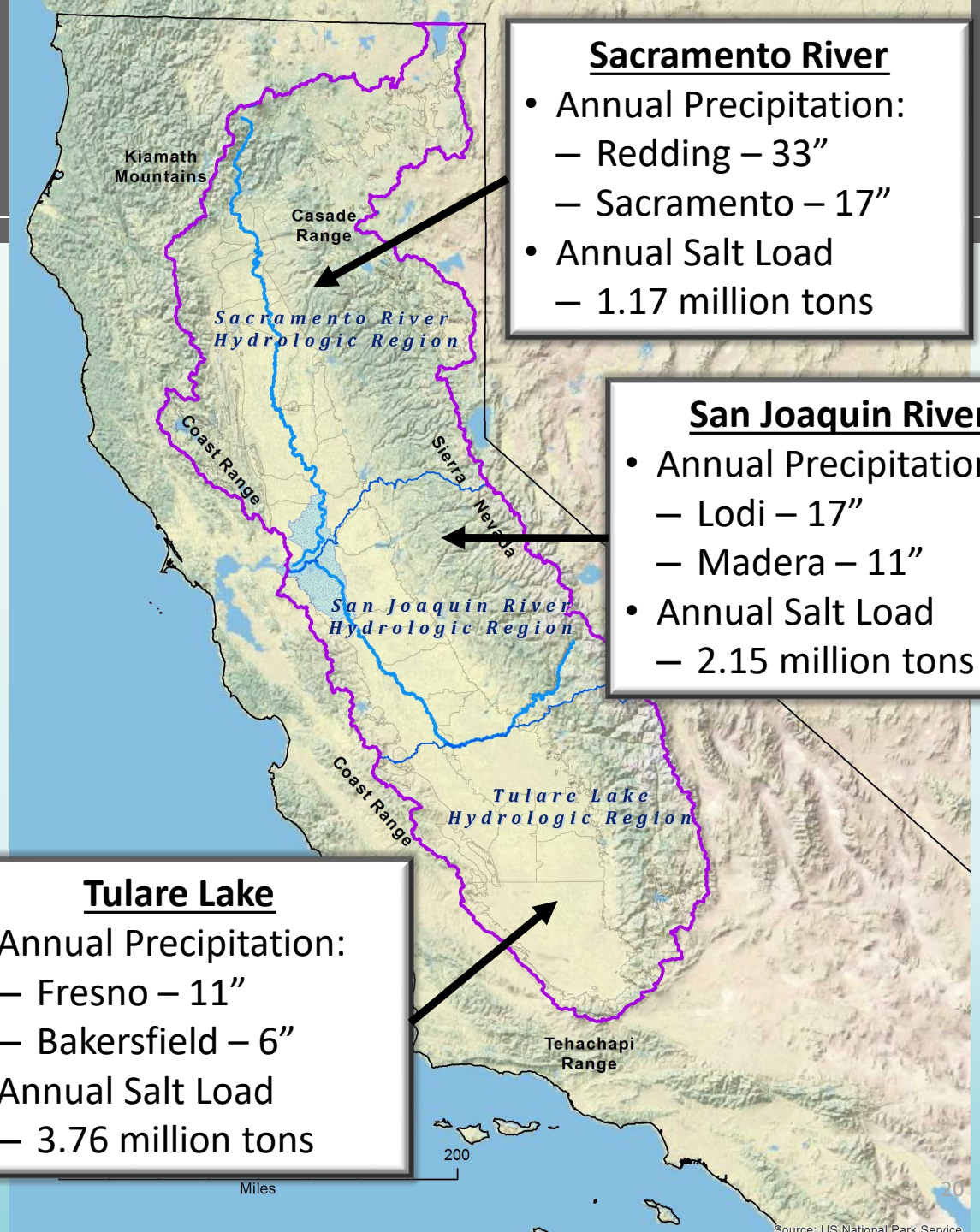
- Phase I of the Salt Control Program will be initiated through a Notice to Comply - to be sent to all permitted dischargers in the Central Valley Region
- Permitted dischargers will have six months to submit their Notice of Intent to comply with the Program by selecting one of two compliance pathways:
  - **Conservative Permitting Approach** – Demonstrate ability to comply with stringent effluent limitations
  - **Alternative Permitting Approach** – Participate in the Phase I P&O Study
- Purpose of the P&O Study is to establish long-term sustainable salt management strategies for implementation in Phases II and III of the Salt Control Program


Questions

ADDITIONAL SLIDES

ESTABLISHMENT OF SALT PLANNING AREAS TO BE CONSIDERED

- Annual precipitation declines while annual salt load increases from north to south
- Planning areas could be based on distinct hydrologic regions, e.g., Sacramento River, San Joaquin River, Tulare Lake
- Salt Plans could vary across the Central Valley Region to consider differences salt and water management



Sacramento River

- Annual Precipitation:
  - Redding – 33”
  - Sacramento – 17”
- Annual Salt Load
  - 1.17 million tons

San Joaquin River

- Annual Precipitation:
  - Lodi – 17”
  - Madera – 11”
- Annual Salt Load
  - 2.15 million tons

Tulare Lake

- Annual Precipitation:
  - Fresno – 11”
  - Bakersfield – 6”
- Annual Salt Load
  - 3.76 million tons