

Sunnyvale Clean Water Program PEIR & Master Plan Approval

CITY COUNCIL MEETING
August 23, 2016



The purpose of this meeting is for Council to consider...

- Adopting a Resolution Certifying the PEIR and MMRP
- Adopting Master Plan

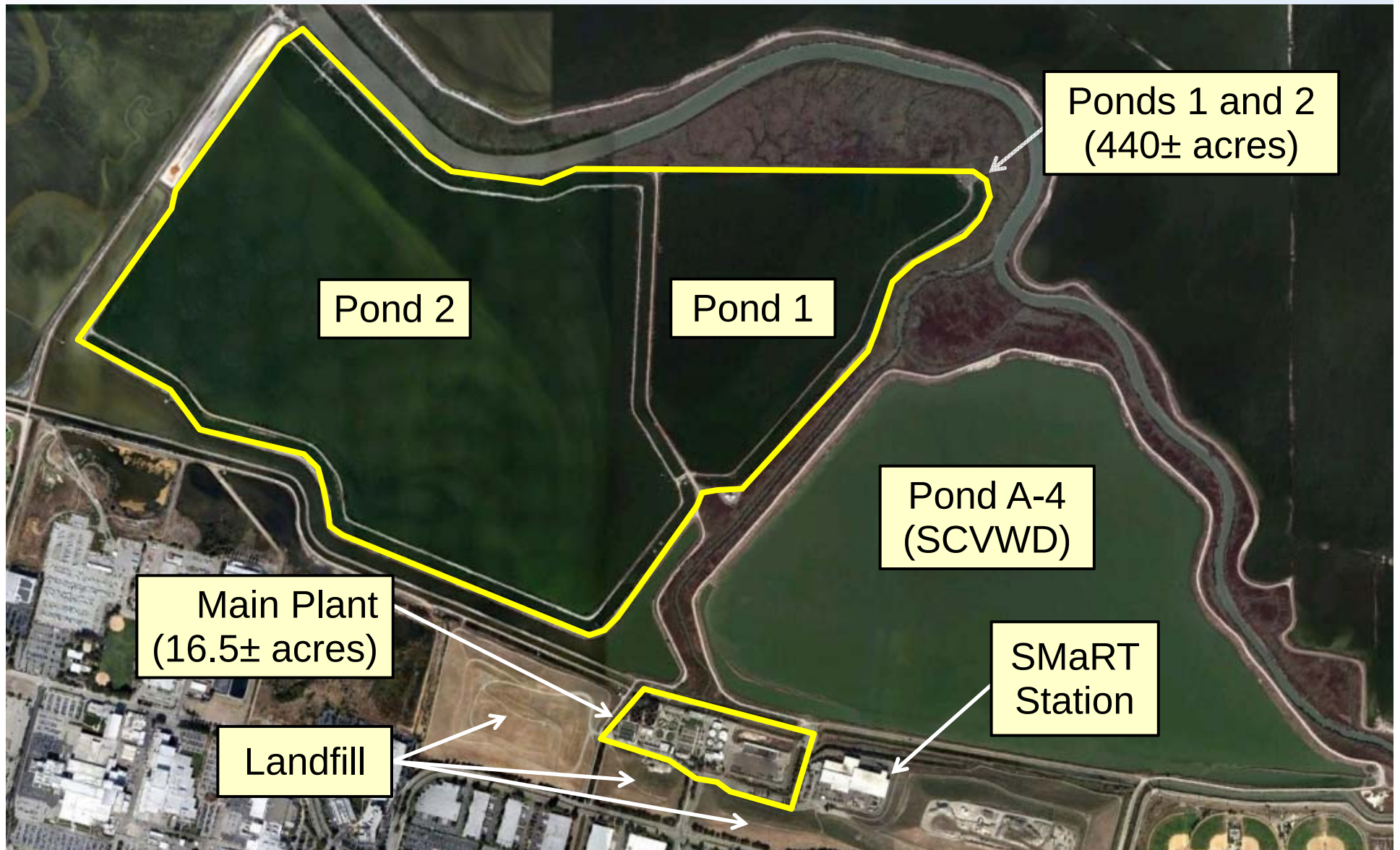
Prior Council Communications

- Award Master Plan and Primary Treatment Facility Design Contract **(5/7/13)**
- Award Program Management Contract **(3/25/14)**
- Council Study Session **(6/24/14)**
- Award Construction Management Contract **(5/5/15)**
- Adopt MND for the Primary Treatment Facility **(5/5/15)**
- Council Study Session **(8/25/15)**
- Award Construction Contract for Primary Treatment Facility **(5/7/16)**

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Existing Facilities Overview & Current Projects

Overall Plant Site



Main Plant Site (WPCP)





Pond Dredging



Digesters Rehab



Chlorine Conversion



Emergency Flow Management

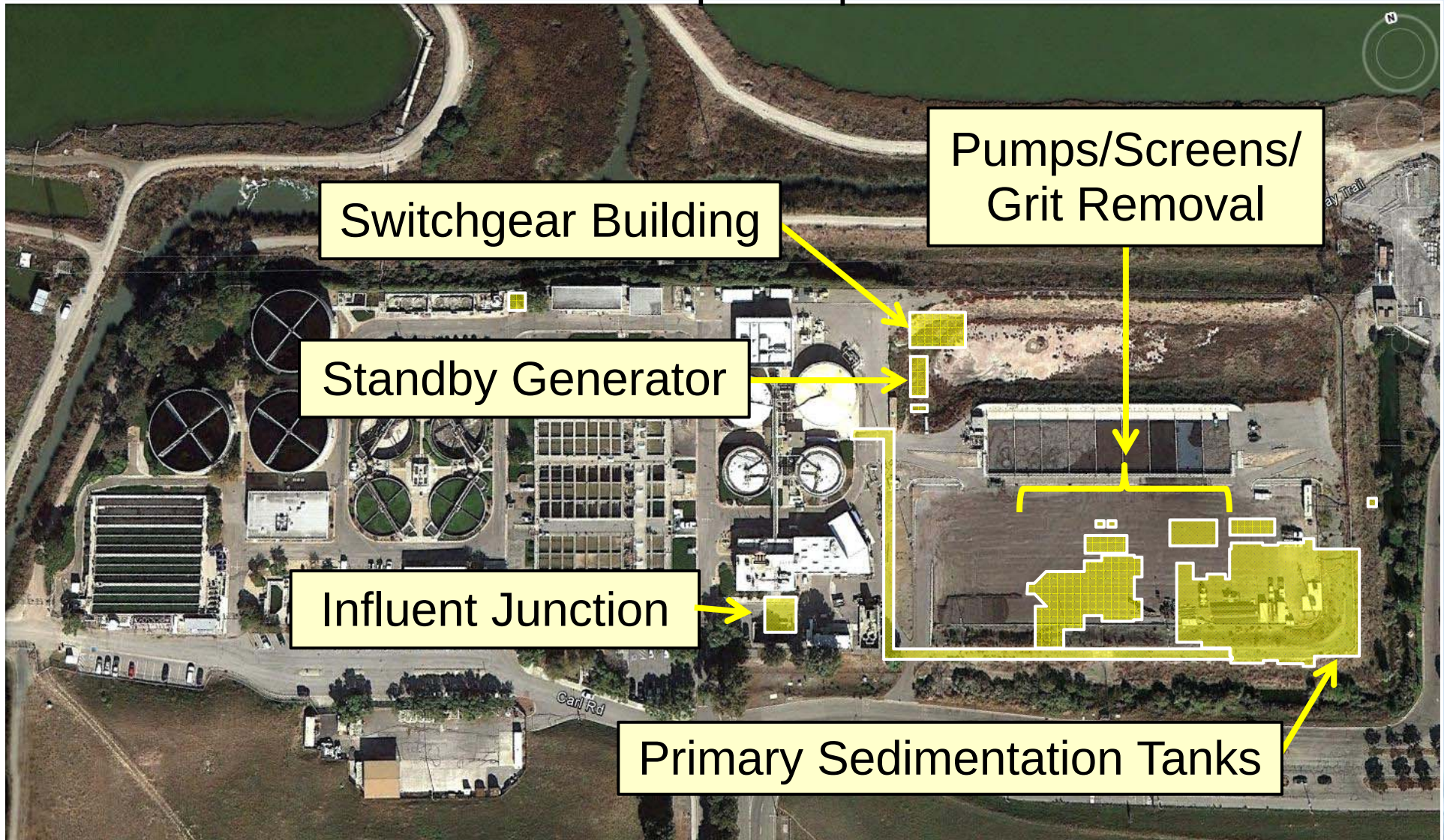
Primary Project – Package 1

- Construction Complete – Mid 2017



Primary Project – Package 2

- Open Bids – Early 2017
- Construction/Startup Complete – Mid 2020



Master Plan

Major Planning Elements

- Develop Capital Improvement Project (CIP) Plan
 - Major Plant Process/Support Facilities
 - Recycle Water
- Preparation of Environmental Review (CEQA)
- Public Outreach
- Develop Financial Plan & Master Schedule to Support Master Plan

Master Plan – Reports & Investigations

- Documented existing utilities
- Performed geotechnical (soils) investigation
- Updated land survey
- Reviewed site for potential hazardous conditions
- Identified opportunities and constraints
- Updated projection of future flows

Master Plan Refined SIP Recommendations

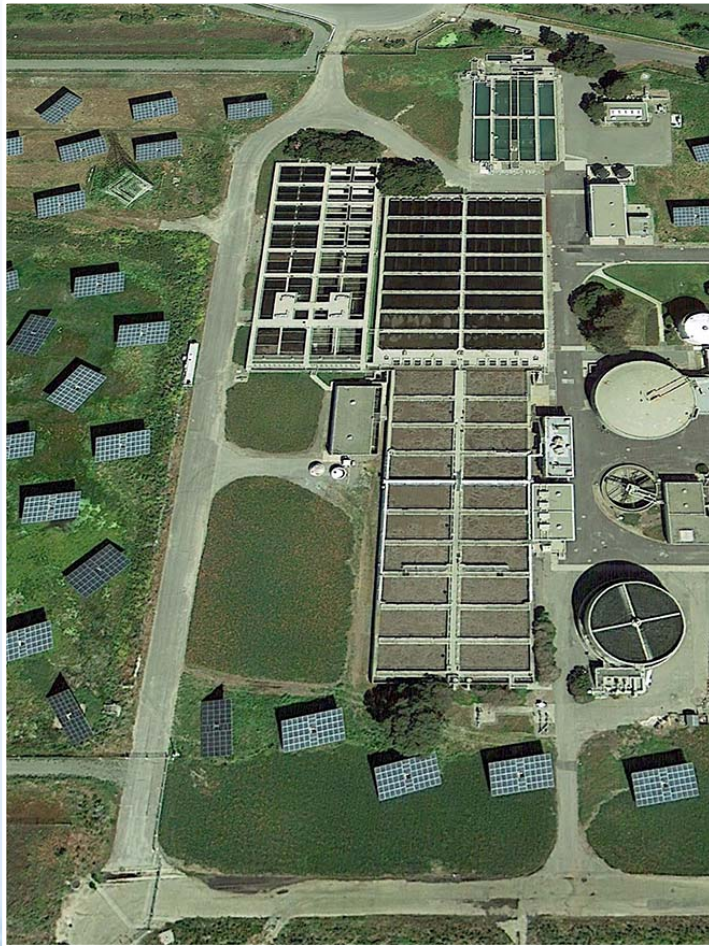
- Liquid treatment alternatives
- Solids treatment alternatives
- Energy optimization
- Site layout considerations
- Support facilities (new admin/maint. buildings)
- Plant automation

Secondary Treatment

Major Focus-Secondary Process

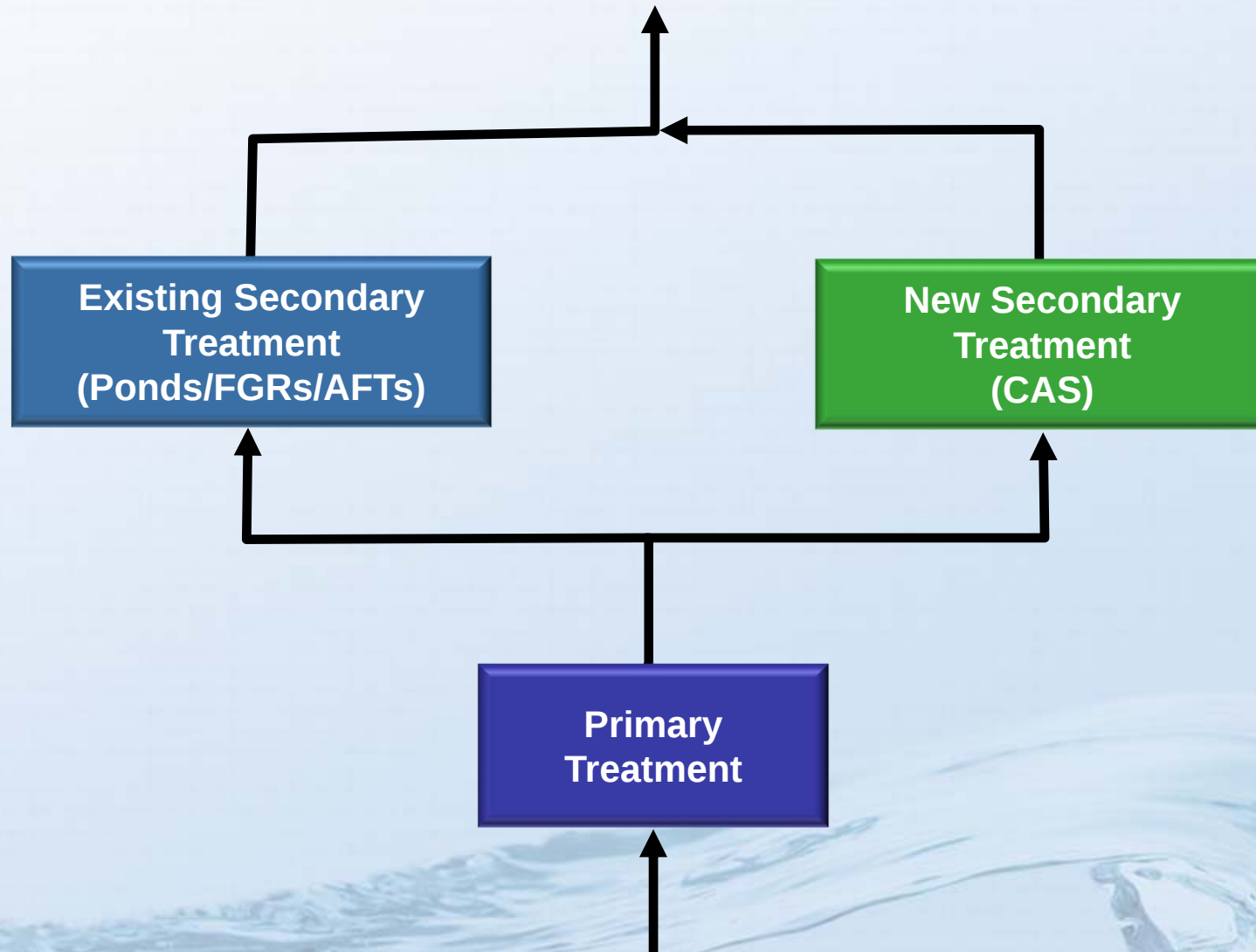
- Identified options to replace ponds/filter/flotation units

Membrane Bioreactor (MBR)



Conventional Activated Sludge (CAS)

Split Treatment Blends Two Process Streams

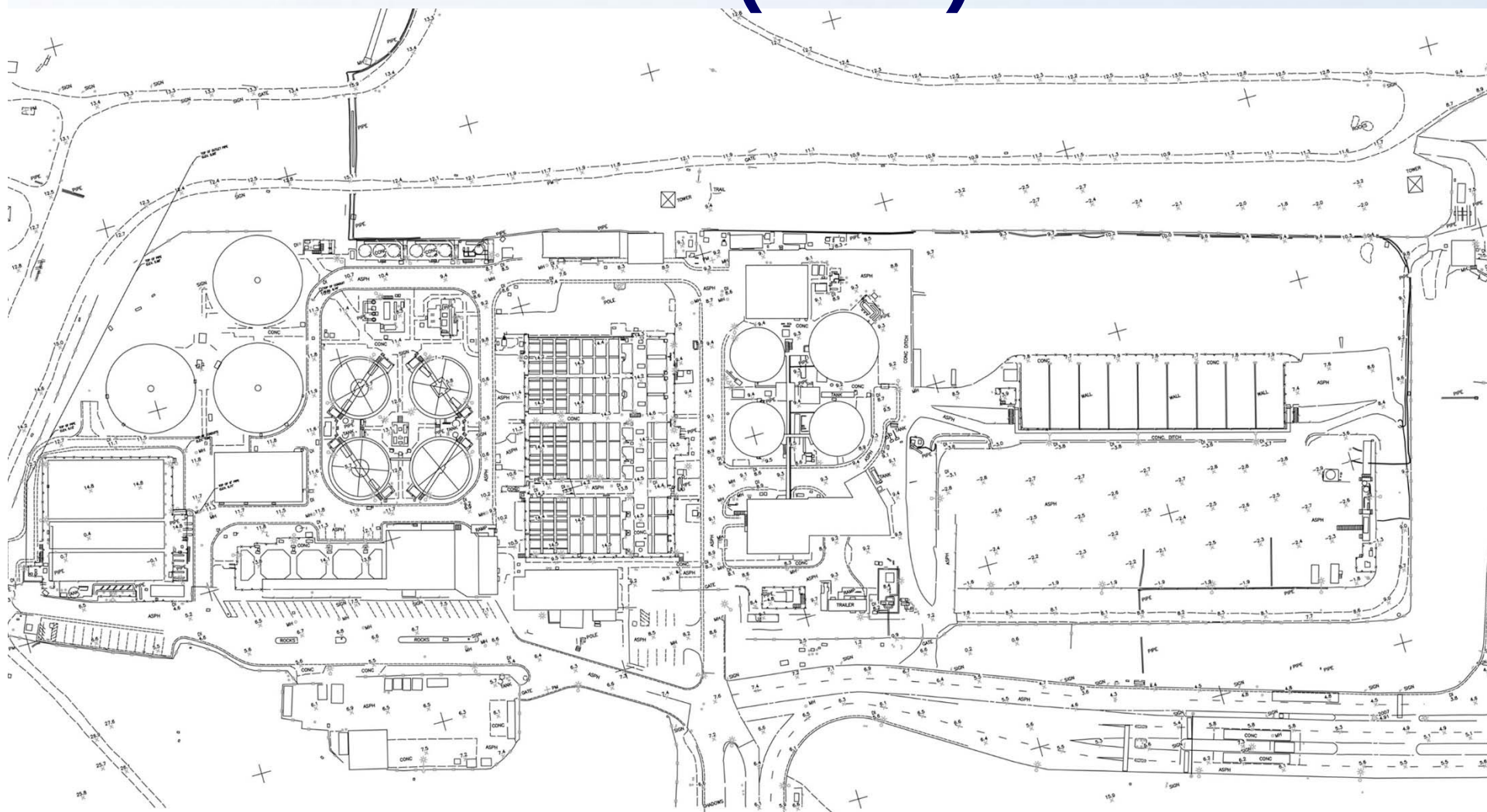


Drivers for Split Flow Treatment – Provides Flexibility

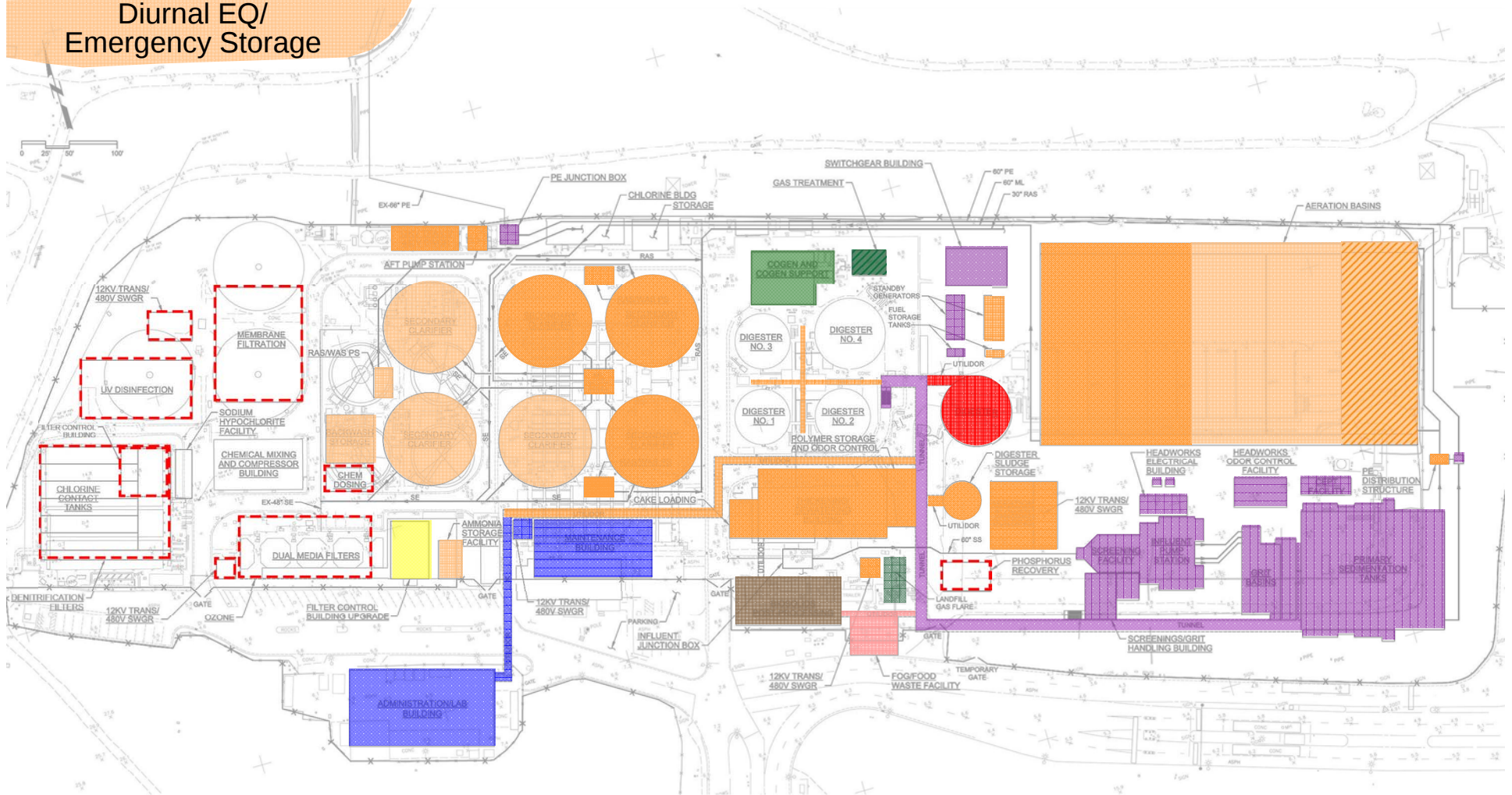
- Regulatory uncertainty
- Growth uncertainty
- Technological advances
- Cash flow management

Phasing and Implementation

Existing Plant Site (2015)



Diurnal EQ/ Emergency Storage

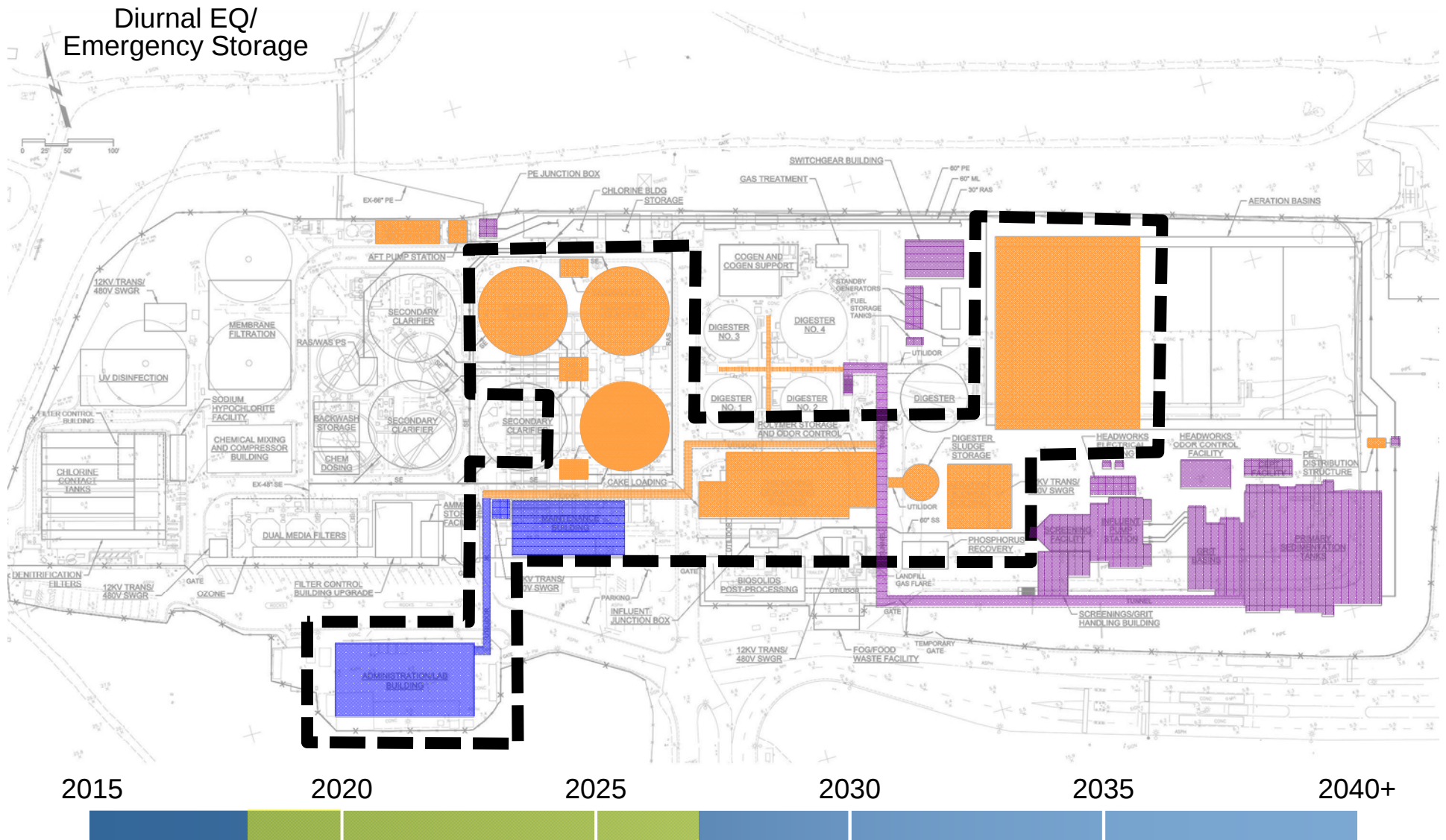


Implementation – Major Phases

- Phase 1 – Headworks/Existing WPCP Rehab
- Phase 2 – Initial CAS/Admin and Maintenance
- Phase 3 – Support Facilities Upgrades
- Phase 4 – Second CAS Expansion
- Phase 5 – Tertiary Treatment Upgrades

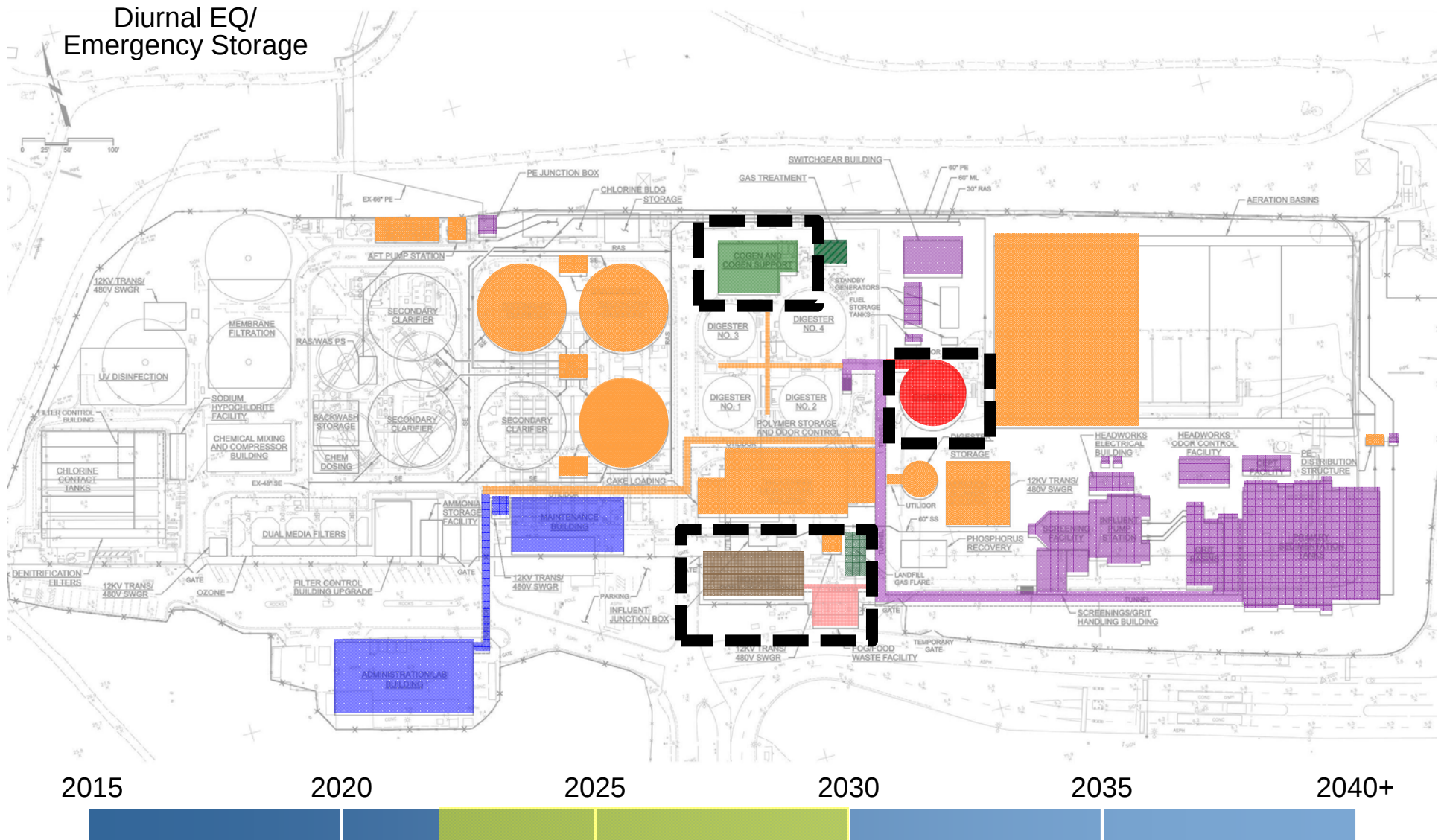
Implementation – Phase 2

Initial CAS/Admin and Maintenance



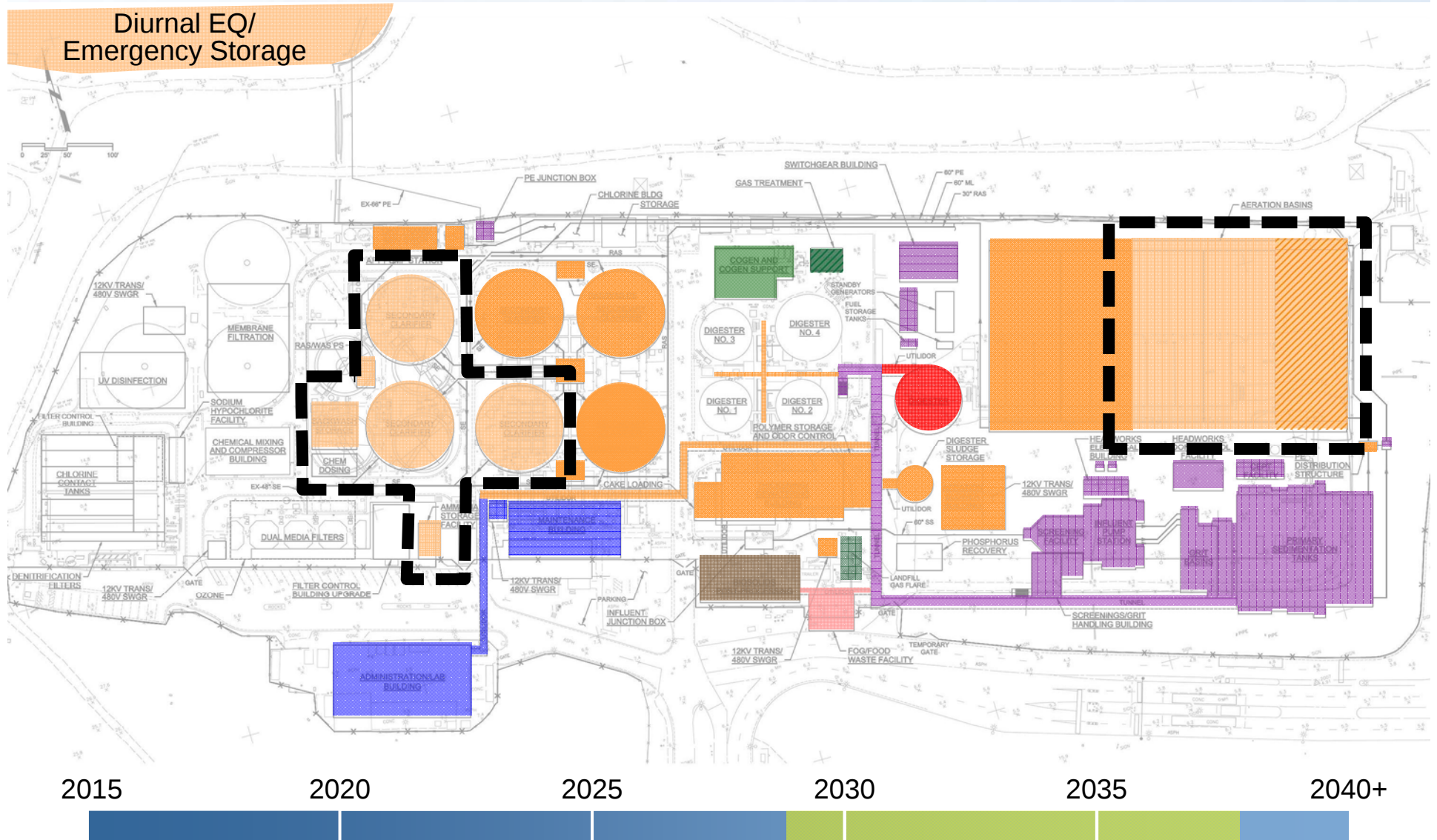
Implementation – Phase 3

Support Facilities Upgrades



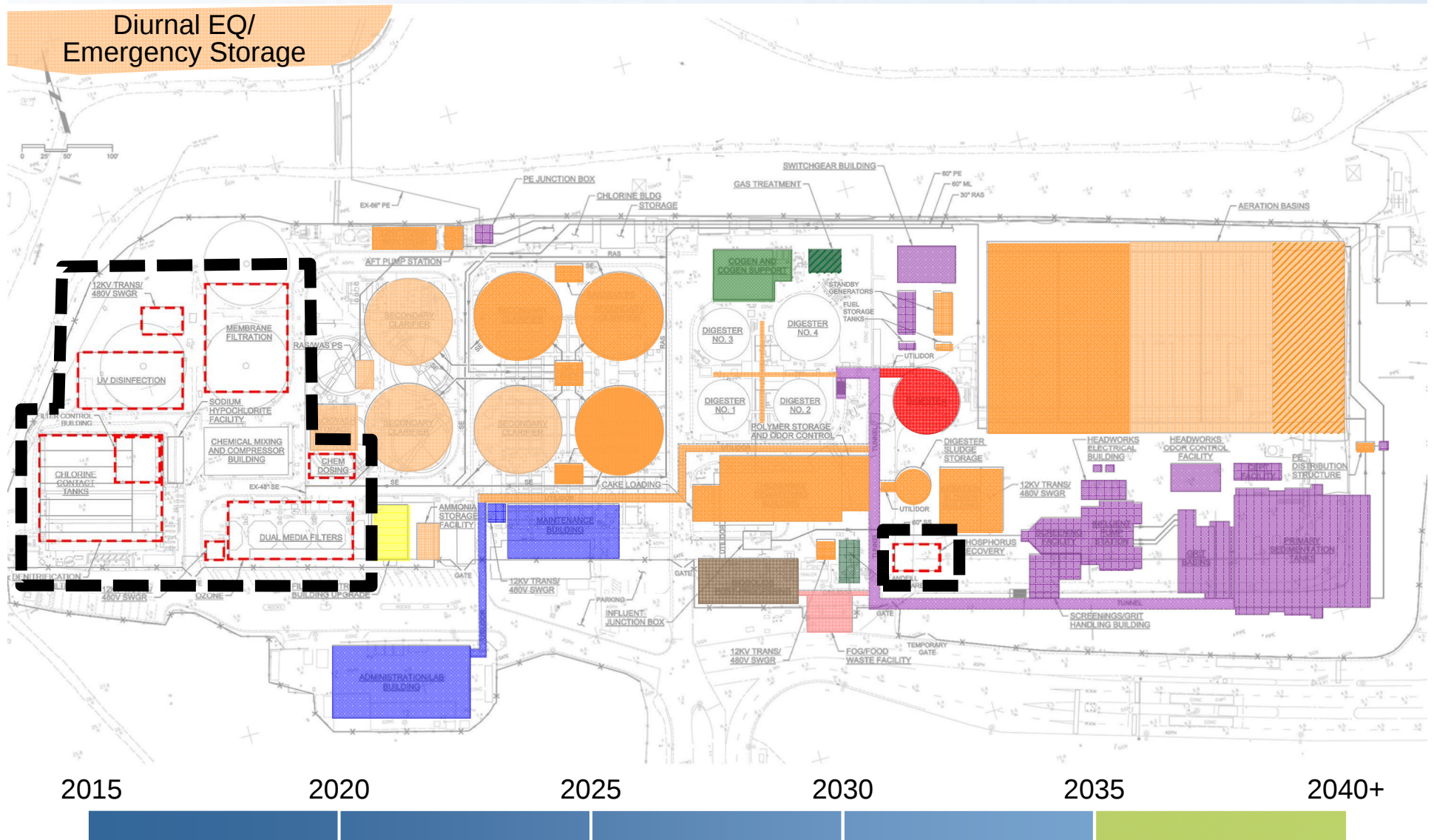
Implementation – Phase 4

Second CAS Expansion



Implementation – Phase 5

Tertiary Treatment Upgrades



Recycled Water Opportunities

Recycled Water Opportunities

- Feasibility Study for Recycled Water Completed in 2013
 - 3.6 mgd of non-potable demand over 20 years
 - Requires distribution system investment (\$100± million)
- Partnership on potable water project with Santa Clara Valley Water District (SCVWD)
 - City provides treated effluent using alternate MBR technology
 - Provides space at the WPCP for advanced treatment facilities (Reverse Osmosis/UV)

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CEQA and Public Outreach

CEQA Effort for Master Plan Programmatic EIR

- Used to address long-term project objectives
- Structured to reduce future project specific CEQA efforts
- Draft out for public review in November 2015
 - Provides discussion for conventional and advanced treatment
- Project specific CEQA still required



Sunnyvale Cleanwater Program – Ongoing Public Outreach Efforts

- Informational Open House – **May 20th, 2015**
- Two Notice of Preparation (NOP) Scoping Meetings – **June 24th, 2015**
- Article in City's Quarterly Report – **July 2015**
- www.sunnyvalecleanwater.com – **June 23rd, 2015**
- Groundbreaking Ceremony – **July 11th, 2016**



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Costs and Financial Impacts

Master Plan Planning Horizon Split Flow Activated Sludge (Dollars in Millions)

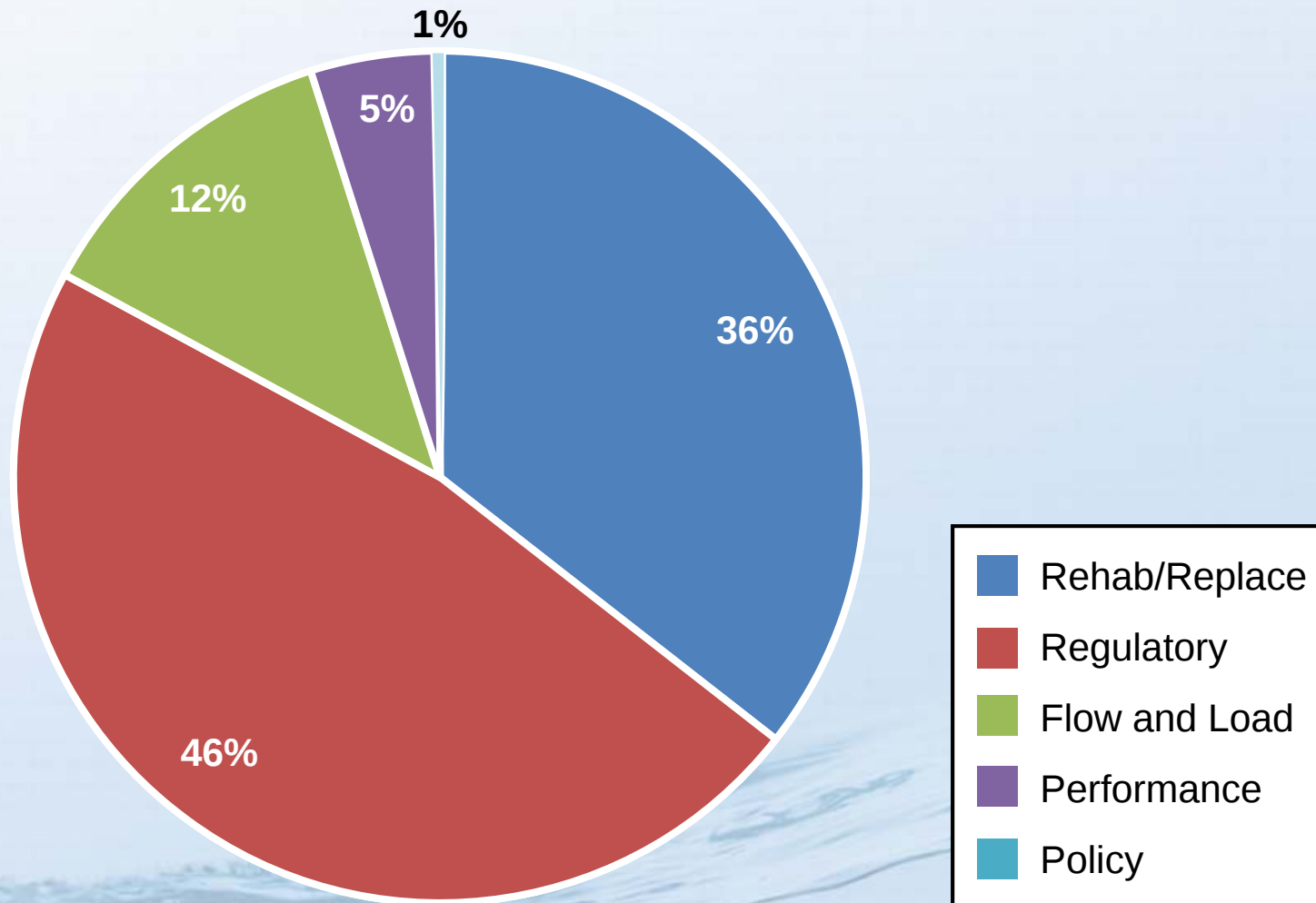
Major Elements	Phases 1 - 3	Phase 4	Phase 5
	Through 2030	2027 - 38	>2033
Primary Treatment	\$138±	-	-
Secondary Treatment	\$165±	\$273±	5±
Tertiary Treatment	\$16±	\$15±	\$195±
Solids Handling/Power Generation	\$94±	\$66±	-
Support Facilities	\$43±	-	-
Total	\$456±	\$354±	\$200±

Financial Planning Estimate Split Flow Activated Sludge (Dollars in Millions)

Major Elements	Phases 1 - 3	Phase 4 – 5
	Through 2030	2027 – 40+
Primary Treatment	\$138±	-
Secondary Treatment	\$165±	\$199±
Tertiary Treatment	\$16±	\$34±
Solids Handling/Power Generation	\$94±	\$17±
Support Facilities	\$43±	-
Total	\$456±	\$250±

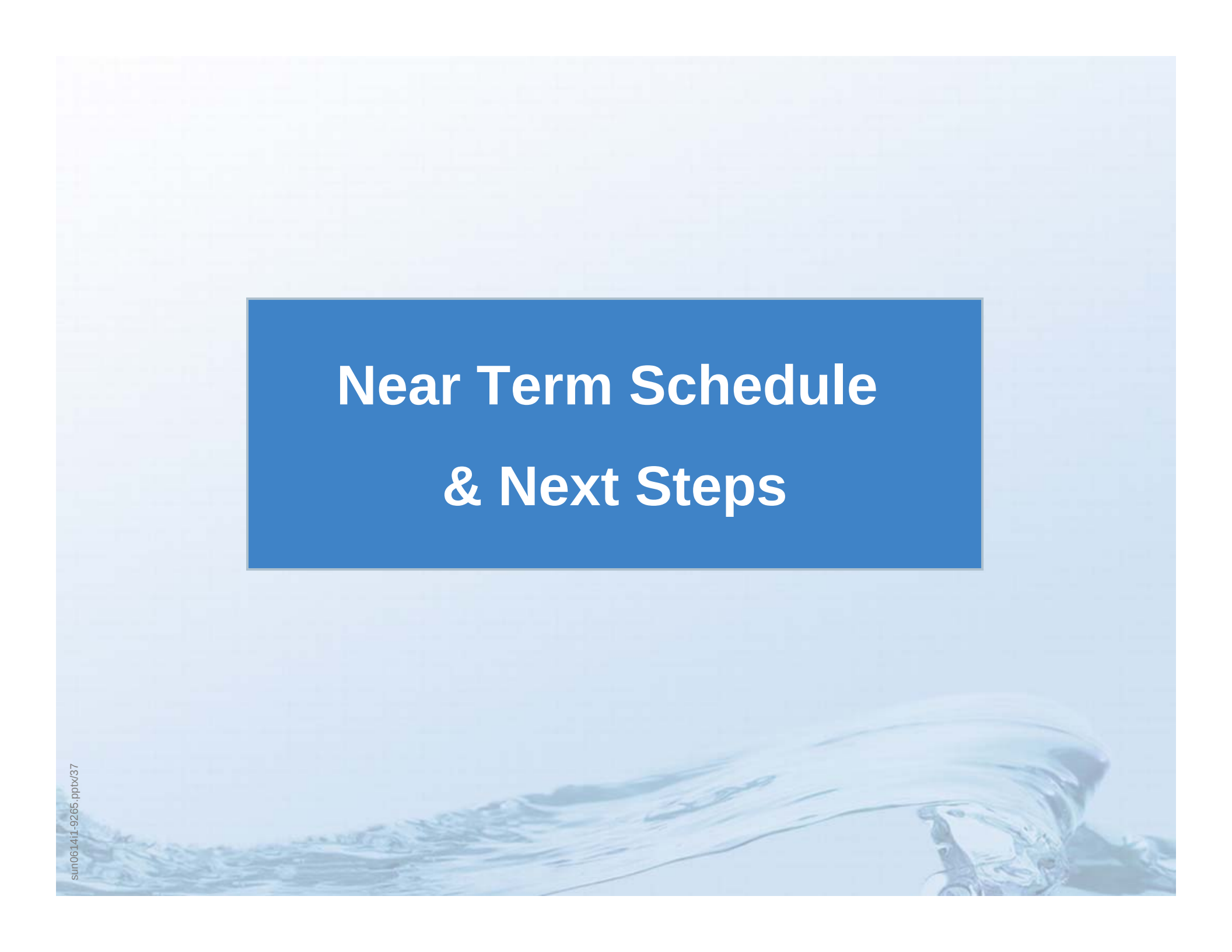
CIP Drivers

Percent of Total CIP



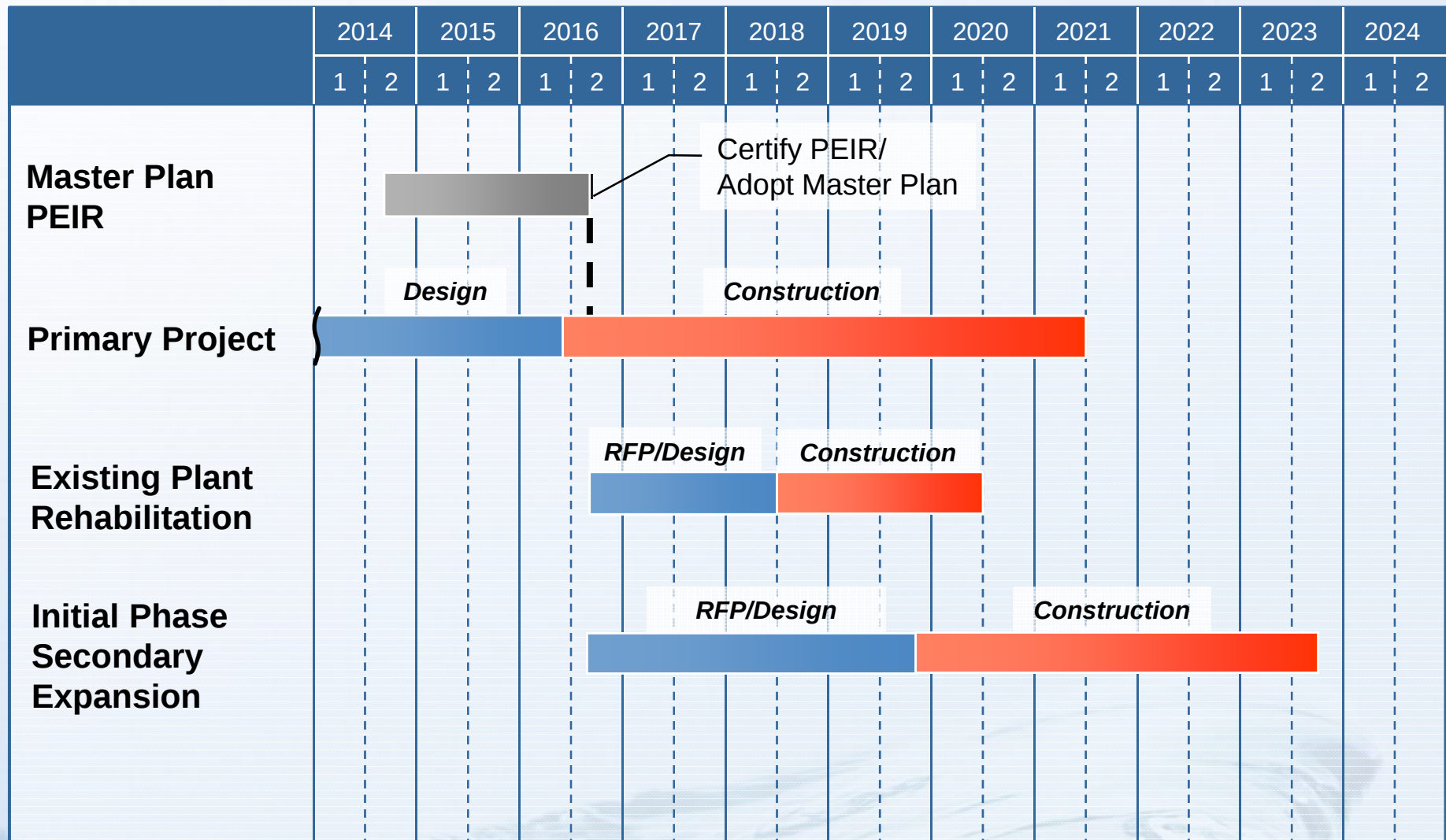
Project Financing Approach

- Bonds vs. State Revolving Funds (SRF)
- Priority list established for SRF funding
 - Looking for “shovel ready” projects
- Program looking to utilize SRF funding
 - 1.6% for SRF (1.0% for recycled water projects)
 - 3.0% for bonds
- Primary Project - potential for at least \$20± million in savings with SRF

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Near Term Schedule & Next Steps

Schedule for Near-term Projects



Next Steps – Council Actions

- Summer 2016 – PEIR certification & Master Plan approval
- Early 2017 – Primary Package #2 construction award
- Early 2017 – Complete RFP process and award design contracts

Questions