



Weymouth Filter Rehabilitation Construction Contract

Engineering and Operations Committee

Item 7-2

October 10, 2016

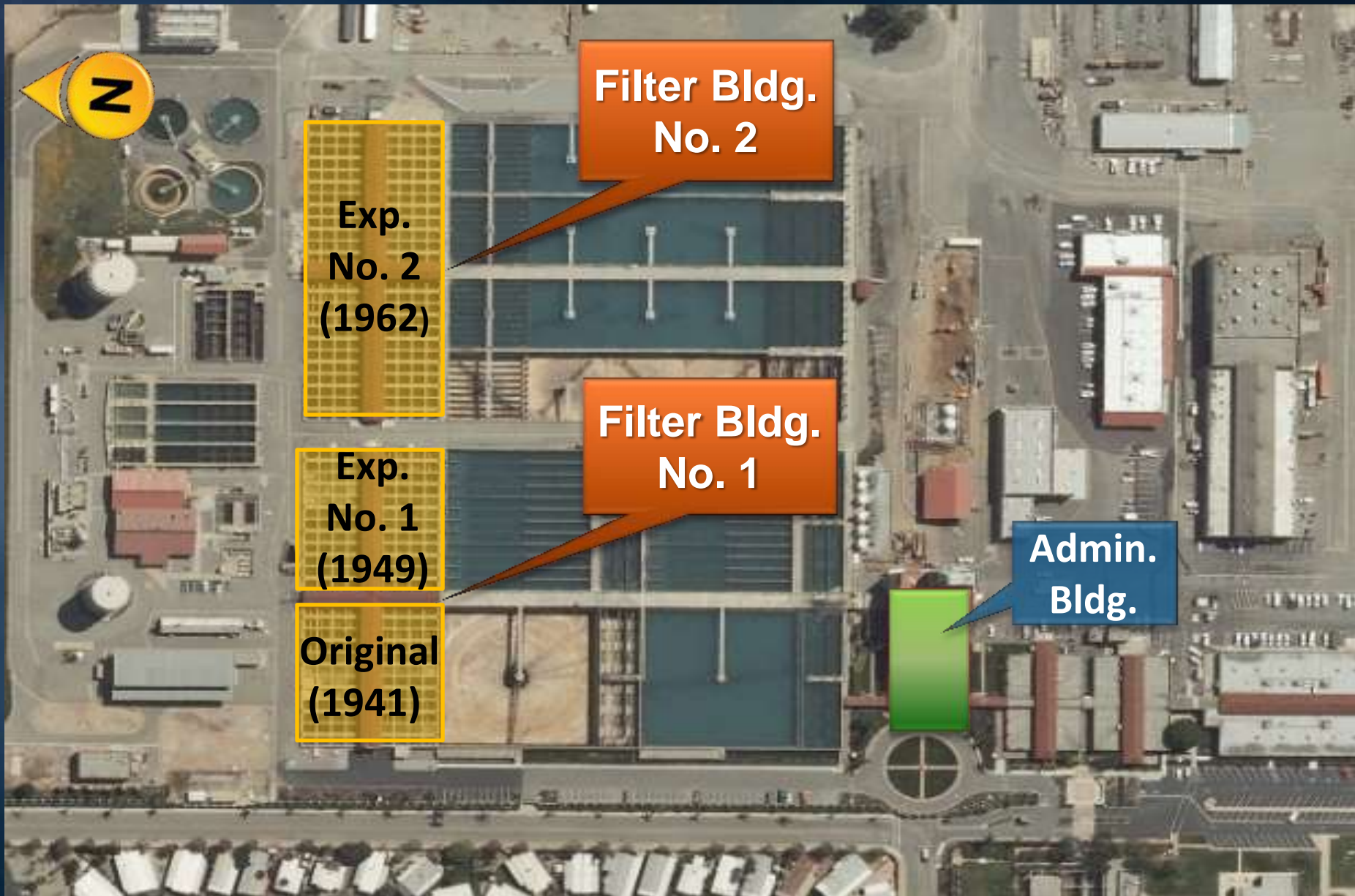
Current Action

- Adopt CEQA determination
- Appropriate \$1.1 million
- Authorize increase in C. O. authority for the Weymouth filter rehabilitation construction contract

Distribution System



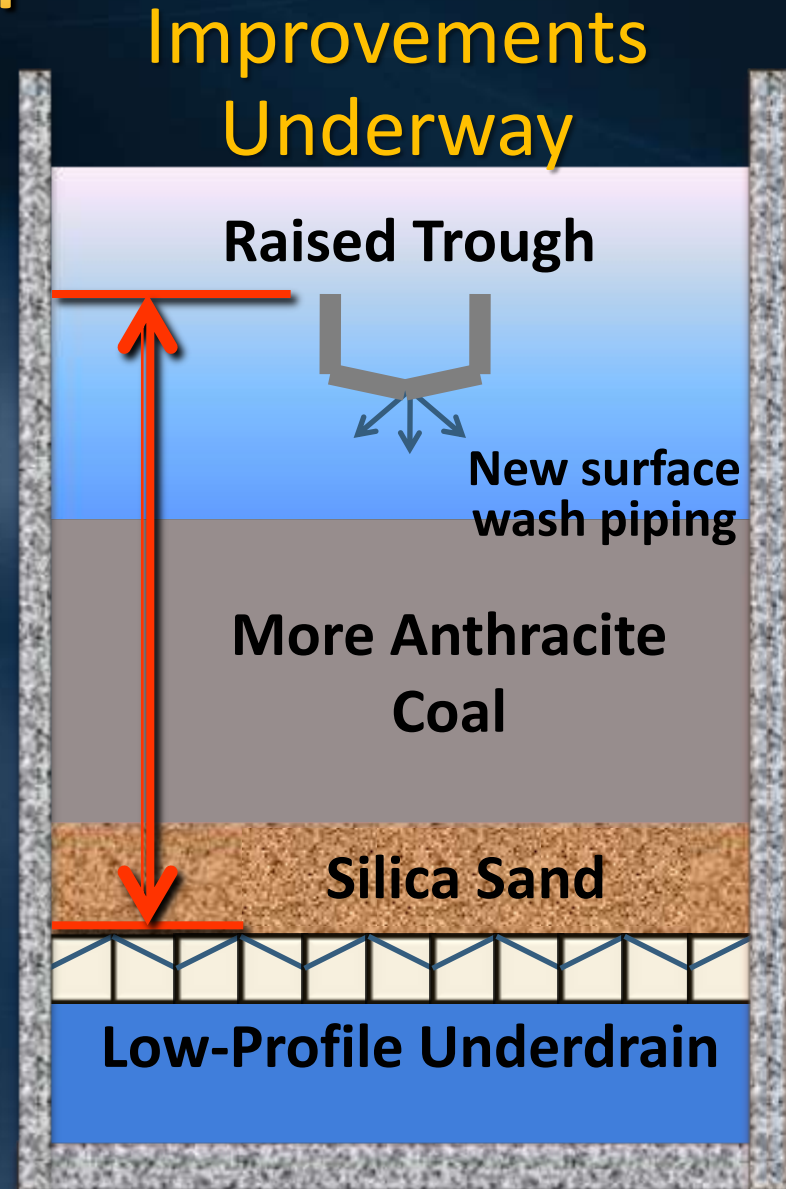
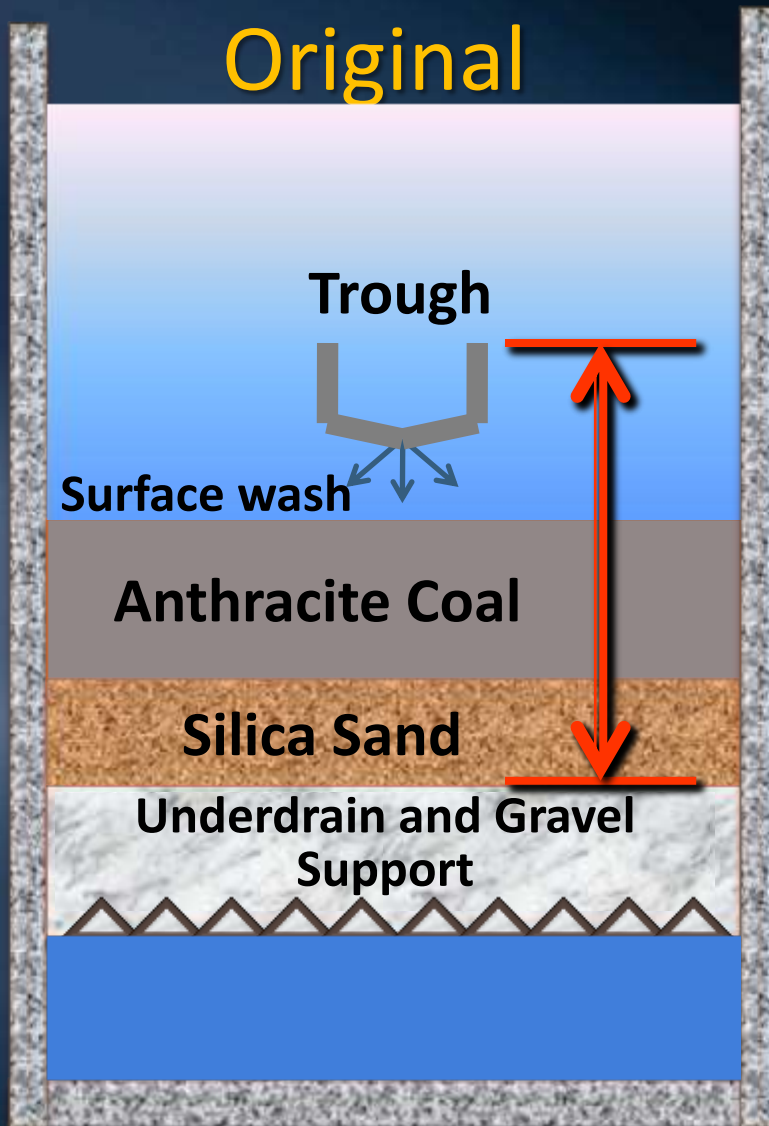
Project Location



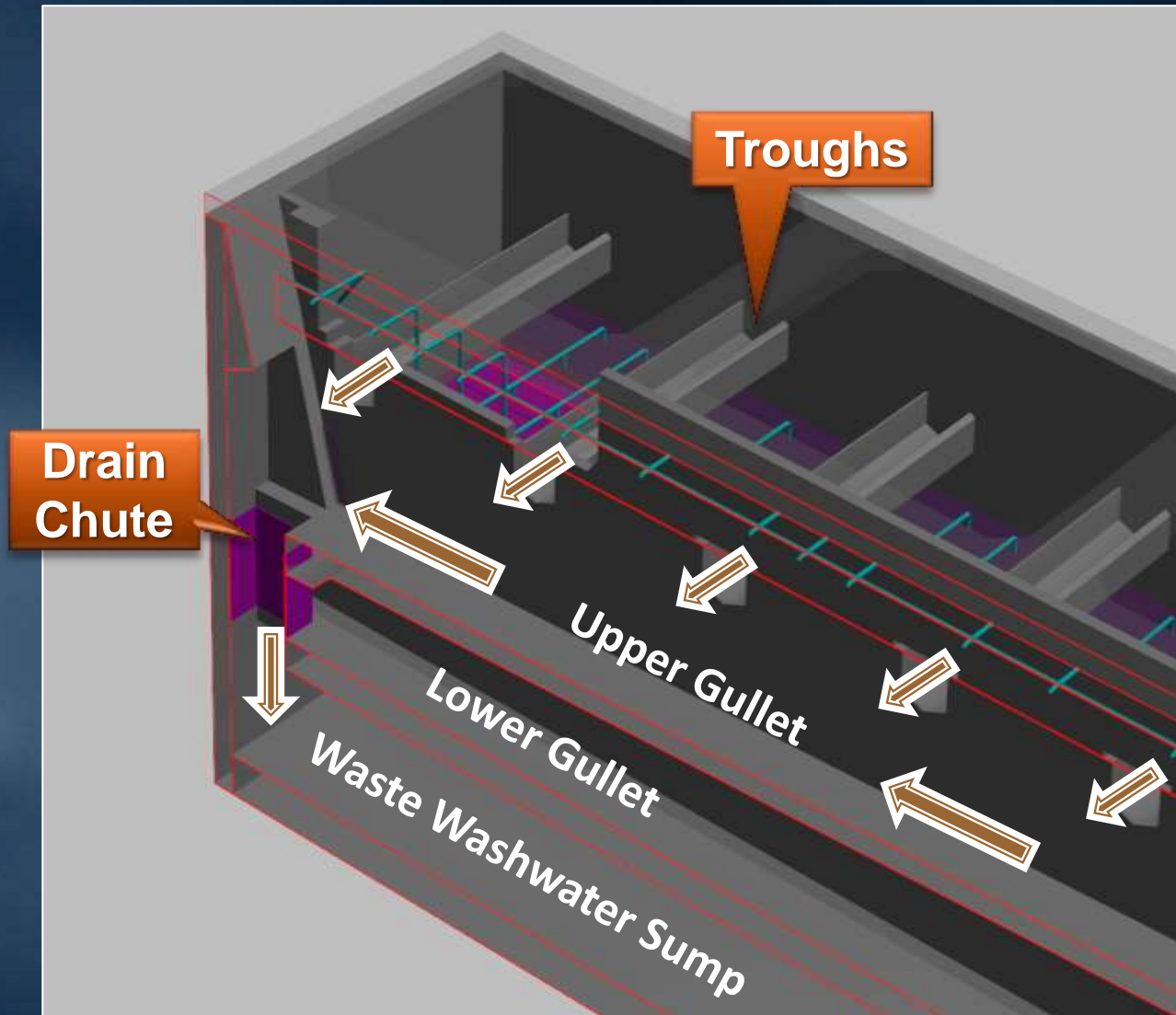
Background

- Existing filter design does not provide robust performance needed today
- Internal components have deteriorated
- Limited media depth & shallow submergence
- Filter components need to be modified to compensate for shallow depth & improve performance
- Full-scale demonstration evaluation conducted

Filter Cross Section



Filter Drain



Filter Rehabilitation Scope

- Replace filter media, surface wash system, underdrains, monitoring instrumentation
- Raise & replace troughs
- Reinforce filter gullet walls
- Repair drain chutes



Construction Contract Summary

Contractor:	J. F. Shea Construction, Inc.
Board Award:	April 2015
Amount:	\$31,762,914
Duration:	500 working days
Today:	Workday 345
Completion:	May 12, 2017 (Original date)
Filter Availability for Contractor:	July to Sept. - 4 filters Oct. to June - up to 6 filters
Original C.O. Authority:	\$1,588,146

Construction Challenges

- Trough & double-mat steel demolition
- Concrete & drain chute repairs
- Excess media in lower gullets
- Hazardous material abatement
- Re-routing of undocumented features
- Optimization of underdrain flow distribution
- Sequencing constraints & availability of filters
- Time extension of 136 days
- New completion - Dec. 2017



Construction Challenges

Demolition of Cast-in-Place Troughs



Construction Challenges

Repair of Concrete & Walkway Damage



Construction Challenges

Demolition of Double-Mat Reinforcing Steel



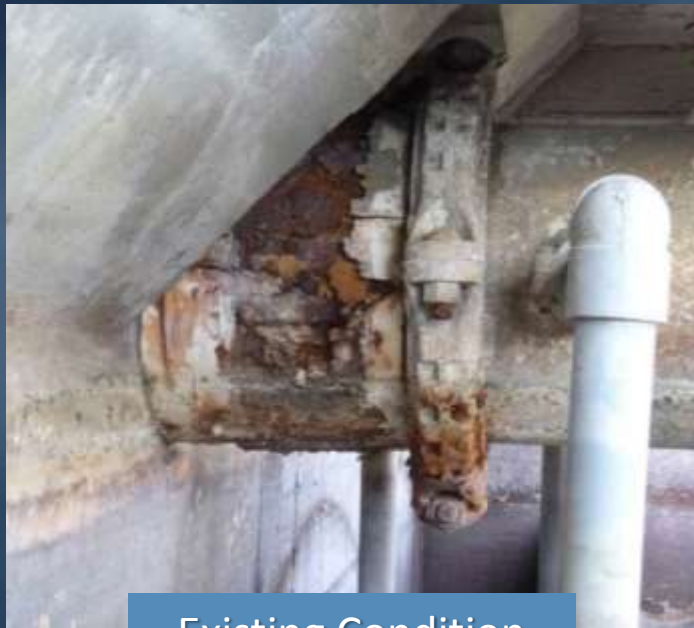
Construction Challenges

Hazardous Material Testing and Abatement



Construction Challenges

Repair of Surface Wash Header Wall Thimbles



Existing Condition



Welding Extension



Welding Insulating Flange



Repaired Thimble

Construction Challenges

Removal of Filter Media from Lower Gulleets



Construction Challenges

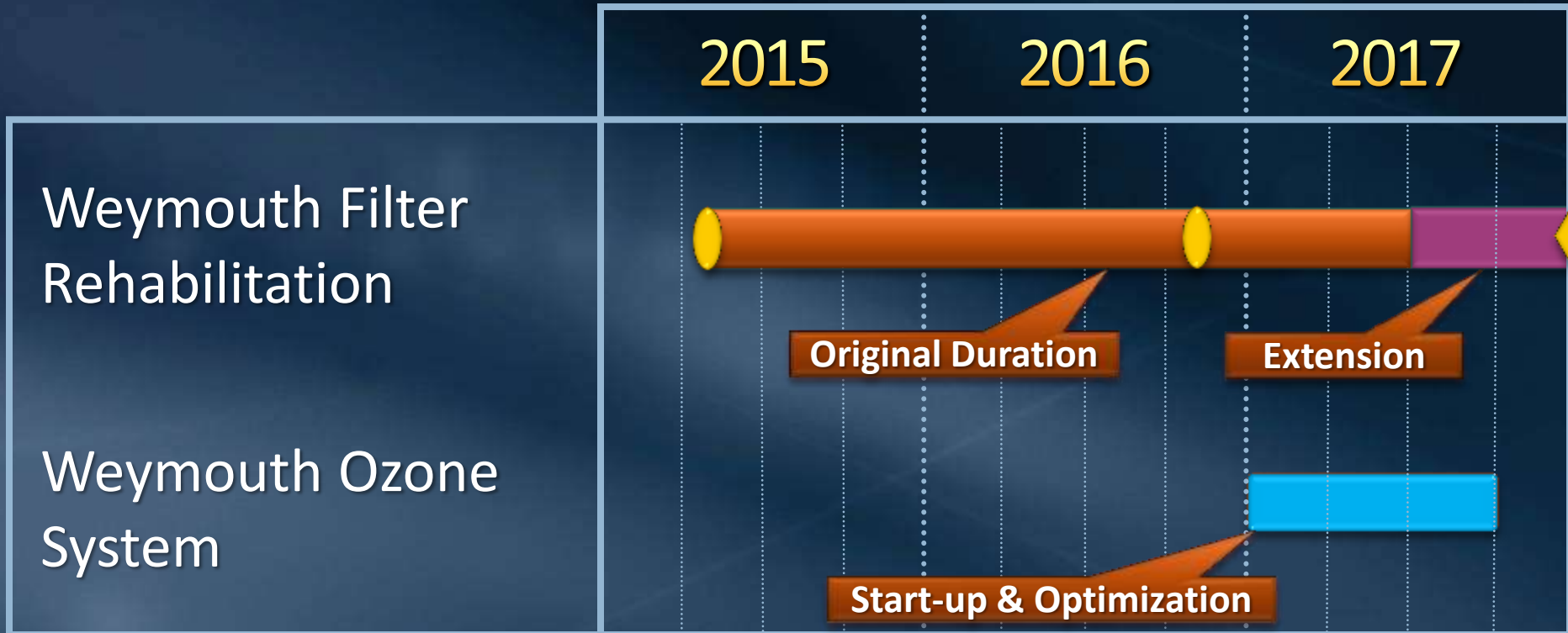
Drain Chute Construction



Increase in Change Order Authority

C.O.s negotiated to-date:	\$780,000
Anticipated total C.O.s	
Changes due to unforeseen conditions	\$810,000
Relocations & feature modifications	330,000
Hazardous material abatement	320,000
Contractor's extended overhead due to time adjustment	<u>1,228,000</u>
Total	\$2,688,000
Original C.O. authority	<u>(1,588,146)</u>
Additional authority requested	\$1,100,000

Schedule



Board Options

- Option #1

- Adopt CEQA determination that the proposed action has been previously addressed in the certified 2015 Final EIR, & no further environmental analysis or documentation is required
- Appropriate \$1.1 million
- Authorize increase of \$1.1 million in C.O. authority, up to a new aggregate amount of \$2,688,146

- Option #2

- Do not authorize an increase in C.O. authority at this time

Staff Recommendation

- Option #1

