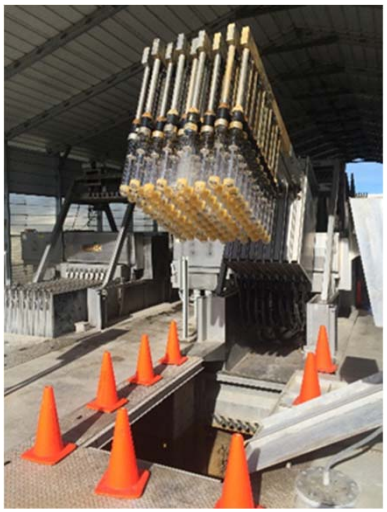
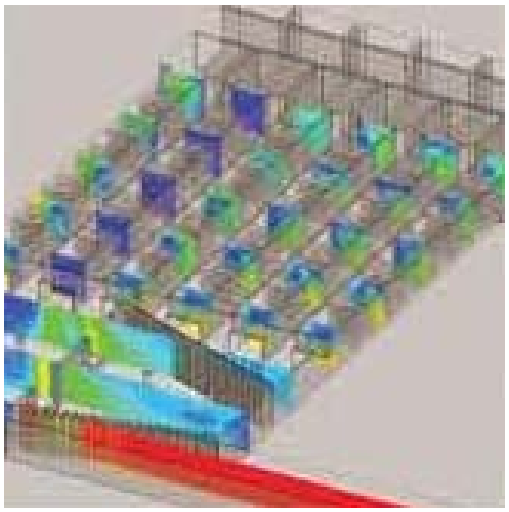
PROJECT UPDATE
Laguna Treatment Plant Disinfection Improvements


Emma Walton, Interim Deputy Director - Engineering Resources
Tanya Mokvyts, Associate Civil Engineer

PRESENTATION OUTLINE

- Project Background
- The Project
- The Project Status
- Next Steps

PROJECT BACKGROUND

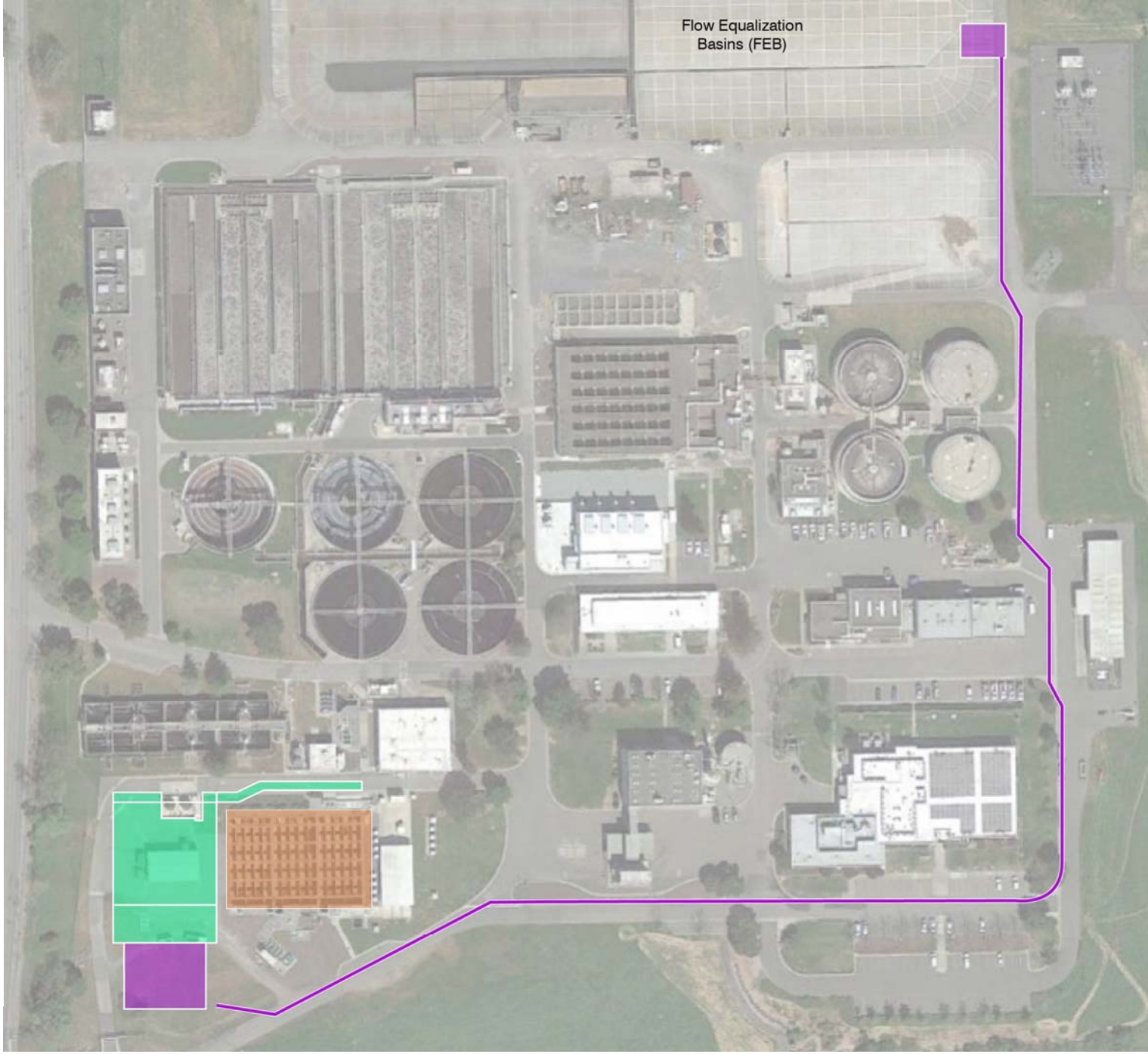
- Pre-1998 Gaseous Chlorine
- 1998 Ultraviolet System Commissioned (67 MGD)
- 2012 Ultraviolet System De-Rated (~~67 →~~ 48.5 MGD)
- 2013-2017 Planning/Project Pre-Design

The Project

UV Replacement

Supplement Hypo-Chlorination

On-Site Diversion



PROJECT COMPLEXITIES

- Utilize Existing Infrastructure
- Geysers/Agriculture/Discharge End Use
- UV Technology
- Life of UV System
- Replacement Parts
- Economics

PROJECT COMPLEXITIES
(CONTINUED)

- Geysers Biofouling
- Chlorine Contact
- Disinfection By-products
- Changing Regulatory Environment

HYPO/UV COMPONENT

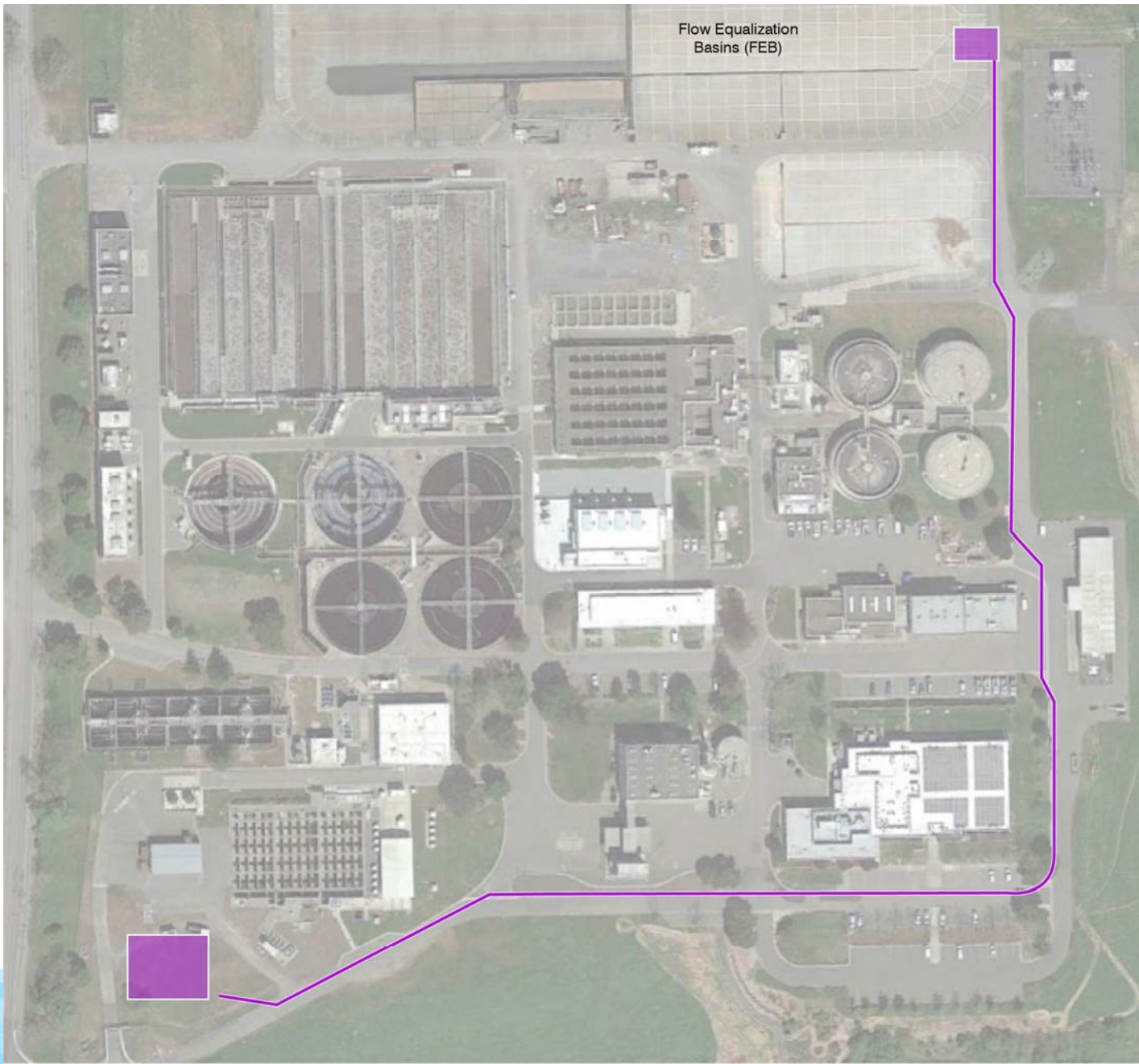
- Full Scale Pilot
- Bench Scale Pilot
- Reuse/Discharge Considerations
- UV Sizing Considerations

DIVERSION COMPONENT

- Initial Step in Overall Project
- Improves System Reliability
- Captures “off spec” Effluent
- Returns “off spec” to Headworks
- Reduces Chance of Effluent Violation

DIVERSION DESIGN

- Wet Well 0.60M Gallon
- Pump Station 35MGD
- Electrical Modifications
- Connection to CCB/UV Effluent Channel
- Diversion Pipeline 42”HDPE
- Flow Equalization Basin Modification



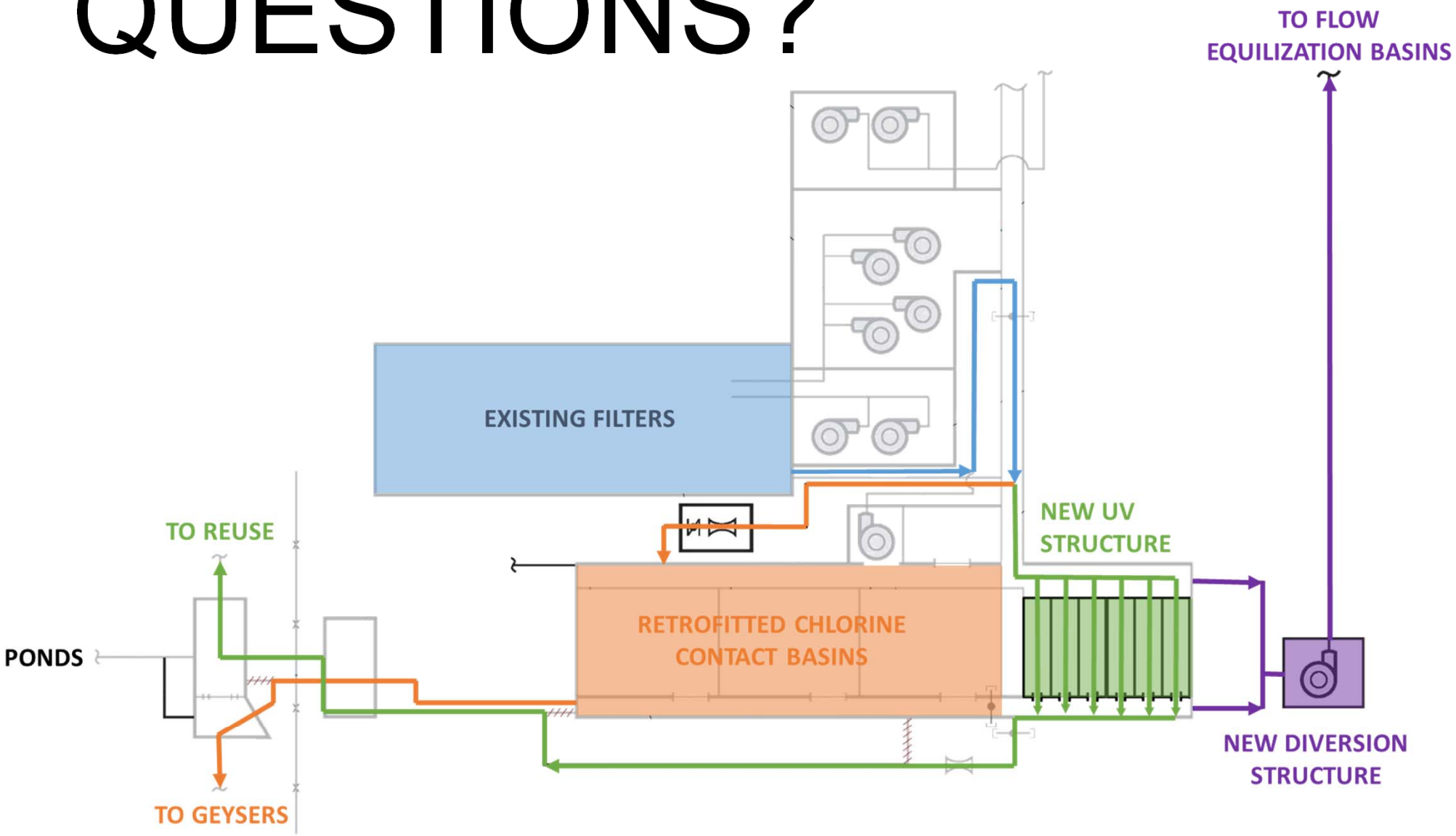
COST AND SCHEDULE

- Cost Estimate
  - $606,000 Design
  - $6.7M Construction
- Schedule
  - Mid 2019 Design Complete
  - Early 2021 Construction Complete

NEXT STEPS

- Piloting for Hypo
- Refine Approach to UV/Hypo
- Diversion in Early 2021
- Return to BPU with Recommendation
- Keep BPU Apprised on Progress

QUESTIONS?


TO FLOW
EQUILIZATION BASINS
EXISTING FILTERS
TO REUSE
NEW UV
STRUCTURE
RETROFITTED CHLORINE
CONTACT BASINS
PONDS
NEW DIVERSION
STRUCTURE
TO GEYSERS