



Las Virgenes - Triunfo JPA Board Presentation

March 4th, 2019

Tapia Water Reclamation Facility
Summer Season Waste Load
Allocation Compliance Study



Agenda

1. Project Driver & Objectives
2. Selected Project Alternative
3. Preliminary Design
4. CEQA
5. Cost & Schedule
6. Next Steps

Project Driver

Tapia WRF new permit approved on June 2017 and will be effective on May 16, 2022

- Requires flow augmentation to Malibu Creek to maintain 2.5 cubic feet per second (CFS)

- Nutrient limits for summertime Augmentation Water:
 - 1.0 mg/L total nitrogen (TN)
 - 0.10 mg/L total phosphorous (TP)

Project Objectives

- Evaluate alternatives for compliance with Malibu Creek discharge requirements (complete)
- **Develop preliminary design for selected alternative**
- **Perform CEQA analysis**

Selected Project Alternative

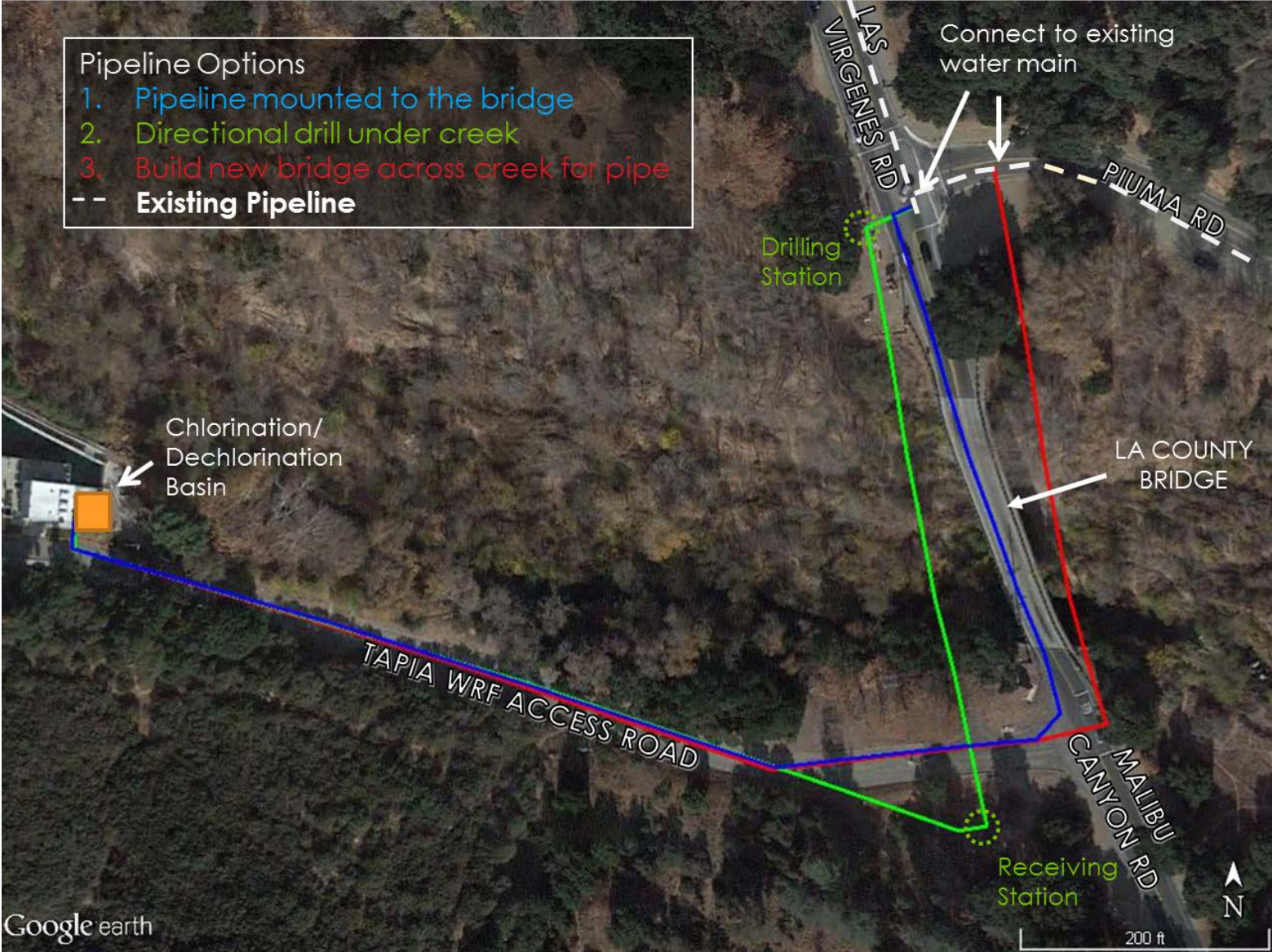
	Tertiary MBR+ RO	MF/UF +RO+ IX	Potable Water With Ammonia Removal	Secondary MBR+RO	Tertiary BAF+ MF+RO
Ease of Seasonal Operation	1	4	5	1	1
Performance Reliability for Permit Compliance	2	3	4	2	2
Operational Complexity/Familiarity	3	4	5	2	3
Construction Cost	2	2	5	1	1
O&M Cost	2	2	5	2	1
Environmental and Community Impacts	1	2	4	1	1
TOTAL SCORE	11	17	28	9	9

Higher score indicates better alternative

Preliminary Design Components

1. Pipeline to bring potable water to Tapia for treatment and discharge
2. Ammonia removal contactor for treatment

Pipeline Alignment Alternatives



Potable Water Conveyance – Mount to LA County Bridge

Recommendation - Option 1, Mount to LA County Bridge

- Benefits:
 - Most cost effective
 - Least environmental impact and risk
 - Easiest to construct
- Considerations:
 - Permitting to mount on LA County Bridge (3-4 months)
 - Future bridge replacement project by LA County

Potable Water Conveyance – Mount to LA County Bridge



Contactors Design Basis – Ammonia Removal Bench Testing

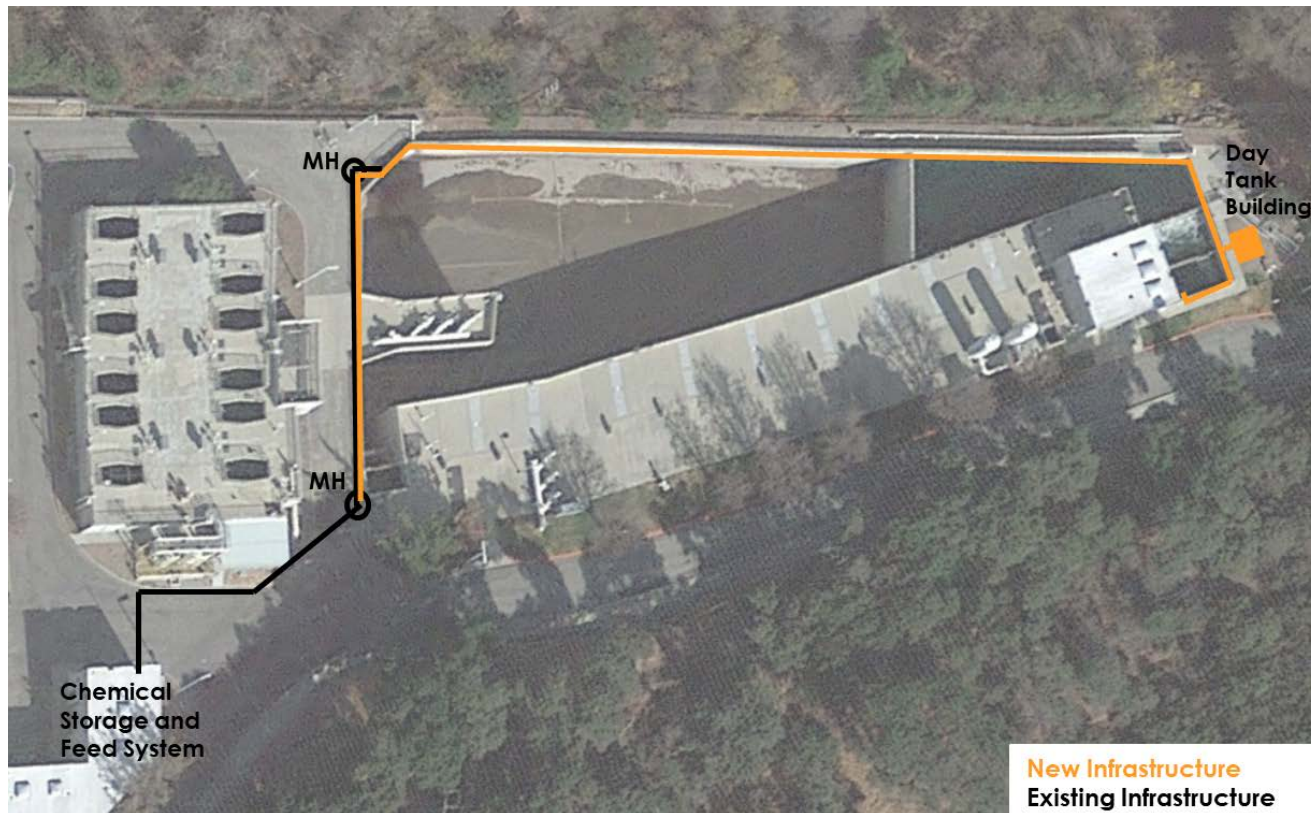
Conducted bench scale testing to determine chlorine dose and contact time for ammonia removal

Results:

- Optimal chlorine dose = 6 mg/L @ 12 minute contact time
- Safety factor of 15% = Dose of 7 mg/L
- Dechlorination contact time < 3 minutes

Modifications at Tapia WRF

- Extend existing chemical feed systems
- Retrofit existing overflow structure with baffle walls, valves, instrumentation



CEQA

- Completed biological and cultural reconnaissance surveys and impact assessment reports
- Potential significant impacts:
 - biological, cultural, noise, and traffic
- Mitigation identified, therefore **mitigated negative declaration recommended**
- AB 52 Native American consultation completed, one tribe responded
- Initial Study distributed for 30 day public review
- Received five comment letters



CEQA – Comments Received

1. Caltrans – heavy equipment permit
2. California State Parks – park boundary provided
3. Surfrider Foundation – water quantity and quality
4. Malibu Surfing Association – water quantity and quality
5. California Department of Fish and Wildlife – concerned about construction impacts to biological resources in the creek. Response – construction will be from the deck of the bridge



CEQA – Mitigation

- Noise – construction contractor to implement noise mitigation plan
- Traffic – construction contractor to implement traffic control plan
- Biological Resources
 - Oak tree – receive arborist input to avoid major tree roots on access road
 - Nesting birds – begin construction outside of nesting season, monitor nesting birds during season if required
- Cultural Resources
 - Will contact interested tribe if artifacts are discovered during construction

Cost & Schedule

- Class 4 Opinion of Probable Construction Cost:
 - Estimate: \$1.3M
 - Range: \$0.9M – \$1.9M
- Schedule durations:
 - Permitting – 14 months
 - Design – 7 months
 - Bidding – 3 months
 - Construction – 6 months*
 - Overall – 24 to 30 months

**Bird Nesting Season - February to mid-September*

Next Steps

- Adopt project
- Adopt Mitigated Negative Declaration
- File notice of determination and pay CDFW fee
- Final design
- Acquire relevant permits (LA County, Coastal Development)
- Construction



Las Virgenes Municipal Water District

JPA Board Presentation – May 7th, 2018

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