



COUNTY OF SAN LUIS OBISPO

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Outline

- Brief Overview of Recycled Water System/Historic Los Osos Wastewater operations
- Operational Considerations/Recycled Water Delivery Trends/Role of Recycled Water Storage Basins
- Relevant Water Quality Trends
- Status of Recycled Water Connections
- Upcoming CIP Projects and Initiatives



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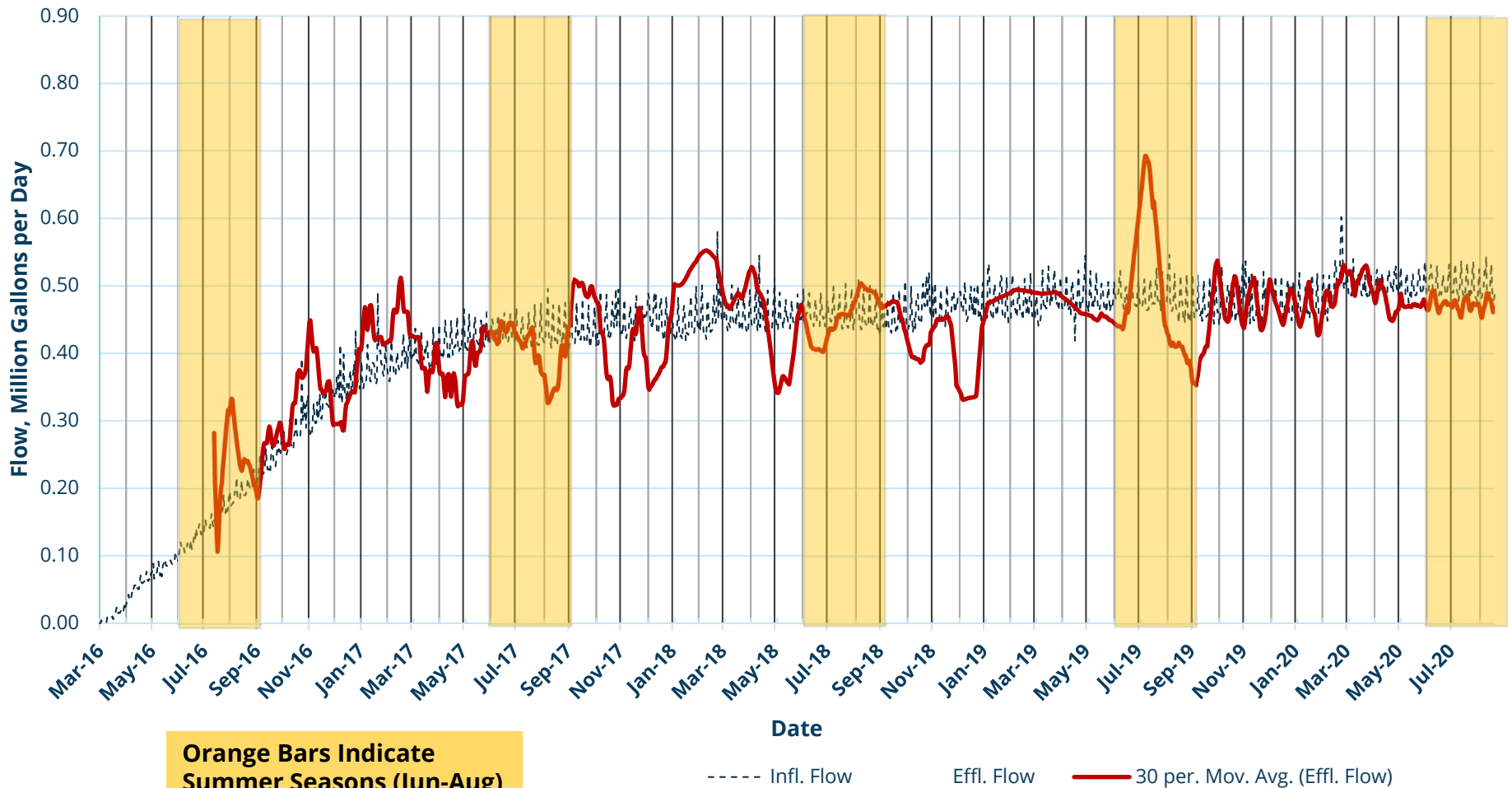
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Recycled Water Overview



Recycled Water Overview

Los Osos 30 day Moving Average of Effluent Flow vs. Plant Influent Flow



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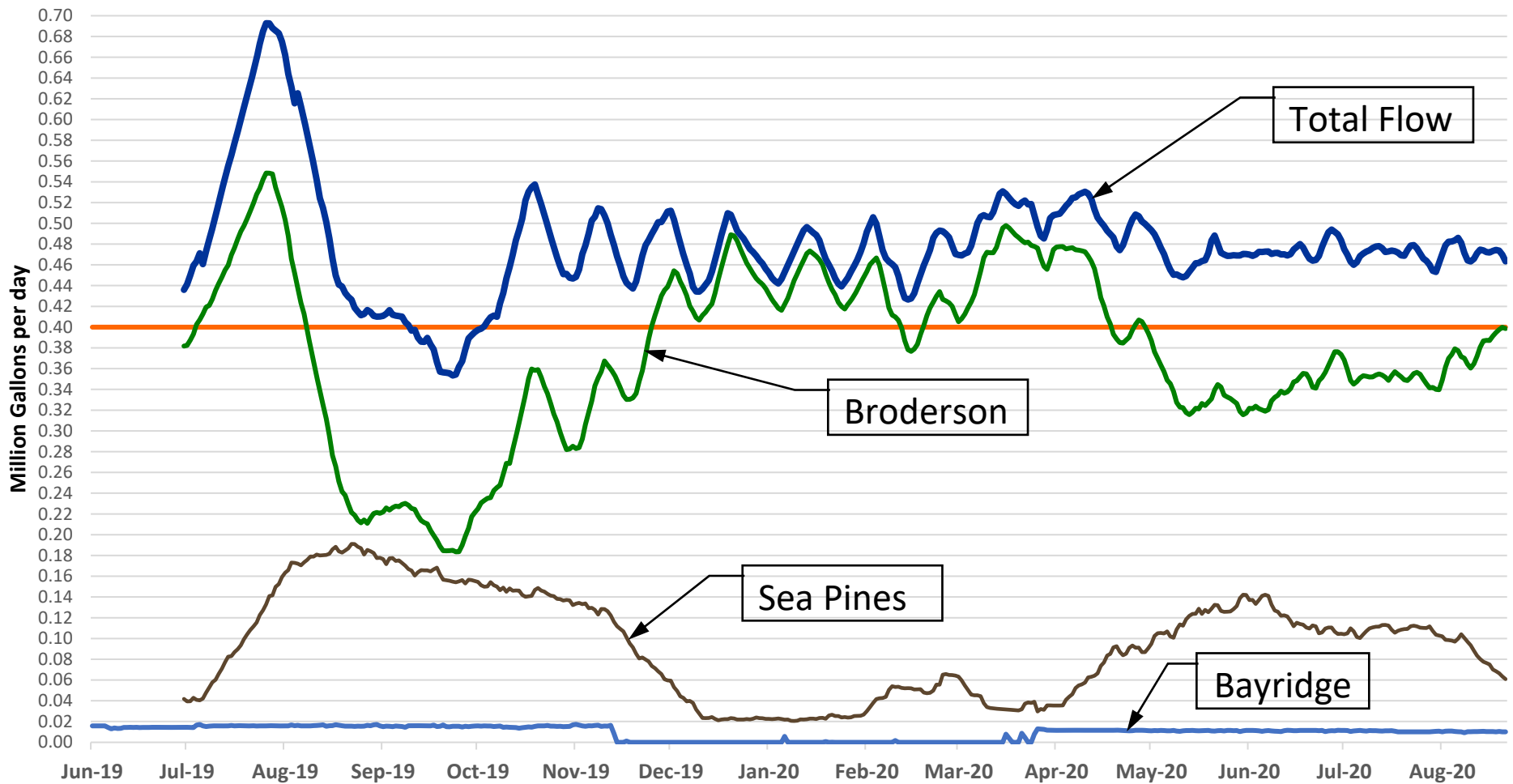


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Recycled Water Production & Delivery Strategies

Recycled Water Distribution since Sea Pines was Connected



Operational Constraints

Constraints (Condition 97 & Coastal Condition 5):

- Broderson Limit: “not to exceed 448 acre-feet per year on an annual average basis”
- Bayridge Limit: “approximately 33 afy or the amount shown to be necessary for maintaining Willow Creek and downstream resources in their pre-project state or better.”
- Sea Pines Allocation: by contract: 50 AFY
- Not less than 10% Recycled Reservation for Agricultural Use
 - Current Proposed Ag. User Limits: based on contracts 10 AFY & 5 AFY



Recycled Water Production & Delivery Strategies

Operational Strategies:

- Users providing public access to irrigated areas must irrigate between 10:00 PM and 6:00 AM to prevent public contact. Users without public exposure may take and use effluent at any time
- Broderson leach field: Operators keep two to five of eight zones online continuously
- Bayridge leach fields: Currently upper leach field receives flow 6 days per week lower field 1 day per week.



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Recycled Water Production & Delivery Strategies

- Operational Priorities:

- Recycled water ponds were originally installed for seasonal water demand variations.
- Current pond operation: keep one empty for noncompliant effluent. One pond maintained at minimum 8' deep to reduce algae blooms.
- Contractors taking recycled water for construction within the Los Osos area basin. Take approximately 2,500 gpd (0.008 AFD) during short term peak operation.
- We will eventually have to notify users we will have to hold them to their recycled water allotment.



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Recycled Water Production & Delivery Strategies

Total recycled water deliveries within the calendar year, acre-feet

Calendar Year	Broderson*	Bayridge	Sea Pines Resort
2016	108.9 (108.9)	-	-
2017	446.42 (277.6)	7.78	-
2018	485.56 (346.9)	19.78	-
2019	448.49 (372.3)	14.28	69.39
2020 (to 8/31)	294.53	5.18	55.46

* - Annual average value in (Parentheses)



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Recycled Water Quality

- Effluent must meet both:
Waste Discharge Permit Requirements and,
Full Title 22 Recycled Water Permit Requirements
- Facility consistently meets permit requirements
- Total nitrogen limit 7 mg/l is constantly met
- Total nitrogen year to date:
Average = 3.1 mg/l
Maximum = 4.8 mg/l
Minimum = 2.0 mg/l
- Coliform tests consistently meet requirements for water leaving the plant site.



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Recycled Water Connections

- Goal is one recycled water connection per year
- Sea Pines connected June 10, 2019
- Working to connect Ag. users. Connections are adjacent each other. 10 AFY and 5 AFY. Planned connection date: November
- Next planned connection 2021: Los Osos Middle School, priority school connections in the LOCSD user area
 - The County's new recycled water system coordinator is familiarized with the connection details.
 - The potable water system must be protected with a backflow preventer assembly before the County provides the recycled water connection. A plan has been developed to replumb part of the irrigation system.



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Upcoming CIP Projects

Recycled Water Distribution System

- Evaluate adjustable speed drives on Plant Recycled Water Pumps
- Maintain Broderson Leachfield (15-year program)
- Broderson Valve upgrades
- Flowmeter at Broderson Leachfield
- Connections to other REW users
- Floating Solar panels installed on recycled water ponds at LOWRF



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Thank You



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