



Biosolids Program Update and Preparation of a Request for Proposals

Board of Public Utilities
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Presentation Outline

- Biosolids - Introduction
- The City's Biosolids Program
 - Overview
 - Challenges
 - Opportunities
- Proposed Next Steps

Biosolids - Introduction

What are Biosolids?

- Solids from Wastewater Treated at LTP
- Available for Beneficial Reuse
- Degree of Treatment Dictates Reuse Options
 - Class B: Anaerobic Digestion
 - Class A: Composting/Lystek



The City's Biosolids Program

Goals

- Regulatory Compliance
- Reliable Performance
- Operational Flexibility
- Value to Ratepayer
- Resilience



The City's Biosolids Program



32,600 tons of Biosolids/yr
Totaling \$2,166,000/yr

65%
\$40/ton

24%
\$142/ton

10%
\$54/ton

1%
\$98/ton

Land Application
\$848,000/yr

Compost
\$1,110,000/yr

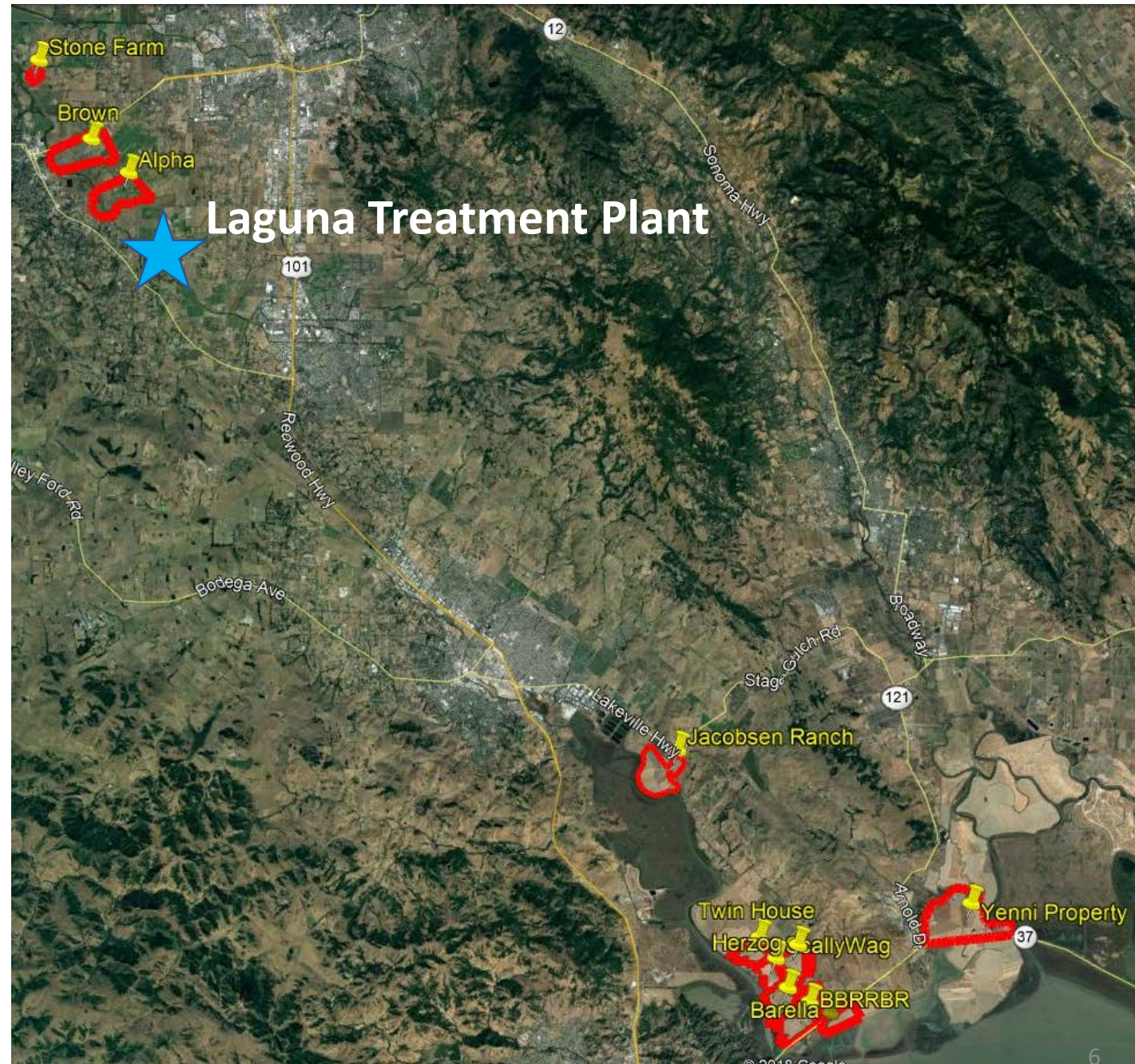
Landfill
\$176,000/yr

Lystek
\$32,000/yr



Land Application

- South County Properties
 - 7 Properties with Annual Agreements
 - 1 City-Owned Property (Twin House)
- North County Properties
 - 3 City-owned Farms (Stone, Brown, Alpha)
- Storage
 - Alpha Barn (7,000 wet tons)



Compost

- City-Owned Facility Commissioned in 1996
- Produces Class A, Marketed Compost
- Operates Seasonally (October - May)
- Weather Independent Operation



Landfill

- Alternative Daily Cover at Redwood Landfill
 - Pre-1985 100% Landfilled
 - By 1997 33% Landfilled
 - Currently 10% Landfilled



Lystek

- Canadian-Based Company
- Facility Located at the Fairfield-Suisun Sewer District
- Operational since 2016
- Processing Capacity of 150,000 tons/year
- SR was First 3rd Party Customer
- Produces Class A, Liquid Fertilizer (LysteGro)



Biosolids Program - Challenges

Land Application

- Seasonal Restrictions
(May - October)
- South County Properties
Rely on Annual Agreements
- North County Properties
have CTS Constraints
- Potential Regulatory Pressure
- Competition for Available Land



Biosolids Program - Challenges

Compost

- High Unit Cost
- Aging Facility
- Needs Capital Investment
 - Near-term ~\$4M
 - Long-term ~\$10M

Landfill

- Landfill Option Phasing Out (SB 1383)



Biosolids Program - Summary

Reuse Option	Volume of Biosolids Reused (wet tons)	Unit Cost of Reuse Option (per wet ton)	Benefits	Challenges
Land Application	21,190	\$40.00	Low Unit Cost	Restricted During Rainy Season
Compost	7,824	\$142.00	Weather Independent, Produces Class A Product	High Unit Cost
Landfill	3,260	\$54.00	Low Unit Cost	Increased Regulatory Restrictions (SB 1383)
Lystek	326	\$98.00	Weather Independent, Produces Class A Product	3 rd Party Processor

Biosolids Program - Opportunities

Alternatives to Compost may Provide Savings

- Existing Lystek Facility
 - Potential \$10.5M Savings over 20-yrs
 - ~\$350,000/yr O&M Savings
 - \$4M Avoided Near-Term Capital Investment
 - Potential Lease Revenue of Biosolids Compost Facility
- Proposed New Suez Facility
 - Potential \$4.2M Savings over 20-yrs
- Others?
 - Expected Savings while Meeting Program Goals
 - RFP to Identify Additional Opportunities

Request for Proposals

Anticipated to Include Commitment to Process:

- Approximately 11,000 wet tons of Biosolids,
- from October through May,
- for a Mid-Term Contract Length*

*A mid-term contract (10-15 years) provides near-term savings and allows for potential participation in a long-term, regional solution.



Proposed Next Steps

- Sept 19, 2019 Anticipated BPU Approval to Issue RFP
- Oct/Nov 2019 Advertise RFP
- Late 2019 Convene Selection Panel
- Early 2020
Subcommittee Recommendation to CC/BPU Liaison
- Early 2020 Recommendation to Full BPU
- Ongoing Continual Evaluation of Biosolids Program Opportunities for Regional Solutions



Recommendation

It is recommended by the Water Department and the CC/BPU Liaison Subcommittee that the Board, by motion, approve issuing a Request for Proposals for the beneficial reuse of a portion of the biosolids produced at the City's Laguna Treatment Plant.

