

Dewatered Biosolids Management Strategy City Council Item 6.1

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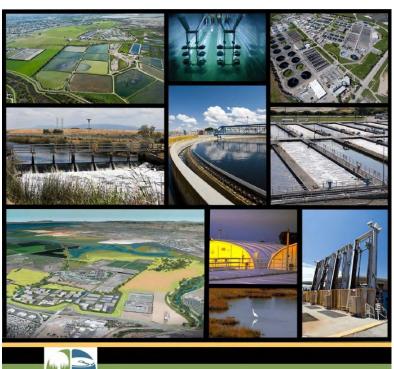


June 8, 2021

Current and Future Biosolids Management



Plant Master Plan (PMP) Guiding Principles





- Operational: Result in a reliable, flexible plant that can respond to changing conditions
- Economical: Maximize economic benefits for customers through cost-effective options
- Environmental: Improve habitat and minimize impacts to the local and global environment
- Social: Maximize community benefits through improved aesthetics and recreational uses

What has occurred since the PMP?

2015

Approval of Biosolids Transition Strategy

 Proceed with temperature-phased anaerobic digestion (TPAD) process; mechanical dewatering facility; retirement of lagoons and drying beds; postponement of on-site thermal and greenhouse drying facilities; and procurement of various off-site disposition service contracts

Approval of Odor Control Implementation Plan

- Completion of Phase 1 and decommissioning of lagoons and drying beds needed to achieve RWF's odor goal and fence line
- Phase 1 includes: Digester and Thickener Facilities Upgrade, New Headworks, Digested Sludge Dewatering Facility, and East Primary Clarifiers Rehabilitation

2019

Completion of Biosolids Disposition Market Assessment

- · Limited capacity around San Francisco Bay Area
- No single service provider has sufficient capacity to manage all the RWF's dewatered biosolids
- Increasing prices to beneficially use biosolids

2020

Finalization of SB 1383 Regulations

- Goal: Reduce short-lived climate pollutants, like methane, from landfilling of organic waste
- Organic waste definition includes biosolids
- Effective on January 1, 2022

Biosolids Transition Drivers

- Sustainability—Resource Recovery and Emissions
- Reduce Odors in the Community
- Provide Flexibility and Manage Risk
 - Multiple Options
 - Ability to respond to regulatory changes and market preferences
- Land Use

Proposed Strategy

Today 2025 Beyond

Anaerobic
Digesters

↓
Lagoons and
Drying Beds

↓
Newby Island
Landfill
(100%)

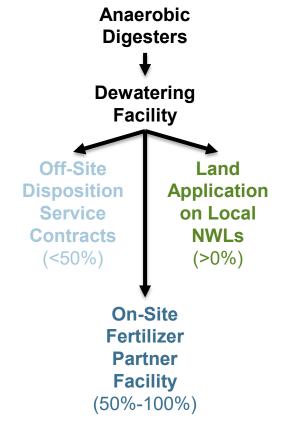
Anaerobic
Digesters

↓

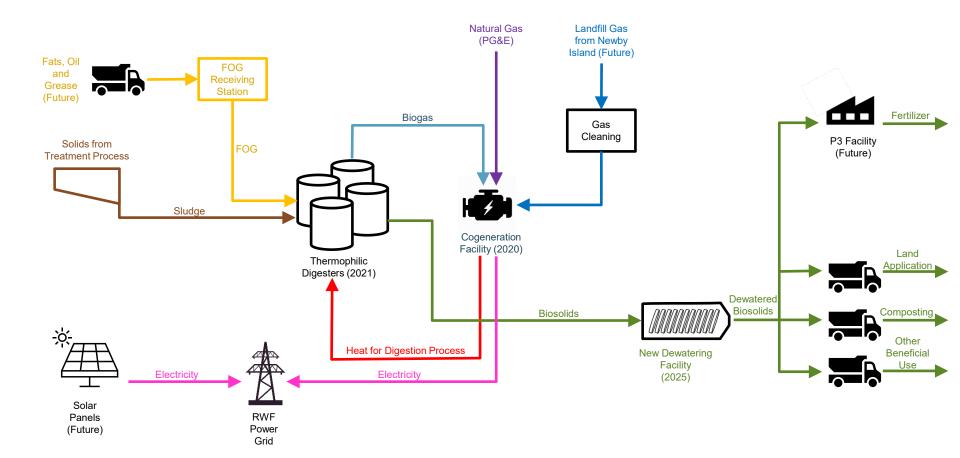
Dewatering
Facility

↓

Interim Off-Site
Disposition
Service
Contracts
(100%)



Creating Resources from Wastewater



Recommendation

Approve the dewatered biosolids management strategy to be implemented in stages in the next five to ten years, which includes off-site disposition service contracts, an on-site fertilizer partnership facility, and land application on local natural and working lands.