



EAST BAY DISCHARGERS AUTHORITY
2651 Grant Avenue
San Lorenzo, CA 94580-1841
(510) 278-5910
FAX (510) 278-6547

A Joint Powers Public Agency

NOTICE: In compliance with AB 361 (2021), the Commission meeting scheduled below will be accessible via Zoom video conferencing. Members of the public may participate in the meeting through the Zoom link or phone number below.

- Zoom link: <https://us02web.zoom.us/j/87064374855>
- Telephone dial-in: 1(669) 900-6833, meeting ID #870 6437 4855

COMMISSION MEETING AGENDA

Wednesday, January 26, 2022

9:30 A.M.

EAST BAY DISCHARGERS AUTHORITY
2651 Grant Avenue
San Lorenzo, CA 94580

1. Call to Order
2. ~~Pledge of Allegiance~~ (Deferred Due to Remote Meeting)
3. Roll Call
4. Public Forum

CONSENT CALENDAR

- | | |
|--------|---|
| MOTION | 5. Commission Meeting Minutes of December 16, 2021 |
| | 6. List of Disbursements for December 2021 – See Item FM4 |
| | 7. Treasurer’s Report for December 2021 – See Item FM5 |
| | 8. Resolution Authorizing Remote Teleconference Meetings Pursuant to AB 361 |

REGULAR CALENDAR

- | | |
|-------------|---|
| INFORMATION | 9. General Manager’s Report
(The General Manager will report on EBDA issues.) |
| INFORMATION | 10. Report from the Managers Advisory Committee
(The General Manager will report on the meeting.) |
| INFORMATION | 11. Report from the Regulatory Affairs Committee
(The General Manager will report on the meeting.) |
| INFORMATION | 12. Report from the Financial Management Committee
(The General Manager will report on the meeting.) |
| INFORMATION | 13. Report from the Operations & Maintenance Committee
(The Operations & Maintenance and General Managers will report on the meeting.) |

INFORMATION 14. Items from the Commission and Staff
(The Commission and staff may address items of general interest.)

15. Adjournment

Any member of the public may address the Commission at the commencement of the meeting on any matter within the jurisdiction of the Commission. This should not relate to any item on the agenda. It is the policy of the Authority that each person addressing the Commission limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Commission on an agenda item should do so at the time the item is considered. It is the policy of the Authority that oral comments be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available in the Boardroom and are to be completed prior to speaking.

In compliance with the Americans with Disabilities Act of 1990, if you need special assistance to participate in an Authority meeting, or you need a copy of the agenda, or the agenda packet, in an appropriate alternative format, please contact the Administration Manager at the EBDA office at (510) 278-5910 or juanita@ebda.org. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the Authority staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting or service.

In compliance with SB 343, related writings of open session items are available for public inspection at East Bay Dischargers Authority, 2651 Grant Avenue, San Lorenzo, CA 94580. For your convenience, agenda items are posted on the East Bay Dischargers Authority website located at <http://www.ebda.org>.

**The next Commission meeting will be held
Thursday, February 17, 2022 at 9:30 a.m.**

GLOSSARY OF ACRONYMS

ACWA	Association of California Water Agencies	DSRSD	Dublin San Ramon Services District
AQPI	Advanced Quantitative Precipitation Information	DTSC	Department of Toxic Substances Control
AMP	Asset Management Plan	EBDA	East Bay Dischargers Authority
ANPRM	Advanced Notice of Proposed Rulemaking	EBRPD	East Bay Regional Park District
BAAQMD	Bay Area Air Quality Management District	EIS/EIR	Environmental Impact Statement/Report
BACC	Bay Area Chemical Consortium	EPA	United States Environmental Protection Agency
BACWA	Bay Area Clean Water Agencies	FOG	Fats, Oils and Grease
BPA	Basin Plan Amendment	GASB	Government Accounting Standards Board
BCDC	Bay Conservation and Development Commission	HEPS	Hayward Effluent Pump Station
BOD	Biochemical Oxygen Demand	JPA	Joint Powers Agreement
CARB	California Air Resources Board	LAVWMA	Livermore-Amador Valley Water Management Agency
CASA	California Association of Sanitation Agencies	LOCC	League of California Cities
CBOD	Carbonaceous Biochemical Oxygen Demand	MAC	Managers Advisory Committee
CDFA	CA Department of Food & Agriculture	MCC	Motor Control Center
CEC	Compound of Emerging Concern	MCL	Maximum Contaminant Level
CEQA	California Environmental Quality Act	MDF	Marina Dechlorination Facility
CFR	Code of Federal Regulations	MG	Million Gallons
CMMS	Computerized Maintenance Management System	MGD	Million Gallons per Day
COH	City of Hayward	MMP	Mandatory Minimum Penalty
CPUC	California Public Utilities Commission	MOU	Memorandum of Understanding
CSL	City of San Leandro	MSS	Mixed Sea Salt
CTR	California Toxics Rule	N	Nitrogen
CVCWA	Central Valley Clean Water Association	NACWA	National Association of Clean Water Agencies
CVSAN	Castro Valley Sanitary District	NBS	Nature-Based Solutions
CWA	Clean Water Act	NGO	Non-Governmental Organization
CWEA	CA Water Environment Association	NOX	Nitrogen Oxides
DO	Dissolved Oxygen	NPDES	National Pollutant Discharge Elimination System
DPR	Department of Pesticide Regulation	NPS	Non-Point Source

GLOSSARY OF ACRONYMS

O&M	Operations & Maintenance	SSO	Sanitary Sewer Overflow
OLEPS	Oro Loma Effluent Pump Station	SWRCB	State Water Resources Control Board
OLSD	Oro Loma Sanitary District	TDS	Total Dissolved Solids
OMB	Office of Management and Budget	TMDL	Total Maximum Daily Load
P	Phosphorous	TN	Total Nitrogen
PAHs	Polynuclear Aromatic Hydrocarbons	TP	Total Phosphorus
PCBs	Polychlorinated Biphenyls	TRC	Total Residual Chlorine
PLC	Programmable Logic Controller	TSO	Time Schedule Order
PFAS	Per and Polyfluoroalkyl Substances	TSS	Total Suspended Solids
POTW	Publicly Owned Treatment Works	UEPS	Union Effluent Pump Station
PPCPs	Pharmaceutical and Personal Care Products	USD	Union Sanitary District
QA/QC	Quality Assurance / Quality Control	UV	Ultraviolet Treatment
Region IX	Western Region of EPA (CA, AZ, NV & HI)	VFD	Variable Frequency Drive
ReNUWit	Re-Inventing the Nation's Urban Water Infrastructure Engineering Research Center	VOCs	Volatile Organic Compounds
RFP	Request For Proposals	WAS	Waste Activated Sludge
RFQ	Request For Qualifications	WDR	Waste Discharge Requirements
RMP	Regional Monitoring Program	WEF	Water Environment Federation
RO	Reverse Osmosis	WET	Whole Effluent Toxicity or Waste Extraction Test
RWB	Regional Water Board	WIN	Water Infrastructure Network
RWQCB	Regional Water Quality Control Board	WLA	Waste Load Allocation (point sources)
SBS	Sodium Bisulfite	WPCF	Water Pollution Control Facility
SCADA	Supervisory Control and Data Acquisition	WQBEL	Water Quality Based Effluent Limitation
SCAP	Southern California Alliance of POTWs	WQS	Water Quality Standards
SEP	Supplementary Environmental Project	WRDA	Water Resource Development Act
SFEI	San Francisco Estuary Institute	WRF	Water Research Foundation
SLEPS	San Leandro Effluent Pump Station	WWTP	Wastewater Treatment Plant
SRF	State Revolving Fund	WWWIFA	Water and Wastewater Infrastructure Financing Agency
SSMP	Sewer System Management Plan		

CONSENT CALENDAR

Consent calendar items are typically routine in nature and are considered for approval by the Commission with a single action. The Commission may remove items from the Consent Calendar for discussion. Items on the Consent Calendar are deemed to have been read by title. Members of the public who wish to comment on Consent Calendar items may do so during Public Forum.

- Item No. 5 Commission Meeting Minutes of December 16, 2021
- Item No. 6 List of Disbursements for December 2021 – See Item FM4
- Item No. 7 Treasurer’s Report for December 2021 – See Item FM5
- Item No. 8 Resolution Authorizing Remote Teleconference Meetings Pursuant to AB 361

Recommendation

Approve Consent Calendar

ITEM NO. 5 COMMISSION MEETING MINUTES OF DECEMBER 16, 2021

1. Call to Order

Chair Cutter called the telephonic meeting to order in compliance with AB 361 (2021) at 9:30 A.M. on Thursday, December 16, 2021. Dial-in information for the meeting was provided in the agenda for public attendees.

2. Pledge of Allegiance – Deferred

3. Roll Call

Present:	Ralph Johnson	Castro Valley Sanitary District
	Sara Lamnin	City of Hayward
	Jennifer Toy	Union Sanitary District
	Rita Duncan	Oro Loma Sanitary District
	Pauline Russo Cutter	City of San Leandro

Absent: None

Attendees:	Jacqueline Zipkin	East Bay Dischargers Authority
	Howard Cin	East Bay Dischargers Authority
	Juanita Villasenor	East Bay Dischargers Authority
	Bert Manzo	East Bay Dischargers Authority
	Eric Casher	Legal Counsel
	Deborah Quinn	Accountant
	Alex Ameri	City of Hayward
	David Donovan	City of Hayward
	Dean Wilson	City of San Leandro
	Anjali Lathi	Union Sanitary District
	Paul Eldredge	Union Sanitary District
	Roland Williams	Castro Valley Sanitary District
	John Cropper	Cropper Accountancy Corporation

4. Public Forum

No members of the public requested to address the Commission.

C O N S E N T C A L E N D A R

5. Commission Meeting Minutes of November 18, 2021

6. List of Disbursements for November 2021

7. Treasurer's Report for November 2021

8. Resolution Authorizing Remote Teleconference Meetings Pursuant to AB 361

Commissioner Johnson moved to approve the consent calendar. The motion was seconded by Commissioner Toy and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Lamnin, Toy, Duncan, Chair Cutter

Noes: None
Absent: None
Abstain: None

REGULAR CALENDAR

9. Motion to Accept the Audited Basic Financial Statements for Fiscal Year Ending June 30, 2021

John Cropper of Cropper Accountancy Corporation, the Authority's auditing firm, presented the Basic Financial Statements for Fiscal Year 2020-2021. EBDA received a clean, unmodified audit opinion. Mr. Cropper praised staff for their cooperation.

Commissioner Duncan moved to approve the item. The motion was seconded by Commissioner Lamnin and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Lamnin, Toy, Duncan, Chair Cutter
Noes: None
Absent: None
Abstain: None

10. General Manager's Report

The General Manager (GM) advised the Commission that the Bay Area Air Quality Management District has committed to working more collaboratively with the wastewater community to protect public health and the environment through a new work group. The GM highlighted innovative projects currently underway at Oro Loma Sanitary District and San Leandro's Water Pollution Control Plant. The GM reported that staff is researching alternative banking options and recently met with Community Bank of the Bay.

11. Report from the Managers Advisory Committee (MAC)

The GM reported on the MAC's discussion of biosolids management options. Working with the MAC, EBDA issued a primer to various private companies to garner management solutions for the Member Agencies' biosolids. Commissioner Lamnin suggested staff include All-In-Eats, which is a circular food economy organization managed by Alameda County.

12. Report from the Financial Management Committee

The Financial Management Committee discussed the treasurer's report and audited financial statements. Additionally, the Committee reviewed the Authority's Investment Policy and Strategy. The Committee supported staff's recommendation that no changes be made to the Investment Strategy at this time. The Committee also supported approval of the proposed Investment Policy updates.

13. Resolution Approving Revisions to the Authority's Investment Policy

Commissioner Cutter moved to approve the item. The resolution was seconded by Commissioner Johnson and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Lamnin, Toy, Duncan, Chair Cutter
Noes: None
Absent: None
Abstain: None

14. Report from the Operations and Maintenance Committee

The O&M Manager reported on the Operations and Maintenance Committee, which met on December 14, 2021. The O&M Manager stated that compliance data looks good; no extra sodium hypochlorite had been added to the system for the recent storm events and bacteria data looks normal. The O&M Manager also reported that during the month of November, no water was sent to the Skywest Golf Course, and with the upcoming storm, no water is expected to be delivered. The O&M Manager informed the Commission that implementation of the new higher chlorine residual effluent limit will likely begin in March 2022. This new limit will allow for reduced sodium bisulfite dosing. Finally, the O&M Manager reported that current wet weather was handled very well and noted positive collaboration with the Member Agencies in managing high flows. The GM provided an update on the Cargill project, noting the preferred option is a brine pipeline from Cargill that follows a Bayside route, running parallel to the EBDA transport system and connecting at OLEPS.

15. Resolution to Approve the Authority's Revised Classification Plan

Commissioner Lamnin moved to approve the item. The resolution was seconded by Commissioner Duncan and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Lamnin, Toy, Duncan, Chair Cutter
Noes: None
Absent: None
Abstain: None

16. Resolution Adopting the Revised Fiscal Year 2021/2022 Compensation Plan

Commissioner Johnson moved to approve the item. The resolution was seconded by Commissioner Cutter and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Lamnin, Toy, Duncan, Chair Cutter
Noes: None
Absent: None
Abstain: None

17. Resolution Supporting Bay Adapt: Regional Strategy for a Rising Bay

Commissioner Toy moved to approve the item. The resolution was seconded by Commissioner Duncan and carried unanimously 5-0, by roll call vote.

Ayes: Commissioners Johnson, Lamnin, Toy, Duncan, Chair Cutter
Noes: None
Absent: None
Abstain: None

18. Items from Commission and Staff

Commissioner Duncan thanked Howard Cin for his storm impact explanation. Roland Williams commended staff and wished everyone happy holidays. Howard Cin expressed his gratitude to the Commission for their support. The General Manager reminded the Commission of the January meeting schedule changes.

19. Adjournment

Chair Cutter adjourned the meeting at 10:47 A.M.

ITEM NO. 8 RESOLUTION AUTHORIZING REMOTE TELECONFERENCE MEETINGS PURSUANT TO AB 361

Recommendation

Adopt the resolution authorizing continued use of remote teleconference meetings pursuant to AB 361.

Background

On March 4, 2020, Governor Newsom declared a State of Emergency to make additional resources available, formalize emergency actions already underway across multiple state agencies and departments, and help the State prepare for an anticipated broader spread of the novel coronavirus disease 2019 (“COVID-19”).

All meetings of the East Bay Dischargers Authority (EBDA) Commission and EBDA’s other legislative bodies are open and public, as required by the Ralph M. Brown Act, Government Code section 54950 *et seq.* Any member of the public may attend, participate, and watch EBDA’s legislative bodies conduct their business. On March 17, 2020, in response to the COVID-19 pandemic, Governor Newsom issued Executive Order N-29-20 suspending certain provisions of the Ralph M. Brown Act in order to allow local legislative bodies to conduct meetings telephonically or by other means in order to slow the spread of COVID-19. As a result of Executive Order N-29-20, staff set up virtual meetings for all Commission meetings and other EBDA legislative bodies. Executive Order N-29-20 expired on September 30, 2021.

On September 16, 2021, the Governor signed AB 361 (2021) which allows for local legislative bodies to continue to conduct meetings via teleconferencing without complying with certain Brown Act provisions under specified conditions and includes a requirement that the Commission make specified findings. AB 361 (2021) took effect October 1, 2021. Pursuant to AB 361, legislative bodies are allowed to continue to meet remotely during a declared State of Emergency. In addition, remote meetings are only allowed when state or local health officials have imposed or recommended measures to promote social distancing, or when the legislative body finds that meeting in person would present imminent risks to the health or safety of attendees.

On January 5, 2022, Governor Newsom issued Executive Order N-1-22, extending the sunset of sections of AB 361 (2021) through March 31, 2022, in light of the surge in cases due to the novel Omicron variant not previously considered when the Legislature considered AB 361, and to protect the public health and safety.

The Commission adopted resolutions authorizing remote teleconference meetings at its October 21, 2021, November 18, 2021, and December 16, 2021 Commission Meetings. The resolutions included all of the necessary findings required pursuant to AB 361.

Discussion

In order to continue to hold remote meetings during a proclaimed State of Emergency, the Commission must declare every thirty (30) days that either (i) the State of Emergency

continues to directly impact the ability of the members to meet safely in person, or (ii) State or local officials continue to impose or recommend measures to promote social distancing. Thus, the Commission has a standing opportunity to discuss a return to in-person meetings every thirty (30) days.

The conditions that justified the Commission adopting a resolution authorizing teleconference meetings at its December 16, 2021 meeting continue to exist. Since issuing Executive Order N-08-21, the highly contagious Delta and Omicron variants of COVID-19 have emerged, causing an increase in COVID-19 cases throughout the State and Alameda County. Case rates in Alameda County have skyrocketed in recent weeks as the highly contagious Omicron variant of COVID-19 spreads in the community. As a result, the State of Emergency as declared by the Governor, continues in existence. Governor Newsom extended the State of Emergency declared on March 4, 2020 through March 2022. Health officials continue to recommend measures to slow the spread of COVID-19. Specifically, the Centers for Disease Control and Prevention ("CDC") continues to recommend physical distancing of at least 6 feet from others outside of the household, and the Alameda County Health Officer issued an order for nearly all individuals to wear masks when inside public spaces effective on August 3, 2021, with additional limited exceptions specified in a November 1, 2021 order. Additionally, COVID-19 would present imminent risks to the health or safety of attendees, including the legislative bodies and staff, should EBDA's legislative bodies hold in person meetings.

The proposed resolution includes the necessary findings in order for the Commission and the other legislative bodies of EBDA to continue to holding remote teleconference meetings pursuant to AB 361.

EAST BAY DISCHARGERS COMMISSION
EAST BAY DISCHARGERS AUTHORITY
ALAMEDA COUNTY, CALIFORNIA

RESOLUTION NO. 21-19

INTRODUCED BY _____

**RESOLUTION AUTHORIZING REMOTE TELECONFERENCE MEETINGS
PURSUANT TO AB 361**

WHEREAS, all East Bay Dischargers Authority (“EBDA”) meetings are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend, participate, and watch EBDA’s legislative bodies conduct their business; and

WHEREAS, on March 4, 2020, Governor Newsom declared a State of Emergency to make additional resources available, formalize emergency actions already underway across multiple state agencies and departments, and help the State prepare for an anticipated broader spread of the novel coronavirus disease 2019 (“COVID-19”); and

WHEREAS, On March 17, 2020, in response to the COVID-19 pandemic, Governor Newsom issued Executive Order N-29-20 suspending certain provisions of the Ralph M. Brown Act in order to allow local legislative bodies to conduct meetings telephonically or by other means; and

WHEREAS, as a result of Executive Order N-29-20, staff set up virtual meetings for all EBDA Commission meetings and meetings of all EBDA legislative bodies; and

WHEREAS, on June 11, 2021, Governor Newsom issued Executive Order N-08-21, which, effective September 30, 2021, repealed the provisions of Executive Order N-29-20 that allowed local legislative bodies to conduct meetings telephonically or by other means; and

WHEREAS, on September 16, 2021, Governor Newsom signed AB 361 (2021) which allows for local legislative bodies and advisory bodies to continue to conduct meetings via teleconferencing under specified conditions and includes a requirement that the EBDA Commission make specified findings. AB 361 (2021) took effect immediately; and

WHEREAS, in order for legislative bodies to continue to conduct meetings via teleconferencing pursuant to AB 361 (2021), a proclaimed State of Emergency must exist; and

WHEREAS, AB 361 (2021) further requires that State or local officials have imposed or recommended measures to promote social distancing, or, requires that the legislative body determines that meeting in person would present imminent risks to the

health and safety of attendees; and

WHEREAS, such conditions now exist in EBDA's jurisdiction, specifically, Governor Newsom has declared a State of Emergency due to COVID-19; and

WHEREAS, while COVID-19 case rates have significantly increased in Alameda County in recent weeks as the highly contagious Omicron variant of COVID-19 spreads in the community; and

WHEREAS, in response to the Delta variant of COVID-19, the Alameda County Health Officer issued an order for nearly all individuals to wear masks when inside public spaces effective on August 3, 2021; and

WHEREAS, the Centers for Disease Control and Prevention ("CDC") continues to recommend physical distancing of at least 6 feet from others outside of the household; and

WHEREAS, because of the rise in cases due to the Omicron variant of COVID-19, the EBDA Commission is concerned about the health and safety of all individuals who intend to attend EBDA Commission meetings and meetings of EBDA's other legislative bodies; and

WHEREAS, the EBDA Commission desires to provide a way for commissioners, staff, and members of the public to participate in meetings remotely, without having to attend meetings in person; and

WHEREAS, on October 21, 2021, November 18, 2021, and December 16, 2021, the Commission found that the presence of COVID-19 and the increase of cases due to the Omicron variant would present imminent risks to the health or safety of attendees, including the legislative bodies and staff, should EBDA's legislative bodies hold in person meetings; and

WHEREAS, the EBDA Commission hereby finds that the presence of COVID-19 and the increase of cases due to the Omicron variant would present imminent risks to the health or safety of attendees, including the legislative bodies and staff, should EBDA's legislative bodies hold in person meetings; and

WHEREAS, EBDA shall ensure that its meetings comply with the provisions required by AB 361 (2021) for holding teleconferenced meetings.

NOW, THEREFORE, BE IT RESOLVED that the Commission of the East Bay Dischargers Authority hereby declares as follows:

1. The above recitals are true and correct, and incorporated into this Resolution.

2. In compliance with AB 361 (2021), and in order to continue to conduct teleconference meetings without complying with the usual teleconference meeting requirements of the Brown Act, the EBDA Commission makes the following findings:

- a) The EBDA Commission has considered the circumstances of the State of Emergency; and
- b) The State of Emergency, as declared by the Governor, continues to directly impact the ability of the EBDA Commission and EBDA's legislative bodies, as well as staff and members of the public, from meeting safely in person; and
- c) The CDC continues to recommend physical distancing of at least six feet due to COVID-19 and as a result of the presence of COVID-19 and the increase of cases due to the Omicron variant, meeting in person would present imminent risks to the health or safety of attendees, the legislative bodies and staff.

3. The EBDA Commission and all of EBDA's other legislative bodies may continue to meet remotely in compliance with AB 361, in order to better ensure the health and safety of the public.

4. The EBDA Commission will revisit the need to conduct meetings remotely at its next monthly meeting.

SAN LORENZO, CALIFORNIA, JANUARY 26, 2022, ADOPTED BY THE FOLLOWING VOTE:

AYES:
NOES:
ABSENT:
ABSTAIN:

CHAIR
EAST BAY DISCHARGERS AUTHORITY

ATTEST: _____
GENERAL MANAGER
EAST BAY DISCHARGERS AUTHORITY
EX OFFICIO SECRETARY

ITEM NO. 9 GENERAL MANAGER'S REPORT

The General Manager will discuss items of interest to EBDA.

ITEM NO. 10 REPORT FROM THE MANAGERS ADVISORY COMMITTEE

**MANAGERS ADVISORY COMMITTEE
AGENDA**

Thursday, January 13, 2022

1:30 P.M.

Via Zoom

- 1. Wet Weather Debrief**
- 2. Brine Project Updates**
- 3. EBDA Commission Agenda**
 - Regulatory
 - Finance
 - O&M
- 4. EBDA Managers Information Sharing**

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2651 Grant Avenue
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A Joint Powers Public Agency

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- Zoom link: <https://us02web.zoom.us/j/86260440932>
- Telephone dial-in: 1(669) 900-6833, meeting ID #862 6044 0932

ITEM NO. 11

REGULATORY AFFAIRS COMMITTEE AGENDA

Monday, January 24, 2022

11:00 A.M.

**East Bay Dischargers Authority
2651 Grant Avenue, San Lorenzo, CA 94580**

Committee Members: Cutter (Chair); Johnson

RA1. Call to Order

RA2. Roll Call

RA3. Public Forum

RA4. EBDA NPDES Compliance – See Item OM4
(The Committee will review NPDES Permit compliance data.)

RA5. Reporting Checklist
(The Committee will review a checklist of completed regulatory reporting items.)

RA6. Biosolids Regional Trends Report and EBDA Planning Update
(The Committee will review a recent report published by the Bay Area Clean Water Agencies and receive an update on EBDA planning efforts.)

RA7. Adjournment

Any member of the public may address the Committee at the commencement of the meeting on any matter within the jurisdiction of the Committee. This should not relate to any item on the agenda. Each person addressing the Committee should limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Committee on any agenda item should do so at the time the item is considered. Oral comments should be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available and are to be completed prior to speaking.

Agenda Explanation
East Bay Dischargers Authority
Regulatory Affairs Committee
January 24, 2022

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<p>The next Regulatory Affairs Committee meeting is scheduled on Monday, March 14, 2022 at 9:00 a.m.</p>

ITEM NO. RA5 REPORTING CHECKLIST

Recommendation

For the Committee's information only; no action is required.

Background

Authority staff maintains a checklist of all regulatory reporting and related tasks to ensure timely and complete reporting.

Discussion

The following checklist is extracted from a complete list of routine regulatory activities addressed throughout the year. The following items were completed during the period of September 1 through December 31, 2021; there are no outstanding activities.

<i>Authority</i>	<i>Required Action</i>	<i>Occurrence</i>	<i>Date</i>
			<i>Submitted</i>
Department of Industrial Relations	Federal & State employment law postings	Annual	9/1/2021
Bay Area Air Quality Management District	Renew <i>Permit to Operate</i> Plant #14528	Annual	9/1/2021
Bay Area Air Quality Management District	Pay renewal fee for <i>Permit to Operate</i> Plant #14528	Annual	9/15/2021
Alliant Insurance Services, Inc	CSRMA Pooled Liability Program Renewal Questionnaire	Annual	9/17/2021
ADP Business Payroll	Print Payroll Quarter-End Tax Returns	Quarterly	10/27/2021
State Water Resources Control Board	NPDES Quarterly Report (Jul-Sep)	Quarterly	10/30/2021
Various	EE Training (See: Log EE_Training)	Monthly	11/22/2021
Bureau of Labor Statistics	Report monthly employment figures	Monthly	12/13/2021
Regional Water Quality Control Board	Skywest Recycled Water monthly reports	Monthly	12/22/2021
Alameda County	Financial Statements Submittal	Annual	12/22/2021
Various	Financial Statements Submittal	Annual	12/22/2021
State Controller	Financial Statements Submittal	Annual	12/22/2021
State Water Resources Control Board	NPDES monthly reports	Monthly	12/30/2021

ITEM NO. RA6 BIOSOLIDS REGIONAL TRENDS REPORT AND EBDA PLANNING UPDATE

Recommendation

For the Committee's information only; no action is required.

Background

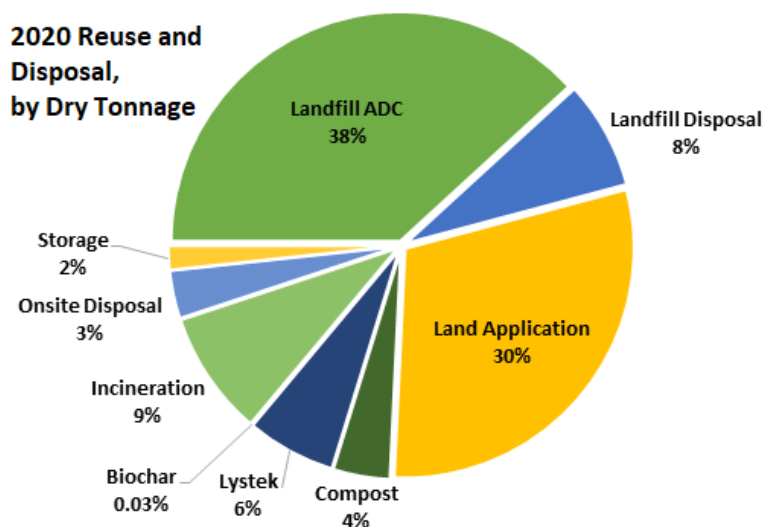
Every few years, the Bay Area Clean Water Agencies (BACWA) performs a regional survey of biosolids management practices at Bay Area wastewater agencies to assess trends, challenges, and opportunities. The survey was most recently performed in 2021, regarding 2020 practices. The resulting report, attached for reference, provides interesting insights about the status and future of biosolids management.

Discussion

The intent of this survey was to identify current industry trends for the following issues:

- Biosolids production volumes
- Treatment and dewatering technologies
- End use and disposal options
- Hauling and tipping costs
- Agency challenges
- Compliance with California's Short-Lived Climate Pollutants Reduction Strategy (SB-1383)
- Marketing and public outreach

As shown in the following graphic (from page 10 of the Report), regionally, the most common biosolids end use in 2020 continued to be use as alternative daily cover (ADC) at landfills.



legislation aimed at reducing short-lived climate pollutants such as methane. Many Bay Area agencies rely on ADC particularly during the wet weather season, when land application to growing fields is not permitted. Those agencies must now diversify their biosolids management strategies to find outlets to replace ADC. As such, the trend is away from ADC and toward agricultural land application, compost, and higher end processing technologies such as Lystek, which converts biosolids to a liquid fertilizer. See the figure below illustrating these trends.

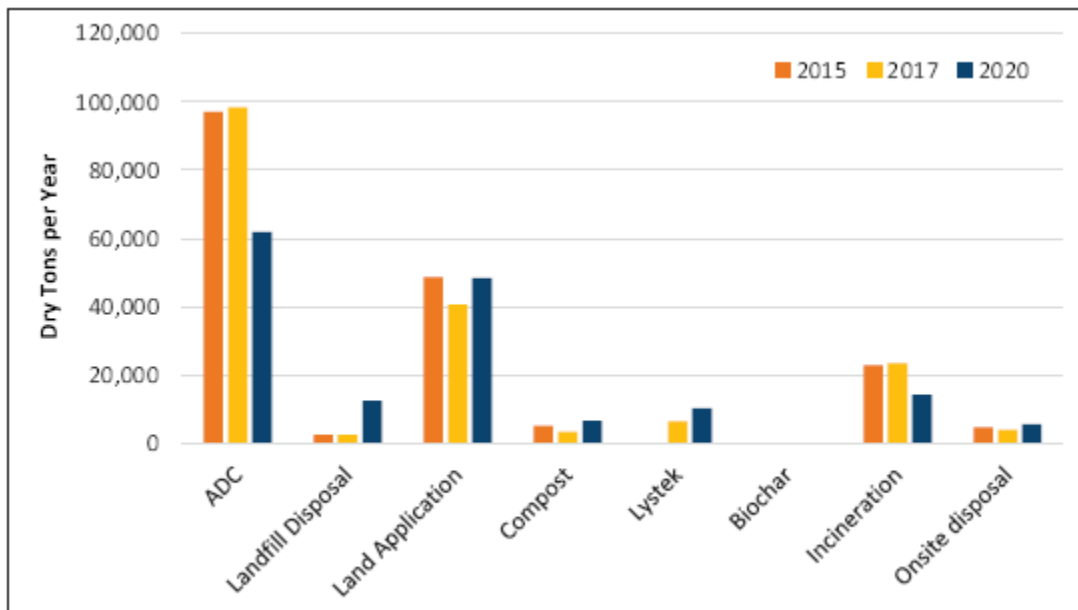
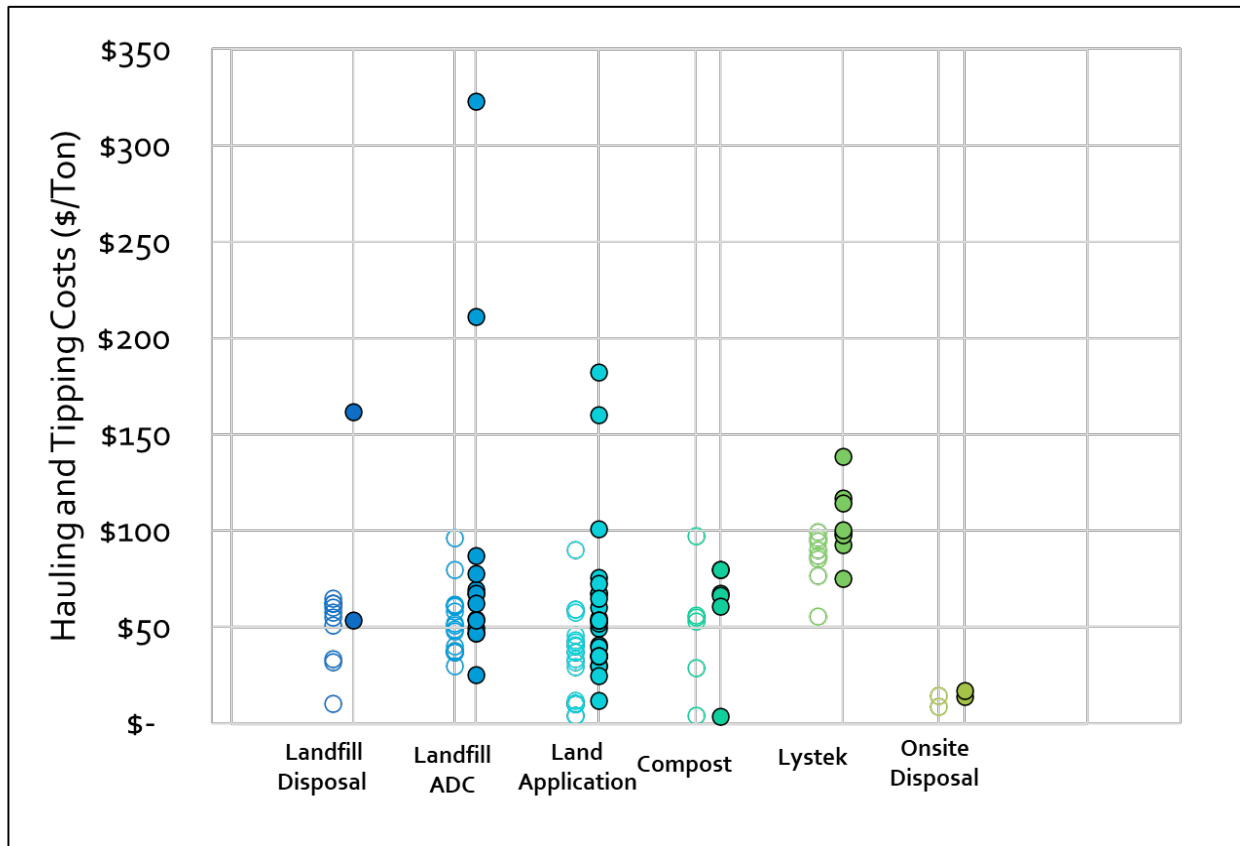


Figure 7. Dry tonnage of biosolids per reuse and disposal method, 2015 to 2020.

As a result of SB 1383 implementation and the shift from ADC to land application, Bay Area biosolids hauling and reuse/disposal costs have begun to rise sharply. In the three years since the prior survey, the median price for ADC increased by 36% - twice the rate of inflation over that period. The median price for land application increased by 64% over the three-year period. The figure below shows prices individual agencies across the Bay pay for hauling and tipping at various outlets, with the open circles representing 2017 values and the solid circles representing 2020 values.



Several of EBDA's Member Agencies are in the fortunate position of having dedicated drying beds, which allow flexibility for storage of biosolids during the wet season and land application during the dry season. That said, competition for land application and other end use outlets is expected to increase as agencies continue to migrate from ADC, and therefore prices for biosolids management are likely to continue to rise in the coming years.

While EBDA has historically focused primarily on water quality and effluent management, our existing governance provides an opportunity for potential collaboration on biosolids management to create economies of scale. Working with the MAC, and utilizing information gathered through the BACWA survey, staff issued the attached EBDA Biosolids Primer on December 13, 2021. The document was distributed to seven companies that have expressed interest in potential partnerships with EBDA and its members for biosolids management. Staff hopes to schedule meetings with interested companies in late January and February, with a goal of understanding whether some type of public-private partnership would be feasible and cost-effective. If opportunities are identified, staff will work with the MAC and the Commission to outline a procurement process.

At the same time, several members are participating in the regional Bay Area Biosolids Coalition, which continues to evaluate collaborative strategies region-wide for biosolids management and to evaluate new technologies. EBDA staff is also continuing to track opportunities for creative reuse of biosolids to address other emerging issues, including reclamation of land impacted by fires, and as fill for wetland remediation or horizontal levee construction. The latter represents significant opportunity, but implementation would require overcoming regulatory and public perception challenges.



Bay Area Clean Water Agencies 2021 Biosolids Trends Survey Report



Photo: Upgraded Digesters for Temperature Phased Anaerobic Digestion at San José-Santa Clara Treatment Plant. Source: [City of San José](#).

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1. Introduction

Biosolids management programs at Publicly Owned Treatment Works (POTWs) in the San Francisco Bay Region continue to be challenged by rapidly rising costs and a complex regulatory environment. Biosolids programs are affected by changes to solid waste disposal, air quality, and water quality regulations. From the solid waste disposal side, legislation and regulation aimed at diverting organic material from landfills will phase out landfill burial and Alternative Daily Cover (ADC) beginning January 1, 2022. The California Association of Sanitation Agencies' (CASA's) *Summary of SB 1383 and its Implementation*¹ outlines the regulatory challenges facing biosolids reuse and management alternatives for California agencies. Diverting food waste and biosolids from landfills will require greater on-site production and use of biogas, increased land application of treated biosolids, and deployment of new technologies.

Bay Area Clean Water Agencies (BACWA) is a joint powers agency whose members own and operate POTWs and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay Area (Bay Area). In summer 2021, BACWA distributed a survey² to its member agencies to better understand the state of the biosolids treatment, disposal, and reuse in the Bay Area. The survey is a repeat of previous surveys conducted in 2016³ and 2018⁴. The intent of this survey was to quantify specific biosolids information and track industry trends for the following issues:

- *Biosolids production volumes*
- *Treatment and dewatering technologies*
- *End use and disposal options*
- *Biosolids management technologies and destination*
- *Hauling and tipping costs*
- *Agency challenges*
- *Strategies for SB 1383 compliance*
- *Marketing and public outreach*

The Survey includes responses from the following 31 agencies, representing more than 95 percent of the total flow of BACWA member agencies, plus the City of Santa Rosa (which is not a BACWA member):

- | | |
|--|---------------------|
| • Central Contra Costa Sanitary District | • City of Benicia |
| • Central Marin Sanitation Agency | • City of Hayward |
| • City of American Canyon | • City of Livermore |
| | • City of Millbrae |

¹ <https://bacwa.org/wp-content/uploads/2020/11/SB-1383-and-its-Implementation-CASA-2020.pdf>

² <https://bacwa.org/wp-content/uploads/2021/07/Biosolids-Survey-2021-Nonfillable-PDF-Version.pdf>

³ <https://bacwa.org/wp-content/uploads/2017/08/BACWA-2016-Biosolids-survey-report-1.pdf>

⁴ <https://bacwa.org/wp-content/uploads/2020/12/9-BACWA-2018-Biosolids-Survey-Report-Final-2020-12-10.pdf>

- City of Palo Alto
- City of Petaluma
- City of San Jose
- City of San Leandro
- City of San Mateo
- City of Santa Rosa
- City of South San Francisco - San Bruno Water Quality Control Plant
- City of Sunnyvale
- Delta Diablo
- Dublin San Ramon Services District
- East Bay Municipal Utility District
- Fairfield-Suisun Sewer District
- Las Gallinas Valley Sanitary District
- Mt. View Sanitary District
- Napa Sanitation District
- Novato Sanitary District
- Oro Loma Sanitary District
- San Francisco Public Utilities Commission
- Sewer Authority Mid-Coastside
- Sewerage Agency of Southern Marin
- Silicon Valley Clean Water
- Union Sanitary District
- Vallejo Flood & Wastewater District
- West County Wastewater District

The list of respondents above is the same as a prior version of this survey conducted in 2016 and 2018. The body of the report summarizes the data provided by agencies, while data on reuse and disposal destinations is presented in full in **Appendix A**. It is BACWA's intention to conduct this survey every 2-3 years. Agency responses will be used as part of a regional conversation about the future of biosolids management in Northern California, to identify regional needs, and to support efforts to identify and develop additional sustainable biosolids reuse alternatives. The survey was coordinated with the Southern California Alliance of Publicly Owned Treatment Works (SCAP) Biosolids Trends Survey⁵ and allows data comparisons between northern and southern California agencies.

BACWA wishes to thank all agencies that took the time and effort to assist with the production of this survey and report.

2. Treatment Technology

Survey respondents reported the technology used to produce and treat biosolids at each facility. Most facilities (26 out of 31 respondents) use mesophilic anaerobic digestion, as shown below in **Figure 1**. Many facilities reported using more than one method of treatment, including both on-site treatment and treatment that occurs after hauling to another facility, as noted below:

- City of San Jose uses mesophilic anaerobic digestion, lagoon stabilization, and air drying.
- East Bay Municipal Utility District and San Francisco Public Utilities Commission operate both thermophilic and mesophilic digestion.

⁵ SCAP Biosolids Trends Survey https://bacwa.org/wp-content/uploads/2020/11/2018_SCAP_BIOSOLIDS_BIENNIAL-2020_01_14-FINALv3.pdf

- West County Wastewater District, Sunnyvale, and Dublin San Ramon Services District use mesophilic anaerobic digestion followed by pond or lagoon stabilization.
- Oro Loma Sanitary District, City of Hayward, City of San Leandro, and Silicon Valley Clean Water reported use of air drying following anaerobic digestion.
- 9 facilities reported hauling to another facility for further treatment by Thermal Hydrolysis (i.e., Lystek). This is an increase over the 6 facilities that reported hauling to Lystek in the 2018 survey.
- 6 facilities reported hauling to another facility for further treatment via composting.

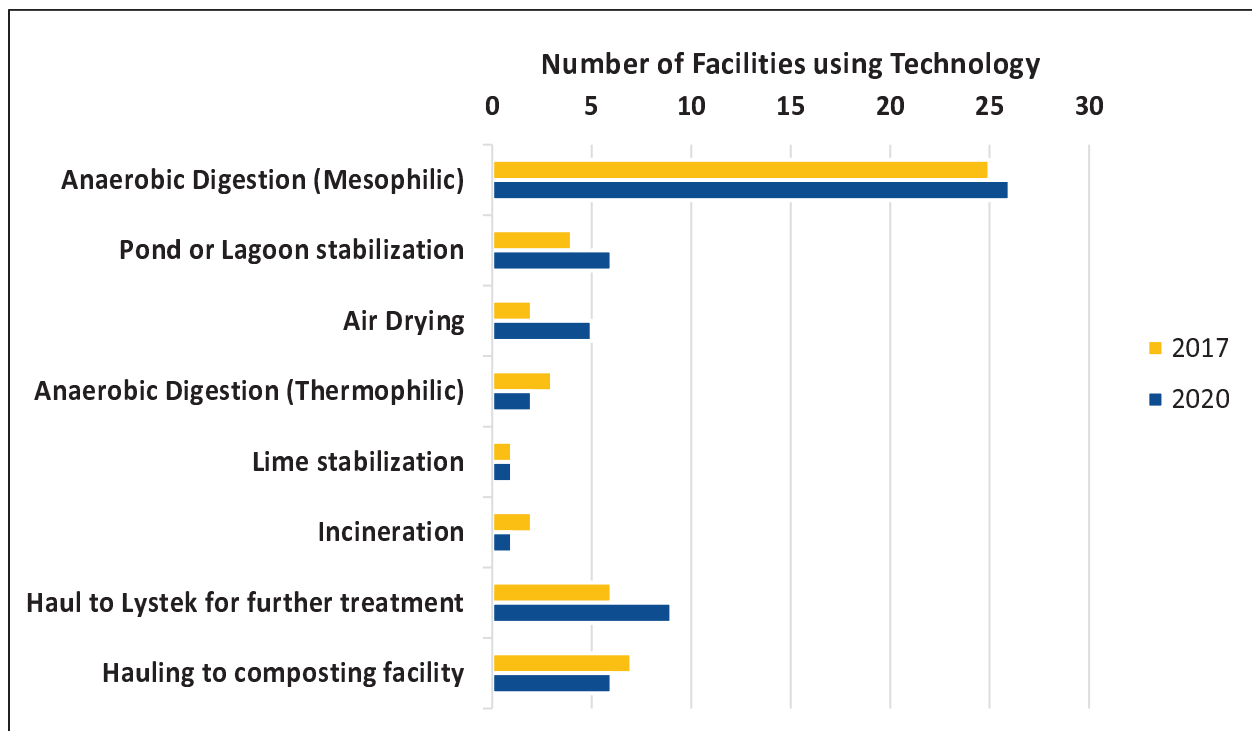


Figure 1. Technology used for biosolids production and management by survey respondents.

Compared to 2017, the 2020 survey showed slight changes in the number of agencies using mesophilic and thermophilic anaerobic digestion, pond and lagoon stabilization, and air drying. These adjustments appear to be related to changes in the survey responses, rather than being tied to actual facility changes.

3. Annual Biosolids Production

Survey respondents reported their biosolids production for the 2018, 2019, and 2020 calendar years. **Table 1** lists the type of biosolids produced by each agency, based on the classifications defined by EPA Rule 503⁶. Solids designated as EQ are “Exceptional Quality” biosolids, and “Other Quality” solids do not need to meet the 503 Rules, due to their final disposition. **Figure 2** and **Figure 3** compare the total tonnage of wet and dry tons, respectively. The dry tonnage reported in Figure 3 for 2018 and 2019 assumes that percent solids were approximately the same as 2020.

About half of the biosolids produced in the San Francisco Bay Region are Class B, while Class A accounts for about 40% of production. Production of Class A biosolids dropped dramatically in 2016 and 2017, but has since rebounded. There are two principal reasons for this trend. First, Dublin San Ramon Services District reported that their treated biosolids are Class A in this survey, but they were tracked as “other” in the survey covering 2016 and 2017. Second, the City of San Jose temporarily ceased testing its biosolids to demonstrate that they meet Class A quality. Testing was ceased because their biosolids were not going to Class A re-use and the cost of the additional testing was providing no tangible benefits. San Jose resumed testing in 2018. For both Dublin San Ramon Services District and San Jose, the solids were the same quality throughout this period, despite changes in classification.

Table 1. Classes of biosolids produced by respondents

Agency	Biosolids Class
American Canyon, City of	B
Benicia, City of	B
Central Contra Costa Sanitary District	Other (Incineration)
Central Marin Sanitation Agency	B
Delta Diablo	B
Dublin San Ramon Services District	A
East Bay Municipal Utility District	B
Fairfield-Suisun Sewer District	A
Hayward, City of	A
Las Gallinas Valley Sanitary District	B
Livermore, City of	B
Millbrae, City of	B
Mt. View Sanitary District	B
Napa Sanitation District	B
Novato Sanitary District	B
Oro Loma Sanitary District	A (in 2020) and B (in 2018, 2019)

⁶See the “Plain English Guide to the EPA Part 503 Biosolids Rule” at https://www.epa.gov/sites/production/files/2015-05/documents/a_plain_english_guide_to_the_epa_part_503_biosolids_rule.pdf

Agency	Biosolids Class
Palo Alto, City of	Other (Incineration in 2018 and 2019, then off-site treatment to Class A in 2020)
Petaluma, City of	B
San Francisco Public Utilities Commission	B
San Jose, City of	A ^a
San Leandro, City of	A and B
San Mateo, City of	B
Santa Rosa, City of	B
Sewer Authority Mid-Coastside	B
Sewerage Agency of Southern Marin	B
Silicon Valley Clean Water	B
South San Francisco - San Bruno WQCP, City of	B
Sunnyvale, City of	B
Union Sanitary District	B
Vallejo Flood & Wastewater District	B
West County Wastewater District	B

^a In 2018, City of San Jose biosolids were reported as Class B because pathogen testing was not performed. Testing to demonstrate Class A quality resumed in 2019.

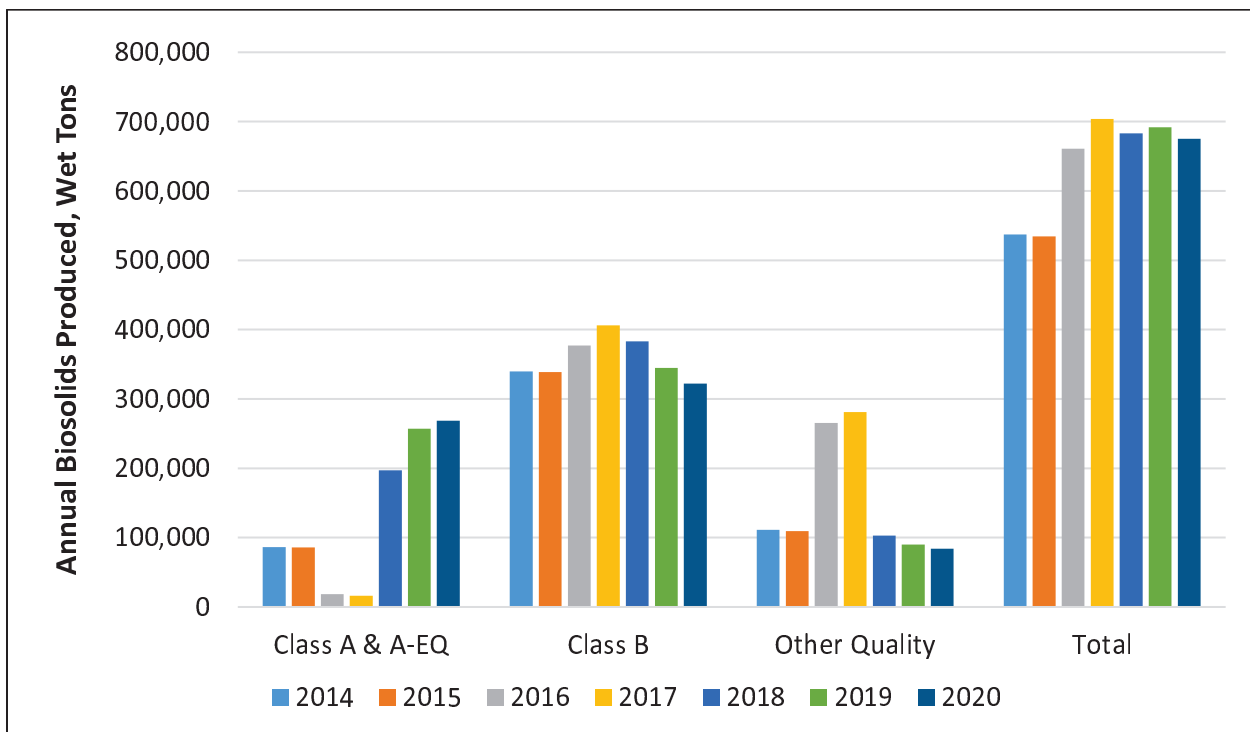


Figure 2. Aggregate wet tons of biosolids of different classes produced by survey respondents.

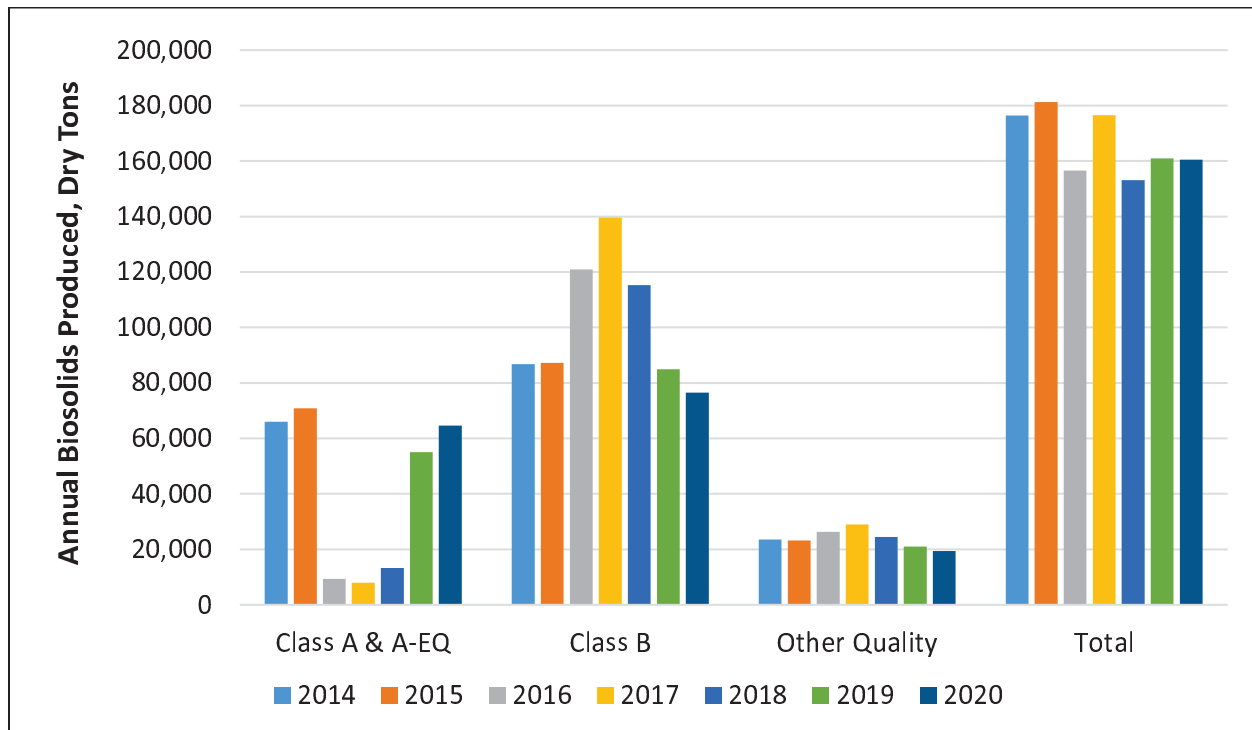


Figure 3. Aggregate dry tons of biosolids of different classes produced by survey respondents.

4. Management Options, Management Costs and Dewatering Statistics

Biosolids Reuse and Disposals Options

The amount of biosolids sent to each type of reuse and disposal destination by each responding agency is reported in **Table 2**. The accompanying **Figure 4** and **Figure 5** illustrate the relative importance of each reuse and disposal method for wet and dry tons, respectively. Reuse via landfill ADC receives the largest amount of dry tonnage of biosolids in the region, followed by land application. Onsite disposal accounts for a large amount of wet tonnage, but a small amount of dry tonnage because of the low solids content.

The change in reuse and disposal methods over time is illustrated in **Figure 6** (wet tons) and **Figure 7** (dry tons) (see page 11). From 2017 to 2020, there was a significant drop in the wet and dry tonnage of biosolids sent to landfill ADC. By tonnage, the largest reductions were due to changes in biosolids management practices at San Francisco Public Utilities Commission, East Bay Municipal Utility District, and the City of Petaluma. In addition, four agencies (Benicia, Delta Diablo, Livermore, and Union Sanitary District) sent biosolids to landfill disposal or ADC in 2017, but not in 2020.

Table 2. Wet tons of biosolids delivered by usage, 2020.

Agency	ADC	Landfill Disposal	Land Application	Compost	Lystek	Biochar	Incineration	Onsite Disposal	Storage	Sum
American Canyon, City of	0	131	0	0	0	0	0	0	0	131
Benicia, City of	0	0	0	0	2,488	0	0	0	0	2,488
Central Contra Costa Sanitary District	0	0	0	0	206	0	66,310 ^a	0	0	66,516
Central Marin Sanitation Agency	2,415	0	1,540	0	1,775	0	0	0	0	5,730
Delta Diablo	0	0	13,615	23	0	0	0	0	0	13,638
Dublin San Ramon Services District	0	0	0	0	0	0	0	174,329	0	174,329
East Bay Municipal Utility District	19,463	0	44,411	5,738	0	0	0	0	0	69,612
Fairfield-Suisun Sewer District	0	0	0	0	22,668	0	0	0	0	22,668
Hayward, City of	4,222	0	0	0	0	0	0	0	0	4,222
Las Gallinas Valley Sanitary District	0	0	0	0	0	0	0	6,255	0	6,255
Livermore, City of	0	0	9,164	0	0	0	0	0	0	9,164
Millbrae, City of	0	0	1,464	0	0	0	0	0	0	1,464
Mt. View Sanitary District	937	0	0	0	0	0	0	0	0	937
Napa Sanitation District	0	0	19,721	0	0	0	0	0	0	19,721
Novato Sanitary District	0	0	0	0	0	0	0	12,865	0	12,865
Oro Loma Sanitary District	0	0	5,229	0	0	0	0	0	0	5,229
Palo Alto, City of	0	0	0	11,321	6,218	0	0	0	0	17,539
Petaluma, City of	2,935 ^b	0	3,072 ^b	0	1,286 ^b	0	0	0	0	7,293
San Francisco Public Utilities Commission	7,259	0	21,722	0	11,458	0	0	0	11,168	51,607
San Jose, City of	59,972	0	0	0	0	0	0	0	0	59,972
San Leandro, City of	0	0	3,167	0	0	0	0	0	0	3,167
San Mateo, City of	3,814	0	3,907	0	0	0	0	0	0	7,721
Santa Rosa, City of	1,255	1,255	21,235	2,297	5,214	0	0	0	1,418	32,673
Sewer Authority Mid-Coastside	2,171	0	0	0	0	0	0	0	0	2,171

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Agency	ADC	Landfill Disposal	Land Application	Compost	Lystek	Biochar	Incineration	Onsite Disposal	Storage	Sum
Sewerage Agency of Southern Marin	1,479	0	0	0	0	0	0	0	0	1,479
Silicon Valley Clean Water	63	0	12,259	66	0	260	0	0	0	12,648
South San Francisco - San Bruno WQCP, City of	9,730	0	0	0	0	0	0	0	0	9,730
Sunnyvale, City of	207	0	5,574	0	0	0	0	0	0	5,781
Union Sanitary District	0	0	14,452	6,342	0	0	0	0	0	20,793
Vallejo Flood & Wastewater District	0	0	10,910	0	1,099	0	0	0	0	12,009
West County Wastewater District	0	22,000	0	0	0	0	0	0	0	22,000
Total	115,921	23,386	191,441	25,786	52,412	260	66,310	193,449	12,586	681,551

^a Calculated based on survey response for total biosolids generated minus the amount sent to Lystek.

^b Calculated based on survey response for deliveries of dry biosolids and percent solids.

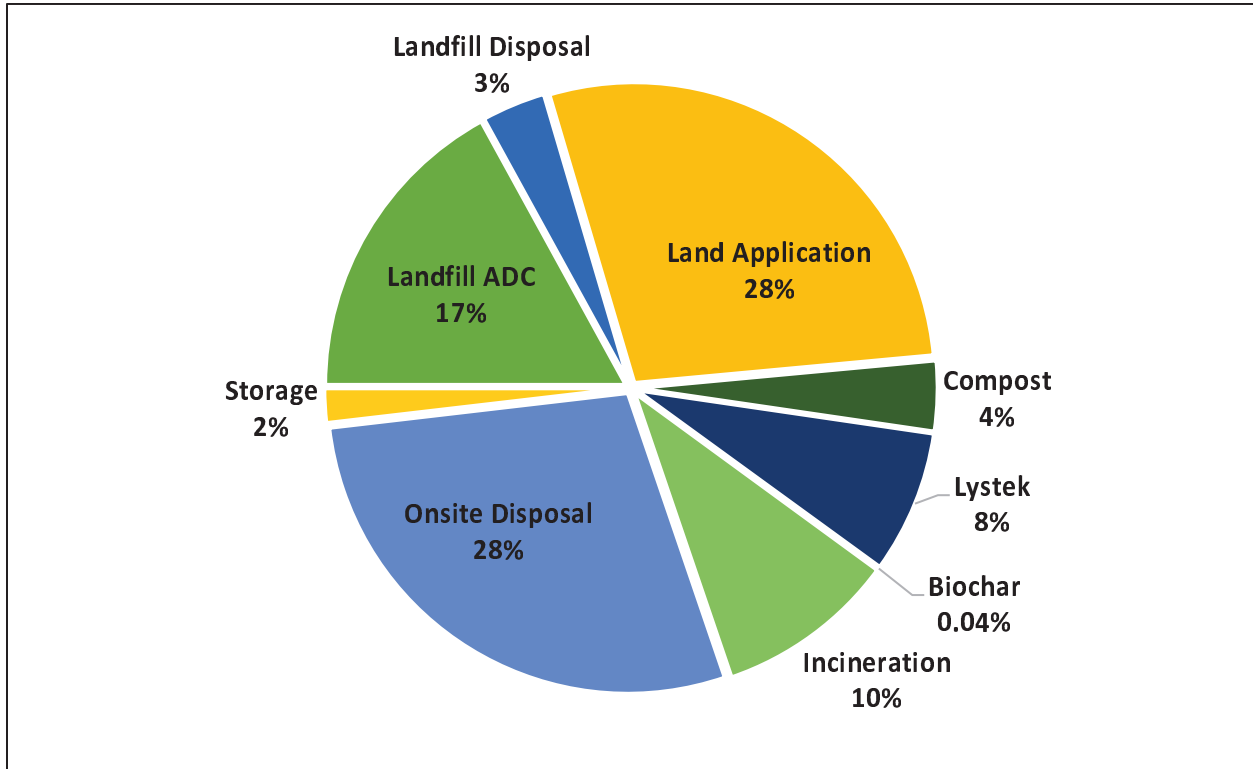


Figure 4. Relative wet tonnage of biosolids per reuse and disposal method in 2020.

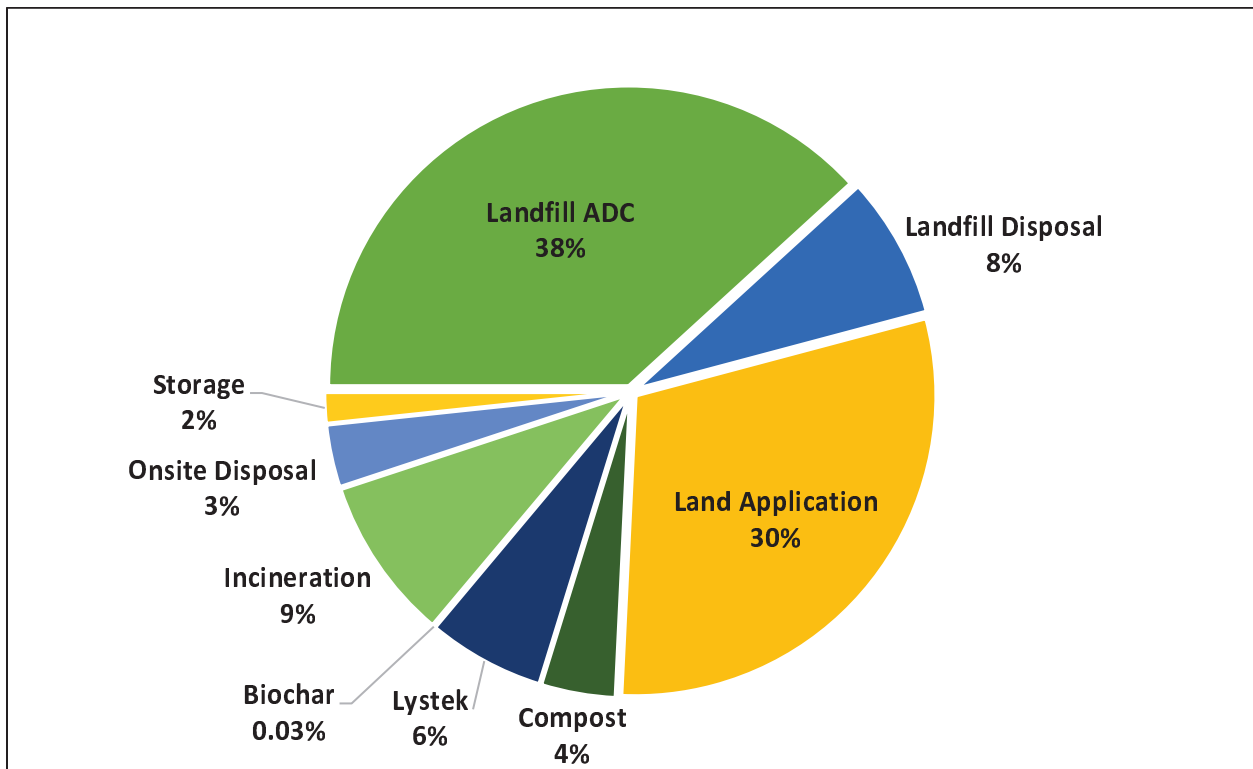


Figure 5. Relative dry tonnage of biosolids per reuse and disposal method in 2020.

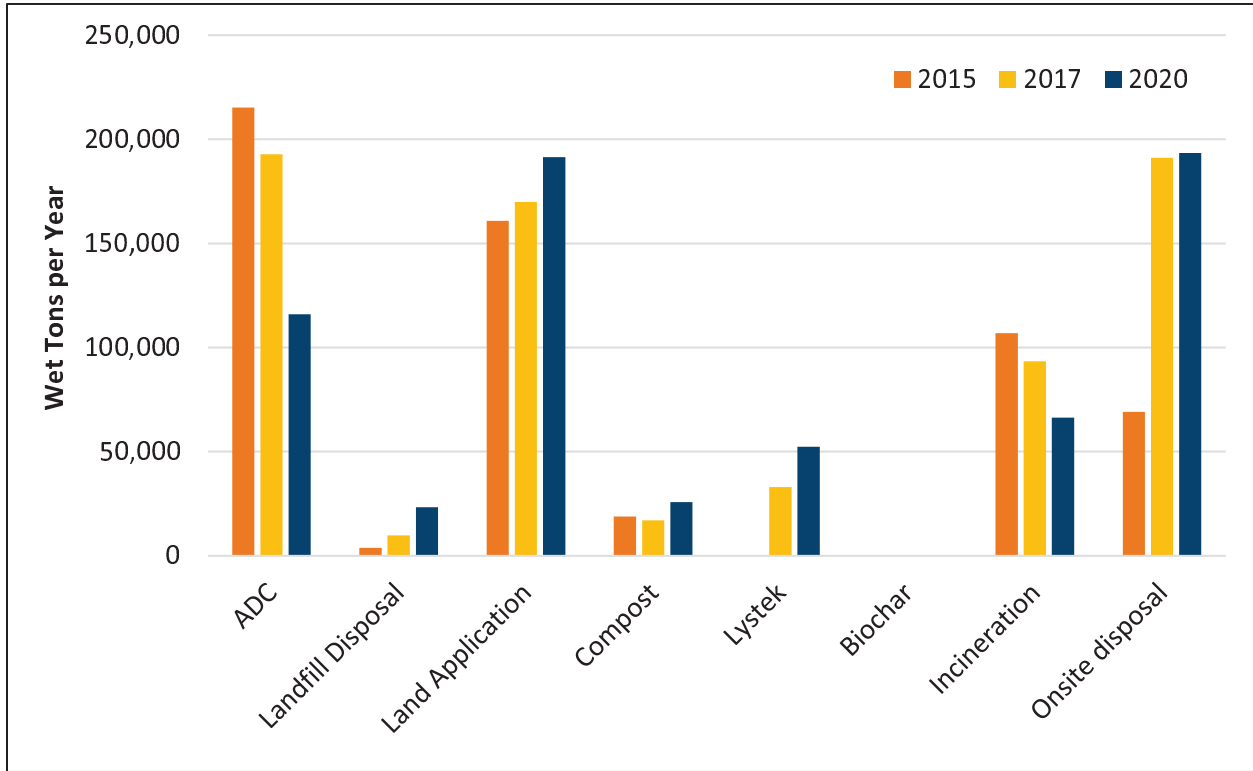


Figure 6. Wet tonnage of biosolids per reuse and disposal method, 2015 to 2020.

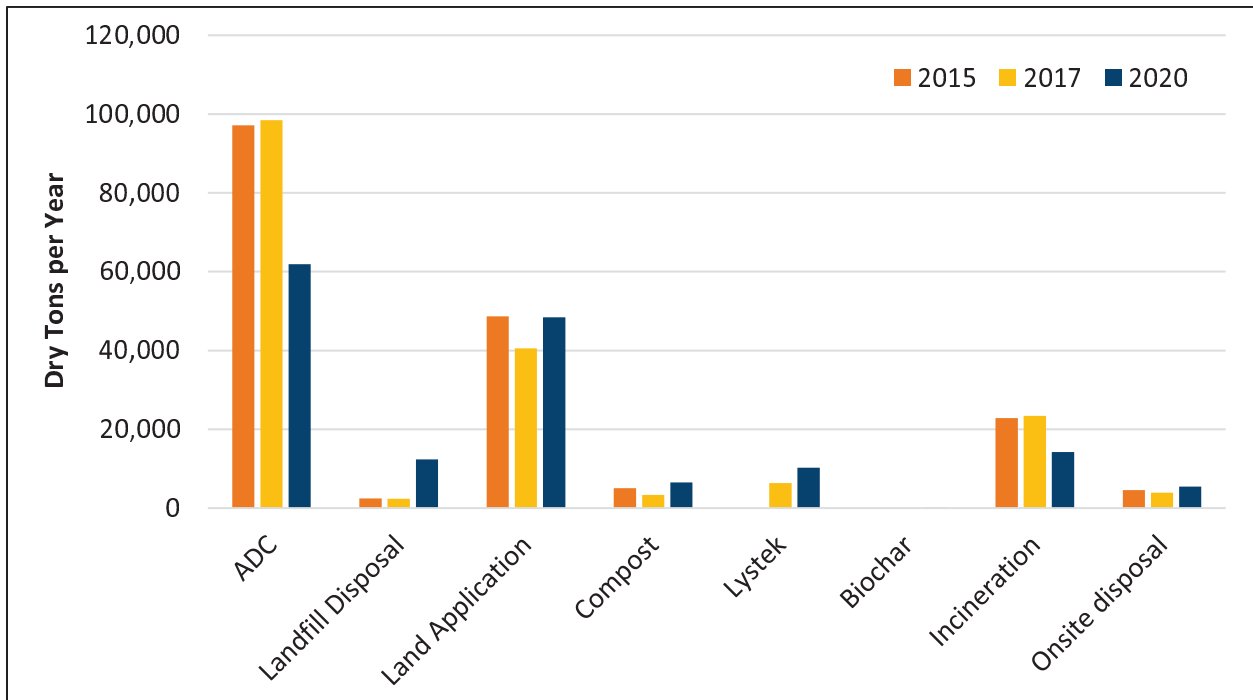


Figure 7. Dry tonnage of biosolids per reuse and disposal method, 2015 to 2020.

Another way to measure the relative importance of reuse and disposal methods is by counting the number of agencies that employ each, as illustrated in **Figure 8**. As can be seen in **Table 2**, many agencies use more than one reuse or disposal management strategies. Out of the thirty-one responding agencies, sixteen used land application, making it the most popular management strategy. Landfill ADC was the most popular management strategy in both previous surveys, but it was the second-most popular in the 2020 survey. Treatment at Lystek was the next most popular, followed by composting. Landfill disposal and onsite disposal were by three agencies each. Incineration and biochar production were used by one agency each.

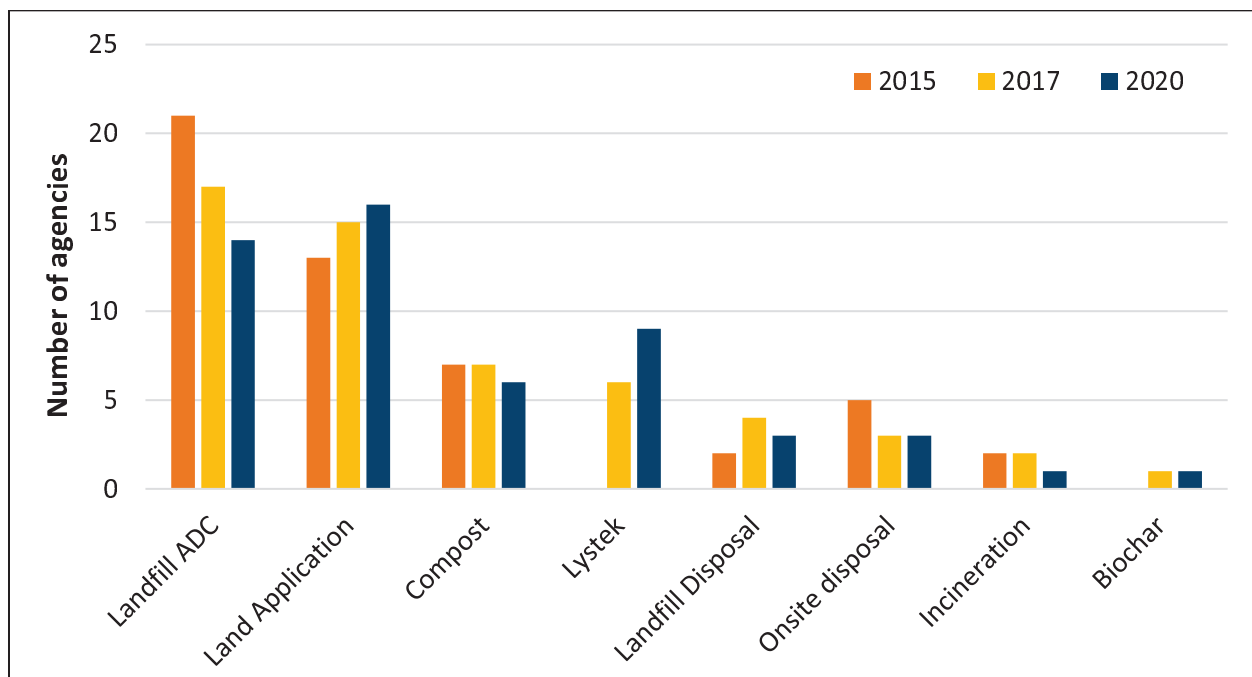


Figure 8. Changes in biosolids management practices for 31 survey respondents, 2015 to 2020.

As of 2020, nine agencies were sending biosolids to the Lystek Organic Materials Recovery Center (OMRC) located in Fairfield. The OMRC began processing biosolids to produce Class A-EQ liquid fertilizer in 2016, and in 2020 it accounted for 8% of total wet tonnage produced by survey respondents (6% of total dry tonnage).

While Lystek grew in popularity as a biosolids reuse option, landfill ADC continued to become less popular: In 2015, 21 agencies sent biosolids to landfill ADC, while in 2020, just 14 agencies sent biosolids to landfill ADC. Benicia, Delta Diablo, Livermore, and Union Sanitary District sent biosolids to landfill disposal or ADC in 2017, but not in 2020. More agencies (most notably San Jose) are expected to move away from landfill ADC and disposal in the future due to SB 1383 (see **Table 6**).

Management Costs

Agencies that send biosolids to multiple destinations report a range of costs per ton. Minimum and maximum reported hauling and tipping costs for each agency are reported in **Table 3**. Where costs were provided by the respondent as a range, the mean of the range was used for that destination. Total costs per agency are calculated by multiplying tons of solids by cost per ton for each destination and summing the destinations. Average costs for each agency are calculated by dividing total cost by tons of biosolids.

Table 3. Hauling and tipping costs for agencies

Agency Name	Minimum Cost (\$/Ton)	Maximum Cost (\$/Ton)	Average Cost (\$/Ton)	Approx. Total Cost (\$/Yr)
American Canyon, City of	Not provided. Hauling included in City's waste disposal contract.			
Benicia, City of	\$139	\$139	\$139	\$346,000
Central Contra Costa Sanitary District	Not Avail.	\$93 (Lystek)	Onsite incineration. Cost information not provided.	
Central Marin Sanitation Agency	\$50	\$99	\$66	\$381,000
Delta Diablo	\$50	\$80	\$50	\$683,000
Dublin San Ramon Services District	Onsite disposal. Cost information not provided.			
East Bay Municipal Utility District	\$35	\$68	\$54	\$3,744,000
Fairfield-Suisun Sewer District	Not provided. Lystek facility is located onsite.			
Hayward, City of	Not provided. Hauling included in City's waste disposal contract.			
Las Gallinas Valley Sanitary District	\$14	\$14	\$14	\$88,000
Livermore, City of	\$41	\$41	\$41	\$376,000
Millbrae, City of	\$76	\$76	\$76	\$111,000
Mt. View Sanitary District	\$54	\$54	\$54	\$51,000
Napa Sanitation District	Onsite disposal. Cost information not provided.			
Novato Sanitary District	\$17	\$17	\$17	\$220,000
Oro Loma Sanitary District	\$40	\$40	\$40	\$209,000
Palo Alto, City of	\$67	\$98	\$78	\$1,364,000
Petaluma, City of	\$61	\$117	\$75	\$546,000
San Francisco Public Utilities Commission	\$65	\$101	\$84	\$4,356,000
San Jose, City of	\$26	\$26	\$26	\$1,535,000
San Leandro, City of	\$53	\$53	\$52	\$166,000
San Mateo, City of	\$30	\$47	\$39	\$64,000
Santa Rosa, City of	\$4	\$115	\$31	\$1,007,000
Sewer Authority Mid-Coastside	\$68	\$68	\$68	\$147,000
Sewerage Agency of Southern Marin	\$324	\$324	\$323	\$478,000
Silicon Valley Clean Water	\$49	\$80	\$54	\$685,000

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Agency Name	Minimum Cost (\$/Ton)	Maximum Cost (\$/Ton)	Average Cost (\$/Ton)	Approx. Total Cost (\$/Yr)
South San Francisco - San Bruno WQCP, City of	\$62	\$62	\$62	\$607,000
Sunnyvale, City of	\$161 ^a	\$212 ^a	\$163 ^a	\$940,000 ^a
Union Sanitary District	\$35	\$61	\$43	\$895,000
Vallejo Flood & Wastewater District	\$25	\$75	\$30	\$356,000
West County Wastewater District ^b	Not provided	\$162 ^b	Not provided	Not provided
Subtotal (25 of 31 agencies reporting)				\$20,655,000

^a Cost has been converted to equivalent for wet biosolids, although City pays based on dry weight basis. Dewatering is included in cost.

^b West County Wastewater District reported costs for biosolids dewatered and hauled by a contractor. Additional biosolids disposal services for most of the District's biosolids are covered under a separate franchise agreement.

For the 23 agencies that reported costs in both 2017 and 2020, total costs rose about 12%, from about \$17M in 2017 to \$19M in 2020. This represents a 12% increase in costs over three years; by comparison, the U.S. inflation rate was about 6% over the 3-year period from 2017 to 2020. Cost increases significantly higher than the rate of inflation were also reported in the 2017 biosolids survey report (12% increase in cost, vs. 3% inflation over 2 years).

The range of hauling and tipping costs associated with each reuse and disposal alternative are plotted in **Figure 9**. For agencies with available land, onsite disposal is by far the lowest-cost option. As in the previous survey, unit costs for landfill ADC and land application showed a very large range, with landfill ADC (median cost: \$65/ton) proving to be more expensive than land application (median cost: \$54/ton). Costs increased dramatically for both landfill ADC (increase from \$48 to \$65/ton, or a 36% increase in 3 years) and for land application (increase from \$33 to \$54/ton, or a 64% increase over 3 years).

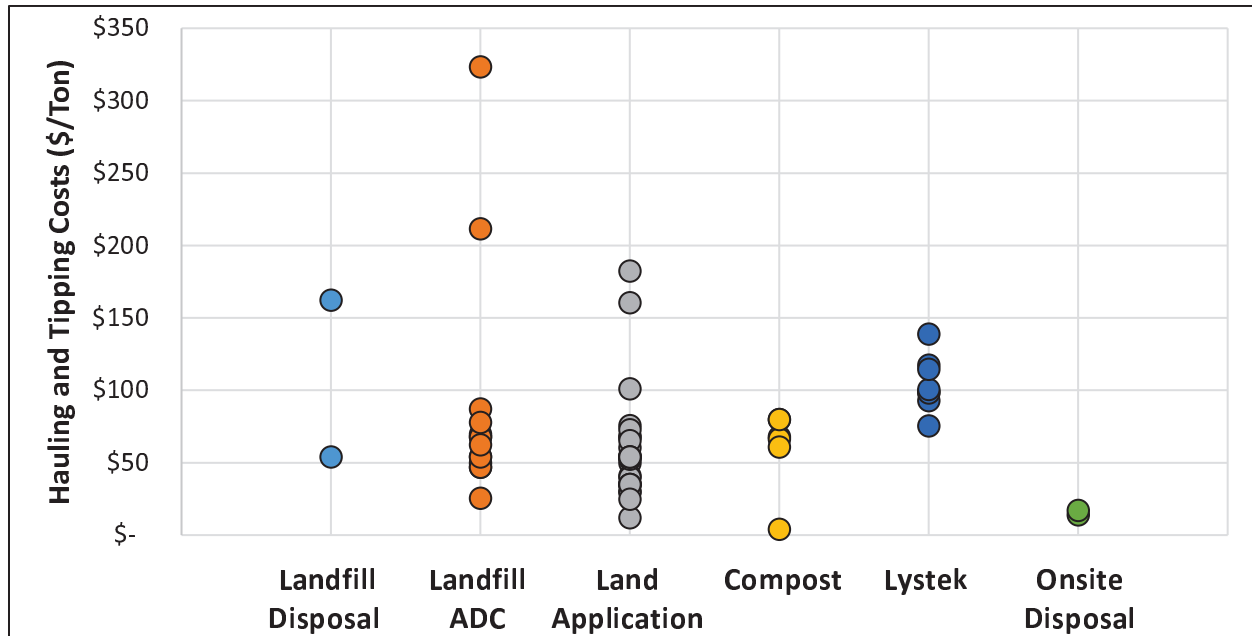


Figure 9. Tipping and Hauling Costs for each reuse/disposal alternative.

Hauling Distance

The range of round-trip hauling distances for each agency, as well as total ton-miles, are listed in **Table 4**. The ton-miles provides a metric for the total hauling burden for each agency. The combined hauling burden for all survey respondents (45.2 million ton-miles) is within 1% of the total 2017 value of 45.0 million ton-miles.

Table 4. Round-trip Distance Hauled

Agency	Minimum Distance Hauled (Round Trip, miles)	Maximum Distance Hauled (Round Trip, miles)	Total Ton-Miles
American Canyon, City of	63	63	8,400
Benicia, City of	40	40	99,600
Central Contra Costa Sanitary District	0 (On-site incineration)	46 (Lystek)	9,400
Central Marin Sanitation Agency	36	110	405,400
Delta Diablo	300	480	4,095,400
Dublin San Ramon Services District	0	0	0
East Bay Municipal Utility District	80	270	13,915,000
Fairfield-Suisun Sewer District	0	0	0
Hayward, City of	64	64	270,200
Las Gallinas Valley Sanitary District	0	0	1,800
Livermore, City of	150	150	1,374,600
Millbrae, City of	240	240	351,400
Mt. View Sanitary District	58	58	54,400

Agency	Minimum Distance Hauled (Round Trip, miles)	Maximum Distance Hauled (Round Trip, miles)	Total Ton-Miles
Napa Sanitation District	0	6	49,200
Novato Sanitary District	0	0	0
Oro Loma Sanitary District	120	120	627,400
Palo Alto, City of	148	228	3,501,400
Petaluma, City of	76	218	701,000
San Francisco Public Utilities Commission	52	242	5,671,200
San Jose, City of	4	4	239,800
San Leandro, City of	170	170	538,400
San Mateo, City of	140	252	1,672,600
Santa Rosa, City of	1	96	1,631,000
Sewer Authority Mid-Coastside	10	10	21,800
Sewerage Agency of Southern Marin	45	45	66,800
Silicon Valley Clean Water	0	282	2,841,200
South San Francisco - San Bruno WQCP	106	106	1,035,400
Sunnyvale, City of	176	240	1,263,200
Union Sanitary District	158	242	4,479,000
Vallejo Flood & Wastewater District	26	34	321,000
West County Wastewater District	Not Avail.	Not Avail.	Not Avail.
Total (30 of 31 agencies reporting)			45,246,000

Dewatering Statistics

The on-site methods employed by agencies to dewater biosolids prior to final use included drying beds, centrifuges, presses, and dryers. Dewatering equipment employed by each agency, as well as the resulting percentage of solids, is listed in **Table 5**.

Table 5. Percentage Solids, Dewatering technology type and manufacturer for each agency

Agency	Percent Solids	Dewatering Technology	Equipment Manufacturer
American Canyon, City of	25%	Screw Press	-
Benicia, City of	14-16%	Belt Filter Press	Ashbrook press
Central Contra Costa Sanitary District	22%	Centrifuge	Sharples, being replaced with Andritz within next 5 years
Central Marin Sanitation Agency	27%	Centrifuge	Centrisys CS18-4
Delta Diablo	25%	Centrifuge	Flottweg centrifuges
Dublin San Ramon Services District	2.6%	No dewatering	N/A
East Bay Municipal Utility District	24%	Centrifuge	Humbolt and Flottweg
Fairfield-Suisun Sewer District	16%	Drying Bed, Screw Press	FKC Screw Press
Hayward, City of	>80%	Drying Bed	N/A

BACWA 2021 Biosolids Trends Survey

Agency	Percent Solids	Dewatering Technology	Equipment Manufacturer
Las Gallinas Valley Sanitary District	3.3%	Thickening in Storage Lagoon	N/A
Livermore, City of	16.2%	Belt Filter Press	Simon Ashbrook
Millbrae, City of	19%	Belt Filter Press	Andritz
Mt. View Sanitary District	25-49%	Centrifuge, Drying Bed	CentriTech centrifuge
Napa Sanitation District	17-30%	Belt Filter Press. Contractor used centrifuges to dewater pond solids.	Ashcroft
Novato Sanitary District	5.5%	Sludge Lagoons	N/A
Oro Loma Sanitary District	80%	Belt Filter Press, Drying Bed, Belt Press to approx 13%, air drying to 80%	BDP Belt press
Palo Alto, City of	29%	Belt Filter Press	4 belt filter presses manufactured by Andritz
Petaluma, City of	18-19%	Screw Press	FKC Screw Press and USGI Polyblend liquid polymer feed system
San Francisco Public Utilities Commission	23%	Centrifuge, Screw Press	FKC - Screw Press, Humboldt and Sharpels - Centrifuges
San Jose, City of	79%	Drying Bed	A capital project (Digested Sludge Dewatering Facility) is currently underway to install centrifuges that will replace the current lagoon and drying bed process. Future centrifuges have not yet been purchased.
San Leandro, City of	50-80%	Belt Filter Press	BDP
San Mateo, City of	22%	Centrifuge	GEA Westfalia Centrifuge model CC 458-00-32
Santa Rosa, City of	15-16%	Belt Filter Press	Ashbrook
Sewer Authority Mid-Coastside	17%	Belt Filter Press	Ashbrook
Sewerage Agency of Southern Marin	20%	Belt Filter Press	BDP
Silicon Valley Clean Water	19-44%	Fournier Rotary Fan Press	Fournier Rotary Fan Press, Bioforce Tech Bio-dryers & Pyrolysis
South San Francisco - San Bruno WQCP, City of	14-18%	Belt Filter Press	Komoline-Sanderson
Sunnyvale, City of	22-29%	Centrifuge, Belt Filter Press	Dewatering equipment is owned and operated by the contractor, Synagro

Agency	Percent Solids	Dewatering Technology	Equipment Manufacturer
Union Sanitary District	24%	Centrifuge	Andritz D5LL Decanter Centrifuges
Vallejo Flood & Wastewater District	30%	Belt Filter Press	Ashbrook
West County Wastewater District	17-77%	Belt Filter Press, Drying Bed	Not Avail.

5. Challenges and Future Planning

Challenges

Agencies were asked to rank the challenges facing their biosolids program. The following challenges are ranked from the aggregate responses from most to least important:

1. Securing sustainable use and disposal options
2. Rising costs
3. Hauling distance
4. Public health concerns regarding land application (PFAS, microplastics, pathogens, etc.)
5. Regulatory Restrictions on using Biosolids for Alternative Daily Cover (SB 1383)
6. Local restrictions on land application
7. Public perception/relations
8. Space for drying operations
9. Wet weather impeding drying operations

Reasons listed as “other” included:

- Accommodating local trash haulers that need to divert organic waste from landfills
- Limitations on future land application
- Odor concerns from the public
- Concern that PFAS and microplastics could be challenges in the future
- Air regulations associated with incineration
- The lack of local disposal options, which drives up costs

Overall, securing sustainable use and disposal options was the top concern. This differs from the 2016 and 2018 surveys, when rising costs were cited as the top concern overall. 11 of 31 agencies listed “securing sustainable use and disposal options” as the #1 concern, while 10 of 31 agencies listed “rising costs” as the top concern.

Future Biosolids Management Plans

The survey asked respondents about their plans for biosolids management in 2021. 28 of 31 respondents selected the response “Same plan/strategy as 2020.” The remaining 3 agencies had the following responses:

- Delta Diablo: *"We will start sending a portion of our biosolids to Lystek."* Starting July 1, 2021, Delta Diablo began sending two truckloads per month to the Lystek facility at Fairfield Suisun Sewer District for further processing to Class A standards.
- Mt. View Sanitary District: *"All biosolids will continue to go to the landfill in 2021. It is anticipated that biosolids will begin going to Lystek in 2022."*
- San Francisco Public Utilities Commission: *"We have phased out the use of landfill ADC entirely as of fall 2020."*

Additionally, the Silicon Valley Clean Water response noted that the agenda hopes to divert more biosolids to Bioforce Tech in late 2021.

The survey also specifically asked about agency's responses to SB 1383, which mandates diversion of organics from landfills in order to reduce short-lived climate pollutants (i.e., methane). SB 1383 will require a 75% reduction in organics from landfills compared to 2014 levels. This new legislation is expected to have two main impacts on biosolids disposal:

- Biosolids used as landfill ADC will be considered disposal instead of beneficial reuse, which will sharply limit ADC use of biosolids;
- Municipalities will need to divert organic materials (green waste, food waste, etc.) from landfills. If wastewater agencies provide opportunities for co-digestion of these diverted materials, there will be an increase in the production of digested biosolids and of biogas at POTWs.

Responses to the survey question about the status of implementation readiness for SB 1383 are summarized below in **Figure 10**, with additional details reported in **Table 6**. As summarized in **Figure 9**, agencies reported the following strategies for responding to the mandates in SB 1383.

- 11 agencies (Central Marin Sanitation Agency, East Bay Municipal Utility District, Millbrae, Oro Loma Sanitary District, Petaluma, San Francisco Public Utilities Commission, San Jose, Santa Rosa, Sewerage Agency of Southern Marin, Sunnyvale, and Union Sanitary District) plan an increased reliance on **land application**.
- 9 agencies (Delta Diablo, East Bay Municipal Utility District, Fairfield-Suisun Sewer District, Mt. View Sanitary District, Petaluma, San Francisco Public Utilities Commission, San Jose, Santa Rosa, and Union Sanitary District) will **increase the volume of biosolids sent to another facility or third party for additional treatment** (i.e., Lystek or composting).
- 4 agencies (Hayward, Silicon Valley Clean Water, South San Francisco - San Bruno, and West County Wastewater District) will **improve treatment technology at the plant** to expand use and disposal options.

- 4 agencies (Petaluma, South San Francisco - San Bruno, Union Sanitary District, and West County Wastewater District) will **add digester capacity for organics co-digestion** at the plant.

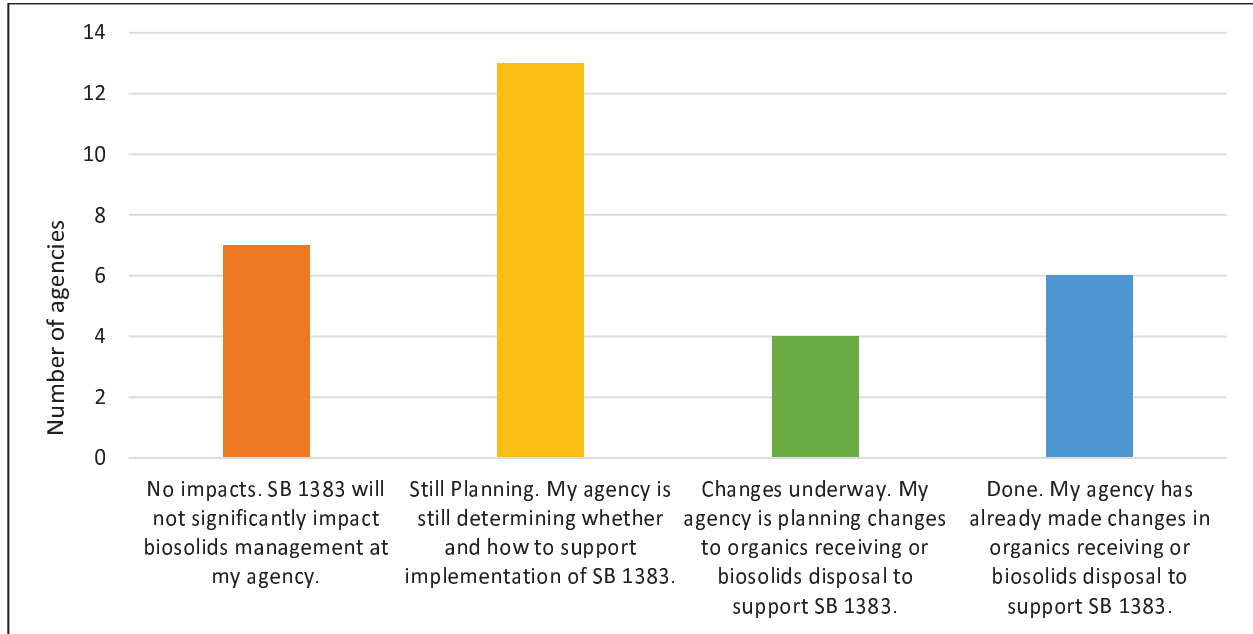


Figure 10. Survey Responses regarding Status of Implementation Readiness for SB1383.

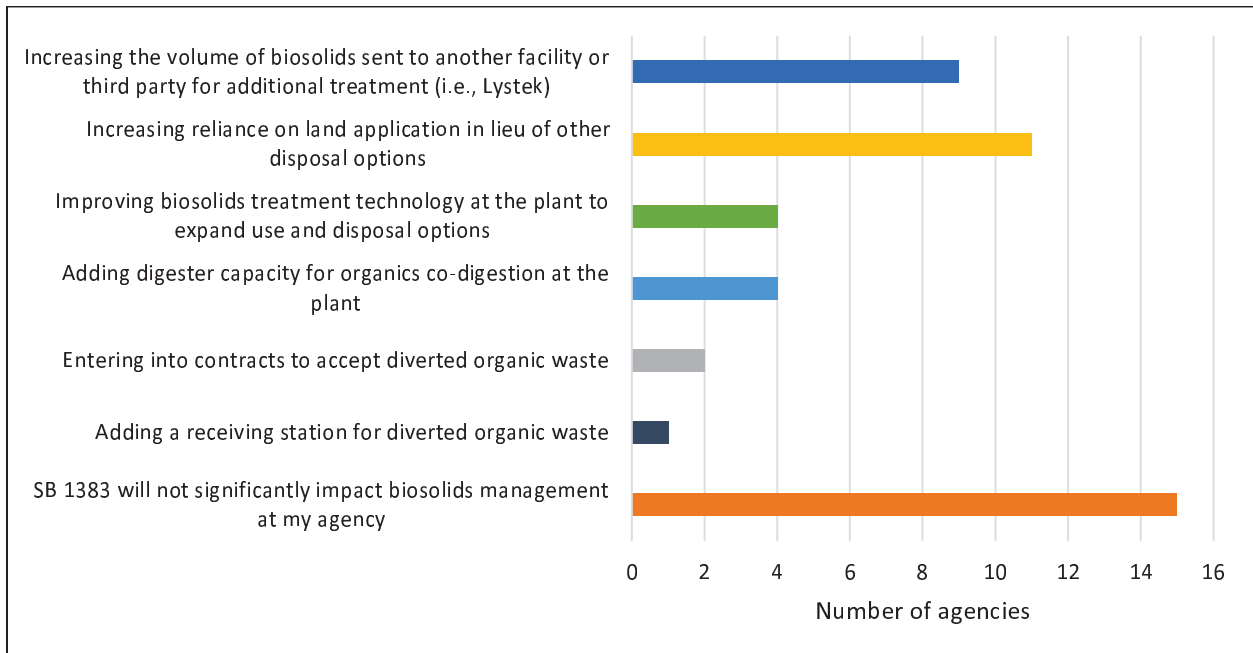


Figure 11. Agency Plans for Responding to SB 1383's Limits on Landfill Use and Disposal

Table 6. Agency Plans to Respond to SB 1383 as of 2018

Agency	Status of Implementation Readiness for SB1383				Details
	No SB1383 Impacts	Still Planning	Changes Underway	Complete	
American Canyon, City of		x			
Benicia, City of			x		Present hauler (Republic Services) to compost at their facility.
Central Contra Costa Sanitary District	x				Evaluating how classification of sewage sludge incineration as "landfilling" will affect our site
Central Marin Sanitation Agency		x			
Delta Diablo		x			
Dublin San Ramon Services District		x			SB1383 does not immediately impact our agency since we dispose of biosolids at our own Dedicated Land Disposal facility.
East Bay Municipal Utility District			x		
Fairfield-Suisun Sewer District				x	
Hayward, City of		x			
Las Gallinas Valley Sanitary District	x				
Livermore, City of	x				
Millbrae, City of	x				
Mt. View Sanitary District					
Napa Sanitation District	x				
Novato Sanitary District		x			
Oro Loma Sanitary District				x	
Palo Alto, City of		x			
Petaluma, City of				x	
San Francisco Public Utilities Comm.				x	

Agency	Status of Implementation Readiness for SB1383				Details
	No SB1383 Impacts	Still Planning	Changes Underway	Complete	
San Jose, City of			x		Dewatered biosolids will be directly land applied, composted, and/or further treated before being beneficially used.
San Leandro, City of	x				
San Mateo, City of		x			
Santa Rosa, City of				x	
Sewer Authority Mid-Coastside		x			
Sewerage Agency of Southern Marin		x			
Silicon Valley Clean Water				x	Divert 50% of biosolids to Bioforce Tech for biochar production. Currently receiving diverted organic waste
South San Francisco - San Bruno WQCP, City of		x			We are in the planning stages of trying to set up agreements with local trash company to receive organic waste to produce more methane onsite. We would add a receiving station and larger cogen to harvest the increase methane gas and go PG&E neutral. Would rehab our dewatering facility.
Sunnyvale, City of		x			The City is still evaluating a response and timeline to implement strategies in response to SB1383. In the near term, the City will be prioritizing an increased reliance on land application. Future considerations include a 5th digester (for thickened WAZ, anticipated increases in solids, and co-digestion), pursuing contracts with a third party for additional treatment (i.e., Lystek), and potentially adding a receiving station for the diversion of organic wastes.
Union Sanitary District		x			
Vallejo Flood & Wastewater District	x				
West County Wastewater District			x		

6. Public Outreach

Marketing

The survey asked whether agencies directly market their biosolids products, or whether another entity markets biosolids products on their behalf.

- No agencies reported directly marketing or branding their own biosolids products.
- 11 agencies (Benicia, Central Marin Sanitation Agency, Delta Diablo, Fairfield-Suisun Sewer District, Palo Alto, San Francisco Public Utilities Commission, Santa Rosa, Silicon Valley Clean Water, Sunnyvale, Union Sanitary District, and West County Wastewater District) report that a third party such as Lystek or Synagro markets biosolids products on their behalf.

Outreach and Education

Agencies were asked whether they conduct any outreach or publicity pertaining to their biosolids programs, and via what venue. Six agencies replied that they conduct outreach pertaining to biosolids, mainly through agency websites and/or bill inserts, as illustrated in **Figure 12**. 14 agencies in this survey replied that they conduct outreach, but not for biosolids in particular. Seven agencies replied that they do not conduct outreach at all. Overall, the responses were similar to the 2016 and 2018 responses, except that in 2018 survey agency (Napa Sanitation District) reported using print media. Napa Sanitation District continues an active outreach program through educational programs, tours, and open house events. Silicon Valley Clean Water noted that biosolids are included in the 1-week Sewer Science program at high schools in their service area.

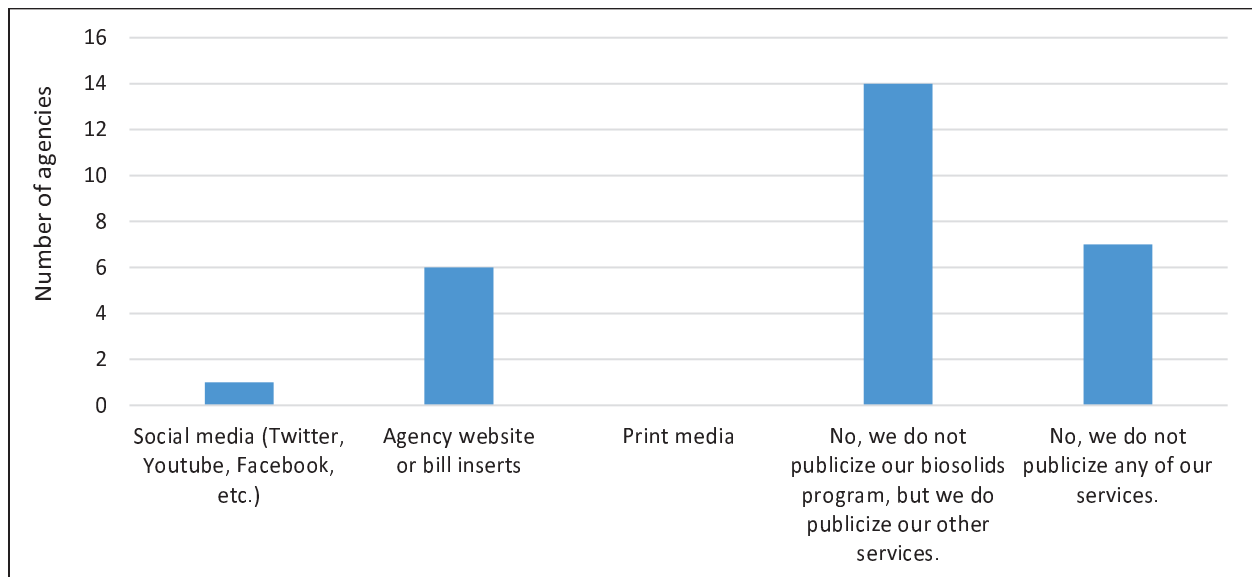


Figure 12. Number of agencies doing biosolids outreach via traditional and social media.

7. Biosolids Staffing

The survey asked respondents to describe how their agency manages biosolids staffing, including the number of Full Time Equivalent (FTE) positions. Two out of 31 agencies (Sunnyvale and West County Wastewater District) noted use of contractors to manage biosolids-related operations. Complete responses are shown below in **Table 7**. The two agencies reporting the largest dedicated staff are the City of San Jose (12 FTEs) and Central Contra Costa Sanitation District (3.5 FTEs). Adding up the 25 agencies that provided estimated staffing levels, the total is more than 50 Full Time Equivalent positions.

Table 7. Agency Staffing for Biosolids

Agency	How many Full Time Equivalent (FTE) staff are required for biosolids management?	Please describe the roles of staff assisting with biosolids management.
American Canyon, City of	0.33	Turning on the press, checking the press, sampling and reporting
Benicia, City of	0.2	Operator to dewatering solids. Hauling is performed by contract operator.
Central Contra Costa Sanitary District	3.5	operating incinerator and solids handling equipment, hauling coordination, regulatory reporting
Central Marin Sanitation Agency	2	1 FTE operation staff would set up, operate the centrifuge, which runs approximately 10hrs/day, and unload biosolids to a truck daily; 0.5 FTE engineering staff would manage the chemical procurement, biosolids hauling, and disposal contracts; 0.5 FTE maintenance staff would provide services to all the dewatering equipment.
Delta Diablo	2.5	Operators - produce and process the biosolids; Ops Supervisor - tracks digester data (temp, VSR, detention; Ops Manager - Oversees Syangro and Lystek contracts, performs reporting; Lab staff - samples, analyzes biosolids; Engineering - assists w/RFPs, contracts, regulatory issues
Dublin San Ramon Services District	1	6 seasonal staff (during harvesting season) operating dredge, tractor, injector, and soil preparation. 1 FTE oversees biosolids harvesting.
East Bay Municipal Utility District	-	No one FTE is allocated for biosolids, but at least 5 people have biosolids responsibilities: Contract and program management, quality control and reporting, invoicing, day-to-day operations.

Agency	How many Full Time Equivalent (FTE) staff are required for biosolids management?	Please describe the roles of staff assisting with biosolids management.
Fairfield-Suisun Sewer District	1	We do not have dedicated biosolids staff. Roles shared between engineering, operations, and regulatory
Hayward, City of	2	Operations manages polymer dosing and Maintenance manages the sludge drying bed process
Las Gallinas Valley Sanitary District	-	Contracted to a third party
Livermore, City of	2	They are Belt Press Operators - Contractor hauls Biosolids to land apply or ADC
Millbrae, City of	-	4 Operators. Operator is assigned to dewatering daily or as needed
Mt. View Sanitary District	1	1 Lab Analyst performs weekly process control monitoring. 5 Operators and 1 Supervisor maintain and operate sludge pumps, grit removal, sludge thickening, sludge digestion, scum handling, sludge dewatering and disposal.
Napa Sanitation District	3	(1) Manager - oversees the biosolids program, coordinates with growers, procure agronomists, record keeping, reporting (2) Reclamation Workers - prepare fields, apply solids, incorporate solids, irrigate if needed.
Novato Sanitary District	2.5	Sludge transfer and return, lab analysis of solids and health of digester(s), reporting (EPA 503), infrastructure (piping and pumps) repair and maintenance
Oro Loma Sanitary District	0.1	Pretreatment inspector manages annual off haul, billing, and required sampling. GM does annual EPA reporting and manages RFP prep/bidding. Our lab chemist, pretreatment inspector, plant manager, and General Manager all contribute.
Palo Alto, City of	1	Plant Manager, Senior Engineer, Associate Engineer and Admin. Assistants
Petaluma, City of	3	2 FTE Operations Staff, 0.5 FTE maintenance staff, 0.5 FTE analytical/regulatory staff
San Francisco Public Utilities Commission	1	Biosolids FTE staff oversees contracts related to biosolids use, manages biosolids reporting, special projects, and improvement of current program
San Jose, City of	12	Program Manager establishing contract to manage future dewatered biosolids; other/O&M staff manage current lagoons and drying bed process. 12 positions: 5 Heavy Equipment Operators, 2 Senior HEOs, 3 Wastewater Attendants, 1 Superintendent, & 1 Program Manager
San Leandro, City of	1	a maintenance staff tills and moves material part time. Operations staff press and place in beds, Lab staff sample and analyze material. Approx. 1 FTE equivalent

Agency	How many Full Time Equivalent (FTE) staff are required for biosolids management?	Please describe the roles of staff assisting with biosolids management.
San Mateo, City of	-	In typical fashion we have a liquids operator and solids operator and the solids operator manages the biosolids / dewatering process every shift. We do not have any FTE staff dedicated to biosolids. Operations manages it.
Santa Rosa, City of	3	Manager, senior maintenance worker, admin support.
Sewer Authority Mid-Coastside	-	Responsibilities shared by 5 staff members in operations
Sewerage Agency of Southern Marin	1.5	1 operator and 0.5 supervisor
Silicon Valley Clean Water	3	(1) Operator operating the Fournier Rotary Fan Press units, (1) Operator to operate equipment using in the concrete drying beds, (1) Operations Supervisor
South San Francisco - San Bruno WQCP, City of	-	Responsibilities shared by 14 Wastewater Operators: Running the belt presses, scheduling truck/hauling pick ups.
Sunnyvale, City of	1.5	Biosolids dewatering and hauling operations are managed by a contractor. There are no dedicated employees for biosolids management. Operations and Laboratory staff assist part time in the collection and analysis of biosolids samples. The Regulatory Division supports regulatory oversight and reporting of biosolids related data.
Union Sanitary District	1.5	Operations, field inspections and maintenance, engineering analysis, sampling, testing, invoice tracking, reporting and regulatory oversight
Vallejo Flood & Wastewater District	2	2 truck drivers (also function as general help when not driving), 1 program management (oversee other programs in addition to biosolids)
West County Wastewater District	1	Sample collection

8. Future Surveys

BACWA intends to repeat this survey in 2023 (covering biosolids activities in 2021 and 2022), and every two years thereafter. This will give the region the ability to track changes in biosolids trends over time.

BACWA member agencies are all permitted by the San Francisco Regional Water Quality Control Board. The Regional Water Board's jurisdiction includes oversight over impacts to groundwater and surface water from biosolids land application and land disposal. In 2021, Regional Water Board staff expressed renewed interest in local review of these biosolids uses to ensure water quality protection, especially in lowland areas adjacent to San Francisco Bay. The Regional Water Board's jurisdiction also includes regulatory requirements within NPDES permits, which indirectly affect biosolids management. Within the next few years, however, new regulations from the California Air Resources Board and the Bay Area Air Quality Management District regarding air toxics (e.g., from the combustion of biogas) and climate pollutants (e.g., methane) are expected to impact biosolids management to a greater extent than water quality-related requirements.

As SB 1383 Regulations are implemented, and the next two years bring clarity to approaches for biosolids reuse and disposal in California, future survey questions may be refined to better understand how agencies are responding to this shifting landscape.

**East Bay Dischargers Authority (EBDA)
Regional Biosolids Collaboration Primer
December 2021**

EBDA sustainably and cost-effectively manages the transport and discharge of wastewater into the San Francisco Bay for public agencies representing approximately one million East Bay residents. EBDA is a joint powers public agency whose members are the City of Hayward, City of San Leandro, Oro Loma Sanitary District, Union Sanitary District and Castro Valley Sanitary District (member agencies). By contract, EBDA also discharges flows from Livermore-Amador Valley Water Management Agency (LAVWMA), made up of the Cities of Pleasanton and Livermore and Dublin San Ramon Services District. EBDA and its members operate within Alameda County, California.

The EBDA and LAVWMA member agencies have historically each managed biosolids independently. Projecting into the future, the agencies expect that management options may be more limited. Several member agencies have sent all or a portion of their biosolids for use as alternative daily cover at landfills, which is now considered disposal under SB 1383 and will likely be limited. Presence of emerging contaminants such as PFAS could further limit options and/or increase their cost. To control their own destiny and buffer against future price increases, the EBDA and LAVWMA agencies are interested in collectively developing a biosolids management strategy or facility. The agencies are most interested in low-tech, proven solutions such as land application on farmland owned by the agencies, and/or compost, though other cost-effective technologies will be considered.

To move forward with a project, it must be:

- a) Lower risk than the status quo (described below)
- b) Cost-competitive over a twenty-year study horizon (i.e., ~\$70/wet ton or less)
- c) Provide a long term (20- to 50-year) biosolids management option for the member agencies

Since limiting haul distances reduces the greenhouse gas footprint of the management strategy, it is desirable for the project to also maintain or reduce truck miles traveled.

The EBDA and LAVWMA member agencies are interested in exploring opportunities for public-private partnerships for development and/or operation of a regional biosolids management strategy or facility. EBDA brings the following that can be leveraged in project development:

- Regulator Relationships: EBDA's members have strong relationships with Alameda County Waste Management Authority (StopWaste), with Board Members of several EBDA agencies also serving on StopWaste's Board. EBDA has an opportunity and a desire to partner with StopWaste to meet the biosolids recycling needs of our joint communities. EBDA and its members also have strong relationships and experience with regulatory agencies involved in permitting biosolids facilities, including the Regional Water Quality Control Board and Bay Area Air Quality Management District, as well as the ability to serve as the lead agency for CEQA.

- Access to Capital: EBDA and its members have access to low-cost capital, including a recent strong track-record in securing State Revolving Fund (SRF) and Water Infrastructure Finance and Innovation (WIFIA) loans. EBDA and its members are willing to finance project development, including but not limited to land purchase and facility construction.
- Existing Governance: The EBDA JPA and the EBDA-LAVWMA Agreement were both recently renewed, with an expiration date of 2040. Whether or not these agreements are used directly for the biosolids management partnership, they can be used as a framework.
- Dedicated Stream of Biosolids: EBDA and LAVWMA's members have significant quantities of biosolids that they are looking to dedicate to a long-term strategy, providing certainty for both our agencies and a private industry partner.

CURRENT BIOSOLIDS MANAGEMENT

Table 1 below describes current biosolids management practices at each agency.

Table 1 – Current Biosolids Management Practices

Agency	Current Practices
City of San Leandro	Sludge is anaerobically digested, dewatered using a belt filter press, and air dried. The City hauls dried biosolids and land applies them as Class A Exceptional Quality biosolids, or Class B biosolids depending on available bed space, in Solano and Sacramento Counties.
Union Sanitary District (USD)	Sludge is thickened, anaerobically digested, and dewatered using centrifuges. Class B biosolids are transported off-site for land application in Merced and Sacramento Counties. Up to 30 percent of the biosolids are composted offsite to make Class A Exceptional Quality biosolids. USD is also currently evaluating options for further processing via thermal technology to produce Class A material onsite.
City of Hayward WPCF	Sludge is anaerobically digested, dewatered in dewatering beds, and air dried for up to two years. The City hauls dried Class A biosolids to an approved landfill disposal site for use as alternative daily cover.
Oro Loma/Castro Valley Sanitary Districts	Sludge is anaerobically digested, dewatered using a belt filter press, and air dried in a solar drying facility for 3-18 months. Class A biosolids are hauled annually to an authorized land application site.
Dublin San Ramon Services District (DSRSD)	Sludge is anaerobically digested and then further treated in six Facultative Sludge Lagoons (FSLs). The biosolids reside in the FSLs three to five years, and volatile solids content of the biosolids is further reduced by 32 to 35%. The biosolids are then harvested annually from one to two FSLs. The biosolids are pumped from the bottom of the lagoons using a dredge and injected in the soil on the District's 55-acre Dedicated Land Disposal (DLD) site during the summer and fall months.
City of Livermore	Sludge is anaerobically digested, dewatered using a belt filter press, and hauled as Class B for land application in Merced County.

San Leandro, Hayward, Oro Loma/Castro Valley, and DSRSD have drying beds or DLDs, providing them with the following advantages:

- Capability to treat all material to Class A
- Material is only harvested and hauled offsite in the dry season
- Material is a high percent solids when hauled (~80% solids)

Table 2 on the following page shows the quantities of biosolids hauled by each agency in 2018-2020, as well as their per wet ton cost for biosolids hauling and disposal/management.

Table 2 –Biosolids Quantities and Current Costs per Wet Ton

Wet Tons	2018		2019		2020			2020 Cost of Disposal (\$/ton hauling + tipping + other fees)	Notes
	Class A or A-EQ	Class B	Class A or A-EQ	Class B	Class A or A-EQ	Class B	% Solids		
EBDA Members									
City of San Leandro	737	2,772	352	1,483	2,348	819	50-80%	\$ 52.50	
Union Sanitary District		20,347		20,704		20,793	23.7%	\$ 45.92	Weighted average of Class B rate (\$35.18) and Class A/Compost rate (\$61). Note that 2021 rates increased to \$54/wet ton for Class B, making the weighted average \$59.86.
City of Hayward WPCF	6,791		5,528		4,222		>80%	\$ -	Hauling included in City waste disposal contract
Oro Loma Sanitary District		6,204		6,009	5,229		80%	\$ 40.04	New contract has a rate (with escalation) of \$44.94/ton in 2022.
EBDA Total	7,528	29,324	5,880	28,195	11,800	21,612			
LAVWMA Members									
Dublin San Ramon Services District	171,403		177,441		174,329		2.62%	\$ -	The solids currently harvested are at 1.5-3% solids, and therefore quantities should not be directly compared to other agencies. DSRSD envisions dewatering and hauling some portion of their biosolids, at quantities to be determined.
City of Livermore		8,606		8,594		9,137	16.24%	\$ 41.00	
LAVWMA Total	171,403	8,606	177,441	8,594	174,329	9,137			

BIOSOLIDS MANAGEMENT OPPORTUNITY

As noted at the outset of this document, the EBDA and LAVWMA Member Agencies are interested in exploring public-private partnerships to jointly manage biosolids in the future with greater cost-effectiveness, certainty, and control. If deemed feasible, our goal is to have a solution in place in 3-5 years, depending on the complexity and permitting process. Options may include, but are not limited to:

- Purchase of a farm or land that could be used for agriculture for the purpose of land-applying Class B and/or Class A biosolids long term
- Development of a compost facility
- Development of a facility that produces other marketable product(s)
- Hauling agency material to a common site for transfer to end uses or facilities
- Development of a rail option to provide low greenhouse gas transport to lower cost land application sites.
- Potential co-location of a composting site at the Vasco or Altamont Landfill sites in Livermore.
- Combinations of the above strategies.

EBDA is seeking meetings with potential partners interested in exploring this opportunity further. The meetings will take place via Zoom, ideally in January or February, and will be attended by EBDA and agency staff. The meetings are intended as collaborative discussions that will help EBDA and its members determine whether a solution is worth pursuing further, and if so, to outline an effective procurement process.

In these meetings, EBDA expects each potential partner to present their concepts in response to the following topics and questions:

- Provide an overview of your proposed approach, including
 - o Types of strategies and/or facility(ies) contemplated
 - o Location of any processing
 - o Location of end use
- What would you expect the cost to EBDA members to be on a per ton basis? Cost information may be conceptual and based on example projects, and may include ideas on
 - o Expected capital cost (range is acceptable), EBDA's share, and any experience securing grants
 - o Expected O&M cost (including hauling) and EBDA's share
 - o Distribution of responsibilities, including liabilities and ownership, between EBDA and private partner
 - o Information on any grants or funding mechanisms the partner thinks may be applicable
- What is the expected implementation schedule for your proposed project?
- Are there any specific environmental or permitting considerations that impact the feasibility or cost of your proposal?
- What types of entities would you anticipate partnering with to implement this project?
- Are there minimum tonnage commitments you would need to make this project feasible?

- Could the project be expanded to accommodate other agencies beyond EBDA, and how would that change the project economics?

Following these initial meetings, EBDA intends to initiate a more formal procurement process, which will likely include inviting a shortlist of potential partners to prepare more detailed proposals. EBDA expects to provide some level of cost-share for development of the detailed proposals.

EBDA staff is available to discuss questions on this Primer. Potential partners are invited to contact Jackie Zipkin, General Manager, at jzipkin@ebda.org or (510) 278-5910 for additional information and/or to schedule a meeting.

ABOUT EBDA

EBDA was formed on February 15, 1974, by a "Joint Exercise of Powers Agreement" (JPA) entered into by the City of Hayward, City of San Leandro, Oro Loma Sanitary District, Union Sanitary District and Castro Valley Sanitary District (Member Agencies). EBDA operates under a Commission consisting of one representative appointed by each member agency. EBDA's staff includes the General Manager, Operations & Maintenance Manager, and Administration Manager. Additionally, EBDA hires consultants to augment and assist staff in other functions including accounting and engineering services.

EBDA owns and operates three effluent pump stations, a dechlorination facility, and a force main and outfall system for effluent disposal into the San Francisco Bay. Additionally, flow from the effluent pump station owned by the City of San Leandro enters the system, as well as flow from the Livermore-Amador Valley Water Management Agency (LAVWMA) from the Cities of Pleasanton and Livermore and Dublin San Ramon Services District. All of EBDA and LAVWMA's members operate within Alameda County. Figure 1 is a map of the EBDA system.

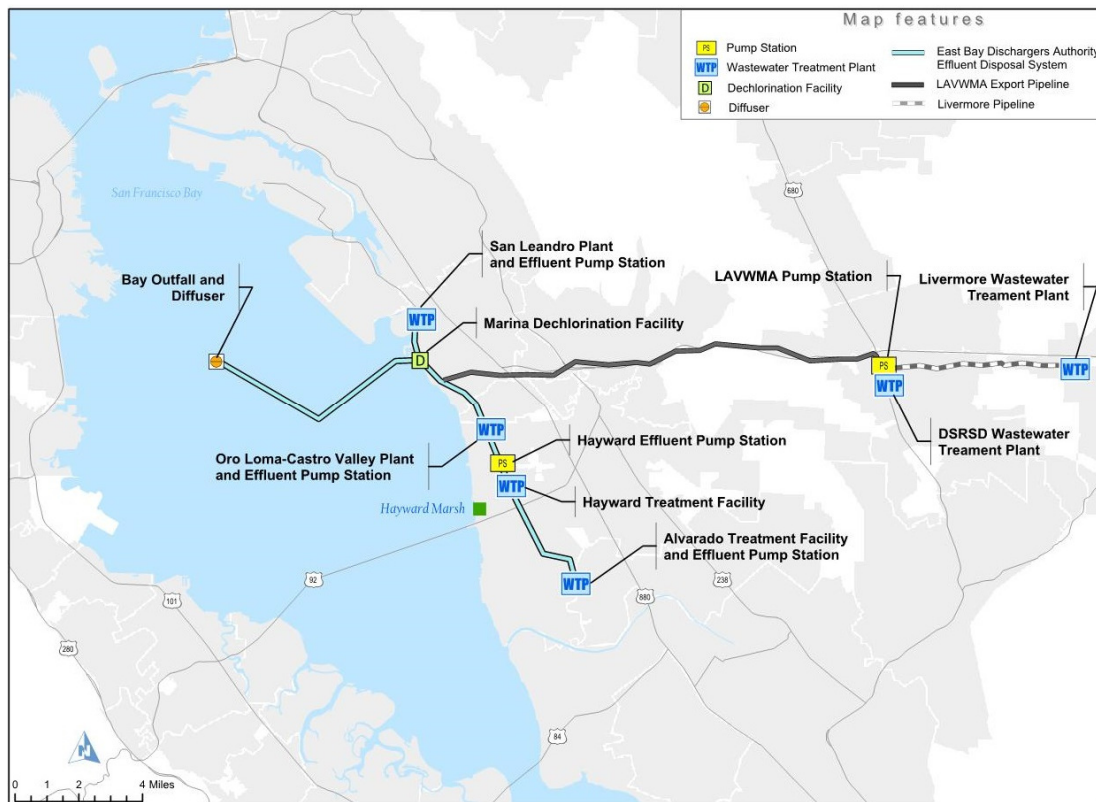


Figure 1 - EBDA System Map



EAST BAY DISCHARGERS AUTHORITY
2651 Grant Avenue
San Lorenzo, CA 94580-1841
(510) 278-5910
FAX (510) 278-6547

A Joint Powers Public Agency

NOTICE: In compliance with AB 361 (2021), the Financial Management Committee meeting scheduled below will be accessible via Zoom video conferencing. Members of the public may participate in the meeting through the Zoom link or phone number below.

- Zoom link: <https://us02web.zoom.us/j/82261534447>
- Telephone dial-in: 1(669) 900-6833, meeting ID #822 6153 4447

ITEM NO. 12

FINANCIAL MANAGEMENT COMMITTEE AGENDA

Monday, January 24, 2022

10:00 A.M.

**East Bay Dischargers Authority
2651 Grant Avenue, San Lorenzo, CA 94580**

Committee Members: Duncan (Chair); Andrews

FM1. Call to Order

FM2. Roll Call

FM3. Public Forum

FM4. List of Disbursements for December 2021
(The Committee will review the List of Disbursements.)

FM5. Treasurer's Report for December 2021
(The Committee will review the Treasurer's Report.)

FM6. FY 2022/2023 Budget Schedule
(The Committee will review the schedule for development of the Authority's budget.)

FM7. East Bay Community Energy Plan Options
(The Committee will discuss the Authority's options for electrical rate plans.)

FM8. Adjournment

Any member of the public may address the Committee at the commencement of the meeting on any matter within the jurisdiction of the Committee. This should not relate to any item on the agenda. Each person addressing the Committee should limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Committee on any agenda item should do so at the time the item is considered. Oral comments should be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available and are to be completed prior to speaking.

Agenda Explanation
East Bay Dischargers Authority
Financial Management Committee
January 24, 2022

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<p>The next Financial Management Committee meeting is scheduled on Monday, February 14, 2022 at 10:00 a.m.</p>

ITEM NO. FM4 LIST OF DISBURSEMENTS FOR DECEMBER 2021

The itemized List of Disbursements for the month of December 2021 totaled \$271,191.42.

Reviewed and Approved by:

Rita Duncan, Chair	Date
Financial Management Committee	

Jacqueline T. Zipkin	Date
Treasurer	

EAST BAY DISCHARGERS AUTHORITY
List of Disbursements
December 2021

CHECKS (SORTED BY AMOUNT)

Check #	Payment Date	Invoice #	Vendor Name	Description	Invoice Amount	Disbursement Amount
25451	12/15/2021	385057	CITY OF SAN LEANDRO	O&M - OCT	39,284.69	39,284.69
25473	12/29/2021	002815	UNION SANITARY DISTRICT	O&M - NOV	23,378.82	23,378.82
25480	12/29/2021	49651027	UNIVAR	SODIUM BISULFITE - DELIVERED 11/24/2021	6,584.24	19,590.63
25480	12/29/2021	49675406	UNIVAR	SODIUM BISULFITE - DELIVERED 12/06/2021	6,570.74	
25480	12/29/2021	49719641	UNIVAR	SODIUM BISULFITE - DELIVERED 12/17/2021	6,435.65	
25472	12/29/2021	6538	ORO LOMA SANITARY DISTRICT	O&M - NOV	13,872.81	13,872.81
25481	12/29/2021	169995	ENVIRONMENTAL SCIENCE ASSOCIATES	FIRST MILE PROJECT WORK ORDER NO. 1	10,195.82	10,195.82
25456	12/15/2021	Sep-21	DEBORAH QUINN	ACCOUNTING SERVICES - SEPT	9,508.13	9,508.13
25453	12/15/2021	5737	CASA	MEMBERSHIP RENEWAL	9,000.00	9,000.00
25486	12/29/2021	20210105.01-5	ASCENT ENVIRONMENTAL, INC	CONSULTING SERVICES - CARGILL CEQA	8,056.80	8,056.80
25477	12/29/2021	FB17467	CAROLLO ENGINEERS	ENGINEERING SERVICES - WORK ORDER NO. 1	3,222.50	7,899.50
25477	12/29/2021	FB17471	CAROLLO ENGINEERS	ENGINEERING SERVICES - WORK ORDER NO. 4	2,470.00	
25477	12/29/2021	FB17623	CAROLLO ENGINEERS	ENGINEERING SERVICES - WORK ORDER NO. 3	2,207.00	
25459	12/15/2021	17817	PACIFIC ECORISK	NPDES TOXICITY TESTING: ACUTE & CHRONIC TOXICITY TESTS	4,813.00	4,813.00
25482	12/29/2021	12/16/2021	AZYURA	WATERBITS LICENSING AND SMR/EDMR REPORT SERVICES	4,750.00	4,750.00
25466	12/15/2021	169998	ENVIRONMENTAL SCIENCE ASSOCIATES	HAYWARD FEASIBILITY STUDY WORK ORDER NO. 2	4,696.25	4,696.25
25455	12/15/2021	49995	CALCON	MDF PMS	1,240.25	2,548.38
25455	12/15/2021	49996	CALCON	OLEPS PMS	659.58	
25455	12/15/2021	49998	CALCON	HEPS PMS	648.55	
25471	12/29/2021	666105	VANTAGEPOINT	MISSION SQUARE DEFERRED COMPENSATION 12/31/2021	2,066.28	2,066.28
25450	12/15/2021	639248	VANTAGEPOINT	MISSION SQUARE DEFERRED COMPENSATION 12/15/2021	2,051.42	2,051.42
25470	12/15/2021	1307805	HANSON BRIDGETT	LEGAL SERVICES	1,375.00	1,800.00
25470	12/15/2021	1307806	HANSON BRIDGETT	LEGAL SERVICES	425.00	
25452	12/15/2021	52205706	CITY OF HAYWARD	BENEFIT PREMIUMS - DEC	1,345.92	1,345.92
25464	12/15/2021	4246044555687627	US BANK	PURCHASING CARD EXPENSES	1,185.74	1,185.74
25468	12/15/2021	035	CURRIE ENGINEERS, INC	PROJECT / CONSTRUCTION MANAGER SERVICES - WORK ORDER NO. 2	1,130.25	1,130.25
25467	12/15/2021	Oct-21	EVERARDO OROZCO LANDSCAPE MANAGEMENT	LANDSCAPING SERVICES - OCT	375.00	750.00
25467	12/15/2021	Nov-21	EVERARDO OROZCO LANDSCAPE MANAGEMENT	LANDSCAPING SERVICES - NOV	375.00	
25454	12/15/2021	1746192-21	SCIF	WORKERS COMPENSATION PREMIUM - DEC	679.25	679.25
25479	12/29/2021	40117	BA MORRISON	HVAC SERVICE - HEPS	390.00	650.00
25479	12/29/2021	40116	BA MORRISON	HVAC SERVICE - ADMIN	260.00	
25478	12/29/2021	8321	CAYUGA INFORMATION SYSTEMS	IT SERVICES	525.00	525.00
25476	12/29/2021	00013.11-10	LARRY WALKER ASSOCIATES	PROFESSIONAL SERVICES - WORK ORDER NO. 2	488.25	488.25

EAST BAY DISCHARGERS AUTHORITY
List of Disbursements
December 2021

Check #	Payment Date	Invoice #	Vendor Name	Description	Invoice Amount	Disbursement Amount
25460	12/15/2021	32792574	PITNEY BOWES INC	POSTAGE METER RESERVE ACCOUNT FOR DIGITAL MAILING SYSTEM	300.00	300.00
25485	12/29/2021	10110000001	EBMUD	WATER & SEWER, MDF OCT-DEC	271.34	271.34
25462	12/15/2021	217599072	ORKIN	PEST CONTROL SERVICES - MDF	200.00	200.00
25474	12/29/2021	510-483-0439	AT&T	TELEPHONE SERVICE - MDF	196.51	196.51
25458	12/15/2021	3105184190	PITNEY BOWES INC	QUARTERLY LEASING CHARGE FOR DIGITAL MAILING SYSTEM	162.96	162.96
25483	12/29/2021	628058	CALTEST	LAB TESTING SERVICES	159.60	159.60
25461	12/15/2021	0099212-IN	KOFFLER ELECTRICAL MECHANICAL	ELECTRICAL SERVICES	158.38	158.38
25469	12/15/2021	49459	COMPUTER COURAGE	WEBSITE HOSTING - DEC	150.00	150.00
25465	12/15/2021	DEC-21	SPUR	MEMBERSHIP RENEWAL FOR JAQUELINE ZIPKIN	100.00	100.00
25484	12/29/2021	3398355	CALTRONICS	COPIER USAGE AND MAINTENANCE	85.55	85.55
25463	12/15/2021	420243G	R&S OVERHEAD GARAGE DOOR INC	MULTICODE SINGLE BUTTON REMOTES	77.53	77.53
25457	12/15/2021	9894046638	VERIZON WIRELESS	WIRELESS PHONE SERVICES	61.38	61.38
25475	12/29/2021	9894860103	VERIZON WIRELESS	MODEM FOR SCADA	21.34	21.34
TOTAL CHECK PAYMENTS					172,211.53	172,211.53
ELECTRONIC PAYMENTS						
	12/02/2021	5105948980-0	PG&E	GAS & ELECTRIC SERVICE	37,292.01	37,292.01
	12/07/2021	100000016622348	CALPERS	HEALTH PREMIUMS - NOV	6,907.99	6,907.99
	12/02/2021	100000016585143	CALPERS	PENSION CONTRIBUTION, CLASSIC 11/16 - 30/2021	4,575.23	4,575.23
	12/21/2021	100000016618911	CALPERS	PENSION CONTRIBUTION, CLASSIC 12/01 - 15/2021	4,575.23	4,575.23
	12/02/2021	100000016630214	CALPERS	PENSION CONTRIBUTION, PEPRA 11/16 - 30/2021	157.51	157.51
	12/21/2021	100000016618952	CALPERS	PENSION CONTRIBUTION, PEPRA 12/01 - 15/2021	157.51	157.51
	12/13/2021		WELLS FARGO BANK	CLIENT ANALYSIS SERVICE CHARGE	27.21	27.21
TOTAL ELECTRONIC PAYMENTS					53,692.69	53,692.69
PAYROLL						
			ADP, LLC	PAYROLL PERIOD: 12/16-31/2021	23,924.60	23,924.60
			ADP, LLC	PAYROLL PERIOD: 12/01-15/2021	21,199.35	21,199.35
	12/03/2021	593338144	ADP, LLC	PAYROLL FEES, PERIOD: 11/15-30/2021	88.25	88.25
	12/24/2021	594806888	ADP, LLC	PAYROLL FEES, PERIOD: 12/01-15/2021	75.00	75.00
TOTAL PAYROLL					45,287.20	45,287.20
TOTAL DISBURSEMENTS						271,191.42

ITEM NO. FM5 TREASURER'S REPORT FOR DECEMBER 2021

The beginning cash balance on December 1, 2021 was \$4,632,887.66. The ending cash balance on December 31, 2021 was \$4,491,611.99. Total receipts for the period were \$129,915.76 and disbursements totaled \$271,191.42. EBDA's LAIF balance is \$3,260,119.57 and the average monthly effective yield for December was 0.21%.

EBDA currently has a two-pronged investment approach that includes Local Agency Investment Fund (LAIF) and traditional bank accounts.

Approval is recommended.

EAST BAY DISCHARGERS AUTHORITY

TREASURER'S REPORT

DECEMBER 31, 2021

FUND	DESCRIPTION	BEGINNING CASH BALANCE	DEBITS (INCREASE)	CREDITS (DECREASE)	ENDING CASH BALANCE
12	OPERATIONS & MAINTENANCE	1,606,552.19		236,685.99	1,369,866.20
13	PLANNING & SPECIAL STUDIES	393,396.23	19,374.54	18,899.07	393,871.70
14	RECLAMATION O & M (SKYWEST)	58,568.74		238.56	58,330.18
15	BRINE ACCEPTANCE	72,655.40	110,541.22	11,767.55	171,429.07
31	RENEWAL & REPLACEMENT	2,501,715.10		3,600.26	2,498,114.84
TOTALS		4,632,887.66	129,915.76	271,191.43	4,491,611.99

Dec-21

1/19/2022

SUPPLEMENTAL TREASURERS REPORT

DATE	TRANSACTION	RECEIPT	DISBURSEMENT CHECKING	DISBURSEMENT PAYROLL	PAYROLL TRANSFER	LAIF TRANSFER	WELLS FARGO CHECKING BALANCE	WELLS FARGO PAYROLL BALANCE	LAIF BALANCE	TOTAL CASH
11/30/21	BALANCE						1,340,713.17	32,054.91	3,260,119.57	4,632,887.66
12/02/21	ELECTRONIC BILL PAY		37,292.01				1,303,421.16	32,054.91	3,260,119.57	4,595,595.64
12/02/21	ELECTRONIC BILL PAY		4,575.23				1,298,845.93	32,054.91	3,260,119.57	4,591,020.41
12/02/21	ELECTRONIC BILL PAY		157.51				1,298,688.42	32,054.91	3,260,119.57	4,590,862.90
12/03/21	PAYROLL FEES			88.25			1,298,688.42	31,966.66	3,260,119.57	4,590,774.65
12/07/21	ELECTRONIC BILL PAY		6,907.99				1,291,780.43	31,966.66	3,260,119.57	4,583,866.66
12/10/21	PAYROLL TRANSFER				50,000.00		1,241,780.43	81,966.66	3,260,119.57	4,583,866.66
12/13/21	ANALYSIS FEE		27.21				1,241,753.22	81,966.66	3,260,119.57	4,583,839.45
12/14/21	PAYROLL			21,199.35			1,241,753.22	60,767.31	3,260,119.57	4,562,640.10
12/15/21	DISBURSEMENT		80,003.28				1,161,749.94	60,767.31	3,260,119.57	4,482,636.82
12/20/21	DEPOSIT - CARGILL	110,541.22					1,272,291.16	60,767.31	3,260,119.57	4,593,178.04
12/21/21	ELECTRONIC BILL PAY		4,575.23				1,267,715.93	60,767.31	3,260,119.57	4,588,602.81
12/21/21	ELECTRONIC BILL PAY		157.51				1,267,558.42	60,767.31	3,260,119.57	4,588,445.30
12/22/21	DEPOSIT - ABAG	19,374.54					1,286,932.96	60,767.31	3,260,119.57	4,607,819.84
12/24/21	PAYROLL FEES			75.00			1,286,932.96	60,692.31	3,260,119.57	4,607,744.84
12/29/21	PAYROLL			23,924.60			1,286,932.96	36,767.71	3,260,119.57	4,583,820.24
12/29/21	DISBURSEMENT		92,208.25				1,194,724.71	36,767.71	3,260,119.57	4,491,611.99

TOTAL	129,915.76	225,904.22	45,287.20	50,000.00	-	1,194,724.71	36,767.71	3,260,119.57	4,491,611.99
CURRENT BALANCE						^①	^②	^③	

Reconciliation

① Per Bank Statement @ 12/31/21	\$ 1,288,428.88
Less: Outstanding Checks	93,704.17
	\$ 1,194,724.71
② Per Bank Statement @ 12/31/21	\$ 36,767.71
③ Per LAIF Statement @ 12/31/21	\$ 3,260,119.57

The Supplemental Treasurer's Report is prepared monthly by the General Manager. It also serves as EBDA's cash and investments reconciliation.

ITEM NO. FM6 FY 2022/2023 BUDGET SCHEDULE

Recommendation

For the Committee's information only; no action is required.

Background

The Authority adopts an annual budget on a July-June Fiscal Year basis. This report provides the Committee with a proposed schedule for development and review of the Authority's next budget.

Discussion

Staff proposes the following schedule for budget development:

Month	Topic	Committee
February	Salary and Benefits Assumptions	Personnel
March	Preliminary Budget Considerations and Options	Financial Management
	OPEB and Pension Fund Status	
April	Draft Budget	Financial Management
May	Budget Resolution	Financial Management and Commission
	Draft Renewal & Replacement Fund (RRF) Project List	Operations & Maintenance
June	RRF Project List Approval	Operations & Maintenance and Commission

ITEM NO. FM7 EAST BAY COMMUNITY ENERGY PLAN OPTIONS

Recommendation

Provide direction to staff on any recommended changes to the Authority's energy plan selections.

Background

In 2018, [East Bay Community Energy](#) (EBCE) began providing electric energy service to Alameda County customers. EBCE is a public agency formed by the County of Alameda and eleven of its cities. The goals of EBCE are to provide cleaner, greener energy than PG&E at lower rates to customers. EBCE reinvests earnings back into the community to create local green energy jobs, local programs, and clean power projects.

At the outset, EBCE offered three plans:

Bright Choice	1.5% discount from PG&E rates	85% carbon free and of that, 38% renewable
Brilliant 100	Same rate as PG&E	100% carbon free, 40% renewable
Renewable 100	\$0.01 per kWh above PG&E rates	100% renewable

Enrollment in EBCE plans happened automatically in November 2018. EBCE initially enrolled the accounts for EBDA facilities in plans consistent with the plans selected by the cities in which those facilities reside. The facilities located in San Leandro and San Lorenzo - MDF, SLEPS, and OLEPS – were on the Bright Choice Plan. HEPS was on the Brilliant 100 Plan, as chosen by Hayward. EBDA does not have an account for UEPS; electric services are billed through USD.

After considering the costs and benefits of the plan options, the Commission directed enrollment of all EBDA facilities in the Brilliant 100 Plan.

Discussion

In January 2022, EBCE eliminated the Brilliant 100 plan from its offerings. The updated options are as follows:

Bright Choice	1% below PG&E rates	40% renewable (5-9% more renewable than PG&E)
Renewable 100	\$0.01 per kWh above PG&E rates	100% renewable

EBDA now needs to select a new plan for the facilities for which it receives electric bills: MDF, OLEPS, and HEPS. Staff is seeking Committee direction on the preferred plan for these EBDA facilities. For now, EBDA is enrolled in the Bright Choice plan.

In FY 2020/2021, EBDA spent \$379,353 on electricity at MDF, OLEPS, and HEPS, however staff notes that FY 2020/2021 was a very dry year. Based on FY 2020/2021 energy usage and accounting for this year's wet weather, staff estimates that selecting the Bright Choice plan will result in an annual cost savings of \$1,300. Staff estimates that switching to the Renewable 100 plan it will cost an additional \$21,000 annually, relative to current costs.

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A Joint Powers Public Agency

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- Zoom link: <https://us02web.zoom.us/j/84250769407>
- Telephone dial-in: 1(669) 900-6833, meeting ID #842 5076 9407

ITEM NO. 13

OPERATIONS & MAINTENANCE COMMITTEE AGENDA

Tuesday, January 25, 2022

9:00 A.M.

**East Bay Dischargers Authority
2651 Grant Avenue, San Lorenzo, CA 94580**

Committee Members: Toy (Chair); Cutter

OM1. Call to Order

OM2. Roll Call

OM3. Public Forum

OM4. EBDA Permit Compliance

(The Committee will be updated on EBDA's NPDES compliance.)

OM5. Status Report

(The Committee will be updated on EBDA's O&M activities.)

OM6. Adjournment

Any member of the public may address the Commission at the commencement of the meeting on any matter within the jurisdiction of the Commission. This should not relate to any item on the agenda. It is the policy of the Authority that each person addressing the Commission limit their presentation to three minutes. Non-English speakers using a translator will have a time limit of six minutes. Any member of the public desiring to provide comments to the Commission on an agenda item should do so at the time the item is considered. It is the policy of the Authority that oral comments be limited to three minutes per individual or ten minutes for an organization. Speaker's cards will be available in the Boardroom and are to be completed prior to speaking.

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Agenda Explanation
East Bay Dischargers Authority
O&M Agenda
January 25, 2022

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**The next O&M Committee meeting will be held
Tuesday, February 15, 2022, at 9:00 a.m.**

ITEM NO. OM4 EBDA PERMIT COMPLIANCE

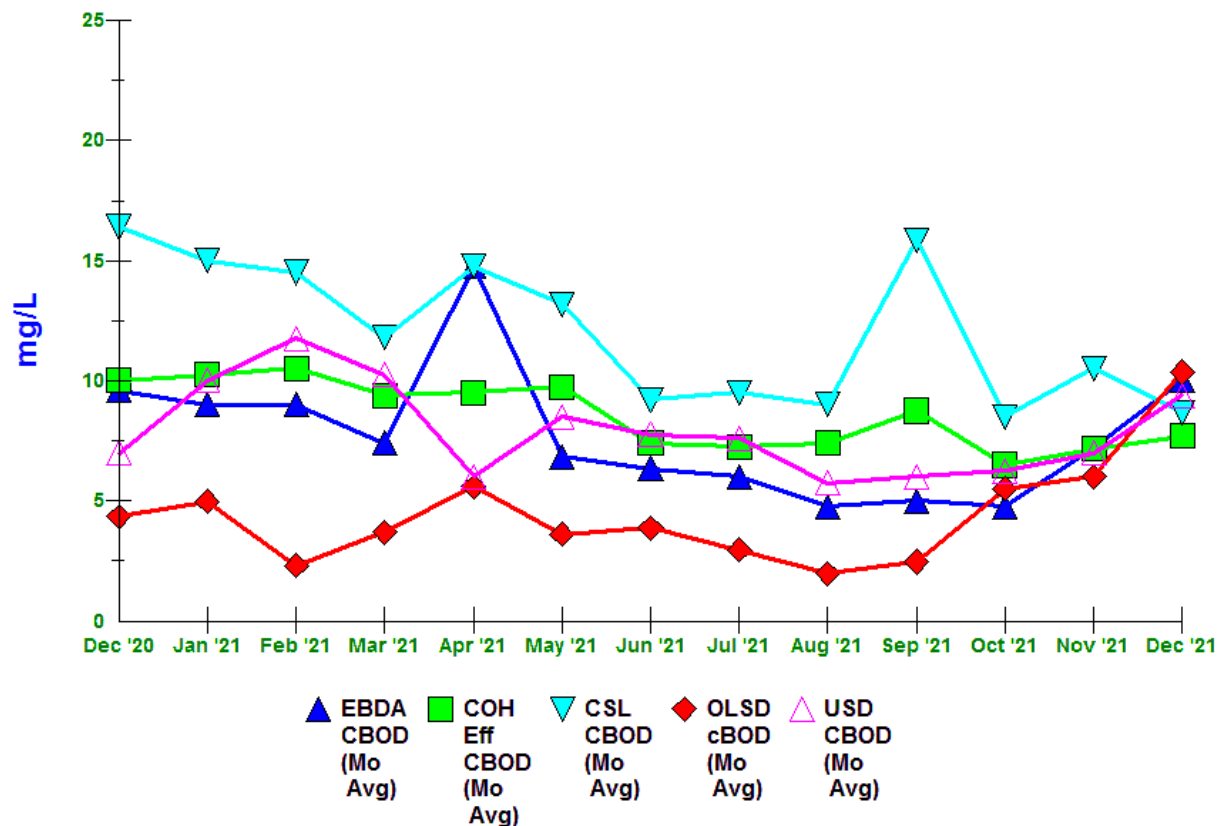
Recommendation

For the Committee's information only; no action is required.

Permit Compliance Issues

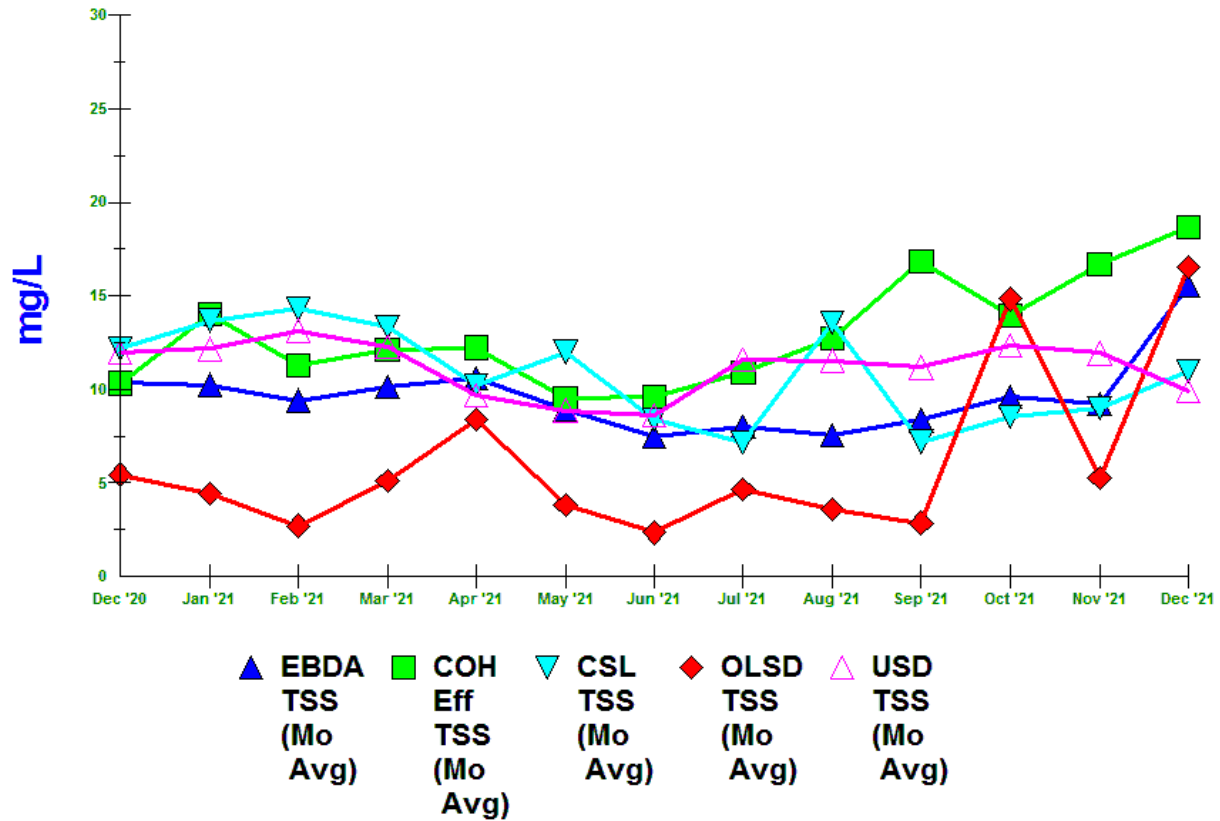
There were no NPDES permit violations in November, and preliminary data from December are also free of permit exceedances. Member Agency CBOD and TSS performance are shown below. A table with bacterial indicators is also included.

EBDA CBOD (Limit=25 ppm)



EBDA CBOD

EBDA TSS (Limit 30 ppm)



EBDA EFF TSS

EBDA Bacterial Indicators

Date	FECAL	ENTERO
	MPN/ 100mL	MPN/ 100mL
Limit (90th Percentile)	1100	
Limit (Geomean)	500	240
January 2021 Geomean	5	3
February 2021 Geomean	6	3
March 2021 Geomean	5	3
April 2021 Geomean	13	3
May 2021 Geomean	10	6
June 2021 Geomean	13	4
July 2021 Geomean	11	2
August 2021 Geomean	52	32
September 2021 Geomean	26	10
October 2021 Geomean	33	4
11/1/2021	4	22
11/2/2021	4	58
11/3/2021	23	3
11/8/2021	7	35
11/9/2021	9	65
11/15/2021	NA	4
11/16/2021	NA	< 2
11/18/2021	17	NA
11/19/2021	79	NA
11/22/2021	51	2
11/23/2021	23	3
November 2021 Geomean	13	8
12/6/2021	4	2
12/7/2021	8	3
12/8/2021	17	154
12/13/2021	80	20
12/14/2021	23	7
12/15/2021	11	4
12/20/2021	189	10
12/21/2021	49	3
12/22/2021	220	4
12/27/2021	3	17
12/28/2021	8	5
December 2021 geomean	22	8

ITEM NO. OM5 STATUS REPORT

Union Effluent Pump Station (UEPS)

No change; all equipment is operational.

Hayward Effluent Pump Station (HEPS)

Wet Weather Programming

Although the programming associated with the HEPS MCC Project was completed over two years ago, staff had not been able to optimize the wet weather control system due to a lack of rainfall. During the rain event on December 27, 2021, a programmer with Calcon Systems, Inc. (Calcon) completed some final modifications to the wet weather control system. The modifications were tested during the rain event, and the system operated automatically without any issues. An OLEPS diesel pump was operated slightly longer than necessary to complete the testing.

Effluent Pump Replacement Project

The project bid documents are still under review. Staff expects the project to go out to bid shortly, with installation of the new pumps occurring in late-2022.

Oro Loma Effluent Pump Station (OLEPS)

Main Electrical Switchboard Upgrade

With the start of wet weather and the manufacturing delays due to the pandemic, the installation of the new breakers is postponed until the Spring of 2022.

Skywest Pump Station

Recycled Water Production

During the month of December 2021, the Skywest Recycled Water System did not produce any recycled water. The total recycled water produced during 2021 was 12.06 MG. The peak day of recycled water production in 2021 was 565,200 gallons. A summary of the monthly recycled water produced for the last six years is shown below:

Skywest Total Recycled Water						
	2021 Total Flow MG	2020 Total Flow MG	2019 Total Flow MG	2018 Total Flow MG	2017 Total Flow MG	2016 Total Flow MG
January	0.89	0.00	0.00	0.00	0.00	0.00
February	0.00	1.65	0.00	2.37	0.00	0.41
March	0.00	0.53	0.00	0.73	0.25	0.00
April	1.06	2.64	3.91	1.86	1.80	6.51
May	1.12	2.53	5.77	9.38	12.00	12.71
June	2.64	2.00	9.57	12.50	10.97	16.73
July	2.10	1.10	11.40	12.12	11.98	16.42
August	2.16	1.09	10.34	10.59	10.41	13.81
September	1.60	1.37	8.30	7.45	8.12	11.29
October	0.49	1.10	6.22	6.14	5.58	3.60
November	0.00	1.43	1.64	2.24	0.00	2.02
December	0.00	0.00	0.00	0.00	1.24	0.00
Total	12.06	15.44	57.15	65.38	62.35	83.50

Marina Dechlorination Facility (MDF)

Total Residual Chlorine (TRC) Effluent Limit Implementation and Automation Upgrades

On December 10 and 15, 2021, meetings were held with Calcon to discuss the implementation of EBDA's new TRC effluent limit. As discussed previously in the Regulatory Affairs Committee, the Regional Water Quality Control Board recently adopted a blanket permit revising the TRC effluent limits for all wastewater dischargers to San Francisco Bay. EBDA's current TRC effluent limit is 0.0 mg/L or parts per million (ppm), expressed as an instantaneous maximum. Per the permit amendment, EBDA's new TRC effluent limit will be 0.98 mg/L measured as a one-hour average. The first meeting with Calcon was to discuss the PLC programming and control system modifications necessary at MDF, and the second meeting was to discuss updating the spreadsheets used for compliance data reporting and archiving. EBDA's new TRC effluent limit will take effect pending approval of an amendment to the San Francisco Bay Basin Plan by USEPA. That approval is expected in February 2022, in which case the new TRC effluent limit would automatically take effect on March 1, 2022.

On January 7, 2022, Calcon completed a project at MDF to install conduits and wiring to connect the Sewage Pump Control Panel and the main vault Sump Pump Control Panels to the station's programmable logic controller (PLC) and display the information on the EBDA's SCADA System for better control and monitoring. This project is the first step of an overall MDF automation upgrade.

Force Main

No change; all equipment is operational.

Operations Center

No change; all equipment is operational.

Miscellaneous Items

Underground Service Alerts

EBDA received twelve (12) Underground Service Alert (USA) tickets during the month of December 2021. Four required an Electronic Positive Response (EPR), and of the four, two required calls/emails to the excavators, and two required field verification.

Wet Weather

Total rainfall for the month of December 2021 (in inches) was as follows:

Oakland	Hayward	Livermore
9.29	6.16	4.85

Significant daily rainfall for the month of December 2021 (in inches) was as follows:

Date	Oakland	Hayward	Livermore
12/12/2021	1.02	0.53	0.14
12/13/2021	2.81	1.62	1.39
12/15/2021	0.63	0.64	0.34
12/23/2021	1.85	0.84	0.63
12/25/2021	1.03	0.61	0.49
12/27/2021	0.36	0.58	0.47

During the month of December 2021, there were four rain events that caused EBDA to experience high flows. During the rain events, all Member Agencies stayed at or under their JPA maximum flows, except when additional flow was requested by EBDA. Below is a brief overview of each rain/high flow event. A more detailed review of the rain/high flow events will be presented at the meeting.

December 13-14, 2021

On December 12th and 13th, the amount of rain recorded was between 3.83 and 1.53 inches. This rain event caused high flows on December 13-14, as Member Agencies returned flows that had been stored in their equalization (EQ) basins during the peak of the storm. During high flows and high tide, one OLEPS diesel pump was required to operate for 3.4 hours. During that time, EBDA requested additional flow from Hayward to dampen subsequent peaks.

December 23-24, 2021

On December 23rd, the amount of rain recorded was between 1.85 and 0.63 inches, which caused high flows on December 23-24 as Member Agencies returned flows from their EQ basins. The majority of the rain occurred before 8:00 am on the 23rd, but because of EQ return, the high flows continued until after 5:00 pm on the 24th. During high flows and high tide on the 23rd and the 24th, rather than starting an OLEPS diesel pump, EBDA operated the OLEPS wet wells at higher-than-normal levels. Reduced pumping by LAVWMA during this time, at EBDA's request, prevented operation of an OLEPS diesel pump. This was a test, which demonstrated that operating OLEPS wet wells at a higher level and reducing LAVWMA pumping could, under the correct conditions, eliminate the need to operate an OLEPS diesel pump.

As discussed at the MAC Meeting, in the future after a rain event is over, EBDA will request additional Member Agency flow during low flows, low tide, and off-peak energy rates. This will prevent the need to pump EQ-returned flow after a rain event is over during high flows, high tide, and peak energy rates.

December 25, 2021

On December 25th, during high flows and high tide, one OLEPS diesel pump was required to operate for 2.7 hours. During that time, EBDA requested additional flow from OLSD/CVSD and Hayward.

December 27, 2021

On December 27th, during high flows and high tide, one OLEPS diesel pump was required to operate for 3.0 hours. During that time, EBDA requested additional flow from OLSD/CVSD and Hayward. As discussed above, the OLEPS diesel pump was operated slightly longer than necessary to complete testing of the HEPS wet weather control system.

MDF Average Flows

The table below lists the average daily flow at MDF for the highest flow dates of the month. For reference, the average daily flow for the month of July 2021 (a dry month) was 53.7 MGD, and the average daily flow for December 2021 overall was 80.4 MGD.

Date	Average Daily Flow - MGD
12/13/2021	98.7
12/14/2021	99.3
12/23/2021	102.6
12/24/2021	103.9
12/25/2021	95.9
12/27/2021	104.0
12/28/2021	103.4

COVID-19 Response

All EBDA staff members are fully vaccinated and boosted. Staff will work with the Commission to determine, on a month-to-month basis, whether Commission and Committee meetings will continue to be conducted via Zoom or whether to resume in-person meetings. To continue conducting remote meetings, the Commission must adopt a resolution compliant with AB 361 – see Item No. 8.

Special Projects

Disinfection Master Plan

Staff is continuing to work with Carollo Engineers (Carollo) on a Disinfection Master Plan with a goal to develop a strategy for sodium hypochlorite (hypo) dosing and monitoring to prevent bacteria outbreaks and ensure consistent permit compliance while optimizing chemical dosage – both for disinfection and for dechlorination. A draft report was reviewed by staff, and Carollo is working to address comments. Carollo will present their findings to the MAC at its February meeting.

Cargill Brine Project Due Diligence

EBDA staff is continuing to work with Cargill to advance the joint project connecting Cargill's solar salt ponds in Newark to the EBDA system for discharge of mixed sea salts into the Bay. EBDA's CEQA consultant, Ascent Environmental (Ascent) is progressing with development of an Environmental Impact Report (EIR) for the pipeline from Cargill to OLEPS. This extended pipeline, sometimes referred to as the "parallel pipeline" approach, prevents vulnerable sections of EBDA's transport system from brine exposure that would have occurred with a connection point further south near USD. Ascent is currently preparing the EIR assuming a street route for the pipeline.

At the same time, the project team continues to evaluate the feasibility of a bayside pipeline route. EBDA and Cargill staff held a preliminary meeting with U.S. Fish and Wildlife Service, California Department of Fish and Game, and the South Bay Salt Ponds Project to discuss the segments of the bayside route that would pass through Eden Landing and other wildlife refuge areas south of Highway 92. East Bay Regional Parks was briefed on potential pipeline impacts for the areas they manage north of Highway 92 in August 2021, and a meeting to update them is being planned. EBDA and Cargill's legal counsels are also evaluating Cargill use of EBDA easements for construction of the new pipeline.

Brown & Caldwell (BC) is continuing work to evaluate potential brine impacts on OLEPS equipment and the metal portion of the force main at MDF. BC will recommend corrosion protection measures as needed based on their evaluation. Preliminary results are expected in February 2022. Carollo is also performing laboratory testing to assess impacts of the brine on disinfection and dechlorination. Samples were provided in December 2021, and preliminary results are expected soon.

Advanced Quantitative Precipitation Information (AQPI) Project

The regional AQPI project continues to move forward with a goal of improving prediction of rainfall events in the Bay Area. Installation of the radar at Rocky Ridge has faced some delays and is now planned for early 2022. National Oceanographic and Atmospheric Administration (NOAA) staff is continuing to make refinements to the user interface, which EBDA member agencies can access now for precipitation data and projections.

ITEM NO. 14 ITEMS FROM THE COMMISSION AND STAFF

The Commission and staff may comment on items of general interest.

ITEM NO. 15 ADJOURNMENT