Las Gallinas VALLEY SANITARY DISTRICT

101 Lucas Valley Road, Suite 300
San Rafael, CA 94903
Tel.: 415-472-1734
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www.LGVSD.org

The Mission of the Las Gallinas Valley Sanitary District is to protect public health and the environment by providing effective wastewater collection, treatment, and recycling services.

BOARD MEETING AGENDA

May 19, 2022

On March 12, 2020, Governor Newsom issued Executive Order N-25-20, which enhances State and Local Governments' ability to respond to COVID-19 Pandemic based on Guidance for Gatherings issued by the California Department of Public Health. The Executive Order specifically allows local legislative bodies to hold meetings via teleconference and to make meetings accessible electronically, in order to protect public health, which was due to end on September 30, 2021 (Exec. Ord. N-08-21). However, the Legislature passed AB 361 which provides local agencies with the ability to meet remotely during proclaimed state emergencies under modified Brown Act requirements, similar in many ways to the rules and procedures established by the Governor's previous Executive Orders. - In light of this – the May 19, 2022 meeting of the LGVSD Board will be held via Zoom electronic meeting. There will be NO physical location of the meeting. Due to the current circumstances, there may be limited opportunity to provide verbal comments during the meeting. Persons who wish to address the Board for public comment or on an item on the agenda are encouraged, but not required, to submit comments in writing to the Board Secretary (tlerch@lgvsd.org) by 5:00 pm on Wednesday, May 18, 2022. In addition, Persons wishing to address the Board verbally must contact the Board Secretary, by email (tlerch@lgvsd.org) and provide their Name; Address; Tel. No.; and the Item they wish to address by the same date and time deadline for submission of written comments, as indicated above. Please keep in mind that any public comments must be limited to 3 minutes due to time constraints. Any written comments will be distributed to the LGVSD Board before the meeting.*

**Prior to the meeting, participants should download the Zoom app at: https://zoom.us/download.*

REMOTE CONFERENCING ONLY

Join Zoom Meeting online at: https://us02web.zoom.us/j/85616672574

OR

By teleconference at: +16699009128 Meeting ID: 856 1667 2574

MATERIALS RELATED TO ITEMS ON THIS AGENDA ARE AVAILABLE FOR PUBLIC INSPECTION ON THE DISTRICT WEBSITE WWW.LGVSD.ORG

NOTE: Final board action may be taken on any matter appearing on agenda

Estimated Time

OPEN SESSION:

4:00 PM **1. PUBLIC COMMENT**

This portion of the meeting is reserved for persons desiring to address the Board on matters not on the agenda and within the jurisdiction of the Las Gallinas Valley Sanitary District. Presentations are generally limited to three minutes. All matters requiring a response will be referred to staff for reply in writing and/or placed on a future meeting agenda. Please contact the General Manager before the meeting.

4:05 PM **2. CONSENT CALENDAR:**

These items are considered routine and will be enacted, approved or adopted by one motion unless a request for removal for discussion or explanation is received from the staff or the Board.

A. Approve Resolution 2022-2253 – Remote Meetings
B. Approve the Board Minutes for April 21 and May 5, 2022
C. Approve the Warrant List for May 19, 2022
D. Approve Board Compensation for April 2022
E. Approve Schriebman attending the Circular Economy Symposium Cal Recycle Webinar May 17
F. Approve Murray attending the Circular Economy Symposium Cal Recycle Webinar May 17
G. Approve Murray attending Utility Staff Recruitment and Retention RCAC Weinbar May 24
H. Approve Murray attending Public Notification Your Customers have the Right to Know Webinar May 25
I. Approve Yezman attending CASA Annual Conference August 10 -12
J. Approve Resolution 2022-2254 Proposing an Election
K. Approve Resolution 2022-2255 Board Policies B-50 Training/Seminars/Travel/Meals and F-50 Reserves

Possible expenditure of funds: Yes, Item B through I.

Staff recommendation: Adopt Consent Calendar – Items A through K.

4:20 PM **3. INFORMATION ITEMS:**

STAFF/CONSULTANT REPORTS:

1. Interim General Manager's Report – Verbal
2. Board Policies B-60 Board Member Compensation and F-60 Revenue – Written
3. Review of Preliminary Budgets – Written
4. Department Reports – Collections and Operations – Written

5:20 PM **4. RECONSIDER ENVIRONMENTAL COMPLIANCE MANAGER POSITION**
Board to review the Environmental Compliance Manager position.

5:30 PM **5. BOARD COMMITTEE ASSIGNMENTS**
Board to review the committee assignments.

5:40 PM **6. BOARD MEMBER REPORTS:**

1. CLARK
    a. NBWA Board Committee, NBWA Conference Committee, 2022 Operations Control Center Ad Hoc Committee, Other Reports
2. FORD
    a. NBWRA, Gallinas Watershed Council, Marin Special Districts Association, 2022 Ad Hoc Engineering Committee re: STPURWE, 2022 Operations Control Center Ad Hoc Committee, 2022 Human Resources Committee, Other Reports
3. MURRAY
    a. Marin LAFCO, CASA Energy Committee, 2022 GM Recruitment Ad Hoc Committee, Other Reports
4. SCHRIEBMAN
    a. JPA Local Task Force, Gallinas Watershed Council, 2022 Legal Services Ad Hoc committee, 2022 Biosolids Ad Hoc Committee, 2022 Human Resources Ad Hoc committee, Other Reports
5. YEZMAN
    a. Flood Zone 7, CSRMA, 2022 Ad Hoc Engineering Committee re: STPURWE Engineering Subcommittee, 2022 Legal Services Ad Hoc Committee, 2022 GM Recruitment Ad Hoc Committee, Marin Special Districts Association, 2022 Biosolids Ad Hoc committee, Other Reports

5:50 PM **7. BOARD REQUESTS:**

A. Board Meeting Attendance Requests – Verbal

B. Board Agenda Item Requests – Verbal

5:55 PM **8. VARIOUS INDUSTRY RELATED ARTICLES**

6:00 PM **9. ADJOURNMENT**

FUTURE BOARD MEETING DATES: JUNE 2 AND JUNE 16TH, 2022.

AGENDA APPROVED:	Judy Schriebman, Board President	Patrick Richardson, Legal Counsel

CERTIFICATION: I, Teresa Lerch, District Secretary of the Las Gallinas Valley Sanitary District, hereby declare under penalty of perjury that on or before May 16, 4:00 p.m., I posted the Agenda for the Board Meeting of said Board to be held May 19, 2022, at the District Office, located at 101 Lucas Valley Road, Suite 300, San Rafael, CA.

DATED: May 12, 2022

Teresa L. Lerch
District Secretary

The Board of the Las Gallinas Valley Sanitary District meets regularly on the first and third Thursday of each month. The District may also schedule additional special meetings for the purpose of completing unfinished business and/or study session. Regular meetings are held at the District Office, 101 Lucas Valley Road, Suite 300, San Rafael, CA.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the District at (415) 472-1734 at least 24 hours prior to the meeting. Notification prior to the meeting will enable the District to make reasonable accommodation to help ensure accessibility to this meeting.

5/19/2022

PUBLIC COMMENT

This portion of the meeting is reserved for persons desiring to address the Board on matters not on the agenda and within the jurisdiction of the Las Gallinas Valley Sanitary District. Presentations are generally limited to three minutes. All matters requiring a response will be referred to staff for reply in writing and/or placed on a future meeting agenda. Please contact the General Manager before the meeting.

Agenda Item 2A
Date May 19, 2022

RESOLUTION NO. 2022-2253

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE LAS GALLINAS VALLEY SANITARY DISTRICT PROCLAIMING A LOCAL EMERGENCY PERSISTS, RE-RATIFYING THE PROCLAMATION OF A STATE OF EMERGENCY BY GOVERNOR'S ORDER, DATED MARCH 4, 2020, IN CONTINUING EXECUTIVE ORDERS, AND RE-AUTHORIZING REMOTE TELECONFERENCE MEETINGS OF THE BOARD OF DIRECTORS OF THE LAS GALLINAS VALLEY SANITARY DISTRICT FOR THE PERIOD OF May 17, 2022 THROUGH June 17, 2022 PURSUANT TO BROWN ACT PROVISIONS

WHEREAS, the LAS GALLINAS VALLEY SANITARY DISTRICT ("District") is committed to preserving and nurturing public access and participation in meetings of the Board of Directors; and

WHEREAS, all meetings of LAS GALLINAS VALLEY SANITARY DISTRICT's Board of Directors 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 the District's legislative bodies conduct their business; and

WHEREAS, the Brown Act, Government Code section 54953(e), makes provision for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, a required condition is that a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558; and

WHEREAS, a proclamation is made when there is an actual incident, threat of disaster, or extreme peril to the safety of persons and property within the jurisdictions that are within the District's boundaries, caused by natural, technological or human-caused disasters; and

WHEREAS, it is further required that state or local officials have imposed or recommended measures to promote social distancing, or the legislative body meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, the Board of Directors previously adopted a Resolution, Number 2022-2249 April 21, 2022, finding that the requisite conditions exist for the Board of Directors of the LAS GALLINAS VALLEY SANITARY DISTRICT to conduct remote teleconference meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, as a condition of extending the use of the provisions found in section 54953(e), the Board of Directors must reconsider the circumstances of the state of emergency that exists in the District, and the Board of Directors has done so; and

WHEREAS, emergency conditions persist in the District, specifically, a State of Emergency has been proclaimed by Governor Gavin Newsom, dated March 4, 2020 and continuing; and

WHEREAS, effective, March 1, 2022, the Public Health Officer of The County of Marin ("Health Officer"), in keeping with Health Orders from the California Department of Public Health, strongly recommends that all individuals, regardless of vaccination status, continue to wear face coverings when indoors while in indoor public settings and businesses ; and

WHEREAS, evolving COVID-19 variants (following the highly infectious Omicron variant) may continue to pose a significant risk to the health and safety of attendees at an in-person meeting of the Board of Directors of the District; and

WHEREAS, a recently published case-control study conducted in California from February 18 to December 1, 2021 demonstrated that consistently wearing a face mask or respirator in indoor public settings reduces the risk of acquiring SARS-CoV-2 infection. Masks also remain a critical component for protecting those that are most vulnerable in our communities, including the unvaccinated, the immunocompromised, or those at risk for severe disease and illness; and

WHEREAS, the Board of Directors does hereby find that, as noted by the Governor, the California Department of Public Health and the Marin County Public Health Officer, that a State of Emergency continues to exist in regard to the Covid-19 outbreak and its Delta and Omicron variant, has caused, and will continue to cause, conditions of peril to the safety of persons within the District that are likely to be beyond the control of services, personnel, equipment, and facilities of the District, and desires to proclaim a local emergency and ratify the proclamation of state of emergency by the Governor of the State of California, the California Department of Public Health and the Public Health Officer of The County of Marin; and

WHEREAS, as a consequence of the local emergency persisting, the Board of Directors does hereby find that the Board of Directors of LAS GALLINAS VALLEY SANITARY DISTRICT shall continue to conduct their meetings without compliance with paragraph (3) of subdivision (b) of Government Code section 54953, as authorized by subdivision (e) of section 54953, and that such legislative bodies shall continue to comply with the requirements to provide the public with access to the meetings as prescribed in paragraph (2) of subdivision (e) of section 54953; and

WHEREAS, the District will continue to:

1. Clearly advertise the means by which members of the public can observe a public meeting or offer comment during a meeting remotely, via either a call-in or internet-based option;

2. Provide the relevant remote access information to members of the public looking to attend a meeting of a local agency legislative body. This information includes, but is not limited to: phone numbers, passwords, URLs, email addresses, etc., such that members of the public are able to attend the meeting remotely;

3. Ensure that the public remains able to connect to a meeting and offer public comment by the means previously advertised in the meeting notice or agenda; and

4. In the event that meetings are interrupted by technological or similar technical disruptions must first resolve those issues before taking any other action(s) on items on the meeting agenda.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF LAS GALLINAS VALLEY SANITARY DISTRICT DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

Section 2. Affirmation that Local Emergency Persists. The Board of Directors hereby considers the conditions of the state of emergency in the District and proclaims that a local emergency persists throughout the District, and due to the continuing Covid-19 pandemic and its Delta variant, which would present an imminent risk to the health and safety of the Board of Directors and members of the public at an in-person meeting due to the confined space in which the Board of Directors meeting are normally held.

Section 3. Re-ratification of Governor's Proclamation of a State of Emergency. The Board hereby ratifies the Governor of the State of California's Proclamation of State of Emergency, effective as of its issuance date of March 4, 2020 and continuing through follow-up Executive Orders, the most recent being Executive Order N-5-22, issued February 28, 2022.

Section 4. Remote Teleconference Meetings. The General Manager and Staff of the LAS GALLINAS VALLEY SANITARY DISTRICT are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution including, conducting open and public meetings in accordance with Government Code section 54953(e) and other applicable provisions of the Brown Act.

Section 5. Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i) June 17, 2022, or such time the Board of Directors adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the Board of Directors of LAS GALLINAS VALLEY SANITARY DISTRICT may continue to teleconference without compliance with paragraph (3) of subdivision (b) of section 54953.

* * * * * * * * * *

I hereby certify that the forgoing is a full, true and correct copy of a resolution duly and regularly passed and adopted by the Sanitary Board of the Las Gallinas Valley Sanitary District, Marin County, California, at a regular meeting thereof held on May 19, 2022 by the following vote of the members thereof:

AYES, and in the favor thereof, Members:
NOES, Members:
ABSENT, Members:
ABSTAIN, Members:

_____
Teresa Lerch, District Secretary

APPROVED:

_____
Judy Schriebman, President

Agenda Item 2B
Date May 19, 2022

MEETING MINUTES OF APRIL 21, 2022

THE BOARD OF DIRECTORS AND STAFF OF THE LAS GALLINAS VALLEY SANITARY DISTRICT MET IN OPEN SESSION BY ZOOM CONFERENCE ON APRIL 21, 2022 AT 4:02 PM BY ZOOM CONFERENCE AT THE DISTRICT OFFICE, 101 LUCAS VALLEY ROAD, SUITE 300 CONFERENCE ROOM, SAN RAFAEL, CA. 94903

BOARD MEMBERS PRESENT:	Megan Clark, Ron Ford, Craig Murray, Judy Schriebman and Crystal Yezman
BOARD MEMBERS ABSENT:	None.
STAFF PRESENT:	Chris DeGabriele, Interim General Manager; Teresa Lerch, Board Secretary; Dale McDonald, District Treasurer; Sahar Golshani, Lab Services Director;
OTHERS PRESENT:	Patrick Richardson, District Counsel
ANNOUNCEMENT:	President Schriebman announced that the agenda had been posted as evidenced by the certification on file in accordance with the law

1. **PUBLIC COMMENT:** None.

2. **CONSENT CALENDAR:**

These items are considered routine and will be enacted, approved or adopted by one motion unless a request for removal for discussion or explanation is received from the staff or the Board.

A. Approve Resolution 2022-2249 – Remote Meetings
B. Approve the Board Minutes for March 17, 2022
C. Approve the Warrant List for April 21, 2022
D. Approve Board Compensation for March 2022
E. Approve Murray attending NBWA virtual Annual Conference April 8
F. Approve Schriebman attending NBWA virtual Annual Conference April 8
G. Approve Resolution 2022-2250 Sewer Service Charge Low Income Program
H. Approve Final Spring Newsletter
I. Approve Resolution 2022-2251 Board Policies B-30 Board Meeting Agenda and F-30 Accounting

Items D and H were pulled for discussion. Yezman will be including a March Biosolids Webinar in her April Board Compensation request.

ACTION:

Board approved (M/S Murray/Ford 5-0-0-0) the Consent Calendar items A through I.

AYES: Clark, Ford, Murray, Schriebman and Yezman
NOES: None.
ABSENT: None.
ABSTAIN: None.

3. **INFORMATION ITEMS:**
STAFF / CONSULTANT REPORTS:
   1. Interim General Manager's Report – DeGabriele reported.
   2. FutureSense Report Recommendations – DeGabriele reported. Discussion ensued.
   3. Board Policies B-40 Board Committees and F-40 Budget – Discussion ensued. Staff changes were accepted with no other modifications.

4. **APPROVE SODIUM BISULFITE, SODIUM HYPOCHLORITE AND LIQUID FERRIC CHLORIDE CHEMICAL BIDS**
Board reviewed the Sodium Bisulfite, Sodium Hypochlorite and Liquid Ferric Chloride Chemical bids. Discussion ensued.

ACTION:
Board approved (M/S Murray/Yezman 5-0-0-0) the Univar Contract Proposal for Furnishing Liquid Sodium Bisulfite, the Univar proposal for Furnishing Liquid Sodium Hypochlorite, and the Kemira Water Solutions, Proposal for Furnishing Liquid Ferric Chloride during the twelve-month period July 1, 2022 to June 30, 2023.

AYES:	Clark, Ford, Murray, Schriebman and Yezman
NOES:	None.
ABSENT:	None.
ABSTAIN:	None.

5. **BUDGET WORKSHOP ON PRELIMINARY 2022-23 BUDGET**
Board and staff reviewed the Preliminary 2022-23 budget. Discussion ensued. Staff will incorporate feedback and bring proposed budget back to Board.

6. **BOARD MEMBER REPORTS**

1. CLARK
   a. NBWA Board Committee –verbal report
   b. NBWA Conference Committee – verbal report
   c. 2022 Operations Control Center Ad Hoc Committee – verbal report
   d. Other Reports–no report

2. FORD
   a. NBWRA – no report
   b. Gallinas Watershed Council– no report
   c. 2022 Engineering Ad Hoc Committee re: Secondary Treatment Plant Upgrade – no report
   d. 2022 Operations Control Center Ad Hoc Committee – verbal report
   e. 2022 Human Resources Ad Hoc Committee –no report
   f. Marin County Special Districts Association – no report
   g. Other Reports – none

3. MURRAY
   a. Marin LAFCO – verbal report
   b. CASA Energy Committee– no report
   c. 2022 GM Recruitment Ad Hoc Committee - no report
   d. Other Reports – verbal – Electric Drive Event

4. SCHRIEBMAN
   a. JPA Local Task Force– verbal report
   b. Gallinas Watershed Council – no report
   c. 2022 Legal Services Ad Hoc Committee – no report
   d. 2022 Biosolids Ad Hoc Committee – no report

e. 2022 Human Resources Ad Hoc Committee – no report
f. Other Reports- no report

5. YEZMAN
   a. Flood Zone 7– no report
   b. CSRMA – no report
   c. Marin Special District Association – no report
   d. 2022 STPURWE Engineering Ad Hoc Committee– no report
   e. 2022 GM Recruitment Ad Hoc Committee – no report
   f. 2022 Legal Services Ad Hoc Committee – no report
   g. Other Reports–verbal – County Housing Element

7. BOARD REQUESTS:

A. Board Meeting Attendance Requests – Clark would like to attend a PFAS webinar.
B. Board Agenda Item Requests – None.

8. MISCELLANEOUS DISTRICT CORRESPONDENCE:

Discussion ensued.

9. ADJOURNMENT:

ACTION:

Board approved (M/S Clark/Murray 5-0-0-0) the adjournment of the meeting at 6:28 p.m. in honor of Earth Day tomorrow.

AYES: Clark, Ford, Murray, Schriebman and Yezman.
NOES: None.
ABSENT: None.
ABSTAIN: None.

The next Board Meeting is scheduled for May 5, 2022 4 PM by Zoom Meeting at the District Office.

ATTEST:

_____
Teresa Lerch, District Secretary

APPROVED:

_____
Crystal J. Yezman, Board Vice-President
SEAL

MEETING MINUTES OF MAY 5, 2022

THE BOARD OF DIRECTORS OF THE LAS GALLINAS VALLEY SANITARY DISTRICT MET IN OPEN SESSION BY ZOOM CONFERENCE ON MAY 5, 2022, AT 4:02 PM AND STAFF BY ZOOM CONFERENCE AT THE DISTRICT OFFICE, 101 LUCAS VALLEY ROAD, SUITE 300 CONFERENCE ROOM, SAN RAFAEL, CA. 94903

BOARD MEMBERS PRESENT:	Megan Clark, Ron Ford, Craig Murray, Judy Schriebman and Crystal Yezman
BOARD MEMBERS ABSENT:	None.
STAFF PRESENT:	Chris DeGabriele, Interim General Manager; Teresa Lerch, Board Secretary; Dale McDonald, District Treasurer; Mike Cortez, District Engineer;
OTHERS PRESENT:	Patrick Richardson, District Counsel;
ANNOUNCEMENT:	President Schriebman announced that the agenda had been posted as evidenced by the certification on file in accordance with the law

1. **PUBLIC COMMENT:** None.

ACTION:

THE BOARD OF DIRECTORS OF THE LAS GALLINAS VALLEY SANITARY DISTRICT ADJOURNED TO CLOSED SESSION ON MAY 5, 2022 , AT 4:02 PM, BY ZOOM CONFERNCE AND AT THE DISTRICT OFFICE, 101 LUCAS VALLEY ROAD, SUITE 300, CONFERENCE ROOM, SAN RAFAEL, CALIFORNIA.

Lerch, Cortez and McDonald left at 4:03 pm.

CLOSED SESSION:

CONFERENCE WITH LEGAL COUNSEL—ANTICIPATED LITIGATION – Significant exposure to litigation pursuant to paragraph (2) of Government Code § 54956.9: One potential case.

ADJOURNMENT:

ACTION:
The Board of Directors of the Las Gallinas Valley Sanitary District reconvened the Regular Session on May 5, 2022 at 4:20 pm.

BOARD MEMBERS PRESENT:	Megan Clark, Ron Ford, Craig Murray, Judy Schriebman and Crystal Yezman
STAFF PRESENT:	Chris DeGabriele, Interim General Manager; Dale McDonald, District Treasurer; Teresa Lerch, District Secretary; Mel Liebmann, Plant Manager; Mike Cortez, District Engineer;
OTHERS PRESENT:	None.
PUBLIC COMMENT:	None.

REPORT ON CLOSED SESSION: President Schriebman reported that there were no reportable actions in Closed Session.

2. CONSENT CALENDAR:

These items are considered routine and will be enacted, approved or adopted by one motion unless a request for removal for discussion or explanation is received from the staff or the Board.

A. Approve the Board Minutes April 7, 2022
B. Approve the Warrant List for May 5, 2022
C. Approve Murray attending the Green Hydrogen Briefing Webinar on April 27
D. Approve Bid Award for Biosolids Surface Injections and Reclamation Pastureland Irrigation
E. Approve Regulatory Compliance Consulting Services Contract
F. Approve SCADA Support Services Contract
G. Approve Resolution 2022-2252 Board Policies B-40 Board Committees F-40 Budget

Item A was pulled and discussed.

ACTION:

Board approved (M/S Ford/Murray 5-0-0-0) the Consent Calendar items A through G with a minor correction to item A.

AYES: Clark, Ford, Murray, Schriebman and Yezman
NOES: None.
ABSENT: None.
ABSTAIN: None.

3. INFORMATION ITEMS:

STAFF / CONSULTANT REPORTS:

1. Interim General Manager's Report – DeGabriele reported.
2. District Correspondence – Discussion ensued
3. Board Policies B-50 Training/Seminars/Travel/Meals and F-50 Reserves- Discussion ensued.
4. Quarterly Financial Report – McDonald reported on third quarter, January through March.
5. Quarterly Department Reports – Administration and Engineering – McDonald and Cortez reported.

4. BOARD MEMBER REPORTS:

1. CLARK
   a. NBWA Board Committee –no report
   b. NBWA Conference Committee – no report
   c. 2022 Operations Control Center Ad Hoc Committee – no report
   d. Other Reports–verbal report on PFAS webinar

2. FORD
   a. NBWRA –no report
   b. Gallinas Watershed Council– verbal report
   c. 2022 Engineering Ad Hoc Committee re: Secondary Treatment Plant Upgrade – no report
   d. 2022 Operations Control Center Ad Hoc Committee – no report
   e. 2022 Human Resources Ad Hoc Committee –no report
   f. Marin County Special Districts Association – no report
   g. Other Reports – none.

3. MURRAY
   a. Marin LAFCO – no report
   b. CASA Energy Committee– verbal report
   c. 2022 GM Recruitment Ad Hoc Committee - no report
   d. Other Reports – written/verbal - Green Hydrogen Webinar

4. SCHRIEBMAN
    a. JPA Local Task Force– no report
    b. Gallinas Watershed Council – no report
    c. 2022 Legal Services Ad Hoc Committee – no report
    d. 2022 Biosolids Ad Hoc Committee – verbal report
    e. 2022 Human Resources Ad Hoc Committee – no report
    f. Other Reports- no report

5. YEZMAN
    a. Flood Zone 7– no report
    b. CSRMA – no report
    c. Marin Special District Association – no report
    d. 2022 STPURWE Engineering Ad Hoc Committee– no report
    e. 2022 GM Recruitment Ad Hoc Committee – no report
    f. 2022 Legal Services Ad Hoc Committee – no report
    g. Other Reports–verbal – Santa Venetia Neighborhood Association meeting

ACTION:
Board approved (M/S Clark/Ford 5-0-0-0) compensating Schriebman and Yezman for attending the April 27th Santa Venetia Neighborhood Association meeting.

AYES: Clark, Ford, Murray, Schriebman and Yezman
NOES: None.
ABSENT: None.
ABSTAIN: None.

5. BOARD REQUESTS:
A. Board Meeting Attendance Requests – none.
B. Board Agenda Item Requests- none. Director Ford will speak to the Interim General Manager about the Bay Trail Connection through District Property.

6. MISCELLANEOUS DISTRICT CORRESPONDENCE:
Discussion ensued.

7. ADJOURNMENT:
ACTION:
Board approved (M/S Ford/Murray 5-0-0-0) the adjournment of the meeting at 7:01p.m.

AYES: Clark, Ford, Murray, Schriebman and Yezman
NOES: None.
ABSENT: None.
ABSTAIN: None.

The next Board Meeting is scheduled for May 19, 4 PM by Zoom Meeting at the District Office.

ATTEST:

_____
Teresa Lerch, District Secretary

APPROVED:

_____
Crystal J. Yezman, Board Vice-President

Agenda Item 2C

Date May 19, 2022

Las Gallinas Valley Sanitation District
Warrant List 5/19/2022 DRAFT

	Date	Num	Vendor	Original Amount	Addition and Adjustment	Total Amount	Description for items
1	5/19/2022	EFT1	ADP Payroll	141,915.95		141,915.95	5/06/2022 Payroll & Processing Charges
2	5/19/2022	ACH	A and P Moving	118.30		118.30	Document Storage - May, Container Delivery Charge
3	5/19/2022	N/A	Able Tire & Brake	479.40		479.40	Oil Change & Tire Replacement Chevy Silverado
4	5/19/2022	N/A	Aramark Uniform Service	802.51		802.51	Laundry Service Week Ending 4/25 & 5/2 & 2/7
5	5/19/2022	ACH	Azteca Systems	36,000.00		36,000.00	Maintenance Software Renewal 7/1/22- 6/30/23
6	5/19/2022	ACH	Bellecci & Associates	710.00		710.00	Senior Inspector on Sewer Lateral & Sewer Pump Inspections
7	5/19/2022	N/A	BullsEye Telecom	315.61		315.61	Trunk Lines
8	5/19/2022	ACH	Byers Law Office	8,812.50		8,812.50	Legal Services- April
9	5/19/2022	EFT	CalPERS 457 Plan	7,464.46		7,464.46	EE's Contribution to Deferred Comp. Paydate 5/06/2022
10	5/19/2022	EFT	CalPERS Retirement	22,850.76		22,850.76	EE & ER Payment to Retirement- Paydate 5/06/2022
11	5/19/2022	ACH	Caltest Analytical Labs	5,218.85		5,218.85	Sample Testing
12	5/19/2022	ACH	Contractor Compliance and Monitoring	5,282.21		5,282.21	Labor Compliance for April
13	5/19/2022	ACH	Core Utilities	1,890.00		1,890.00	IT Services- April
14	5/19/2022	N/A	CPM Construction	5,250.00		5,250.00	STPURWE- Estimating & Scheduling Support - April
15	5/19/2022	ACH	CPS HR Consulting	1,222.50		1,222.50	Classification Study
16	5/19/2022	ACH	Data Instincts	2,492.50		2,492.50	Public Information & Awareness Newsletter
17	5/19/2022	EFT	Direct Dental	370.65		370.65	EE's Dental Payment
18	5/19/2022	EFT	Discovery Benefits	355.96		355.96	EE FSA Payment
19	5/19/2022	ACH	Du-All Safety	4,728.00		4,728.00	Safety and Training for LGVSD- April
20	5/19/2022	N/A	East Bay MUD	1,136.64		1,136.64	Bay Area Chemical Consortium Bid Participation Fee
21	5/19/2022	ACH	EOA	11,092.25		11,092.25	Technical Assistance for Regulatory Permits, On-Call Support for Intergrated Waterwater Master Plan
22	5/19/2022	ACH	Ford, Ron	200.00		200.00	Medical Reimbursement- May
23	5/19/2022	ACH	Gardeners Guild	1,179.00		1,179.00	Landscape Maintenance - May
24	5/19/2022	ACH	Grainger	8,205.38		8,205.38	Key Control Cabinet, Lubricant Oil, Hose Clamp, Flanges Gasket, Swing Check Valves, Nitrile Gloves, Etc.
25	5/19/2022	N/A	GraphicSmith	204.10		204.10	Internet Site Design- April
26	5/19/2022	ACH	Hach	1,106.52		1,106.52	Sensor Cap Replacement, Peek Salt Bridge
27	5/19/2022	ACH	Hanford ARC	5,040.00		5,040.00	Lower Miller Creek Weed Management & Irrigation Maintenance
28	5/19/2022	N/A	Hazen and Sawyer	1,550.00		1,550.00	MCC Digester Room Upgrades
29	5/19/2022	N/A	Herb's Pool Supply	139.64		139.64	Telecopic Pole, Cleaning Brush

Las Gallinas Valley Sanitation District
Warrant List 5/19/2022 DRAFT

	Date	Num	Vendor	Original Amount	Addition and Adjustment	Total Amount	Description for items
30	5/19/2022	ACH	Inskeep, Steven	550.00		550.00	CWEA Conference Registration
31	5/19/2022	N/A	Jackson's Hardware	693.83		693.83	Tyvek Suit, Drill Bits, Misc. Supplies
32	5/19/2022	N/A	Jefferson Security	90.00		90.00	Alarm Updates
33	5/19/2022	ACH	Kenwood Energy	1,720.00		1,720.00	Solar Replacement Assistance-April
34	5/19/2022	ACH	Kleinfelder	760.25		760.25	STPURWE- Construction Inspection & Materials Testing
35	5/19/2022	N/A	Marin Ace	197.59		197.59	Light Bulbs for Pump Stations, Maytag Water Filter, Coveralls
36	5/19/2022	ACH	Marin Independent Journal	614.44		614.44	Public Notices on Ordinances & Bids
37	5/19/2022	N/A	Marin Water	4,004.30		4,004.30	Water Use at Plant and Pump Stations - 2/19 - 4/19
38	5/19/2022	N/A	Martis Consultants	4,348.80		4,348.80	Planning Assistance for Biosolids Management
39	5/19/2022	N/A	McMaster Carr	475.54		475.54	Misc. Supplies
40	5/19/2022	ACH	Murray, Craig	125.00		125.00	Medical Reimbursement- May
41	5/19/2022	N/A	North Bay Gas & Welding Supply	182.41		182.41	Welding Gases, Hoses & Rod
42	5/19/2022	N/A	North Bay Petroleum	3,864.86		3,864.86	Diesel & Unleaded Fuel, Oil & Oil Drum Return
43	5/19/2022	N/A	North Valley Labor Compliance	150.00		150.00	Labor Compliace for LMC Revegetation Maintenance
44	5/19/2022	N/A	Operating Engineers	587.48		587.48	Union Dues 5/6 Paydate
45	5/19/2022	N/A	PG&E	157,831.95		157,831.95	12/27/21 - 3/27/2022 Retro True-Up for Plant Power
46	5/19/2022	N/A	PG&E	6,263.24		6,263.24	Pump Stations - 3/18 - 4/18
47	5/19/2022	N/A	PG&E	714.16		714.16	CNG for Collections Truck
48	5/19/2022	N/A	PG&E	314.33		314.33	Solar 3/28 - 4/26
49	5/19/2022	N/A	Piazza Construction	40,175.00		40,175.00	On-Call Contract for Construction
50	5/19/2022	N/A	Platt	161.62		161.62	Misc. Supplies
51	5/19/2022	N/A	Rafael Lumber	222.24		222.24	Misc. Supplies
52	5/19/2022	N/A	Rathlin Properties	9,071.00		9,071.00	June Rent 101 Lucas Valley Rd.
53	5/19/2022	ACH	Retiree Augusto	145.65		145.65	Retiree Health- June
54	5/19/2022	ACH	Retiree Burgess	153.53		153.53	Retiree Health- June
55	5/19/2022	ACH	Retiree Cummins	153.53		153.53	Retiree Health- June
56	5/19/2022	ACH	Retiree Cutri	880.60		880.60	Retro for May Added Back to CalPERS, Medicare Paperwork Received by CalPERS
57	5/19/2022	ACH	Retiree Emanuel	232.94		232.94	Retiree Health- June
58	5/19/2022	ACH	Retiree Gately	158.44		158.44	Retiree Health- June

Las Gallinas Valley Sanitation District
Warrant List 5/19/2022 DRAFT

	Date	Num	Vendor	Original Amount	Addition and Adjustment	Total Amount	Description for items
59	5/19/2022	ACH	Retiree Guion	158.44		158.44	Retiree Health- June
60	5/19/2022	ACH	Retiree Johnson	702.40		702.40	Retiree Health- June
61	5/19/2022	ACH	Retiree Kermoian	153.53		153.53	Retiree Health- June
62	5/19/2022	ACH	Retiree Mandler	153.53		153.53	Retiree Health- June
63	5/19/2022	ACH	Retiree McGuire	625.00		625.00	Retiree Health- June
64	5/19/2022	ACH	Retiree Memmott	153.53		153.53	Retiree Health- June
65	5/19/2022	ACH	Retiree Petrie	145.65		145.65	Retiree Health- June
66	5/19/2022	ACH	Retiree Pettey	153.53		153.53	Retiree Health- June
67	5/19/2022	ACH	Retiree Reetz	456.06		456.06	Retiree Health- June
68	5/19/2022	ACH	Retiree Reilly	153.53		153.53	Retiree Health- June
69	5/19/2022	ACH	Retiree Vine	153.53		153.53	Retiree Health- June
70	5/19/2022	ACH	Retiree Wettstein	667.00		667.00	Retiree Health- June
71	5/19/2022	ACH	Retiree Williams	667.00		667.00	Retiree Health- June
72	5/19/2022	ACH	Satcom Global	158.77		158.77	May Charge for Satelite Phones
73	5/19/2022	ACH	Schriebman, Judy	200.00		200.00	Medical Reimbursement- May
74	5/19/2022	N/A	Towne Communications	176.60		176.60	Quarterly Charge for Post Warranty Agreement on Phone System
75	5/19/2022	N/A	TPX Comminucations	558.72		558.72	Phone Services- May
76	5/19/2022	N/A	Uline	2,079.12		2,079.12	Dividers for Shelf Bins
77	5/19/2022	N/A	United Site Services	578.40		578.40	Porta Potties - May
78	5/19/2022	ACH	Univar	7,253.24		7,253.24	Sodium Hypochlorite
79	5/19/2022	EFT	Wex Health	50.00		50.00	FSA Admin Fee
80	5/19/2022	N/A	Woodland Center Auto Supply	266.85		266.85	Batteries & Oil for Fleet
81	5/19/2022	ACH	Yezman, Crystal	200.00		200.00	Medical Reimbursement- May

Las Gallinas Valley Sanitation District
Warrant List 5/19/2022 DRAFT

	Date	Num	Vendor	Original Amount	Addition and Adjustment	Total Amount	Description for items
			Do not change any formulas below this line.				
			TOTAL	$ 526,840.85	$ -	$ 526,840.85	
		EFT1	EFT1 = Payroll (Amount Required)	141,915.95		141,915.95	Approval:
		EFT2	EFT2 = Bank of Marin loan payments	0.00		0.00	
		PC	Petty Cash Checking	0.00		0.00	Finance
		>1	Checks (Operating Account)	0.00		0.00	
		N/A	Checks - Not issued	242,885.94		242,885.94	GM
		EFT	EFT = Vendor initiated "pulls" from LGVSD	31,091.83		31,091.83	
		ACH	ACH = LGVSD initiated "push" to Vendor	110,947.13		110,947.13	Board
			Total	$ 526,840.85		$ 526,840.85	
			Difference:			$ -	
			STPURWE Costs	6,010.25			

Agenda Item 2D
Date May 19, 2022

Directors' Meeting Attendance Recap

Name	Total Meetings
Megan Clark	5
Ron Ford	3
Craig Murray	6
Judy Schriebman	6
Crystal Yezman	5
Total	25

Meeting Date: 5/19/2022
Paydate: 5/20/2022

Las Gallinas VALLEY SANITARY DISTRICT

101 Lucas Valley Road, Suite 300, San Rafael, CA 94903
Office: 415.472.1734 Fax: 415.499.7715

BOARD MEMBER ATTENDANCE FORM

Director's Name: Megan Clark Month: March 2022

Board Members shall be compensated for up to the legal limit of six (6) meetings per month and one (1) per day. Board members are limited to four (4) conferences or seminars per year. For multi-day conferences, compensation shall be at a maximum of one (1) meeting per day.

REGULAR and SPECIAL MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
3-3-22	Regular	X	
3-17-22	Regular	X	
TOTAL		2	

OTHER MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
3-4-22	NBWA – REGULAR	X	
3-7-22	OCC AD HOC COMM.	X	
3-8-22	NBWA CONFERENCE – VIRTUAL	X	
3-10-22	TELEPHONE INTERVIEW FOR GM		X
TOTAL		3	1

Total Meetings for which I am Requesting Payment: Max of six (6) per Health & Safety Code §4733	5

I hereby certify that the meetings as set forth above are true and correct and are for the purpose of conducting official business for the Las Gallinas Valley Sanitary District.

Megan Clark
Director Signature

4-12-22
Date

Las Gallinas
VALLEY SANITARY DISTRICT

101 Lucas Valley Road, Suite 300, San Rafael, CA 94903
Office: 415.472.1734 Fax: 415.499.7715

BOARD MEMBER ATTENDANCE FORM

Administrative Services Manager Approved	Date: 5/6/22
Board Secretary Received	Date: 5/5/22

Las Gallinas VALLEY SANITARY DISTRICT

101 Lucas Valley Road, Suite 300, San Rafael, CA 94903
Office: 415.472.1734 Fax: 415.499.7715

BOARD MEMBER ATTENDANCE FORM

Director's Name: Ron Ford Month: April 2022

Board Members shall be compensated for up to the legal limit of six (6) meetings per month and one (1) per day. Board members are limited to four (4) conferences or seminars per year. For multi-day conferences, compensation shall be at a maximum of one (1) meeting per day.

REGULAR and SPECIAL MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
4/07	Reg. Board	✓	
4/21	Reg. Board	✓	
TOTAL			

OTHER MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
4/20	C.S.A. 18		✓
4/27	S.V.S.A		✓
4/13	O.C.C. Ad Hoc	✓	
TOTAL			

Total Meetings for which I am Requesting Payment: Max of six (6) per Health & Safety Code §4733	3

I hereby certify that the meetings as set forth above are true and correct and are for the purpose of conducting official business for the Las Gallinas Valley Sanitary District.

Ronald Ford — Director Signature — 04/29/2022 — Date

[signature] — Administrative Services Manager Approved — 5/6/22 — Date

[signature] — Board Secretary Received — 5/4/22 — Date

Las Gallinas VALLEY SANITARY DISTRICT

101 Lucas Valley Road, Suite 300, San Rafael, CA 94903
Office: 415.472.1734 Fax: 415.499.7715

BOARD MEMBER ATTENDANCE FORM

Director's Name: MURRAY, Craig K. Month: April 2022

Board Members shall be compensated for up to the legal limit of six (6) meeting per month and one (1) per day. Board members are limited to four (4) conferences or seminars per year. For multi-day conferences, compensation shall be at a maximum of one (1) meeting per day.

REGULAR and SPECIAL MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
4/7/22	Board Meeting	X	
4/21/22	Board Meeting	X	
TOTAL		2/2	

OTHER MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
4/3,10,23/22	Merrydale Road/Las Gallinas Creek Headwater Litter Removal c/o City of San Rafael: 4/3 0.5 hours; 4/10 0.5 hours; 3/23 6.0 hours		XXX
4/1/22	District Ethics Training	X	
4/5/22	Safe Routes to School – Merrydale Road to Venetia Valley School Field Audit with Stakeholders		X
4/6/22	City of San Rafael Bicycle Pedestrian Advisory Committee – 101 SMART South Path		x
4/8/22	NBWA Annual Conference	X	
4/10/22	Marin LAFCo Meeting		X
4/13/21	International Right of Way Association – Chapter Mtg. Walnut Creek		X
4/19-21/22	2nd Annual Statewide Illegal Dumping Conference		XXX
4/26/22	Efficiently Improve Your Cloud Security Posture – Government Technology (GT)		X
4/26/22	Safe Routes to School Quarterly Meeting – Venetia Valley School Connector Walk Audit Report		X
4/27/22	Green Hydrogen – Briefing Series: Scaling Up Innovation to Drive Down Emissions. Environmental and Energy Study Institute, Washington DC	X	
4/28/22	CASA Air Quality, Climate Change & Energy (ACE) Workgroup Meeting	X	

Las Gallinas VALLEY SANITARY DISTRICT

101 Lucas Valley Road, Suite 300, San Rafael, CA 94903
Office: 415.472.1734 Fax: 415.499.7715

BOARD MEMBER ATTENDANCE FORM

TOTAL	4/16

Total Meetings for which I am Requesting Payment: Max of six (6) per Health & Safety Code §4733	**6/18**

I hereby certify that the meetings as set forth above are true and correct and are for the purpose of conducting official business for the Las Gallinas Valley Sanitary District.

Craig K. Murray	April 28, 2022
Director Signature	Date
	5/6/22
Administrative Services Manager Approved	Date
	4.29.22
Board Secretary Received	Date

Las Gallinas VALLEY SANITARY DISTRICT

101 Lucas Valley Road, Suite 300, San Rafael, CA 94903
Office: 415.472.1734 Fax: 415.499.7715

BOARD MEMBER ATTENDANCE FORM

Director's Name: _____Judy Schriebman_____ Month: _____April 2022____

Board Members shall be compensated for up to the legal limit of six (6) meetings per month and one (1) per day. Board members are limited to four (4) conferences or seminars per year. For multi-day conferences, compensation shall be at a maximum of one (1) meeting per day.

REGULAR and SPECIAL MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
4/7	Regular Meeting	X	
4/21	Regular Meeting	X	
TOTAL		2:2	

OTHER MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
4/6	GWC Meeting	X	
4/8	NBWA Conference	X	
4/9	Working Lands Zoom mtg Greg Kester/Sarah Deslauriers	X	
4/27/22	SVNA Community Meeting McInnis Marsh	X	
TOTAL		3:1.	

Total Meetings for which I am Requesting Payment: Max of six (6) per Health & Safety Code §4733	5/6

I hereby certify that the meetings as set forth above are true and correct and are for the purpose of conducting official business for the Las Gallinas Valley Sanitary District.

Judy Schriebman	5/3/2022
Director Signature	Date
Administrative Services Manager Approved	5/6/22 Date
Board Secretary Received	5/3/22 Date

Las Gallinas VALLEY SANITARY DISTRICT

101 Lucas Valley Road, Suite 300, San Rafael, CA 94903
Office: 415.472.1734 Fax: 415.499.7715

BOARD MEMBER ATTENDANCE FORM

Director's Name: Yezman Month: April 2022

Board Members shall be compensated for up to the legal limit of six (6) meeting per month and one (1) per day. Board members are limited to four (4) conferences or seminars per year. For multi-day conferences, compensation shall be at a maximum of one (1) meeting per day.

REGULAR and SPECIAL MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
04/07/22	Regular Board Mtg	X	
04/21/22	Regular Board Mtg	X	
TOTAL		2	

OTHER MEETINGS		CHARGING DISTRICT	
Date	Description of meeting	Yes	No
03/07/22	Biosolids 101 (missed on March report)	X	
04/27/22	SVNA Community Meeting – McInnis March Restoration	X	
3/7/22	Biosolids Webinar	X	
TOTAL		~~2~~ 3	

(TZ)

Total Meetings for which I am Requesting Payment: Max of six (6) per Health & Safety Code §4733	~~4~~ 5

I hereby certify that the meetings as set forth above are true and correct and are for the purpose of conducting official business for the Lad Gallinas Valley Sanitary District. (TZ)

Director Signature — Date: 05/05/22

Administrative Services Manager Approved — Date: 5/6/22

Board Secretary Received — Date: 5/5/22

Agenda Item 2E
Date May 19, 2022

Las Gallinas VALLEY SANITARY DISTRICT

BOARD MEMBER
MEETING ATTENDANCE REQUEST

Date: 5/6/2022 **Name:** Judy Schriebman

I would like to attend the Circular Economy Symposium **Meeting**

of CalRecycle

To be held on the 17 **day of** May **from** 1 pm **a.m. / p.m. and**

returning on _____ **day of** _____ **from** to 3 pm **a.m. / p.m.**

Actual meeting date(s): May 17, 2022

Purpose of Meeting: Join California Secretary for Environmental Protection Jared Blumenfeld, CalRecycle Director Rachel Machi Wagoner, Legislators, state and business leaders, and Californians from all walks of life as we plan how to build California's circular, remanufacturing and reuse system to make sure products used in California are recycled here in our state.

Frequency of Meeting: One time

Estimated Costs of Travel (if applicable): N/a

Please submit to Carolyn, District Administrative Assistant, no later than 2:00 p.m. on the Friday prior to the Board Meeting.

For Office Use Only

Request was □Approved □Not Approved at the Board Meeting held on _____.

AGENDA ITEM 2F
DATE May 19, 2022

Las Gallinas VALLEY SANITARY DISTRICT

BOARD MEMBER CONFERENCE/ MEETING ATTENDANCE REQUEST

Date: 4-28-22 **Name:** MURRAY, Craig K.

I would like to attend the The Circular Economy Symposium **Meeting**

of CalRecycle

To be held on the 17th **day of** May **from** 1 **a.m. / p.m.**

to 17th **day of** May **to** 3 **a.m. / p.m.**

Location of meeting: online

Actual meeting date(s): 5/17/22

Meeting Type: (In person/Webinar/Conference) Webinar

Purpose of Meeting: Trash Mgt

Meeting relevance to District: Product Manuf and Reuse

	YES	NO
Request assistance from Board Secretary to register for Conference:	☐	☐
Request assistance from Board Secretary to register for Hotel:	☐	☐

Board Directors to book their own transportation including Airfare, taxi and/or shuttles.

Frequency of Meeting:
1x

Estimated Costs of Travel (if applicable): n/a

Date submitted to Board Secretary: 4/28/22

Board approval obtained on Date:

REVISED 03032022

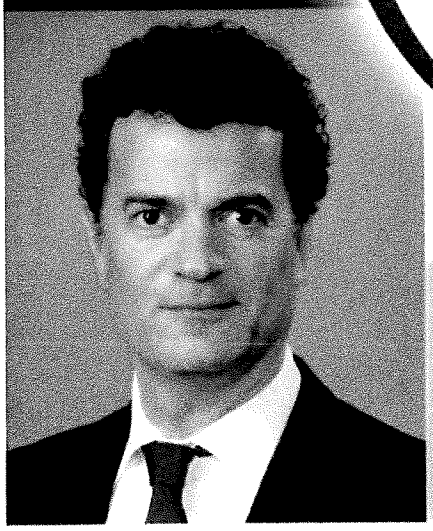
AGENDA ITEM_____
DATE _____

Please submit this form to the Board Secretary no later than 1 week prior to the Board Meeting.

REVISED 03032022

The Circular Economy Symposium

Turning Trash Into California's Next Innovation Boom



CalEPA Secretary,
Jared Blumenfeld

Tuesday, May 17

1 p.m. to 3 p.m.

Register Today!

Join CalEPA Secretary Jared Blumenfeld, CalRecycle Director Rachel Machi Wagoner, Legislators, business leaders, and Californian's from all walks of life as we plan how to build California's circular, remanufacturing and reuse system to make sure products used in California are recycled here in our state.

"To overcome the problems of a disposable system, we must design products for their next life."

- CalRecycle Director,
Rachel Machi Wagoner

CalRecycle

You're Registered!

Circular Economy Symposium

Tue, May 17, 2022 1:00 PM - 3:00 PM PDT

Add to Calendar

At the time above, join the webinar. (https://global.gotowebinar.com/join/2942149502427915792/327638771)

Before joining, be sure to check system requirements (https://link.gotowebinar.com/confirmation?source=attendeeRegistrationPage&language=english) to avoid any connection issues.

A confirmation email with information on how to join the webinar has been sent to you.

Questions or comments on the webinar? Contact webconf1@calrecycle.ca.gov (mailto:webconf1@calrecycle.ca.gov)

Can't make the webinar?

Cancel or update your registration

AGENDA ITEM 2 G
DATE May 19, 2022

Las Gallinas VALLEY SANITARY DISTRICT

BOARD MEMBER CONFERENCE/ MEETING ATTENDANCE REQUEST

Date: 4-28-22 **Name:** MURRAY, Craig K.

I would like to attend the Utility Staff Recruitment & Retention

Meeting of RCAC, CA Water Boards

To be held on the 24th **day of** May **from** 10 **a.m. / p.m.**

to 24th **day of** May **to** 12 **a.m. / p.m.**

Location of meeting: online

Actual meeting date(s): 5/24/22

Meeting Type: (In person/Webinar/Conference) Webinar

Purpose of Meeting: Human Resources Processes

Meeting relevance to District: Recruitment & Retension

	YES	NO
Request assistance from Board Secretary to register for Conference:	☐	☐
Request assistance from Board Secretary to register for Hotel:	☐	☐

Board Directors to book their own transportation including Airfare, taxi and/or shuttles.

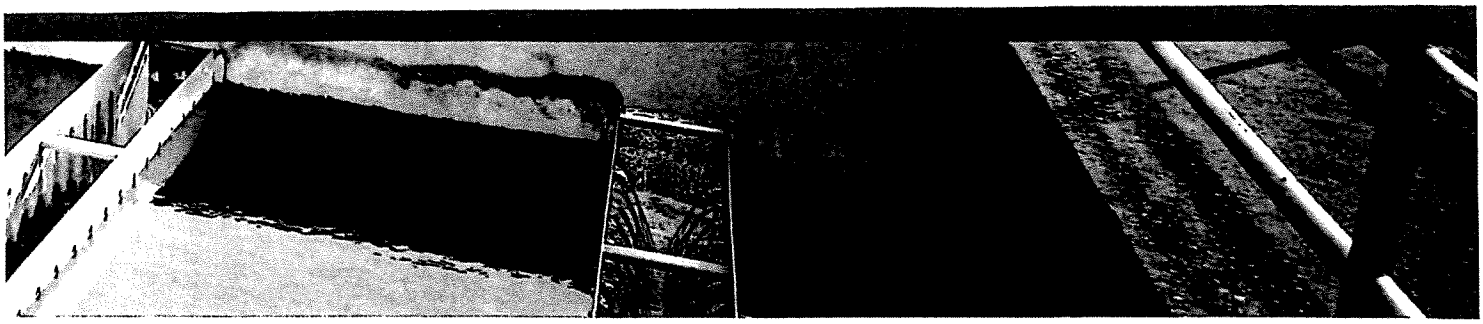
Frequency of Meeting:
1x

Estimated Costs of Travel (if applicable): n/a

Date submitted to Board Secretary: 4/28/22

Board approval obtained on Date: _____

REVISED 03032022



Utility Staff Recruitment & Retention

May 24, 2022 @ 10 a.m. & 2 p.m.

Your water operator, office staff or manager has just given their notice and they are moving on to another job. They have been there for years and know the system history, where all the (hidden) valves/meters are, and developed relationships with all entities required to manage or operate a public water system. The powers that be (local government and/or management) may be wondering, "What could we have done to prevent this employee from seeking other employment?" and "How do we go about hiring someone to replace this valuable resource?" This workshop will utilize the trainer's and participant's experiences to explore these conundrums.

Participants will learn:

- About advertising, interviewing and hiring of water system managers, office staff and operators
- The resources available to assist with hiring good people
- About budgeting to acquire and retain competent staff
- How to use staff evaluations to help with retention longevity
- How to retain excellent staff (hint, it's not always about the money!)

Board Basics Series: The recommended audience includes management & local government board of directors.

Public Notification: Your Customers Have the Right to Know

May 25, 2022 @ 10 a.m. & 2 p.m.

Despite the efforts of water suppliers, water quality can sometimes change, and problems with drinking water can and do occur. When problems arise, consumers have a right to know what happened and what they need to do to protect themselves. The public notice requirement of the Safe Drinking Water Act requires water suppliers to provide this notice, and sets strict requirements on the form, manner, content and frequency of public notices. EPA specifies three categories, or tiers, of public notification. The delivery timeframe depends on what tier a violation or situation falls into. Each tier has different required methods for delivery.

Participants will learn:

- The 10 required elements of a public notice
- How to determine which tier your situation falls under
- Federal and state requirements pertaining to public communication and notification
- Consumer Confidence Report basics

Regulations Basics Series: The recommended audience includes water system operators and managers.

Surface Water Treatment Rule

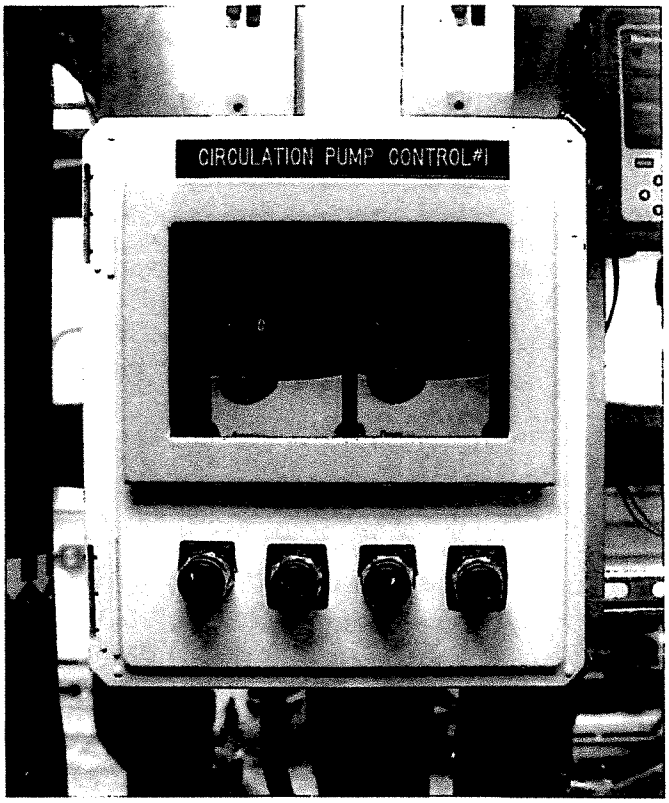
June 8, 2022 @ 10 a.m.

It's been raining for three straight days and your effluent turbidity has just spiked at your water treatment plant. What monitoring and reporting procedures do you follow? What do these new regulations say? Is your treatment method still acceptable? What do you need to report and when? This workshop is designed to help you understand surface water treatment and monitoring regulations by reviewing the basis for current and future regulations.

Participants will learn:

- The Surface Water Treatment Rule
- Long-Term 1 and Long-Term 2 Enhanced Surface Water Treatment Rules
- Existing and future water quality monitoring requirements
- Basic treatment methods and technologies
- Regulatory reporting requirements

Regulations Basics Series: The recommended audience includes operators and managers of surface water treatment facilities.



AGENDA ITEM 21
DATE May 19, 2022

Las Gallinas VALLEY SANITARY DISTRICT

BOARD MEMBER CONFERENCE/ MEETING ATTENDANCE REQUEST

Date: 4-28-22 **Name:** MURRAY, Craig K.

I would like to attend the Public Notification: Your Customers Have the Right to Know **Meeting of** RCAC, CA Water Boards

To be held on the 25th **day of** May **from** 10 **a.m. / p.m.**

to 25th **day of** May **to** 12 **a.m. / p.m.**

Location of meeting: online

Actual meeting date(s): 5/25/22

Meeting Type: (In person/Webinar/Conference) Webinar

Purpose of Meeting: Public Notifications

Meeting relevance to District: Fed.& State Req.; Public Notice Elements

	YES	NO
Request assistance from Board Secretary to register for Conference:	☐	☐
Request assistance from Board Secretary to register for Hotel:	☐	☐

Board Directors to book their own transportation including Airfare, taxi and/or shuttles.

Frequency of Meeting:
1x

Estimated Costs of Travel (if applicable): n/a

Date submitted to Board Secretary: 4/28/22

Board approval obtained on Date:

REVISED 03032022

Utility Staff Recruitment & Retention

May 24, 2022 @ 10 a.m. & 2 p.m.

Your water operator, office staff or manager has just given their notice and they are moving on to another job. They have been there for years and know the system history, where all the (hidden) valves/meters are, and developed relationships with all entities required to manage or operate a public water system. The powers that be (local government and/or management) may be wondering, "What could we have done to prevent this employee from seeking other employment?" and "How do we go about hiring someone to replace this valuable resource?" This workshop will utilize the trainer's and participant's experiences to explore these conundrums.

Participants will learn:

- About advertising, interviewing and hiring of water system managers, office staff and operators
- The resources available to assist with hiring good people
- About budgeting to acquire and retain competent staff
- How to use staff evaluations to help with retention longevity
- How to retain excellent staff (hint, it's not always about the money!)

Board Basics Series: The recommended audience includes management & local government board of directors.

Public Notification: Your Customers Have the Right to Know

May 25, 2022 @ 10 a.m. & 2 p.m.

Despite the efforts of water suppliers, water quality can sometimes change, and problems with drinking water can and do occur. When problems arise, consumers have a right to know what happened and what they need to do to protect themselves. The public notice requirement of the Safe Drinking Water Act requires water suppliers to provide this notice, and sets strict requirements on the form, manner, content and frequency of public notices. EPA specifies three categories, or tiers, of public notification. The delivery timeframe depends on what tier a violation or situation falls into. Each tier has different required methods for delivery.

Participants will learn:

- The 10 required elements of a public notice
- How to determine which tier your situation falls under
- Federal and state requirements pertaining to public communication and notification
- Consumer Confidence Report basics

Regulations Basics Series: The recommended audience includes water system operators and managers.

Surface Water Treatment Rule

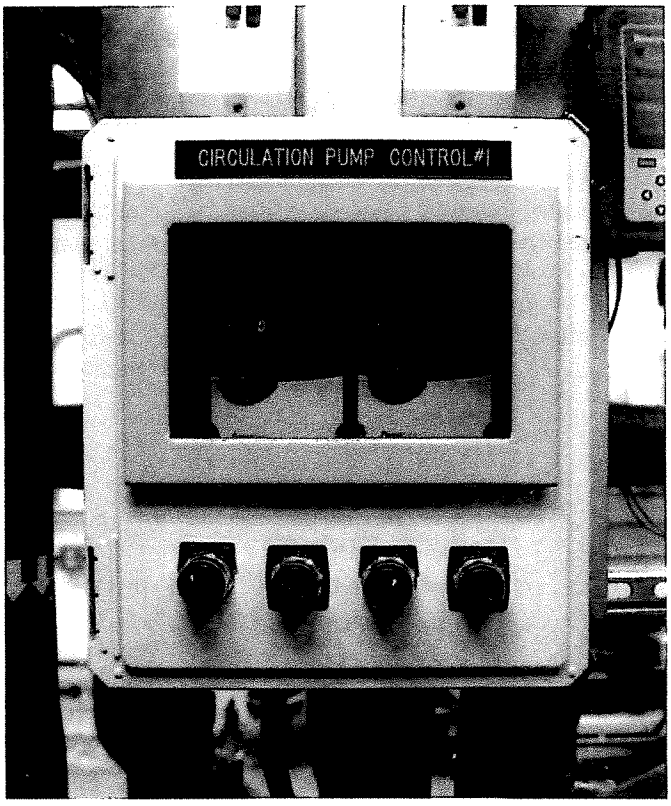
June 8, 2022 @ 10 a.m.

It's been raining for three straight days and your effluent turbidity has just spiked at your water treatment plant. What monitoring and reporting procedures do you follow? What do these new regulations say? Is your treatment method still acceptable? What do you need to report and when? This workshop is designed to help you understand surface water treatment and monitoring regulations by reviewing the basis for current and future regulations.

Participants will learn:

- The Surface Water Treatment Rule
- Long-Term 1 and Long-Term 2 Enhanced Surface Water Treatment Rules
- Existing and future water quality monitoring requirements
- Basic treatment methods and technologies
- Regulatory reporting requirements

Regulations Basics Series: The recommended audience includes operators and managers of surface water treatment facilities.



AGENDA ITEM 2 I
DATE May 19, 2022

Las Gallinas VALLEY SANITARY DISTRICT

BOARD MEMBER CONFERENCE/ MEETING/WEBINAR ATTENDANCE REQUEST

Date: 5/6/22 **Name:** Crystal Yezman

I would like to attend the CASA Annual Conf. **Meeting**

of CASA

To be held on the 10th **day of** Aug **from** ~ **a.m. / p.m. to**

12th **day of** Aug **from** _____ **a.m. / p.m.**

Location of meeting: Tahoe, CA

Actual meeting date(s): 8/10 – 8/12

Meeting Type: (In person/Webinar/Conference)

Purpose of Meeting: CSRMA Board Mtg, Educ. Seminars

Meeting relevance to District: Sanitation Assoc.

Request assistance from Board Secretary to register for Conference: YES ☒ NO ☐

Board Directors to make their own Hotel Reservations and book their own transportation including airfare, taxi and/or shuttles.

Frequency of Meeting: 1X/yr

Estimated Costs of Travel (if applicable): _____

Date submitted to Board Secretary: 5/6/22

Board approval obtained on Date: _____

Please submit this form to the Board Secretary no later than 1 week prior to the Board Meeting.

REVISED 05052022

Las Gallinas VALLEY SANITARY DISTRICT

Item Number 2J

GM Review CD

Agenda Summary Report

To:	Board of Directors
From:	Teri Lerch, District Secretary (415) 526-1510; tlerch@lgvsd.org
Mtg. Date:	May 19, 2022
Re:	November 2022 Election – Resolution 2022-2254
Item Type:	**Consent** X **Action** ____ **Information** ____ **Other** ____.
Standard Contract:	**Yes** ____ **No** ____ **(See attached) Not Applicable** X .

STAFF RECOMMENDATION

Board review and approve Resolution 2022-2254 – A Regularly Scheduled Election to Be Held in this Jurisdiction; Requesting the Board of Supervisors to Consolidate with Any other Election Conducted on Said Date, and Requesting Election Services by the Marin County Elections Department

BACKGROUND

Staff received the attached email from the County of Marin Registrar of Voters office regarding the November 2022 Election Notification for Districts. Directors Clark, Ford and Yezman are up for re-election. A Resolution requesting consolidation and elections services is required (see attached). A Confirmation of District boundaries and a Confirmation of the Current Roster are also required.

Please note the nomination filing period for all candidates is July 18 through August 17. Incumbents must file during this period. The candidate manual will not be ready until late June. It will be emailed to applicable Board members when available.

PREVIOUS BOARD ACTION

Statewide General Election – November 3, 2020
Director, Las Gallinas Valley Sanitary District Elected Term
Craig K. Murray 2020 to 2024
Judy Schriebman 2020 to 2024
Ron Ford, LGVSD Board Appointment January 4, 2022

ENVIRONMENTAL REVIEW

N/A

FISCAL IMPACT

Currently estimated at $25,000.

RESOLUTION NO. 2022-2254

LAS GALLINAS VALLEY SANITARY DISTRICT

A REGULARLY SCHEDULED ELECTION TO BE HELD IN THIS JURISDICTION; REQUESTING THE BOARD OF SUPERVISORS TO CONSOLIDATE WITH ANY OTHER ELECTION CONDUCTED ON SAID DATE, AND REQUESTING ELECTION SERVICES BY THE MARIN COUNTY ELECTIONS DEPARTMENT

RESOLVED, by the Sanitary Board of the Las Gallinas Valley Sanitary District, Marin County, California, as follows:

WHEREAS, it is the determination of said governing body the regularly scheduled election to be held on the 8th day of November, 2022, at which election the issue to be presented to the voters shall be to elect the following members to the Board of Directors:

Number of Regular Term Positions (4-year) __3____

Number of Short Term Positions (2-year) _____

NOW, THEREFORE, BE IT RESOLVED, pursuant to Elections Code §10002, the Board of Supervisors of the County of Marin is hereby requested to:

1) Consolidate said election with any other applicable election conducted on the same day in the manner prescribed in Elections Code §10418;

2) Authorize and direct the Elections Department at District expense, to provide all necessary election services and to canvass the results of said election.

Payment for the publication of a candidate's statement of qualification is the responsibility of the Candidate.

* * * * * * * * * * * * * * *

I hereby certify that the forgoing is a full, true and correct copy of a resolution duly and regularly passed and adopted by the Sanitary Board of the Las Gallinas Valley Sanitary District, Marin County, California, at a meeting thereof held on May 19, 2022, by the following vote of the members thereof:

AYES, and in favor thereof, Members:
NOES, Members:
ABSENT, Members:
ABSTAIN, Members:

_____
Teresa L. Lerch, District Secretary
Las Gallinas Valley Sanitary District

APPROVED:

(seal)

_____
Judy Schriebman, Board President

Teresa Lerch

From: Miller, Dan <DanMiller@marincounty.org>
Sent: Monday, April 18, 2022 1:46 PM
To: Teresa Lerch
Subject: November 2022 District Candidate Election
Attachments: Confirmation of District Boundaries.pdf; Sample Resolution for Districts.docx; Las Gallinas Valley Sanitary District.pdf

Hi Teri,
Your district's regularly scheduled board member election is to be held on ***November 8, 2022.***
Below are important filing dates for the election documents:

- **by July 1st** - ***Elected Officials and Term of Office (attached)*** – please verify the current roster and terms of office for your directors. Contact me if any corrections are required. Sign, scan, and return by email.
- **by July 6th** - deliver to the Elections Department your original resolution (sample attached) requesting consolidation and election services.

Candidate nomination filing dates:

- **July 18th thru August 12th** - The nomination filing period for all candidates. Incumbents must file during this period.
- **August 13th thru August 17th** - If an incumbent does not file by Aug. 12th an extension of the nomination filing period opens for all candidates other than the incumbent.

District boundary changes:

- Please note that due to census redistricting requirements, to include boundary change information in our voter database, your resolution must have been approved by ***April 17th***. not applicable
- If your district is not bound by census redistricting requirements but your district has or will have adjustments to your district boundaries that may affect our voter database, please let me know immediately.
- If there will not be district boundary changes for the upcoming election then please complete the attached Confirmation of Boundaries form and return by email no later than ***July 1st***.

Let me know if you need additional information.
Thank you,

Dan Miller
CANDIDATE & FILING SERVICES

County of Marin Elections Department
3501 Civic Center Drive, Suite 121
PO Box E, San Rafael, CA 94913
415 473 6437
danmiller@marincounty.org

STAY CONNECTED:

MARIN COUNTY ELECTIONS DEPARTMENT

DISTRICT BOUNDARY CONFIRMATION REQUEST

For the November 8, 2022 Statewide General Election

This is to confirm that the jurisdictional boundaries have not changed since the last district-wide election or the last printing of the boundary map.

Please complete and email this form to danmiller@marincounty.org.

Name of Jurisdiction: _____

Please Print

As the representative of the above-named jurisdiction I confirm there have been no boundary changes to this jurisdiction since the last election or boundary revision:

Signed _____ Date_____

Name of Representative: _____

Please Print

Title of Representative: _____

Please Print

Rev. 12/29/21

Elected Officials and Terms of Office

Please refer to the accompanying instructions for important information and instructions, **before** completion.

District Info:Las Gallinas Valley Sanitary District **April 18, 2022**

300 Smith Ranch Rd
San Rafael CA 94903

As required by Elections Code 10509 please confirm the information listed below regarding your jurisdiction's elective offices to be filled at your next general candidate election.

Sign and return this form if the information is correct. Contact the Elections office immediately if changes are needed.

PAYMENT FOR THE PUBLICATION OF THE STATEMENT OF QUALIFICATIONS IS THE RESPONSIBILITY OF THE

Candidate. (candidate or district)

Ballot Heading(s):		Elected/ Appointed	Term of Office
District Las Gallinas Valley Sanitary District **Director**	Ronald Olin Ford 122 Birch Way San Rafael, CA 94903	Appointed	1/6/2022 to 12/2/2022
Director	Megan Mary Clark 85 Yosemite Rd San Rafael, CA 94903	Elected	12/7/2018 to 12/2/2022
Director	Crystal Jeanette Yezman ~~1125 Adrian Way~~ 830 La Playa Way San Rafael, CA 94903	Elected	12/7/2018 to 12/2/2022
Director	Judith Anne Schriebman 3 Poco Paso San Rafael, CA 94903	Elected	12/4/2020 to 12/6/2024
Director	Craig Kjersgaard Murray 260 Merrydale Rd Apt 15 San Rafael, CA 94903	Elected	12/4/2020 to 12/6/2024

I have reviewed all information contained on this form and have indicated any changes necessary.

Please Stamp District Seal Here

Signature

RESOLUTION NO. _____

RESOLUTION OF THE GOVERNING BODY OF THE

_____

A REGULARLY SCHEDULED ELECTION TO BE HELD IN THIS JURISDICTION; REQUESTING THE BOARD OF SUPERVISORS TO CONSOLIDATE WITH ANY OTHER ELECTION CONDUCTED ON SAID DATE, AND REQUESTING ELECTION SERVICES BY THE MARIN COUNTY ELECTIONS DEPARTMENT

WHEREAS, it is the determination of said governing body the regularly scheduled election to be held on the 8th day of November, 2022, at which election the issue to be presented to the voters shall be to elect the following members to the Board of Directors:

Number of Regular Term Positions (4-year) _____

Number of Short-Term Positions (2-year) _____

NOW, THEREFORE, BE IT RESOLVED, pursuant to Elections Code §10002, the Board of Supervisors of the County of Marin is hereby requested to:

1) Consolidate said election with any other applicable election conducted on the same day in the manner prescribed in Elections Code §10418;

2) Authorize and direct the Marin County Elections Department at District expense, to provide all necessary election services and to canvass the results of said election.

PASSED AND ADOPTED this _____ day of _____ , _____ by the following vote, to wit:

AYES:

NOES:

ABSENT:

_____

PRESIDENT, BOARD OF DIRECTORS

ATTEST:_____
Secretary

Las Gallinas VALLEY SANITARY DISTRICT

Item Number 2K

GM Review CD

Agenda Summary Report

To:	Board of Directors
From:	Teri Lerch, District Secretary (415) 526-1510; tlerch@lgvsd.org
Mtg. Date:	May 19, 2022
Re:	Approve Resolution 2022-2255 adopting revised Board Policies B-50 Training/Seminars/Travel and F-50 Reserves
Item Type:	**Consent** X **Action** ____ **Information** ____ **Other** ____.
Standard Contract:	**Yes** ____ **No** ____ **(See attached) Not Applicable** X .

STAFF RECOMMENDATION

Attached for approval is Resolution 2022-2255 updating policies B-50 Training/Seminars/Travel/Meals and F-50 Reserves. Board suggested changes are shown in highlight (strikeout format) and clean copies are also provided.

BACKGROUND

The Board has requested to review and update Board Policies.

PREVIOUS BOARD ACTION

On May 5, 2022, Board reviewed B-50 Travel/Seminars/Travel/Meals and F-50 Reserves with staff and requested it come back with suggested revisions for approval.

ENVIRONMENTAL REVIEW

N/A

FISCAL IMPACT

N/A

RESOLUTION NO. 2022-2255

A RESOLUTION APPROVING BOARD POLICY REVISIONS FOR B-50 TRAINING/CONFERENCES/SEMINARS/TRAVEL/MEALS AND F-50 RESERVES

THE LAS GALLINAS VALLEY SANITARY DISTRICT

WHEREAS, the Board of Directors ("Board") has determined that a comprehensive list of Policies and Procedures for the Board is in the best interest of the District; and

WHEREAS, the Board has compiled a comprehensive list of Policies and Procedures to serve as the rules and regulations of the Board; and

WHEREAS, the Board did adopt such comprehensive list of Policies and Procedures on July 9, 2009; and

WHEREAS, such policies may need to be updated from time to time; and

WHEREAS, on May 5, 2022, the Board reviewed and suggested changes on Board policies B-50 Training/Conferences/Seminars/Travel/Meals and F-50 Reserves;

NOW THEREFORE, the Board of Directors of the Las Gallinas Valley Sanitary District approves the following revised policy sections: B-50 TRAINING/CONFERENCES/SEMINARS/ TRAVEL/MEALS and F-50 RESERVES. The previously approved Board Policies B-50 and F-50 are hereby revoked and declared null and void.

If any policy or portion of a policy contained within the Policies and Procedures is in conflict with rules, regulations, or legislation having authority over the Las Gallinas Valley Sanitary District, said rules, regulations or legislation shall prevail.

The Policies and Procedures shall remain in effect until amended by at least a majority vote of the Board of Directors.

* * * * * * * * * * * * *

I hereby certify that the forgoing is a full, true, and correct copy of a resolution duly and regularly passed and adopted by the Sanitary Board of the Las Gallinas Valley Sanitary District, Marin County, California, at a meeting thereof held on the 19TH day of May 2022, by the following vote of the members thereof:

AYES, and in favor thereof Members:
NOES, Members:
ABSENT, Members:
ABSTAIN, Members:

_____
Teresa Lerch, District Secretary

APPROVED:

_____
Judy Schriebman, President of Board of Directors

B-50 TRAINING/CONFERENCES/SEMINARS/TRAVEL/MEALS

Purpose

This policy establishes the rules for attendance at training, conferences, seminars and other travel.

Since trips and travel expenses for training, conferences and seminars are being paid for with public funds, it shall be the responsibility of the official undertaking the trip to make every effort to attend the entire conference and/or as many sessions as possible to attain maximum benefit. Board members will limit expenses being borne by the District to be within the allowed limits.

B-50-10 **Attendance Encouraged, but Limit on Number of Conferences.** Board Members are encouraged to attend educational training, conferences and seminars, and serve as representatives of the District at professional meetings that clearly benefit the District and are directly related to improving the operation of the District. Board Members are limited to four (4) conferences or seminars per calendar year for which the District will pay expenses per the approved usual and reasonable travel related reimbursement chart below. The Board may vote to allow a Member to exceed this limitation of four (4) conferences or seminars prior to that Member's attendance at that event. For multi-day conferences, compensation shall be at a maximum of one meeting per day. If travel to a conference requires travel of four hours or more, portal to portal, the Board member may charge for that day.

One day conferences or virtual conferences without overnight travel will not be considered in the annual attendance limit and will be reimbursed as a special meeting. Any conference or seminar that a Board Member attends that is two days or longer shall be included in the four (4) conference or seminar limit. Board Members are required to submit a Meeting Attendance Request or a Conference Registration Form in advance of the requested travel. In order to receive approval for reimbursement, the requests should be submitted at least five business days prior to the Board Meetings.

B-50-20 **Usual and Reasonable Costs.** The Board will comply with Government Code §53232.2. The District will pay all usual and reasonable costs associated with attendance at approved training, conferences, seminars, and other travel, including, but not limited to, registration, lodging, mileage, meals, ground transportation, parking and travel. Actual and necessary expenses incurred in the performance of official duties shall be reimbursable. Itemized receipts are required to be submitted for reimbursement. Usual meal related expenses shall be limited in total amount per day to the current District per diem amounts, which are pursuant to the prevailing U.S. General Services Administration's (GSA) current breakdown of meal reimbursement expenses per Internal Revenue Service (IRS) guidance. Attachment 1 contains the current California GSA per diem meal and incidentals reimbursement rates

Hotel receipts are not adequate for documentation for food expenses. The expenses shall be presented to the Board for approval through the normal administrative process.

Resolution No. 2022-2255	Date Approved: May 19, 2022
President of the Board	Last Reviewed: May 19, 2022

Transportation (ie – by passenger vehicle, scheduled shuttle or taxi) reimbursement for travel to San Francisco Airport or Oakland Airport will not exceed a maximum of $46.00 one way. Cash tips unsubstantiated by receipts (i.e. - bellman, hotel maid) shall be reimbursed as incidental expenses subject to the prevailing US General Services Administration's current breakdown of incidental expenses.

Transportation expenses to and at an offsite event that is scheduled as part of a conference or meeting shall be reimbursable. Itemized receipts are required to be submitted for reimbursement. Tips for transportation such as cabs and shuttles that are included in the receipt from the driver shall be reimbursable and not included in the incidental expense portion of the daily expense limit specified by the US General Services Administration.

B-50-30 **Expenses for Non-Conference Related Meetings.** A Board member may attend a meeting that is not part of a conference where District business is discussed. Reasonable expenses for transportation and meals shall be reimbursed, subject to the substantiation requirements and meal and incidental expense allowances described above, after receiving approval from the Board.

B-50-40 **Report to Board.** A Board member who attends a conference/seminar/meeting etc. for which the District has paid expenses shall make an oral or written report to the Board, detailing what was learned that benefits the District.

B-50 Training/Conferences/Seminars/Travel **Attachment 1**

2022 MEAL REIMBURSEMENT BREAKDOWN

Per the U.S. General Services Administration, the table below lists 2022 reimbursement amounts for California (currently ranging from $ 64 to $79). In order to determine the correct meal reimbursement limits, first determine the location where you will be working while on official travel. You can look up location-specific information at www.gsa.gov/travel/plan-book/per-diem-rates. Find the daily total expense limit for your travel area and then refer to the table below for specific meal reimbursement limits.

	Minimum	Maximum
California Daily Total	$64	$79
Continental Breakfast/Breakfast	$14	$18
Lunch	$16	$20
Dinner	$29	$36
Incidentals	$5	$5

F-50 RESERVES

Purpose

This policy establishes reserves, explains the purpose and reasons for the size of each reserve, and provides for the oversight of reserves.

The District requires reserves for operations and capital needs. Reserves provide financing safeguards for the District's operations. Such funds are available for extraordinary expenses and to fund cash flow. In addition, reserve fund investments generate earnings to supplement other revenues.

F-50-10 Reserve Fund Policies

PURPOSE	OPERATING & RATE STABILIZATION RESERVE Fund unexpected expense increases or offset loss of Sewer Service Charge revenue. Replenish any reserves used over a 6-to-10-year period.	VEHICLE & EQUIPMENT RESERVE (VERF) Fund capital vehicle replacement based on VERF program. Replenish any reserves used to adequately fund program for 3 to 4 years.	EMERGENCY REPAIR RESERVE Fund emergency repairs. Replenish the reserve over a2 to 3 year period.	CAPITAL RESERVE Provide capital for major capital projects including upgrades and expansions.	TOTAL COMBINED RESERVES
CURRENT STATUS					
06/30/21 Balance	$2,651,898	$1,094,425	$1,000,000	$3,425,644	$8,171,967
Percent Reached	29%	101%	100%	86%	$
Risks and Consideration	The reserve is used to absorb unexpected cost increases and spread them over more than one year. Provide for this reserve by funding from property tax and ERAF funds.	Aging vehicle fleet without proper replacement funding risks operational interruptions and sewer overflow response delays.	Balance may be used to fund working capital needs. Fund would not be large enough to address a catastrophic event.	Without a reserve, projects are funded with current year revenue in excess of O&M needs; or the District has to rely on bond financing. At the time the reserve balance was established the District had operating and capital reserves of $10M.	
LONG-TERM GOALS					
Target Goal	$9,085,466	$1,000,0000	$1,000,000	$4,000,000.	$15,085,466
Basis for Target Goal	7 months of operating and debt service cash flow based on most current budget; amount to be evaluated annually based on proposed budget. Reserve can be used to stabilize and avoid dramatic rate increases.	VERF program that determines useful vehicle life, varying from 5 to 10 years. Vehicle schedule used to develop target goal annually as part of budget process.	The cost to repair a major pump station or other infrastructure.	To provide capital for major capital projects that span two or more years. Accumulated depreciation to be reviewed and factored into setting target to have current ratepayer pay for the utilization of the District's assets.	
The district will build up the reserves based on: (a) the annual Construction CPI and (b) annual allocations of property tax and ERAF funds, as available.					

Resolution No. 2022-2255	Date Approved: May 19, 2022
President of the Board	Last Reviewed: May 19, 2022

Risks and Considerations	Due to the timing of revenue receipts an increased margin would be more comfortable. A sudden increase in costs would have to be absorbed by operating reserves since the rate setting process occurs every 4 to 5 years.	May not be sufficient to fund three or more unexpected large vehicle or equipment purchases.	The reserve would be able to absorb one major repair or several smaller ones; a catastrophic event would require federal or state funding.	Should be sufficient for cash funding or regular projects but may not be enough for larger infrastructure replacements where debt may be incurred.	

F-50-20 **Use of Reserves.** Upon recommendation of the General Manager, the Board shall identify the reserve to be utilized and authorize the General Manger to transfer reserve funds to the respective operational or capital funds. Any use shall be reflected in any revised budget.

B-50 TRAINING/CONFERENCES/SEMINARS/TRAVEL/MEALS

Purpose

This policy establishes the rules for attendance at training, conferences, seminars and other travel.

Since trips and travel expenses for training, conferences and seminars are being paid for with public funds, it shall be the responsibility of the official undertaking the trip to make every effort to attend the entire conference and/or as many sessions as possible to attain maximum benefit. Board members will limit expenses being borne by the District to be within the allowed limits.

B-50-10 **Attendance Encouraged, but Limit on Number of Conferences.** Board Members are encouraged to attend educational training, conferences and seminars, and serve as representatives of the District at professional meetings that clearly benefit the District and are directly related to improving the operation of the District. Board Members are limited to four (4) conferences or seminars per calendar year for which the District will pay expenses per the approved usual and reasonable travel related reimbursement chart below. The Board may vote to allow a Member to exceed this limitation of four (4) conferences or seminars prior to that Member's attendance at that event. For multi-day conferences, compensation shall be at a maximum of one meeting per day. If travel to a conference requires travel of four hours or more, portal to portal, the Board member may charge for that day.

One day conferences or virtual conferences without overnight travel will not be considered in the annual attendance limit and will be reimbursed as a special meeting. Any conference or seminar that a Board Member attends that is two days or longer shall be included in the four (4) conference or seminar limit. Board Members are required to submit a Meeting Attendance Request or a Conference Registration Form in advance of the requested travel. In order to receive approval for reimbursement, the requests should be submitted at least five business days prior to the Board Meetings.

B-50-20 **Usual and Reasonable Costs.** The Board will comply with Government Code §53232.2. The District will pay all usual and reasonable costs associated with attendance at approved training, conferences, seminars, and other travel, including, but not limited to, registration, lodging, mileage, meals, ground transportation, parking and travel. Actual and necessary expenses incurred in the performance of official duties shall be reimbursable. Itemized receipts are required to be submitted for reimbursement. Usual meal related expenses shall be limited in total amount per day to the current District per diem amounts, which are pursuant to the prevailing U.S. General Services Administration's (GSA) current breakdown of meal reimbursement expenses per Internal Revenue Service (IRS) guidance. Attachment 1 contains ~~a breakdown of the Daily Total for partial days and the maximum Daily Total for California locations~~ the current California GSA per diem meal and incidentals reimbursement rates~~.~~

Hotel receipts are not adequate for documentation for food expenses. The expenses shall be presented to the Board for approval through the normal administrative process.

Resolution No. ~~2018 – 2138~~	Date Approved: ~~August 23, 2018~~
President of the Board	~~Supersedes: 2017-2106~~ Last Revised:

Transportation (ie – by passenger vehicle, scheduled shuttle or taxi) reimbursement for travel to San Francisco Airport or Oakland Airport will not exceed a maximum of $46.00 one way. Cash tips unsubstantiated by receipts (i.e. - bellman, hotel maid) shall be reimbursed as incidental expenses subject to the prevailing US General Services Administration's current breakdown of incidental expenses.

Transportation expenses to and at an offsite event that is scheduled as part of a conference or meeting shall be reimbursable. Itemized receipts are required to be submitted for reimbursement. Tips for transportation such as cabs and shuttles that are included in the receipt from the driver shall be reimbursable and not included in the incidental expense portion of the daily expense limit specified by the US General Services Administration.

B-50-30 **Expenses for Non-Conference Related Meetings.** A Board member may attend a meeting that is not part of a conference where District business is discussed. Reasonable expenses for transportation and meals shall be reimbursed, subject to the substantiation requirements and meal and incidental expense allowances described above, after receiving approval from the Board.

B-50-40 **Report to Board.** A Board member who attends a conference/seminar/meeting etc. for which the District has paid expenses shall make an oral or written report to the Board, detailing what was learned that benefits the District.

B-50 Training/Conferences/Seminars/Travel **Attachment 1**

2022 MEAL REIMBURSEMENT BREAKDOWN

Per the U.S. General Services Administration, the table below lists ~~2020~~ 2022 reimbursement amounts ~~in the lower 48 continental United States~~ States for California (currently ranging from $~~55~~ 64 to $~~76~~79). In order to determine the correct meal reimbursement limits, first determine the location where you will be working while on official travel. You can look up location-specific information at ~~www.gsa.gov/portal/content/104877~~ gsa.gov/travel/plan-book/per-diem-rates. Find the daily total expense limit for your travel area and then refer to the table below for specific meal reimbursement limits.

	Minimum			Maximum
California Daily Total	$64	~~$69~~	~~$74~~	$79
Continental Breakfast/Breakfast	$14	~~$16~~	~~$17~~	$18
Lunch	$16	~~$17~~	~~$18~~	$20
Dinner	$29	~~$31~~	~~$34~~	$36
Incidentals	$5	~~$5~~	~~$5~~	$5

le rates outside of California, see the General Services website at www.gsa.gov/portal/content/104877.

FY 2022 Per Diem Rates - Effective October 1, 2021

	Standard CONUS rate applies to all counties not specifically listed. Cities not listed may be located in a listed county.	COUNTY / LOCATION DEFINED	SEASON BEGIN	SEASON END
CA	Antioch / Brentwood / Concord	Contra Costa		$ 74
CA	Bakersfield / Ridgecrest	Kern		$ 64
CA	Barstow / Ontario / Victorville	San Bernardino		$ 64
CA	Death Valley	Inyo		$ 69
CA	Eureka / Arcata / McKinleyville	Humboldt		$ 69
CA	Fresno	Fresno		$ 69
CA	Los Angeles	Los Angeles / Orange / Ventura / Edwards AFB less the city of Santa Monica		$ 74
CA	Mammoth Lakes	Mono		$ 79
CA	Mill Valley / San Rafael / Novato	Marin		$ 74
CA	Modesto	Stanislaus		$ 64
CA	Monterey	Monterey		$ 74
CA	Napa	Napa		$ 79
CA	Oakhurst	Madera		$ 69
CA	Oakland	Alameda		$ 74
CA	Palm Springs	Riverside		$ 69
CA	Point Arena / Gualala	Mendocino		$ 79
CA	Redding	Shasta		$ 69
CA	Sacramento	Sacramento		$ 69
CA	San Diego	San Diego		$ 74
CA	San Francisco	San Francisco		$ 79
CA	San Luis Obispo	San Luis Obispo		$ 74
CA	San Mateo / Foster City / Belmont	San Mateo		$ 74
CA	Santa Barbara	Santa Barbara		$ 74
CA	Santa Cruz	Santa Cruz		$ 69
CA	Santa Monica	City limits of Santa Monica		$ 79
CA	Santa Rosa	Sonoma		$ 74
CA	South Lake Tahoe	El Dorado		$ 74
CA	Stockton	San Joaquin		$ 69
CA	Sunnyvale / Palo Alto / San Jose	Santa Clara		$ 74
CA	Tahoe City	Placer		$ 74
CA	Truckee	Nevada		$ 79
CA	Visalia / Lemoore	Tulare / Kings		$ 69
CA	West Sacramento / Davis	Yolo		$ 69
CA	Yosemite National Park	Mariposa		$ 76
CO	Aspen	Pitkin	SEE GSA.GOV	
CO	Aspen	Pitkin		
CO	Aspen	Pitkin		
CO	Aspen	Pitkin		
CO	Aspen	Pitkin		
CO	Boulder / Broomfield	Boulder / Broomfield		
CO	Colorado Springs	El Paso		

For applicable rates outside of California, see the General Services website a www.gsa.gov/portal/content

F-50 RESERVES

Purpose

This policy establishes reserves, explains the purpose and reasons for the size of each reserve, and provides for the oversight of reserves.

The District requires reserves for operations and capital needs. Reserves provide financing safeguards for the District's operations. Such funds are available for extraordinary expenses and to fund cash flow. In addition, reserve fund investments generate earnings to supplement other revenues.

F-50-10 Reserve Fund Policies

PURPOSE	OPERATING & RATE STABILIZATION RESERVE Fund unexpected expense increases or offset loss of Sewer Service Charge revenue. ~~Insure that a minimum balance of 7 months of average budgeted expenses is available.~~Replenish any reserves used over a 6-to-10-year period.	~~RATE STABILIZATION~~VEHICLE & EQUIPMENT RESERVE (VERF) Fund ~~unexpected expense increases using the reserve~~capital vehicle replacement based on VERF program. ~~R~~Replenish any reserves used ~~over a 3 to 4 year period~~to adequately fund program for 3 to 4 years.	EMERGENCY REPAIR RESERVE Fund emergency repairs. Replenish the reserve over a 2 to 3 year period.	CAPITAL RESERVE Provide capital for major capital projects including upgrades and expansions.	TOTAL COMBINED RESERVES
CURRENT STATUS					
~~FY 2015/16~~06/30/21 Balance	$2,~~322,631~~651,898	$1,094,425	$1,000,000	$~~2,049,380~~3,425,644	$~~5,628,389~~8,171,967
Percent Reached~~Target Balance~~	~~$2,590,000, 3 months; 7 months needed~~3929%	~~$300,000~~101%	~~$1,000,000~~100%	~~$4,000,000~~5086%	~~$7,890,000~~
Risks and Consideration	The reserve is used to absorb unexpected cost increases and spread them over more than one year. ~~When the balance is below the target, other reserves are used to meet cash flow needs.~~ Provide for this reserve by ~~increasing revenues to fund~~funding from property tax and ERAF funds.	Aging vehicle fleet without proper replacement funding risks operational interruptions and sewer overflow response delays.	Balance may be used to fund working capital needs. Fund ~~and~~would not be large enough to address~~not be available for~~ a catastrophic event.	Without a reserve, projects are funded with current year revenue in excess of O&M needs; or the District has to rely on bond financing. At the time the reserve balance was established the District had operating and capital reserves of $10M.	
LONG-TERM GOALS					
Target Goal ~~Balance~~	$~~5,930,000~~9,085,466~~; 7 months of operating and debt service cash flow based on 2016/17 budget; amount will~~	$1,000,000~~300,000~~	$1,000,000~~; cost to repair a major pump station or other infrastructure.~~	$4,000,000 ~~average annual pay as you go CIP expenses for a two year period to recognize the fact that~~	$15,085,466

	~~need to increase over time based on projected costs.~~			~~capital projects can span two fiscal years~~.	
Basis for Target Goal	7 months of operating and debt service cash flow based on most current budget; amount ~~on most current budget; amount will~~ to be evaluated annually based on proposed budget.~~need to increase over time based on projected costs.~~ Reserve can be used to stabilize and avoid dramatic rate increases.	VERF program that determines useful vehicle life, varying from 5 to 10 years. Vehicle schedule used to develop target goal annually as part of budget process.	The cost to repair a major pump station or other infrastructure.	To provide capital for major capital projects that span two or more years~~average annual pay as you go CIP expenses for a two year period to recognize the fact that capital projects can span two fiscal years~~. Accumulated depreciation to be reviewed and factored into setting target to have current ratepayer ~~should~~ pay for the utilization of the ~~d~~District's assets.~~)~~	
The district will build up the reserves based on: (a) the annual Construction CPI and (b) annual allocations of property tax and ERAF funds, as available.					
Risks and Considerations	Due to the timing of revenue receipts an increased margin would be more comfortable. A sudden increase in costs would have to be absorbed by operating reserves since the rate setting process occurs every 4 to 5 years.	May not be sufficient to fund three or more unexpected large vehicle or equipment purchases.	The reserve would be able to absorb one major repair or several smaller ones; a catastrophic event would require federal or state funding.	Should be sufficient for cash funding or regular projects but may not be enough for larger infrastructure replacements where debt may be incurred.	

F-50-20 Use of Reserves. Upon recommendation of the General Manager, the Board shall identify the reserve to be utilized and authorize the General Manger to transfer reserve funds to the respective operational or capital funds. Any use shall be reflected in any revised budget.

5/19/2022

Interim General Manager Report

☐ Separate Item to be distributed at Board Meeting

☐ Separate Item to be distributed prior to Board Meeting

☑ Verbal Report

☐ Presentation

Las Gallinas VALLEY SANITARY DISTRICT

Item Number 3.2

GM Review CD

Agenda Summary Report

To:	Board of Directors
From:	Teri Lerch, District Secretary (415) 526-1510; tlerch@lgvsd.org
Mtg. Date:	May 19, 2022
Re:	Board Policy Review of B-60 Board Member Compensation and F-60 Revenue
Item Type:	**Consent** _____ **Action** _____ **Information X** **Other** _____.
Standard Contract:	**Yes** _____ **No** _____ **(See attached) Not Applicable X** .

STAFF RECOMMENDATION

Attached for information and Board review are current Board Policies B-60 Board Member Compensation and F-60 Revenue.

Suggested changes are shown in highlight (strikeout format) and staff will receive comments on the subject policies at the meeting and through May 23rd.

Comments received will be incorporated or addressed prior to bringing back these policies to the Board for approval at the June 2nd meeting.

BACKGROUND

The Board has requested to review and update Board Policy.

PREVIOUS BOARD ACTION

None

ENVIRONMENTAL REVIEW

N/A

FISCAL IMPACT

N/A

B-60 BOARD MEMBER COMPENSATION

Purpose

This policy establishes compensation for Board Members to attend meetings.

B-60-10 **Limit on Meetings.** Board Members shall be compensated for up to the legal limit of six meetings per month and one meeting per day. Compensation shall apply to both Regular and Special Board meetings, Board committee meetings, meetings for organizations related to District business. The meetings must be a direct benefit to the District. Please refer to the list of meeting below that are considered to be additional compensable meetings. To qualify for compensation for meetings of organizations related to District business, Board approval is required. Board members requesting attendance at meetings, including meetings of organizations related to District business, training, conference and/or seminars, shall submit their request to the entire Board at least five business days prior to the meeting. If an unexpected opportunity occurs for a meeting that will benefit the District, the Board Member may request an RQPA (Request for Prior Authorization) from the Board at the next Board meeting by written request.

B-60-11 **Compensable Meeting Activities.** Meetings that are considered compensable include the following:

- Webinars, online trainings, and tours of facilities that are at least 1 ½ hours in length and pertain to District Business.
- Multiple party conference calls convened by LGVSD subcommittees that are at least 2 hours in length that pertain to District Business
- Non-public LGVSD subcommittee meetings such as AD Hoc meetings that are over an hour in length.
- One-on-one meetings between LGVSD committee members with any other outside agency or committee via face-to-face interaction or telephone, which are at least 1 hour long, pertain to District Business and are not for logistical purposes only
- Tours of District facilities with public officials external to the District that are at least an hour long.
- Other meetings falling outside of the above listed meeting descriptions shall be brought to the Board for determination of compensability prior to any Board member's attendance at such meetings.

B-60-20 **Compensation Rate.** Board Member's meeting stipend shall be set at the maximum allowable under Senate Bill 1559 effective January 1, 2001. Furthermore, the aforementioned new meeting stipend should be considered for increased annually the maximum allowable under Senate Bill 1559 on the first day of January in each succeeding year thereafter.

Resolution No. ~~2020-2202~~	Date Approved: ~~October 15, 2020~~
President of the Board	~~Supersedes: Resolution 2019-2178~~ Last Reviewed:

B-60-30 Compensation for Training, Seminars, Conference, etc. See B-50-10/20.

B-60-40 Tally Sheets. To receive compensation, Directors should provide a monthly meeting tally sheet (available from the District Secretary) within five days after the end of the month.

B-60-50 Reimbursement for Expenses. Board Members shall be compensated for all reasonable and legitimate expenses incurred in attending meetings or taking trips on behalf of the District that have been authorized by the Board. Expense reports shall be submitted within 30 days of attendance at the meeting. Any disputes shall be settled by majority vote of the Board.

B-60-51 Reimbursement for Miscellaneous Expenses. Board Members may submit receipts for up to $1600 per calendar year for miscellaneous actual and necessary expenses to conduct District Business unrelated to meeting, conference or training attendance. This allowance is anticipated to include information technology related items, office related equipment and furniture, consumable office supplies, and other expenses necessary for Board Members to conduct District Business. This allowance does not include mobile computer devices used for District business, which is addressed in Administrative Policy A-03. This allowance does not include food or travel related costs, which are addressed in section B-60-50. Per Section B-50-20 and Government Code Section 53232.2, all costs shall be usual and reasonable.

B-60-60 Prevailing District Mileage Rate. Reimbursement for travel by private car shall be at the prevailing IRS mileage rate.

Resolution No. ~~2020-2202~~	Date Approved: ~~October 15, 2020~~
President of the Board	~~Supersedes: Resolution 2019-2178~~ Last Reviewed:

F-60 REVENUE

Purpose

This policy establishes how the District will set fees and ensure their collection to fund operations.

F-60-10 Setting of Fee and Charge Amounts. Fees and charges shall be set to recover the current operational needs of the District, including the financing of capital improvements in accordance with the Capital Improvement Program.

F-60-20 Collection of Fees and Charges. The District shall strive to collect all fees and charges imposed, and shall actively pursue and settle delinquent accounts.

F-60-30 Review of Fees. The District shall review fees and charges annually to ensure they are set at appropriate amounts.

F-60-40 Revenue Forecasting. The District shall estimate revenues conservatively, through an objective, analytical process. The District shall regularly report on forecasted vs. actual revenues, and provide explanation for significant variances.

F-60-50 Use of one-time and unpredictable revenues. One-time revenues shall be used to support one-time expenditures or increase fund balance. Unpredictable revenues shall not be used to support ongoing operational expenses for a period longer than the revenue can reasonably be expected to support them.

Resolution No. ~~2017-2084~~	Date Approved: ~~February 23, 2017~~
President of the Board	~~Supersedes: July 9, 2009~~ Last Reviewed:

Las Gallinas VALLEY SANITARY DISTRICT

Item Number 3.3
GM Review CD

Agenda Summary Report

To: Board of Directors
From: Dale McDonald, Administrative Services Manager
(415) 526-1519 dmcdonald@lgvsd.org
Meeting Date: May 19, 2022
Re: Proposed Fiscal Year 2022-23 Budget

Item Type: **Consent** _____ **Action** _____ **Information** X **Other** _____
Standard Contract: **Yes** _____ **No** _____ **(See attached) Not Applicable** X

STAFF RECOMMENDATION
Board to provide direction to staff so that the proposed budget for fiscal year 2022-23 can be finalized.

BACKGROUND
Staff has been meeting since February 2022 developing the budget for fiscal year 2022-23. The Board held a budget workshop on April 21, 2022 and provided feedback to staff. Revenue, operating expenses, reserves, and capital expenditures have been updated to reflect the most current financial position of the District.

The proposed budget includes $38,643,418 in revenue and $40,941,973 in expenses. The District is projected to spend $2,298,555 more than what will be brought in. Funding for this shortfall will come from unrestricted working capital. Based on the proposed budget, excluding capital carryover funding and restricted reserves, the working cash balance at the end of fiscal year June 30, 2023 will be $11,270,248.

A number of assumptions remain in the proposed budget. Staff is seeking input on the following items before the final budget is adopted on June 16, 2022:

- Confirm the Sewer Service Charge (SSC) Rate for use in 2022-23. The adopted annual SSC base rate increase of $93, equal to 9%, remains in the proposed budget. This increase will bring in $1,469,000 in additional revenue in 2022-23.
- Few discretionary items in the operating budget can be cut; $412,000 out of $11.2 Million (M). They include feasibility studies, conferences, training, public education outreach, donations, and the recently created Low-Income Rate Assistance program. Staff believes all these have value and should remain in the budget.
- Reserve funding can be reduced but based on targets established by policy, staff does not recommend reducing additional contributions to reserve funding.
- The District has a very aggressive Capital Improvement Program (CIP) which comprises 55% of the budget. It is based on Board priorities and recommended projects. The CIP does not yet include findings from the Integrated Wastewater Master Plan (IWMP), which will not be completed until 2023 at the earliest but does include placeholder funding for future projects. The list of current capital projects and the 5-Year CIP schedule should be reviewed. Many of the projects have already been approved and are primarily funded from prior year carryover funds. New projects are identified on the CIP schedule.

The attached budget for fiscal year 2022-23 is similar in format and detail to what was presented in the budget workshop of April 21, 2022. Below are highlighted changes between the preliminary budget and the currently proposed budget.

Highlighted Changes

1. Lower end of year Sewer Service Charge (SSC) revenue. A calculation error in a worksheet was identified and corrected. The SSC revenue for 2022-23 was also adjusted from $18.4M to $16.9M.
2. Property Tax revenue was also lowered from $1.37M to $1.26M based on calculation error. Formula has been corrected to reflect receipt of property taxes in three installments, 55% in December, 40% in April, and 5% in June.
3. Marin Municipal Water District (MMWD) Inter-Governmental revenue was increased by $230,899 to include the Secondary Treatment Plant Upgrade Recycled Water Expansion (STPURWE) cost share adjustment that will be received after completion of the project.
4. Repair and Maintenance expenses for the reclamation area has increased. The marsh pond vegetation management program has been moved from capital expenditures to operations and maintenance. Total Repair and Maintenance expense will increase 12.12% to $1M.
5. Feasibility studies are expected to increase based on management discussion. Studies undertaken this current year included biogas and biosolids. The budget for 2022-23 was increased from $34,700 to $91,600 to complete these projects and to fund North Bay Water Reuse Authority joint studies on Sea Level Rise Adaptation and Drought Contingency Planning. Biosolids system improvement analysis project is included as a capital project in preparation for the biosolids well monitoring project.
6. PG&E recently submitted an adjustment billing for the period 11/21 to 4/22 in the additional amount of $124,698. Net Energy Metering True-up is also pending for August 2022. The budget for utility power was increased from $318,900 to $485,500 based on revised billing, a 53% increase over the prior year.
7. Reserves have been updated to reflect recent target goals and to combine the Operating & Rate Stabilization Reserves. Total new reserve funding is $1.1M, down from the $5.0M presented on April 21. The $3M allocated for the Operation Control Center (OCC) project is now included in the Capital Outlay budget rather than as a separate reserve fund.
8. Capacity Connection Fee restricted fund to increase by $1.7M, not $1.5M as previously reported.
9. Biosolids System Improvement Analysis, Hydraulic Modeling, Trash Pump with trailer, and Solar PV System Replacement project added to capital outlay. Additional capital project cost adjustments and timing of projects updated in the CIP.
10. STPURWE Project to be completed in summer 2022. Carryover funds will be used to pay for approved contracts and any additional expenditures related to the project. No additional funding requests for 2022-23 are anticipated.
11. Debt Service Coverage Ratio (DSCR) for 2022-23 will be 1.81 based on lower operating income and increased operating expenses. It remains above the minimum DSCR required by the 2017 Bond convents but below the DSCR target of 2.18 suggested by HDR Engineering as part of their SSC Rate Study in April 2021.

Total funds available for all expenditures in 2022-23 increased $2,496,262 only because less capital carryover will be utilized in 2021-22, resulting in an increase in carryover funding available for capital projects in the upcoming year. Total budget increased $1,453,307 from what was proposed in preliminary budget on April 21.

Rising operation and maintenance expenses are expected to continue into 2023. The Consumer Price Index (CPI-U) as of April 2022 increased 8.3% over the last 12-months. The proposed budget includes inflation factors between 1.0% and 6% for various expenditures with some outliers, like energy and chemical costs, calculated based on higher actuals.

Board policy requires the District to maintain a balanced budget and to disclose deviations from a balanced budget when it occurs. The final proposed budget will be balanced with any identified shortfall being funded from the unrestricted working capital balance. Policy also requires that the District estimate revenues conservatively when forecasting for the budget.

Please see the attached Proposed Budget report and financial schedules for details.

PREVIOUS BOARD ACTION
On June 16, 2021, the Board approved Sewer Service Charge increases for fiscal years 2021-22 and 2022-23.

ENVIRONMENTAL REVIEW
N/A

FISCAL IMPACT
The presentation of the proposed budget itself has no fiscal impact.

Board direction and feedback will influence the final budget for fiscal year 2022-23 which will be presented on June 16, 2022.

The attached budget for fiscal year 2022-23 is similar in format and detail to what was presented in the budget workshop of April 21, 2022. Below are highlighted changes between the preliminary budget and the currently proposed budget.

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Board policy requires the District to maintain a balanced budget and to disclose deviations from a balanced budget when it occurs. The final proposed budget will be balanced with any identified shortfall being funded from the unrestricted working capital balance. Policy also requires that the District estimate revenues conservatively when forecasting for the budget.

Please see the attached Proposed Budget report and financial schedules for details.

PREVIOUS BOARD ACTION
On June 16, 2021, the Board approved Sewer Service Charge increases for fiscal years 2021-22 and 2022-23.

ENVIRONMENTAL REVIEW
N/A

FISCAL IMPACT
The presentation of the proposed budget itself has no fiscal impact.

Board direction and feedback will influence the final budget for fiscal year 2022-23 which will be presented on June 16, 2022.

Las Gallinas Valley Sanitary District

Proposed Budget

Fiscal Year 2022-23

May 19, 2022

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Las Gallinas VALLEY SANITARY DISTRICT

101 Lucas Valley Road, Suite 300
San Rafael, CA 94903
Tel.: 415-472-1734
Fax: 415-499-7715
www.LGVSD.org

May 19, 2022

To the Board of Directors of the Las Gallinas Valley Sanitary District,

The management staff of the Las Gallinas Valley Sanitary District ("District") is pleased present the Proposed LGVSD Budget for the upcoming 2022-23 fiscal year. The proposed budget includes the latest data on revenue projections, expense forecasts, debt service requirements, reserve funding, and capital outlay expenditures.

District Policy F-40-10, Budget Preparation, requires that the General Manager and Administrative Services Manager shall prepare an annual budget proposal. The proposed annual budget, as amended by the Board during its review, shall be adopted at a regular meeting in June.

SUMMARY

The District must provide enough revenue to cover the cost of providing sanitary sewer collection, treatment, and recycled water service including the costs of acquisition, construction, reconstruction, maintenance, repairs, replacement and operation of the sanitary sewer systems and the payment of principal and interest on bonds or other debt instruments issued for the construction or reconstruction of the sanitary sewer systems. Operating revenue includes sewer service charges collected, revenue from the production of recycled water, and revenue from permit and inspection fees related to development related sewer system improvements of the collection system. Non-operating revenue, which supplements operating revenue, includes property taxes, interest, franchise fees, and other pass-thru reimbursement revenue. Capital contributions, grants, and the utilization of bond funds and reserves round out the revenue sources for the District. The District is anticipating $38,643,418 in total funding for 2022-23 with $22,333,635 coming from revenue and $16,309,783 from prior year capital carryover and reserve funds.

Operating and Maintenance ("O&M") expense is anticipated to increase over the prior year budget by $841,310, or 8.14%. O&M expense means the reasonable and necessary expenses paid or incurred for maintaining and operating the collection, treatment, and recycled water systems ("Systems") of the District, determined in accordance with generally accepted accounting principles ("GAAP") that the Governmental Accounting Standards Board ("GASB") established for and used by state and local governments in the United States. O&M expenses include all reasonable expenses of management and repair and all other expenses necessary to maintain and preserve the systems of the District in good repair and working order. These include all administrative costs of the District that are charged directly or apportioned to the operation of the systems, such as salaries and wages of employees, overhead, the cost of permits, licenses, and charges to operate the system and insurance premiums. Excluded from O&M expenses is depreciation, replacement, obsolescence charges, reserves and amortization of intangibles. O&M expenses, including employee salaries and wages, comprises 27.29% of the budget.

Debt service requirements are $4,527,723 and include the 2017 Revenue Bonds and 2019 IBank loan. The final 2012 Bank of Marin Loan payment will be made in August 2022. Debt service comprises 11.06% of the budget.

New Reserve funding of $1,105,784 is proposed to be established and set aside to cover scheduled, routine, and unscheduled expenses that would otherwise be drawn from the general fund. Reserve funds may also be used for large-scale projects and improvements that are expected to happen in the future, such as the construction of the new Operations Control Center ("OCC") Building at the treatment plant and the John Duckett Pump Station and Trunk Sewer project. The District maintains five reserve funds and three restricted funds. Restricted funds are monies set aside for a particular purpose and $1,778,534 in additional funding is proposed with the budget. Reserve funds are permanently restricted to that purpose and cannot be used for other expenses. Reserves policy F-50 establishes and explains the purpose and reasons for each of the reserves established, along with target thresholds. Both the reserve funds and restricted funds are included in the reserve funding total, but they are different in that while the board can reallocate funds from reserves, the restricted funds, such as Captains Cove and Marin Lagoon, serve a specific purpose and therefore their use is controlled by State law and agreements in place for providing service. Reserve and restricted funding comprise 7.05% of the budget.

The Capital Outlay effort for 2022-23 remains the primary driver of expenditures for the District comprising 54.60% of the total budget. The total capital outlay for the Capital Improvement Program ("CIP") for fiscal year is $22,356,132. Included in CIP is an allocation of $3,000,000 that will be used for the OCC Building construction project in the future. During the development of the CIP, review of strategic initiatives established by the Board, along with anticipated implementation of the Integrated Wastewater Master Plan indicate that capital improvements will remain the primary expense driver for the District for at least the next 10 years. The good news is that by adding to or improving District facilities the public materially benefits from the value and useful life of the assets of the District.

Unused prior year Carryover CIP funds is the primary funding source for the majority of capital projects in fiscal year 2022-23. $16,107,183 of carryover funding is allocated for use on capital projects in 2022-23 budget.

Sincerely,

Chris DeGabriele
Interim General Manager

Dale McDonald
Administrative Services Manager

Las Gallinas Valley Sanitary District
Proposed Budget – 2022-23

REVENUE

Operating Revenue

The District is heading into its second year of a two-year rate plan approved by the Board on June 17, 2021. A Sewer Service Charge ("SSC") rate increase of $93 annually, equal to 9.0%, for Single Family Residential ("SFR") users, is proposed. The rate increase will provide $1,460,445 in additional revenue over last year. Non-residential SSC revenue was lower in fiscal year 2021-22 as less wastewater was generated by non-residential customers during the pandemic. End of year revenue for 2021-22 is down and will be below budgeted revenue by $198,574.

Recycled water revenue is the estimated cost of providing water to Marin Municipal Water District ("MMWD") and North Marin Water District ("NMWD") based on the projected recoverable costs for the year. Projections for revenue is based on actual recycled water provided to MMWD and NMWD since April 2021. Revenue is expected to increase over the prior year as demand for recycled water increases.

Inspections, permits, and application fees reflect projected revenue from fees related to the Private Sewer Lateral Inspection program, lateral repairs and replacement, and applications for engineering review. The revenue is based on historical sales and permit data for properties within the District between 2019 and 2022.

Non-Operating Revenue

Secured property taxes are calculated based on the value of real property, land and personal property, such as structures, located upon real property. Secured property is taxed at a general rate of 1% of the assessed value. Property tax projections for 2022-23 are expected to be slightly higher than 2021-22 actuals. For 2022-23, revenue is budgeted at $1,262,089 and reflects a 3% increase over projected 2021-22 receipts. The District has historically identified secured property taxes as General Construction Revenue, since the State puts no limitations on its use. It can, therefore, be considered a general fund that can be used for any legal purpose allowed by District Code and State law. The Low-Income Sewer Rate Assistance Program is funded from secured property tax revenue.

Prior Secured taxes, Supplemental Property Tax Assessments, and Home-Owner Property Tax Relief ("HOPTR") funds are projected to rise 3% over last year. These are collected by the County with and at the same time as the secured property taxes and SSC assessment. They are reported separately as required by the State Controller's Office and auditing standards. Both the 1% annual Ad-Valorem tax increase for most property owners and the reassessment of property value upon sale of homes are factored in the reserve assumptions.

Educational Revenue Augmentation Funds ("ERAF") are determined by State statute. Special districts are allocated a certain amount of property tax revenues; however, a portion is shifted from counties, cities, special districts, and redevelopment agencies to K-12 schools and community colleges. The District is subject to ERAF I and II tax shifts, which are specified by the State, using population and other factors. These factors are adjusted annually per the incremental growth rate in assessed property tax values. Staff has budgeted $584,867 for 2022-23 based on increase in actual ERAF revenue for 2021-22 and communication with Marin County on their projected ERAF funding allocation formulas.

The Solid Waste Franchise fee revenue is forecast based on the anticipated Marin Sanitary Service rate increase adopted in January of each year. The revenue is based on the agreement with the solid waste franchisee, Marin Sanitary Service. Higher rates due to costs related to implementation of SB 1383, the State's organics recycling law, could be adopted in January 2023 which would increase both revenue and pass thru expenses related to the solids waste collection, recycling, and organic waste programs.

Interest on reserves, which are invested in the Bank of Marin and the Local Agency Investment Fund with the State of California, are expected to continue to yield low rates with the possibility for a slight increase in 2023. As the District uses accumulated funds for construction projects, the earnings are projected to decline in 2022-23.

The Private Sewer Lateral Assistance program began in July 2012. The budget reflects the projected direct repayments and annual payments to be collected on the tax roll in 2022-23 from property owners that took advantage of the program to have the District pay for their sewer lateral repair or replacement. Fewer anticipated loans are expected in 2022-23.

Miscellaneous revenue is comprised of insurance policy dividends. Staff does not forecast a budget in this category, as they are difficult to project, but has included a small placeholder to assist with future accounting if needed.

Capital Contributions / Capacity Related Revenue

Annexation, Capital Facilities, Charges, and Connections Fee activity for remodel permits and Accessory Dwelling Units ("ADUs") has increased from prior years. The largest connection fee in 2021-22 was from Oakmont Assisted Living in the amount of $425,339. While the District is substantially built out and the pace of development is difficult to predict, staff is aware of a few large-scale development projects which are anticipated to be approved for connecting to the sewer system in 2022-23. State and local governments are looking at laws to allow additional expansion of ADUs to create more affordable housing and provide flexibility for families who wish to build s second unit on their property. ADUs are normally not subject to capacity or connection fees but can be billed a SSC depending on the size and number of units. Staff is budgeting $1,740,572 for capital facility charges for 2022-23 primarily the result of the two large projects under development. The completion of a capacity fee study by HDR Engineering will have an impact on the revenue forecast for future years. The interest income for this category is for existing funds on deposit, which have been expended for capital projects.

Marin Municipal Water District entered into an agreement in March 2017, to buy into the existing capacity of the Recycled Water Treatment Facility as well as participating in the debt service of the 2017 Revenue Bonds associated with the estimated cost for the expansion of the facility. These funds are allocated to the reserve funding for the cost of the project and will be used in fiscal years 2021-22 and 2022-23.

There is only one pending disbursement of $567,760 from the IBank loan remaining, which will be disbursed once the Notice of Completion for the Secondary Treatment Plant Upgrade and Recycled Water ("STPURWE") project is filed. The remaining funds will return to the general fund as STPURWE expenditures have already been paid. The disbursements budgeted are reflected in the Other category on the charts on the following pages.

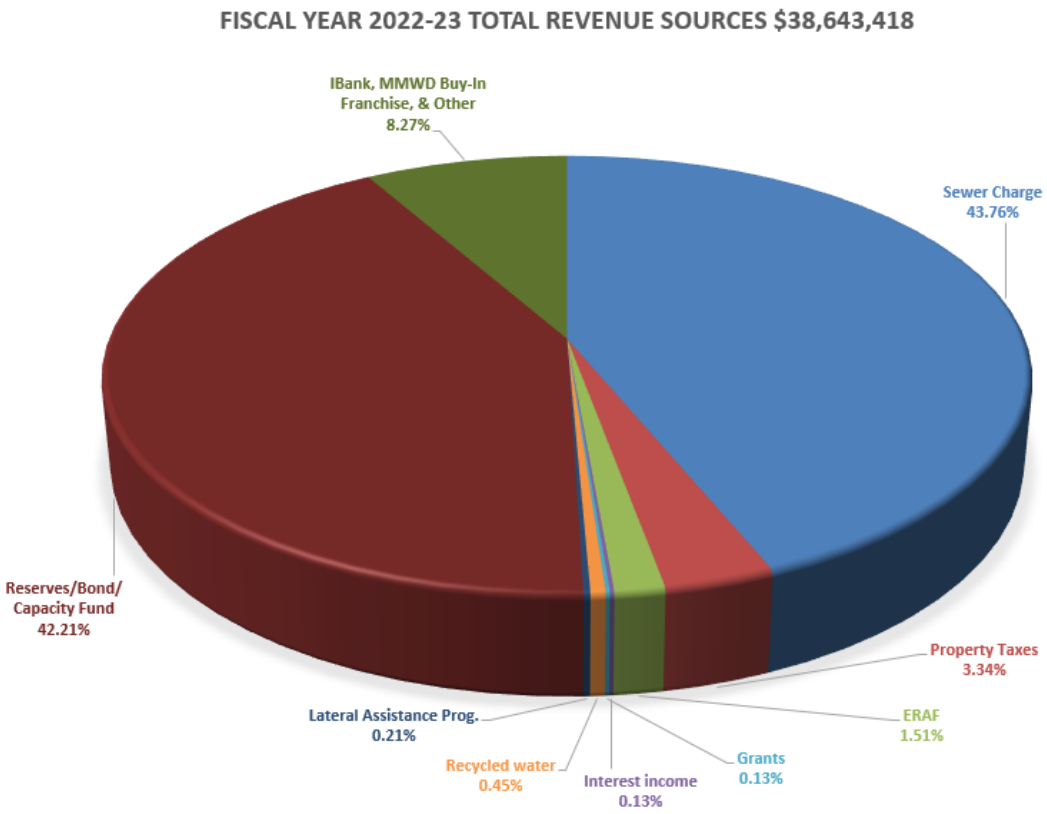
Federal and State grants may become available for wastewater infrastructure projects in 2022-23 and beyond but none have been identified as of this workshop, let alone secured. The District has contracted with a consultant to pursue alternative funding and is working with partner agencies, such as North Bay Water Reuse

Authority, to look into grant opportunities. It is wise for the District to design construction ready projects to take advantage of any grants that become available, but it would not be prudent to anticipate revenue from grants at this time. A Local Assistance Grant in the amount of $43,309 was obtained from CalRecycle which can be used for implementation of organic recycling programs in fiscal year 2022-23 as mandated by SB 1383.

Utilization of Bond Funds and Reserves

The Private Sewer Lateral ("PSL") Assistance Program has continued to collect reimbursements for loans made to property owners. No additional funding use has been proposed in recent years resulting in the balance in this program sitting at $388,085. Funds must be sufficient to fund future assistance with anticipated revenue of $79,300 allocated for 2022-23. The budget includes using $59,800 towards new loans in 2022-23.

The District has previously budgeted for projects that have not yet begin or are in the middle of construction, which has created carry-over capital funding that is available for continuing projects. These projects are included in the Capital Outlay budget. Any unused funding allocated to these projects will carry forward into 2022-23. A total of $16,107,183 of prior-year capital carry-over is budgeted for use in 2022-23.



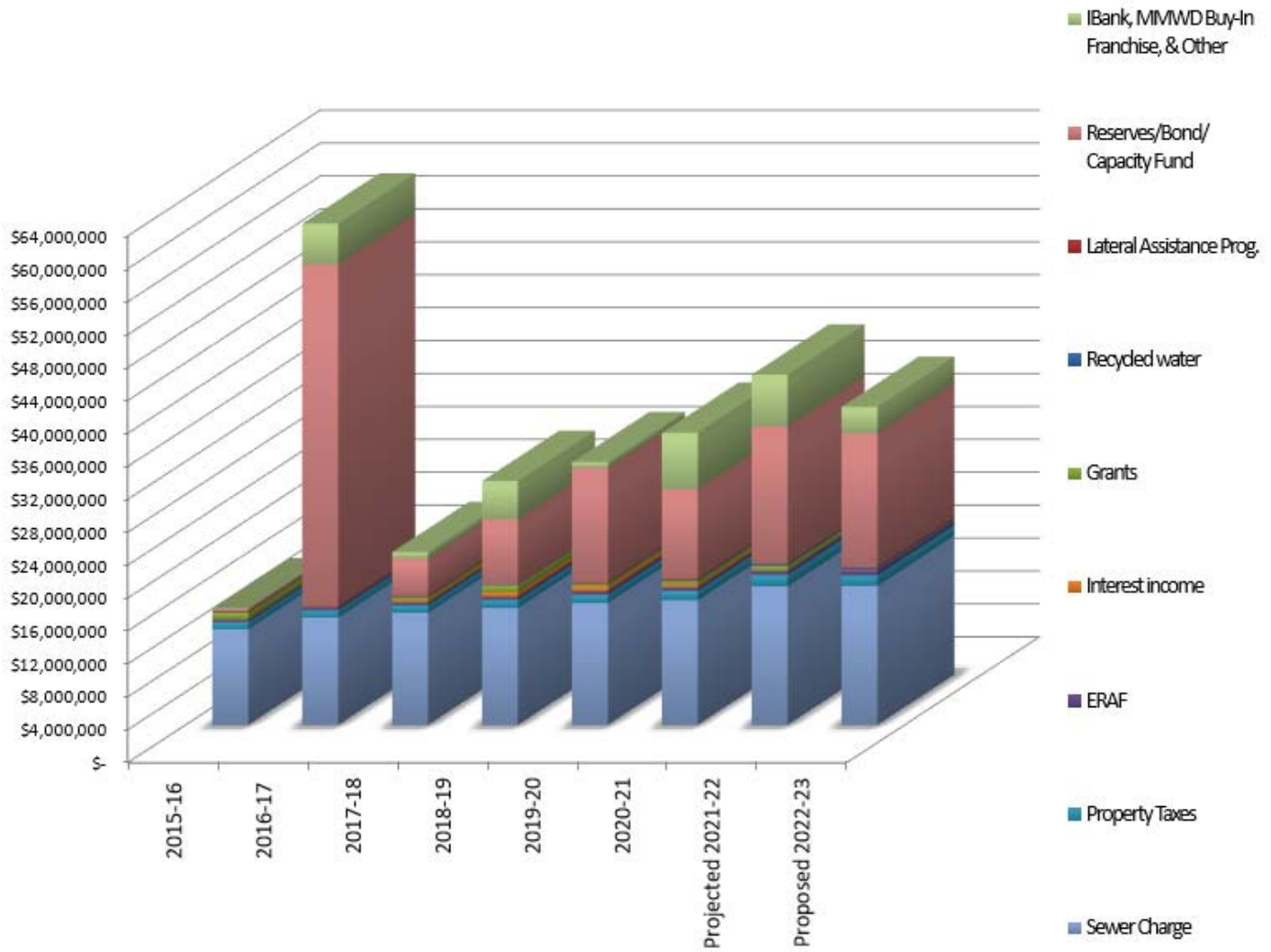
Capital Reserves used for the STPURWE Project are anticipated to be depleted by September 2022. The Marin Municipal Water District ("MMWD") Buy-In and their share of debt service payments set aside for the STPURWE project will be used to close out the project. The Bank of Marin Business Money Market account will be closed, and any remaining balance will be transferred to the District's Local Agency Investment Fund ("LAIF"). The projected beginning balance of $594,840 will remain allocated to the Capital Reserve fund. There is no planned use of these undesignated funds in 2022-23.

Transfers from the Marin Lagoon and Captains Cove restricted funds can be used towards repayment of operating and capital costs incurred for Marin Lagoon and Captains Cove collection systems. A total of $142,800 is budgeted for 2022-23.

Las Gallinas Valley Sanitary District
Proposed Budget – 2022-23

Transfers from the Capacity / Connection Fee Facilities Fund, which has been growing as fees for new or additional connections to system are paid by developers, can be used to pay for collection system and plant capacity improvements necessary to serve those connections. There is no planned use of these funds budgeted for 2022-23.

The graph below shows the composition of District revenues for the past five fiscal years plus the projected 2021-22 and preliminary budget for 2022-23.



Las Gallinas Valley Sanitary District
Proposed Budget – 2022-23

EXPENDITURES

The Government Accounting Standards Board (GASB), which is recognized as the official source of GAAP for state and local governments, establishes modified accrual accounting standards. Modified accrual accounting is used and accepted by governmental agencies because they focus on current-year obligations. Las Gallinas Valley Sanitary District Policy F-40-20, Basis of Budgeting, required that all budgetary procedures conform to state regulations and generally accepted accounting principles. As such, the District uses a modified accrual basis of accounting for reporting on budgeted versus actual expenditures, with the following exceptions:

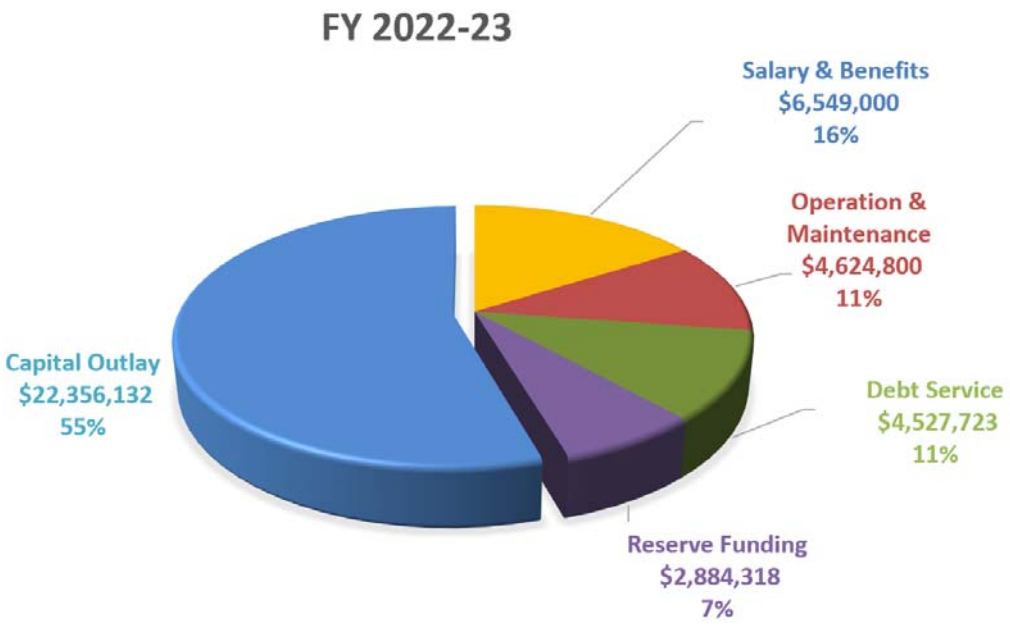
- Grant revenues are budgeted on a modified cash basis rather than an accrual basis.
- Fixed assets are depreciated for some financial reporting but are fully expensed in the year acquired for budgetary purposes.

Modified accrual accounting is an alternative bookkeeping method that combines accrual-basis accounting with cash-basis accounting. It recognizes revenues when they become available and measurable and, with a few exceptions, records expenditures when liabilities are incurred.

The General Manager and Administrative Services Manager are responsible for development of internal accounting policies and procedures necessary to implement financial policies and to ensure that internal controls, processes, and procedures follow the California State Controller's Office Internal Control Guidelines pursuant to CGC section 12422.5 and are adequate to protect the finances of the District.

Expenditures of the District are broken down into the following categories:

1. Operating and Maintenance Expenses *(including salary & benefits)*
2. Debt Service
3. Reserve Funding
4. Capital Outlay



The District's largest expenditure category is Capital Outlay followed by Operation and Maintenance. The operating and maintenance expense, debt service, reserve and restricted funding, and capital outlay financials have been reviewed and comments on key items of interest are being provided to the Board to facilitate discussion. The Board recently reviewed its reserve policy and established reserve funding targets for the Operating & Rate Stabilization Reserve, Emergency Repair, Capital Reserves, and Vehicle and Equipment Reserve.

Operating and Maintenance Expenses

Employee Expenses:

Staff salaries are based on 2022-23 projected wages including a 2.75% cost of living increase agreed to with Operating Engineers Local 3 ("OE3") in the Memorandum of Understanding ("MOU") between the District and OE3, and with unpresented employees by contract. The budget includes funding for one additional full-time position being proposed for 2022-23. The total budgeted wage increase for all employee wages is 2.19% over the prior year adopted budget.

Expense accounts for Emergency Response Stipend, Certification Stipend, and Longevity Pay were created to provide transparent employee compensation as agreed to in the MOU effective July 1, 2022. Having these items reported separately from regular staff salaries allows the true cost of these programs to be available to the public.

Payroll taxes, group life insurance, CalPERS retirement, Health benefits, Dental, and Vision insurance are projected to increase over prior year actuals as new employees are hired to fill approved and proposed positions.

CalPERS contributions are projected from regular wages with the published employer contribution rate of 14.03% for classic members (up slightly from 14.02%) and 7.47% (down from 7.59%) for PEPRA in 2022-23. Staff who became CalPERS members after 2013 are covered by the PEPRA plan which requires lower retirement contributions by the District. PEPRA employees are required to contribute 8% towards their retirement per MOU.

Health insurance is projected based on the known rates for July through December 2022 and the application of an estimated health insurance trend rate of +1% for 2022-23. CalPERS Health will set the coverage rates for 2023 in the summer of 2022. The expense also reflects costs associated with the three recently or soon to be filled approved positions and one new proposed position for 2022-23. Other Post-Employment Benefits ("OPEB") retiree health benefits for prior employees and pre-funded expenditures for current employees based on the GASB 75 actuarial valuation measurement date June 30, 2020 are included under health benefit expenses.

Commute Vehicle Stipend was eliminated and replaced with the Emergency Response Stipend for all represented employees per MOU agreement. Managers with the Commute Vehicles Stipend dropped this benefit from their most recent contracts. The Auto Allowance is a vehicle allowance benefit for some management employees who have this benefit included in their contracts. A cost-of-living adjustment for the vehicle Auto Allowance will be made on July 1, 2022, subject to Board approval.

Proposed New Position:

Board Financial Policy F-40-40 grants exclusive authority to the Board to increase the number of authorized staff at the District. Historically, new staff positions are considered as part of the budget process. After review of operational needs management is recommending the addition of one new staff position:

Collection System Operator
The current team of collection system operators is responsible for preventative and corrective maintenance and repairs of the collection system in the District. There are 2 lead and 3 collection system operators that performs hydro-cleaning and rodding of sewer lines, televised inspection of underground wastewater pipes, inspections, servicing and mechanical repair of stationary and mobile equipment, and other related work. In addition to normal

business day operational shifts, the collections group provides weekend, holiday, and emergency standby rotation coverage. Teams of 2 are normally dispatched to the field for operational and safety reasons.

Current staffing levels allows two teams to be dispatched into the field, with one collection operator available to serve in a support role and/or perform other collection system tasks. The addition of 1 collection operator to this group would allow three teams of 2 to work in the field. The backlog of televised sewer inspection can be addressed by having this third team in place. Creating the extra position will provide standby coverage flexibility, boost team morale, and establish adequate coverage for planned (vacation) and unplanned time off (sick time) without significant overtime expense and allow for the chronic deferral of training and professional development opportunities to be addressed.

The draft budget includes $101,650 in salary and $43,600 for benefits for this new position. The total cost of $145,250 is estimated based on filling the position with a Collection System Operator III who takes advantage of the District's offered CalPERS Health family benefit option. Actual expenses would be lower if the position is filled by a Collection System Operator II or if single health benefit option is chosen.

The Environmental Compliance Manager ("ECM"), a proposed position which remains vacant, was budgeted and authorized by the Board during the 2020-21 budget cycle. In December 2021, the Board asked that the creation of this position be reconsidered. If the ECM position is eliminated, previously authorized funding for the ECM position would free up and be available for the proposed Collection System Operator position.

Insurance:

Workers compensation insurance is based on projected wages for 2022-23, plus an increase of full-time positions being filled, and an decrease in the experience modification factor from 0.98 to 0.94 based on the District's recent claims history. The Workers Compensation Insurance Rating Board (WCIRB) continues to use the simplified Experience Rating Formula which removes the first $250 of each claim for the calculation. A 3.57% increase over actuals was used in developing the $72,900 budget amount for 2022-23.

Pooled liability insurance includes general liability and mobile equipment, billed separately. The general liability insurance premium period is based on a calendar year and the mobile equipment on a fiscal year basis. The liability insurance is the larger premium for which the yearly cost is known based on the current billing, a modest increase of 1% over 2021 has been calculated for liability insurance. Budget is to be adjusted once the invoice for actual July 1, 2022 to June 30, 2023 insurance is received in May.

Property insurance is reported on the same line item with general liability. Since 2018, significant events have driven the property insurance market to tighten substantially. Prior events in 2020 and 2021 has further aggravated market conditions and the firming trend is expected to continue. Property insurance rates are estimated to increase 7.5% or an additional $4,650 because of market conditions. In addition, the new construction values related to the STPURWE Project scheduled for completion in June 2022 will be added to the Schedule of Values (SOV) which will increase the Total Insurance Value by 38%, resulting in a significant premium increase at renewal estimated at an additional $23,560 for 2022-23. Once the property insurance invoice is received this budget line item will be revised in the final budget presented in June.

Repairs and Maintenance:

The majority of repairs and maintenance expenses are coordinated by the Maintenance Supervisor but actual expenses related to assets are billed to the respective Collection System, Pump Station, Treatment Plant, or Recycled Water departments for proper accounting. Management work together to authorize and approve

expenses. Inflation and logistic delays have had an impact on the costs of parts and services in 2022. It is anticipated that continued inflationary factors will influence costs into 2023. The Repair and Maintenance budget for 2022-23 is therefore projected to increase $109,800 over the prior year budget (equal to 12.12%) and $243,833 over the projected actual expenses (equal to 31.58%).

The building and grounds maintenance budget includes having an outside firm perform yard work on the main building landscape and reflects expenses related to maintenance work performed by the District's skilled maintenance employees. It also includes monthly Jefferson Security Fire Suppression monitoring expenses.

Power generation maintenance and repairs consists of work performed on the photo voltaic system, a maintenance contract for the BERS turbines, and maintenance of the CNG fill stations at the treatment plant and the pump station. This budget amount may change before the final budget is considered depending on action taken with the CNG fill station.

Capital repairs/replacements consist of items that are long-lived or life extending in nature but are not included in the capital improvements budget. They are either items that are capital in nature, but the replacement/repair is not anticipated as part of the initial capital outlay budget or items such as small pumps and equipment with a cost under the $5,000 capitalization threshold. The budget has been reduced from prior years anticipating fewer capital replacement projects.

Other Operating Expenses:

Chemical costs will be higher in 2022-23. The budget is based on past usage and the expected increased chemical use in recycled water production. As a member agency of The Bay Area Chemical Consortium ("BACC"), the District benefits from regional bids for chemicals by wastewater agencies in the Bay Area. All agencies have experienced an increase in chemical costs over the last year. Unit prices beginning July 1 for hypochlorite will increase 90%, bisulfite 14%, and ferric chloride 68%. Costs associated with recycled water production are recoverable based on the percentage of water received by each of LGVSD, MMWD, and NMWD.

Outside services includes services related personnel and HR services such as CPS HR consultants, guard service, labor relations, janitorial services, security patrols and alarm monitoring, portable restroom rentals, alternate grant funding studies, and other incidental outside operating expenses. Consultants include costs for climate assessments, Canada goose project and reporting to NPDES, support for solar panel energy management in the reclamation area MMWD water data review and rate setting assistance, recruitment, labor relations, and for organizational and Board development.

Reclamation expenses include pasture disking and marsh pond vegetation management. Sludge Disposal is the cost for injecting digested biosolids in the District's dedicated disposal site. The amount is based on prior year activity, however long-range system improvements will lead to increased costs, which will hopefully be offset by a regional program and associated fees.

Feasibility studies that are not capital improvement or capacity related are treated as an operational expense. These includes biogas studies, compost feasibility studies, and Descanso Force Main Alignment Analysis related to the McInnis Marsh Restoration. A total of $91,600 is budgeted for 2022-23 to complete these projects and to fund North Bay Water Reuse Authority joint-studies on Sea Level Rise Adaptation and Drought Contingency Planning. Biosolids system improvement analysis project is included as a capital project in preparation for biosolids well monitoring project.

Financial services include actuarial valuations and accounting CPA services. Actual prior year costs plus anticipated actuarial and CPA use in 2022-23 is the basis for this budget item.

Lateral rehab assistance program is based on the amount of expenses in 2021-22 and the number of property owners who would utilize loan for repair or replacement of their sewer lateral. The amount of $59,800 is anticipated to be enough funding for 6 lateral replacements.

General and Administrative:

Election costs are budged at $25,000 bi-annually, every even fiscal year, and is based on estimated billings from the Marin County Registrar of Voters if an election were to be held.

Computer support and supplies includes annual software renewals, outside computer network support, replacement of computer equipment as needed, Zoom, and other incidental computer peripherals. As software companies move away from providing owned software licenses and switch to a Software-as-a-Service ("SaaS") licensing and delivery model, in which software is licensed on a subscription basis and is centrally hosted, the District will see these expenses rise. CityWorks, ArcGIS, SCADA, and the upcoming Caselle Accounting Enterprise Resource Planning ("ERP") software all follow SaaS licensing models.

Public education and outreach expenses are for the joint efforts with other Marin County sewage treatment agencies, web site maintenance, donation requests from community groups for funding, special mailings and for the District's newsletter and annual sewer rate change mailings.

Memberships and Permits are based on 2021-22 invoiced actuals with a slight increase factored for some permits. This includes the renewal of the annual fee for biosolids application to the Regional Water Quality Control Board in the amount of $23,780.

Rents and leases include the administration office lease at 101 Lucas Valley Road, at $110,340 for 2022-23, costs for the lease of the postage machine, off-site records storage, railroad easements and copiers. As in the past, we must prepare for Public Safety Power Shutoffs (PSPS) events from PG&E initiated by high-risk weather conditions. These events may trigger power outages in our area and will require that we have standby generators and fuel ready for power outages during possible wildfires. Rents and leases assigned to pump stations are for portable stand by generators for PSPS events and is budgeted at $52,300.

Employee training and education includes the cost for the District to participate in the Liebert Cassidy Whitmore employment relations consortium and other offsite training. Webinar training opportunities have become standard practice over the last year. The District expects to increase sending staff to offsite training conferences in 2022 and 2023 as COVID-19 restrictions are lifted, the budget reflects this increase over last year actuals.

Debt Service

The District has six issuances of debt outstanding. They are as follows:

- Certificates of Participation (COP) with an original principal amount of $10,000,000, which were issued in 2005, and have annual principal and interest payments through December 2025. The District refinanced them at a reduced interest rate of 3.3% which will save interest over the remaining life and will result in lower annual payments. The principal balance remaining is scheduled to be $2,668,800 as of July 1, 2022.

- State Revolving Fund Loan (SRF) was a construction loan which originated in 2010 and was completely drawn down in 2012. The original principal amount was $4,314,750 with annual principal and interest payments through June 2032. The interest rate is 2.7%. The principal balance remaining is scheduled to be $2,472,780 as of July 1, 2022.
- Bank of Marin Loan #1 which originated in 2011 with a principal amount of $4,600,000. Monthly principal and interest payments are due through June 2031. The interest rate is 3.88%. The principal balance remaining is scheduled to be $2,517,664 as of July 1, 2022.
- Bank of Marin Loan #2 which originated in 2012 with a principal amount of $2,000,000. Monthly principal and interest payments are due through August 2022. The interest rate is 3.25%. The principal balance remaining is scheduled to be $39,064 as of July 1, 2022. The loan will be paid off in August 2022.
- 2017 Revenue Bonds were issued in April 2017 with a principal amount of $38,365,000. The true interest rate to maturity is 3.2984%. Annual principal and interest payments are due through April 2042. The principal balance remaining is scheduled to be $33,375,000 as of July 1, 2022.
- The District entered into an agreement with California Infrastructure and Economic Development Bank (IBank) in May 2019 for a loan of $12,000,000. The loan has a maturity date ranging from August 1, 2019 thru August 1, 2043. The interest rate on the loan is 3.0% per annum. The principal balance remaining is scheduled to be $10,982,678 as of July 1, 2022. An annual service fee, $32,948 for 2022-23, is treated as an Operating & Maintenance expense but recognized as debt service for budget purposes. The annual fee is not reported as a long-term obligation in audited financials.

The debt service does not reflect the reimbursement to be received from MMWD for buying into the existing recycled water treatment facility or their portion of the 2017 Revenue Bonds. The payments received from MMWD are transferred to capital reserves.

The Debt Service Coverage Ratio (DSCR) for the District for 2022-23, based on the presented budget and debt service, is determined by dividing the Net Operating Income ($8,182,730) by Total Debt Service ($4,527,723). The calculated DSCR for 2022-23 is therefore 1.81. The District is required to maintain a DSCR of 1.25 or higher due to bond covenants and we are above this minimum. The District includes both its operating income and non-operating income, primarily guaranteed property taxes, in determining its Net Operating Income which is used in the calculation of DSCR.

HDR Engineering recommended having a DSCR of 2.18 or higher in their Sewer Service Charge Rate Study dated April 2021 in anticipation of debt to be incurred with the OCC Building project. When specifically included in a utility's bond indenture, rate stabilization reserves can be used to help meet debt service coverage requirements during times of revenue shortfalls.

Reserves

District Financial Policy F-50 Reserves, establishes reserves, explains the purpose and reasons for the size of each reserve, and provides for oversight of reserves.

Operating & Rate Stabilization Reserve has set a target of a minimum balance equal to 7 months of average annual budgeted expenses. Based on reserve fund policy the reserve target for 2022-23 is therefore $9,159,222 but the reserve only has balance $2,673,576 at the beginning of the upcoming fiscal year. The budget includes adding $618,565, one-tenth of the reserve target shortfall, to the budget for

2022-23. The reserve has been established to fund unexpected expense increases and can be used to help stabilize sewer service charge rate swings.

- Emergency repair reserve target of $1,000,000 was met in fiscal year ended June 30, 2017. Staff recommends no changes to this reserve.
- The Capital Reserves holds funds for the Secondary Treatment Plant Upgrade and Recycled Water Expansion (STPURWE) project and include actual payments required to service the 2017 Revenue Bonds. These funds will be used before June 30, 2022 as the STPURWE project comes to completion. The balance of $594,840 in the reserve can be used for other major capital projects such as the Operation Control Center ("OCC") Building project or John Duckett Pump Station and Force Main Sewer Crossing Project. $336,464 is proposed to be added to Capital Reserves for undesignated capital projects. The Board can choose to reallocate the reserves to a specific project.
- Vehicle and Equipment Reserve (VERF) was established in fiscal year 2019-20 to fund vehicle and equipment replacements. The reserve was established at $1,000,000 and was setup with funds held in the District's LAIF account. The Board authorized purchase of new vehicles mid-year reducing the projected end of year balance. Staff suggests restoring the VERF target balance over 3 to 4 years while a VERF Replacement Program and Schedule is developed. A total of $150,755 is therefore budged for 2022-23 to replenish the VERF to its target before anticipated withdraws for new vehicles in 2022-23.
- Capacity Connection Fee reserve fund is restricted for the use of collection system and plant capacity improvements to serve the new connections that contributed to the fund through fees collected. Two large projects are anticipated to add $1,741,403 to the fund.
- Captains Cove and Marin Lagoon are restricted reserves built up when there is excess of special assessments over projected operations, maintenance and capital expenditures which are collected for these developments. Both funds will be drawn down to pay for operational and capital projects. A rate study will be undertaken to see if the surcharge rates that Captains Cove and Marin Lagoon are contributing is sufficient to continue the ongoing operations and maintenance needs of the pump stations serving these communities.

Capital Outlay

The District is required to budget for the adequate maintenance of capital equipment and facilities to protect the public investment and ensure achievement of their maximum useful life. The District is required to prepare and adopt a 5-Year Capital Improvement Plan ("CIP") as part of the rate setting process that identifies and sets priorities for all major capital assets to be acquired, constructed or replaced by the District. District policy requires the CIP be included in the adopted budget and that the status of the CIP is updated annually as part of the budget process.

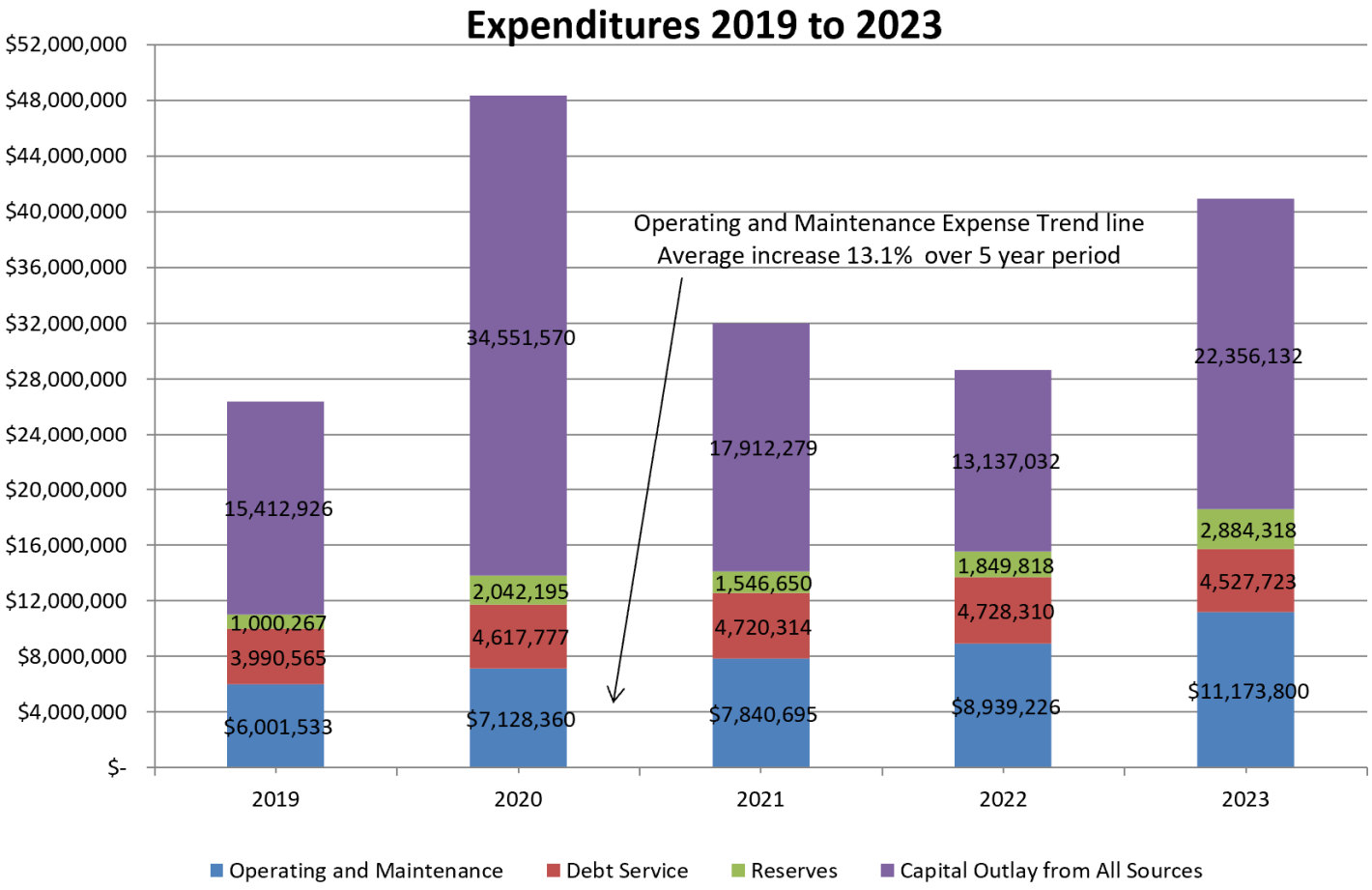
The CIP shall identify adequate funding to support the acquisition, construction and replacement of assets identified in the plan, and shall identify projects that the District believes beneficial to the system, but funding has not yet been identified. The CIP shall include and indicate when and for what projects the District intends to finance through the issuance of debt. Additionally, the District shall strive to develop a comprehensive strategy and funding plan for the renewal and replacement of existing capital assets.

The Capital Outlay budget contains projects specifically identified in the 5-Year CIP for 2022-23 through 2026-27 plus miscellaneous capital needs that change yearly. The 2023-2027 years are very rough estimates that will be updated as the District's Integrated Wastewater Plan is completed over the next year. The draft 2022-23

Las Gallinas Valley Sanitary District
Proposed Budget – 2022-23

Budget only includes funding approval for projects identified in the first year of the CIP. See the separate Capital Outlay Budget for the list of projects. The following is a graph showing the composition of District expenditures for the past 4 fiscal years plus the budget for 2022-23.

Most of Capital Outlay expenses in recent years have been related to the Secondary Treatment Plant Upgrade Recycled Water Expansion Project but this will change as we head into 2022-23. Collection system projects, including the restarting of the Sewer Main Collection System Rehabilitation Program, will comprise the majority of the capital budget in 2022-23, with total collection system project costs budgeted at $4,354,751.



The Capital Outlay budget details are presented at the end of the report.

A preliminary five-year CIP contains projected expenditures through 2026-27 which include the Operation Control Center Building construction occurring in year 3. All projects after year 2 are subject to change once the Integrated Wastewater Master Plan is completed in 2023. The Capital Outlay budget and five-year CIP can be modified based on feedback from the Board before the 2022-23 Budget is presented to the public.

Management welcomes Board feedback on key projects such as the John Duckett Pump Station, the new Operations Control Center building, and other projects during the Budget Workshop discussion.

Supporting Financial Statements are attached to this report on the following pages.

LAS GALLINAS VALLEY SANITARY DISTRICT
BALANCE STATEMENT & ACCOUNT INFORMATION
PROPOSED BUDGET - MAY 19, 2022

BALANCE STATEMENT		2021-22 Adopted Budget	2021-22 Projected Actuals	2022-23 Proposed Budget
Beginning Balance (July 1):		**$ 43,801,682**	**$ 43,801,682**	**$ 41,270,133**
Revenue:				
Rate Revenues	(1)	$ 15,648,637	$ 15,450,063	$ 16,910,508
Other Operating revenue	(1)	617,460	174,515	248,770
Non-operating revenue	(1)	2,111,738	2,229,646	2,197,252
Capital Contributions / Capacity Related		7,398,448	6,662,677	2,977,105
Expenditures:				
Operating expense	(2)	(10,332,490)	(9,048,315)	(11,173,800)
Debt Service	(3)	(4,728,310)	(4,728,310)	(4,527,723)
Capital outlay		(24,375,754)	(13,271,826)	(22,356,132)
Ending Balance (June 30):		**$ 30,141,411**	**$ 41,270,133**	**$ 25,546,113**

DEBT SERVICE COVERAGE RATIO (DSCR)	2021-22 Adopted Budget	2021-22 Projected Actuals	2022-23 Draft Budget
Net Operating Income (NOI) = (1) - (2)	$ 8,045,345	$ 8,805,910	$ 8,182,730
Total Debt Serive = (3)	$ 4,728,310	$ 4,728,310	$ 4,527,723
DSCR = NOI / Debt Service	**1.70**	**1.86**	**1.81**

HDR Engineering used 2.7% inflation factor in April 2021 Sewer Service ChargeRate Study. Actual annual inflation rate of 8.5% as of March 2022.
HDR Engineering Sewer Service Charge Rate Study DSCR target for 2022-23, after rate increase, is 2.18.

ACCOUNTS SUMMARY	As of June 30, 2021	As of May 9, 2022
Cash in Bank and On Hand:		
Bank of Marin - Various Accounts	$ 11,107,489	$ 13,366,859
Petty Cash - Unrestricted	966	931
Total cash in bank and on hand	11,108,455	13,367,790
Investments:		
Certificates of Deposit - Restricted	900,130	902,370
Local Agency Investment Fund - Restricted/Reserves	7,079,424	7,847,671
Local Agency Investment Fund - PY Carryover & Unrestricted	18,622,635	13,902,312
Total investments	26,602,189	22,652,354
Other		
US Bank Bond & Cost of Issuance Funds	116	116
IBank Installment Sale Agreement	6,090,922	567,760
TOTAL CASH AND INVESTMENTS	**43,801,682**	**36,588,019**

LAS GALLINAS VALLEY SANITARY DISTRICT
REVENUE
PROPOSED BUDGET FY 2022-2023 - MAY 19, 2022

Revenue Description	2020-21 Final Audited Actual	2021-22 Adopted Budget	2021-22 Projected End of Year	2022-23 Proposed Budget	% Change Over Prior Year Budget
OPERATING REVENUE					
Sewer Service User Charges	$ 15,170,106	$ 15,648,637	$ 15,450,063	$ 16,910,508	7.46%
Recycled Water (MMWD / NMWD)	123,155	529,400	110,337	172,000	-207.79%
Inspections/Permits/Application Fee	85,947	87,310	62,929	75,520	-15.61%
Miscellaneous Operating Revenue	12,662	750	1,250	1,250	
Total Operating Revenue	**15,391,869**	**16,266,097**	**15,624,578**	**17,159,278**	5.21%
NON-OPERATING REVENUE					
Property Tax	1,096,636	1,130,170	1,225,329	1,262,089	10.45%
Suppl. Property Tax Assess.	19,720	18,976	33,710	24,758	23.35%
Educational Revenue Augmentation Fund	439,054	451,000	559,681	584,867	22.89%
Homeowner Property Tax Relief	4,284	3,733	4,322	4,453	16.17%
Franchise Fees Marin Sanitary Service	153,351	151,938	162,030	167,345	9.21%
Private Sewer Lateral Assistance Program	114,219	138,800	112,617	79,300	-75.03%
Interest Income	2,912	1,760	2,924	2,040	13.73%
Interest on Reserves and LAIF	320,011	151,100	43,136	47,400	-218.78%
Reimbursements / Pass thru	15,918	41,000	85,897	25,000	
Other non-operating revenues	23,261	23,261	-	-	
	2,189,366	**2,111,738**	**2,229,646**	**2,197,252**	3.89%
CAPITAL CONTRIBUTIONS / CAPACITY RELATED					
Annex, Capital Facility Charges, Connection Fees	213,536	35,341	472,113	1,740,572	
Interest on Connection Fee Fund	209	622	553	831	
Marin Municipal Water District Inter-Governmental	463,395	694,294	463,269	619,633	
IBank Loan Disbursements	5,909,078	6,663,191	5,124,515	567,760	
Federal Grants	-	-	-	-	
State Grants	446,229	5,000	602,226	48,309	
	7,032,447	**7,398,448**	**6,662,677**	**2,977,105**	-148.51%
TOTAL REVENUES	**$ 24,613,682**	**$ 25,776,283**	**$ 24,516,902**	**$ 22,333,635**	**-15.41%**

UTILIZATION OF BOND FUNDS AND RESERVES	*Actual Use*	*Adopted Available*	*Projected Use*	*Budgeted*	
Operating Reserves / Rate Stabilization	-	299,571	300,000	-	
Private Sewer Lateral Assistance Funds	-	100,000	56,400	59,800	
PY Capital Outlay Carryover Utilized	1,950,512	10,293,060	8,848,271	16,107,183	
Capital Construction Project Reserve	-	4,019,000	3,746,705	-	
Interest Earned on Unspent Bond Funds & IBank	235,768	-	5,104	-	
Transfers from 2017 Bond Fund	8,710,157	-	-	-	
Transfers from Marin Lagoon Restricted Fund	-	84,000	47,343	119,500	
Transfers from Captains Cove Restricted Fund	-	30,000	47,380	23,300	
Transfers from Capacity Connection Fee Fund	-	200,000	200,000	-	
SUB TOTAL	**10,896,437**	**15,025,631**	**13,251,203**	**16,309,783**	7.87%
TOTAL FUNDS AVAILABLE FOR EXPENDITURES	**$ 35,510,119**	**$ 40,801,914**	**$ 37,768,105**	**$ 38,643,418**	

LAS GALLINAS VALLEY SANITARY DISTRICT
BUDGET SUMMARY
PROPOSED BUDGET FY 2022-2023 - MAY 19, 2022

	2020-21 Final Actual	2021-22 Adopted Budget	2021-22 Projected End of Year	2022-23 Proposed Budget	% Change Over Prior Year Budget
OPERATING EXPENSES					
EMPLOYEE WAGES	3,129,192	4,518,950	3,937,729	4,617,700	2.19%
EMPLOYEE BENEFITS	1,411,250	1,970,290	1,675,687	1,931,300	-1.98%
INSURANCE EXPENSE	207,609	308,500	262,419	304,000	-1.46%
REPAIRS AND MAINTENANCE	734,631	906,200	726,341	1,016,000	12.12%
SUPPLIES & SMALL TOOLS	362,650	433,400	434,911	597,400	37.84%
CONTRACTED SERVICES	980,195	1,084,200	975,427	1,334,100	23.05%
UTILITIES	431,426	411,700	438,423	578,000	40.39%
GENERAL & ADMINSTRATIVE	583,742	699,250	597,378	795,300	13.74%
OPERATING EXPENSE TOTALS	**$ 7,840,695**	**$ 10,332,490**	**$ 9,048,315**	**$ 11,173,800**	8.14%
DEBT SERVICE					
DEBT SERVICE TOTALS	**$ 4,720,314**	**$ 4,728,310**	**$ 4,728,310**	**$ 4,527,723**	-4.24%
RESERVE FUNDING					
OPERATING RESERVE	166,286	321,678	621,678	618,565	92.29%
RATE STABILIZATION	-	-	-	-	
EMERGENCY REPAIR	-	-	-	-	
CAPITAL RESERVES	831,832	915,901	915,901	336,464	-63.26%
VEHICLE & EQUIPMENT (VERF)	328,131	50,969	50,969	150,755	195.78%
CAPACITY (RESTRICTED FUND)	220,253	35,963	472,667	1,741,403	4742.21%
CAPTAINS COVE (RESTRICTED FUND)	25	15,935	37,622	16,025	0.56%
MARIN LAGOON (RESTRICTED FUND)	123	24,914	64,106	21,106	-15.28%
RESERVE FUNDING TOTALS	**$ 1,546,650**	**$ 1,365,360**	**$ 2,162,943**	**$ 2,884,318**	111.25%
CAPITAL OUTLAY					
CAPITAL OUTLAY	**$ 17,912,279**	**$ 24,375,754**	**$ 13,271,826**	**$ 22,356,132**	-8.29%
TOTAL BUDGET					
TOTAL BUDGET	**$ 32,019,939**	**$ 40,801,914**	**$ 29,211,393**	**$ 40,941,973**	0.34%

LAS GALLINAS VALLEY SANITARY DISTRICT
OPERATING AND MAINTENANCE EXPENSE
PROPOSED BUDGET FY 2022-2023 - MAY 19, 2022

Acct. Num.	Expense Description	2020-21 Final Actual	2021-22 Adopted Budget	2021-22 Projected End of Year	2022-23 Proposed Budget	% Change Over Prior Year Budget
EMPLOYEE WAGES						
1003	**Regular Staff Salaries**	$ 2,850,194	$ 4,159,900	$ 3,269,026	$ 4,022,800	-3.30%
1004	**Extra Hire (1005)**	78,524	21,980	127,679	5,200	-76.34%
1008	**Over Time (1011)**	103,619	118,140	149,396	164,600	39.33%
1009	**Vacation and Sick Accrual**	(52,177)	64,000	64,000	64,000	*N/A*
1010	**Stand By**	79,792	82,340	80,068	89,800	9.06%
1014	**Emergency Response Stipend**	-	0	41,244	48,000	*N/A*
1015	**Certification Stipend**	-	0	75,151	82,400	*N/A*
1016	**Longevity Pay**	-	0	60,409	68,200	*N/A*
1036	**Directors Fees**	69,240	72,590	70,756	72,700	0.15%
	TOTAL EMPLOYEE WAGES	3,129,192	4,518,950	3,937,729	4,617,700	2.19%
EMPLOYEE BENEFITS						
1037	**Directors Benefits**	8,865	9,950	9,479	9,700	-2.51%
1404	**Payroll Taxes (SSI)**	210,497	338,600	238,079	274,100	-19.05%
1502	**Group Life Insurance**	6,259	9,440	7,030	8,200	-13.14%
1507	**PERS**	737,289	750,300	649,594	794,100	5.84%
1509	**Health Insurance**	364,441	750,530	711,604	775,800	3.37%
1510	**Dental Insurance**	24,234	25,800	15,057	15,600	-39.53%
1514	**Vision Insurance**	2,232	4,410	3,932	4,400	-0.23%
1516	**Long Term Disability**	21,271	30,090	24,416	32,400	7.68%
2006	**Auto Allowance**	8,586	14,700	9,824	17,000	15.65%
2007	**Commute Vehicle Stipend**	27,576	36,470	6,674	-	
	TOTAL EMPLOYEE BENEFITS	1,411,250	1,970,290	1,675,687	1,931,300	-1.98%
INSURANCE						
1701	**Workers' Comp Insurance**	61,664	75,500	65,489	72,900	-3.44%
2060	**Pooled Liability & Property Insurance**	144,947	231,900	195,930	230,000	-0.82%
2061	**Fidelity Bond**	998	1,100	1,000	1,100	0.00%
	TOTAL INSURANCE EXPENSE	207,609	308,500	262,419	304,000	-1.46%

LAS GALLINAS VALLEY SANITARY DISTRICT
OPERATING AND MAINTENANCE EXPENSE
PROPOSED BUDGET FY 2022-2023 - MAY 19, 2022

Acct. Num.	Expense Description	2020-21 Final Actual	2021-22 Adopted Budget	2021-22 Projected End of Year	2022-23 Proposed Budget	% Change Over Prior Year Budget
REPAIRS AND MAINTENANCE						
2083	**Vehicle Parts & Maintenance**	40,190	42,500	33,189	36,300	-14.59%
2096	**Building maintenance**	47,715	47,300	19,418	94,800	100.42%
2097	**Grounds Maintenance**	46,092	67,400	55,451	106,400	57.86%
2331	**Reclamation Pasture and Pond Maint.**	160,357	106,600	90,270	183,900	72.51%
2538	**Power Generation Maint & Repair**	20,292	30,700	32,006	33,900	10.42%
2365	**Equipment Maintenance**	39,845	66,200	58,172	80,300	21.30%
2366	**Equipment Repair**	207,235	227,000	201,341	218,100	-3.92%
2367	**Capital Repairs/Replacements**	172,905	318,500	236,492	262,300	-17.65%
	TOTAL REPAIRS AND MAINTENANCE	734,631	906,200	726,341	1,016,000	12.12%
SUPPLIES & SMALL TOOLS						
2107	**Hypochlorite**	52,486	89,200	105,489	200,400	124.66%
2110	**Bisulfite**	45,721	56,800	65,579	82,000	44.37%
2109	**Miscellaneous Chemicals (2101,2115)**	49,921	61,100	48,228	82,900	35.68%
2362	**General Operating & Lab Supplies (2115)**	88,078	51,900	73,571	83,200	60.31%
2501	**Fuel, Oil, and CNG for Vehicles (2501-2506)**	38,866	41,100	33,199	35,500	-13.63%
2389	**Safety Equipment & Supplies**	21,234	35,700	47,795	48,800	36.69%
2397	**Safety Services**	53,902	69,500	53,406	56,600	-18.56%
2249	**Small Tools**	12,442	28,100	7,644	8,000	-71.53%
	TOTAL SUPPLIES & SMALL TOOLS	362,650	433,400	434,911	597,400	37.84%

LAS GALLINAS VALLEY SANITARY DISTRICT
OPERATING AND MAINTENANCE EXPENSE
PROPOSED BUDGET FY 2022-2023 - MAY 19, 2022

Acct. Num.	Expense Description	2020-21 Final Actual	2021-22 Adopted Budget	2021-22 Projected End of Year	2022-23 Proposed Budget	% Change Over Prior Year Budget
CONTRACTED SERVICES						
2117	**Lab Contract Services**	43,727	47,000	42,117	47,800	1.70%
2119	**Pollution Prevention Program**	19,590	22,800	21,054	21,500	-5.70%
2320	**Outside Services (2321, 2322, 2323, 2326)**	231,067	221,300	147,262	272,000	22.91%
2324	**Janitorial**	19,251	17,700	21,011	22,300	25.99%
2327	**Uniform Service**	10,627	11,700	11,809	12,600	7.69%
2330	**Damage Claim**	10,000	20,000	-	20,000	0.00%
2334	**Sludge Disposal Inject**	88,400	91,700	96,919	102,700	12.00%
2357	**Regulatory Consultant**	183,300	146,500	164,199	186,400	27.24%
2358	**Engin. Pass-thru & Gen. Small Projects**	21,466	63,200	11,875	12,500	-80.22%
2359	**Feasibility Studies**	33,844	55,000	92,671	91,600	66.55%
2360	**Consultants - Other**	159,767	131,200	99,827	178,700	36.20%
2713	**Legal**	123,856	115,000	182,658	193,600	68.35%
2717	**Audit**	24,500	25,100	27,160	27,200	8.37%
2718	**Financial Services**	10,800	16,000	465	35,400	121.25%
2801	**Private Lateral Rehab Assist. Program**	-	100,000	56,400	59,800	-40.20%
2802	**Low-Income Rate Assistance Program**	-	-	-	50,000	N/A
	TOTAL CONTRACTED SERVICES	980,195	1,084,200	975,427	1,334,100	23.05%
UTILITIES						
2533	**Internet**	5,793	4,800	7,844	8,300	72.92%
2534	**Telephone**	71,930	68,300	45,497	48,100	-29.58%
2535	**Utility Power**	326,317	317,300	350,994	485,500	53.01%
2536	**Water**	27,386	21,300	34,088	36,100	69.48%
	TOTAL UTILITIES	431,426	411,700	438,423	578,000	40.39%

LAS GALLINAS VALLEY SANITARY DISTRICT
OPERATING AND MAINTENANCE EXPENSE
PROPOSED BUDGET FY 2022-2023 - MAY 19, 2022

Acct. Num.	Expense Description	2020-21 Final Actual	2021-22 Adopted Budget	2021-22 Projected End of Year	2022-23 Proposed Budget	% Change Over Prior Year Budget
GENERAL & ADMINSTRATIVE						
1006	**Payroll Processing**	20,996	22,150	23,496	24,900	12.42%
2477	**Conferences**	2,005	51,600	11,324	47,600	-7.75%
2479	**Mileage and Travel**	1,020	5,200	1,102	4,600	-11.54%
2129	**Election**	250	-	-	25,000	N/A
2133	**Office Supplies**	40,458	33,100	33,185	38,600	16.62%
2134	**Meeting Supplies**	1,279	1,600	2,373	2,500	56.25%
2716	**Computer Services and Software**	93,200	110,900	52,150	99,300	-10.46%
2135	**Bank Charges**	1,600	1,500	-	200	-86.67%
9778	**User Charge Collection Fee**	36,834	41,200	33,959	36,000	-12.62%
2221	**Publication and Legal Ads**	6,629	16,300	13,688	13,700	-15.95%
2223	**Public Education and Outreach [1]**	41,566	61,200	41,559	74,700	22.06%
2264	**Taxes, Other**	891	900	1,949	1,900	111.11%
2272	**Memberships (CASA, CSDA, NBWRA, etc.)**	62,624	49,200	76,116	70,200	42.68%
2363	**Permits (NPDES, Biosolids, BAAQCD, etc.)**	92,735	96,500	90,743	96,200	-0.31%
2364	**Fines**	-	-	-	-	
2246	**Rents and Leases**	173,933	171,900	185,184	191,300	11.29%
9786	**Employee Recognition [1]**	447	9,000	3,893	5,600	-37.78%
9787	**Employee Training and Education [1]**	4,403	25,700	11,015	47,700	85.60%
9999	**Miscellaneous expense (2137, 2499)**	2,872	1,300	15,642	15,300	1076.92%
	TOTAL GENERAL & ADMINSTRATIVE	583,742	699,250	597,378	795,300	13.74%
OPERATING EXPENSE TOTALS		**$ 7,840,695**	**$ 10,332,490**	**$ 9,048,315**	**$ 11,173,800**	8.14%

LAS GALLINAS VALLEY SANITARY DISTRICT
DEBT SERVICE
PROPOSED BUDGET FY 2022-2023 - MAY 19, 2022

Expenditure	2020-21 Total Actual	2021-22 Adopted Budget	2021-22 Projected End of Year	2022-23 Proposed Budget
2005 Certificates of Participation/ Refunded 2014	$ 698,760	$ 709,125	$ 709,125	$ 708,665
2010 State Revolving Fund Loan	285,464	285,464	285,464	$ 285,464
2011 Bank of Marin Loan	332,681	332,681	332,681	332,681
2012 Bank of Marin Loan	235,346	235,346	235,346	39,224
2017 Revenue Bonds [(1) (2)]	2,449,000	2,447,800	2,447,800	2,445,000
2019 IBank Loan	719,062	717,892	717,892	716,688
	$ 4,720,314	**$ 4,728,310**	**$ 4,728,310**	**$ 4,527,723**

(1) Includes treatment plant upgrade, recycled water treatment plant expansion and operations control center.

(2) Per Board action on May 25, 2017, amounts collected for the treatment plant upgrade and operations control center projects prior to the bonds being issued were reclassified as Reserves and are reflected in the Reserve Budget for all years presented.

	Debt Service Breakdown FY 2022-23		
Expenditure	**Principal**	**Interest**	**Annual Fee**
2005 Certificates of Participation/ Refunded 2014	$ 630,000	$ 78,665	$ -
2010 State Revolving Fund Loan	218,699	66,765	-
			-
2011 Bank of Marin Loan	237,888	94,794	-
			-
2012 Bank of Marin Loan	39,064	160	-
			-
2017 Revenue Bonds	1,110,000	1,335,000	-
			-
2019 IBank Loan [(4)]	359,654	324,086	32,948
	$ 2,595,306	**$ 1,899,470**	**$ 32,948**

(4) Annual IBank fee treated as Operation & Maintenance Expense but recognized as debt service for budget purposes.

LAS GALLINAS VALLEY SANITARY DISTRICT
RESERVES
PROPOSED BUDGET FY 2022-2023 - MAY 19, 2022

	2020-21 Actual	2021-22 Adopted Budget	2021-22 Projected End of Year	2022-23 Proposed Budget
Beginning Reserve Balance	**$ 7,079,424**	**$ 8,171,967**	**$ 8,171,967**	**$ 5,445,395**
Operating & Rate Stablization Reserve				
Beginning Balance	$ 2,185,612	$ 2,351,898	$ 2,351,898	$ 2,973,576
Plus: Additions	166,286	321,678	621,678	618,565
Less: Use of Funds	-	-	-	-
Ending Balance	$ 2,351,898	$ 2,673,576	$ 2,973,576	$ 3,592,141
Purpose: Insure minimum of 7 months of O&M + Debt Service is available			Target	$ 9,159,222
Rate Stabilization *(combined with Ops Reserve 5-16-22)*				
Beginning Balance	$ 300,000	$ 300,000	$ 300,000	$ -
Plus: Additions	-	-	-	-
Less: Use of Funds / Transfer to Ops Reserve	-	(299,571)	(300,000)	-
Ending Balance	$ 300,000	$ 429	$ -	$ -
Purpose: Fund unexpected expense increases, replenish over 3 to 4 year period.			Target	$ -
Emergency Repair	-	-	-	-
Beginning Balance	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
Plus: Additions	-	-	-	-
Less: Use of Funds	-	-	-	-
Ending Balance	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
Purpose: Fund emergency repairs, replenish over 2 to 3 year period.			Target	$ 1,000,000
Capital Reserves (STPURWE, OCC, and other CIP)				
Beginning Balance	$ 2,593,812	$ 3,425,644	$ 3,425,644	$ 594,840
Plus: Undesignated	146,722	229,717	229,717	336,464
Plus: STPURWE LGVSD Bond Reserve (1)	221,715	222,915	222,915	-
Plus: STPURWE MMWD Buy-In (2)	206,549	206,549	206,549	-
Plus: 2017 Bond MMWD Debt Service Share (3)	256,846	256,720	256,720	-
Less: Authorized Use of Funds	-	(4,019,000)	(3,746,705)	-
Ending Balance	$ 3,425,644	$ 322,545	$ 594,840	$ 931,304
Purpose: To provide capital for major capital projects.			Target	$ 4,000,000
Vehicle and Equipment Reserve (VERF)				
Beginning Balance	$ 1,000,000	$ 1,094,425	$ 1,094,425	$ 876,978
Plus: Additions	328,131	50,969	50,969	150,755
Less: Authorized Use of Funds	(233,706)	-	(268,416)	(480,000)
Ending Balance	$ 1,094,425	$ 1,145,394	$ 876,978	$ 547,733
Purpose: To fund large vehicle and equipment replacements.			Target	$ 1,000,000
Ending Reserve Balance	**$ 8,171,967**	**$ 5,141,944**	**$ 5,445,395**	**$ 6,071,178**

(1) Excess funds over debt payments put aside for project.

(2) MMWD quarterly payments towards buy-in thru 2022 - Held in Bank of Marin (BoM) Bus Money Market (BMM) #3983

(3) MMWD semi-annual Revenue Bond payments toward project - Held in Bank of Marin (BoM) Bus Money Market (BMM) #3983

Total Budgeted New Reserve Funding: $ 1,105,784

LAS GALLINAS VALLEY SANITARY DISTRICT
RESERVES - RESTRICTED FUNDS
PROPOSED BUDGET FY 2022-2023 - MAY 19, 2022

	2020-21 Actual	2021-22 Adopted Budget	2021-22 Projected End of Year	2022-23 Draft Budget
Restricted Funds				
Capacity / Connection Fee Fund (#5025)				
Beginning Balance	$ 96,745	$ 316,998	$ 316,998	$ 589,665
Plus: Additions	220,253	35,963	472,667	1,741,403
Less: Use of Funds	-	*(200,000)*	*(200,000)*	-
Ending Balance	$ 316,998	$ 152,961	$ 589,665	$ 2,331,068
Purpose: To pay for collection system and plant capacity improvements to serve new connections.				
Captains Cove Fund (#5019)				
Beginning Balance	$ 17,241	$ 17,266	$ 17,266	$ 7,509
Plus: Additions	25	15,935	37,622	16,025
Less: Use of Funds [(1)]	-	*(30,000)*	*(47,380)*	*(23,300)*
Ending Balance	$ 17,266	$ 3,201	$ 7,509	$ 234
Purpose: Special assessment fees in and class account 350 expenses out.				
Marin Lagoon Fund (#5005)				
Beginning Balance	$ 84,472	$ 84,595	$ 84,595	$ 101,358
Plus: Additions	123	24,914	64,106	21,106
Less: Use of Funds [(1)]	-	*(84,000)*	*(47,343)*	*(119,500)*
Ending Balance	$ 84,595	$ 25,509	$ 101,358	$ 2,964
Purpose: Special assessment fees in and class account 360 expenses out.				

[(1)] Use of Funds for O&M Expenses in FY 21-22. Prior Year and Capital Expenditures to be recovered over multiple years. Special supplemental property tax revenue for prior years not deposited into restricted funds since August 2018. Expenditures since March 2019 not recovered from restricted funds.

Total Restricted Fund Reserve Funding: $ 1,778,534

2022-2023 Capital Improvements Program-Capital Outlay

PROPOSED

(Proposed Budget 5/19/2022)

Line No.	Project No.	Project Name	Proposed Budget 22-23			FUNDING SOURCES						
			Use of Carryover Funds	Funding Balance Request in 2022-23	*Year 1 Project Budget 2022-23*	PY CIP Carryover	Unrestricted Funds	Captains Cove	Marin Lagoon	Vehicle Replacement Fund	Connection Fees	Grants
PLANNING, SOFTWARE, & OTHER ENGINEERING												
1	20100-05	**Integrated Wastewater Master Plan Phase 2[(1)]**	61,047	100,190	161,237	61,047	100,190					
2	20100-05	**Integrated Wastewater Master Plan Phase 3[(1)]**	100,000	-	100,000	100,000	-					
3	21500-08	**Biosolids System Improvement Analysis**	0	134,000	134,000	0	134,000					
4	22600-01	**Asset Management Onboarding Task 2-4 CMMS CityWorks**	388,126	11,874	400,000	388,126	11,874					
5	22125-01	**Sea Level Rise Mitigation Program Design**	100,000	-	100,000	100,000	-					
6	22125-02	**Standard Specifications and Drawings Update Project**	50,000	-	50,000	50,000	-					
7	20125-01	**On-Call Engineering Contract**	210,000	-	210,000	210,000	-					
8	22125-03	**On-Call Inspection**	44,910	-	44,910	44,910	-					
9	22125-04	**On-Call Construction Contract (2021-2023)**	100,000	-	100,000	100,000	-					
10	22200-01	**IT Pipes Software Upgrade for Video Interface w/CityWorks**	35,000	-	35,000	35,000	-					
11	17200-03	**City Works Azteca Annual Licensing plus ESRI license**	-	40,000	40,000	-	40,000					
12	22200-02	**Fleet Maintenance Software annual licenses**	0	2,160	2,160	0	2,160					
13	20100-01	**Accounting ERP Integration**	5,632	-	5,632	5,632	-					
14	22100-01	**Website Improvement - O&M beginning in FY 22-23**	25,000	-	25,000	25,000	-					
15	***NEW***	**Biosolids well monitoring design and construction**	147,906	52,094	200,000	147,906	52,094					
16	***NEW***	**Hydraulic Modeling**	-	100,000	100,000	-	100,000					
		Subtotal:	**1,267,621**	**440,317**	**1,707,939**	**1,267,621**	**440,317**	**-**	**-**	**-**	**-**	**-**
FLEET & EQUIPMENT (To be procured through Vehicle Replacement Fund) and OTHER EQUIPMENT												
24	***NEW***	**Smart Covers (3) Additional in FY 22-23**	-	22,000	22,000	-	22,000					
25	***NEW***	**4" Trash Pump w/ trailer**		90,000	90,000	-	-			90,000		
26	***NEW***	**2023 Ford Transit Cargo Van for Camera**		40,000	40,000	-	-			40,000		
27	***NEW***	**2023 Hybrid Fleet to replace CMAX**		45,000	45,000	-	-			45,000		
28	***NEW***	**2023 Vac-Con Flusher Truck - diesel**		305,000	305,000	-	-			305,000		
		Subtotal:	**-**	**502,000**	**502,000**	**-**	**22,000**	**-**	**-**	**480,000**	**-**	**-**

Line No.	Project No.	Project Name	Proposed Budget 22-23			FUNDING SOURCES						
			Use of Carryover Funds	Funding Balance Request in 2022-23	*Year 1 Project Budget 2022-23*	PY CIP Carryover	Unrestricted Funds	Captains Cove	Marin Lagoon	Vehicle Replacement Fund	Connection Fees	Grants
COLLECTION SYSTEM (INCL. PUMP STATIONS "PS" & FORCE MAINS)												
35	11200-03	**John Duckett PS & HWY 101 Terra Linda Trunk Sewer Design**	730,927	-	730,927	730,927	-					
36	12300-05	**Rafael Meadows Pump Station - Electrical Standby Generator**	109,118	50,882	160,000	109,118	50,882					
37	20300-09	**Smith Ranch Pump Station Electrical Upgrades**	298,841	1,159	300,000	298,841	1,159					
38	20200-01	**Force Main Assessment, Cleaning, Location Marking, & Mapping**	343,996	6,004	350,000	343,996	6,004					
39	21300-03	**Standby/Towable Generators for Minor Pump Stations**	416,947	-	416,947	416,947	-					
40	21350-01	**Automatic Transfer Switches for Pump Stations**	252,197	7,803	260,000	252,197	7,803					
41	21300-04	**Pump Station Site Lighting, Safety, & Security Improvements**	241,877	(0)	241,877	241,877	(0)					
42	21600-01	**Emergency Bypass Pumping Analysis & Response Plan**	103,152	1,848	*105,000*	103,152	1,848					
43	22300-01	**Rafael Meadows Pump Station - Civil, fencing, other**	-	180,000	180,000	-	180,000					
44	22300-02	**Mulligan PS wet well upgrade**	-	60,000	60,000	-	60,000					
45	19200-02	**Manhole Frame & Cover Adjustment Allowance**	50,000	-	50,000	50,000	-					
46	21300-06	**Fencing Improvements at Various Locations**	3,040	56,960	60,000	3,040	56,960					
47	21600-03	**Annual Facility Paving at Various Locations**	-	35,000	35,000	-	35,000					
48	20600-03	**Smith Ranch CNG Filling Station Function**		45,000	45,000	-	45,000					
49	18350-01	**Captains Cove Pump Station Upgrades(2)**	29,123	877	30,000	-	-	30,000	-			
50	18360-01	**Marin Lagoon Pump Station No.1 (2)**	24,876	124	25,000	-	-		25,000			
51	***NEW***	**Sewer Main Collection System Rehabilitation Program**	109,362	890,638	1,000,000	109,362	890,638					
52	***NEW***	**SCADA Integration & Control Panel Repl. for Pump Stations**	-	250,000	250,000	-	250,000					
53	***NEW***	**Install Ports in Pump Stations**	-	30,000	30,000	-	30,000					
54	***NEW***	**Hawthorn Pump Station Fencing - Second Fence line**	-	25,000	25,000	-	25,000					
		Subtotal:	**2,713,456**	**1,641,295**	**4,354,751**	**2,659,457**	**1,640,294**	**30,000**	**25,000**	**-**	**-**	**-**
RECLAMATION												
73	21500-01	**Reclamation Pump Station Improvements**	119,662	10,338	130,000	119,662	10,338					
74	22300-03	**St. Vincent's Pump Station Improvements**	-	100,000	100,000	-	100,000					
75	22500-02	**Reclamation Storage Pond Valves & Catwalk piers**	100,000	-	100,000	100,000	-					
76	21500-04	**Reclamation Pasture Irrigation System Assessment Study**	-	45,000	45,000	-	45,000					
77	11500-09	**Miller Creek Vegetation Maintenance repair, maint.**	45,553	29,447	75,000	45,553	29,447					
78	22500-04	**Solar PV System Replacement**	120,000	180,000	300,000	120,000	180,000					
79	***NEW***	**Reclamation Pond Diversion Boxes**	-	60,000	60,000	-	60,000					
80	***NEW***	**Reclamation Staging Area**	-	60,000	60,000	-	60,000					
81	***NEW***	**Sludge Lagoon Liner Replacement/Repair**	-	75,000	75,000	-	75,000					
		Subtotal:	**385,215**	**559,785**	**945,000**	**385,215**	**559,785**	**-**	**-**	**-**	**-**	**-**

Line No.	Project No.	Project Name	Proposed Budget 22-23			FUNDING SOURCES						
			Use of Carryover Funds	Funding Balance Request in 2022-23	*Year 1 Project Budget 2022-23*	PY CIP Carryover	Unrestricted Funds	Captains Cove	Marin Lagoon	Vehicle Replacement Fund	Connection Fees	Grants
TREATMENT PLANT (INCL. RECYCLED WATER)												
94	21100-01	**Plant Operations Control & Admin Building Design**	1,256,950	43,050	1,300,000	1,256,950	43,050					
95	21600-07	**Digester Inspection & Coating Improvement**	300,000	-	300,000	300,000	-					
96	21600-06	**Digester Room MCC #2 Upgrade Design & Construction**	623,768	1,232	625,000	623,768	1,232					
97	20600-04	**Flow Equalization Basin Design and Construction**	375,000	-	375,000	375,000	-					
98	22600-01	**Primary Clarifier #1 Repair**	150,000	-	150,000	150,000	-					
99	21600-08	**Grit Chambers Coating & Auger Rebuild**	299,507	494	300,000	299,507	494					
100	21600-11	**Annual Plant Paving at Various Locations**	8,551	51,449	60,000	8,551	51,449					
101	21600-09	**Plant Lighting Improvements and Other Electrical Enhan.**	50,000	-	50,000	50,000	-					
102	21600-15	**Misc Plant Equipment Demolition & Disposal**	20,673	9,327	30,000	20,673	9,327					
103	21600-12	**Maintenance Shop & Locker Room Improvements**	*50,000*	-	*50,000*	50,000	-					
		Subtotal:	**3,134,449**	**105,551**	**3,240,000**	**3,134,449**	**105,551**	**-**	**-**	**-**	**-**	**-**
		Total (Non-Financed):	**7,500,741**	**3,248,949**	**10,749,690**	**7,446,742**	**2,767,947**	**30,000**	**25,000**	**480,000**	**-**	**-**
FINANCED AND BOND PROJECTS												
118	12600-07 & 16650-02	**Secondary Treatment Plant Upgrade & Recycled Water Expan.**	8,606,442	-	8,606,442	8,606,442	-					
119		**Operations Control Center Building Construction & Soft Costs**		3,000,000	3,000,000	-	3,000,000					
		Subtotal:	**8,606,442**	**3,000,000**	**11,606,442**	**8,606,442**	**3,000,000**	**-**	**-**	**-**	**-**	**-**
		GRAND TOTAL CAPITAL OUTLAY:	**16,107,183**	**6,248,949**	**22,356,132**	**16,053,184**	**5,767,947**	**30,000**	**25,000**	**480,000**	**-**	**-**

Las Gallinas VALLEY SANITARY DISTRICT

5-Year Capital Improvements Program

PROPOSED

(Proposed Budget 5/19/2022)

Line No.	Project No.	Project Name	PROPOSED Year 1 Budget 2022-23	PROJECTED EXPEDITURES Year 2 2023-24	Year 3 2024-25	Year 4 2025-26	Year 5 2026-27	5-Year Total Expenditures
PLANNING, SOFTWARE, & OTHER ENGINEERING								
1	20100-05	**Integrated Wastewater Master Plan Phase 2**[(1)]	161,237	-	-	-		161,237
2	20100-05	**Integrated Wastewater Master Plan Phase 3**[(1)]	100,000	100,000	105,000	-		305,000
3	21500-08	**Biosolids System Improvement Analysis**	134,000	-	-	-		134,000
4	22600-01	**Asset Management Onboarding Task 2-4 CMMS CityWorks**	400,000	875,000	510,000	110,000	30,000	1,925,000
5	22125-01	**Sea Level Rise Mitigation Program Design**	100,000	100,000	100,000	100,000	100,000	500,000
6	22125-02	**Standard Specifications and Drawings Update Project**	50,000					50,000
7	20125-01	**On-Call Engineering Contract**	210,000	100,000	100,000	100,000	100,000	610,000
8	22125-03	**On-Call Inspection**	44,910	45,000	45,000	45,000	45,000	224,910
9	22125-04	**On-Call Construction Contract (2021-2023)**	100,000	100,000	100,000	100,000	100,000	500,000
10	22200-01	**IT Pipes Software Upgrade for Video Interface w/CityWorks**	35,000	11,000	11,000	11,000	11,000	79,000
11	17200-03	**City Works Azteca Annual Licensing plus ESRI license**	40,000	40,000	40,000	40,000	40,000	200,000
12	22200-02	**Fleet Maintenance Software annual licenses**	2,160	2,000	2,000	2,000	2,000	10,160
13	20100-01	**Accounting ERP Integration**	5,632	-	-	-	-	5,632
14	22100-01	**Website Improvement - O&M beginning in FY 22-23**	25,000	5,000	5,000	5,000		40,000
15	*NEW*	**Biosolids well monitoring design and construction**	200,000	50,000	50,000	50,000	50,000	400,000
16	*NEW*	**Hydraulic Modeling**	100,000	100,000	-	-		200,000
17		**Sea Level Rise Mitigation Construction (Placeholder)**	-	-	-	-	3,000,000	3,000,000
		Subtotal:	**1,707,939**	**1,528,000**	**1,068,000**	**563,000**	**3,478,000**	**8,344,939**
FLEET & EQUIPMENT (To be procured through Vehicle Replacement Fund) and OTHER EQUIPMENT								
24	*NEW*	**Smart Covers (3) Additional in FY 22-23**	22,000	-	-	-	-	22,000
25	*NEW*	**4" Trash Pump w/ trailer**	90,000					90,000
26	*NEW*	**2023 Ford Transit Cargo Van for Camera**	40,000					40,000
27	*NEW*	**2023 Hybrid Fleet to replace CMAX**	45,000					45,000
28	*NEW*	**2023 Vac-Con Flusher Truck - diesel**	305,000					305,000
		Subtotal:	**502,000**	**-**	**-**	**-**	**-**	**502,000**

Line No.	Project No.	Project Name	PROPOSED Year 1 Budget 2022-23	PROJECTED EXPEDITURES Year 2 2023-24	Year 3 2024-25	Year 4 2025-26	Year 5 2026-27	5-Year Total Expenditures
COLLECTION SYSTEM (INCL. PUMP STATIONS "PS" & FORCE MAINS)								
35	11200-03	**John Duckett PS & HWY 101 Terra Linda Trunk Sewer Design**	730,927	601,674	-	-		1,332,601
36	12300-05	**Rafael Meadows Pump Station - Electrical Standby Generator**	160,000	-	-	-		160,000
37	20300-09	**Smith Ranch Pump Station Electrical Upgrades**	300,000	-	-	-		300,000
38	20200-01	**Force Main Assessment, Cleaning, Location Marking, & Mapping**	350,000	250,000	-	-		600,000
39	21300-03	**Standby/Towable Generators for Minor Pump Stations**	416,947	-	-	-		416,947
40	21350-01	**Automatic Transfer Switches for Pump Stations**	260,000	-	-	-		260,000
41	21300-04	**Pump Station Site Lighting, Safety, & Security Improvements**	241,877	-	-	-		241,877
42	21600-01	**Emergency Bypass Pumping Analysis & Response Plan**	*105,000*	-	-	-		105,000
43	22300-01	**Rafael Meadows Pump Station - Civil, fencing, other**	180,000	400,000		-		580,000
44	22300-02	**Mulligan PS wet well upgrade**	60,000	250,000	-	-		310,000
45	19200-02	**Manhole Frame & Cover Adjustment Allowance**	50,000	50,000	50,000	50,000	50,000	250,000
46	21300-06	**Fencing Improvements at Various Locations**	60,000		-	-		60,000
47	21600-03	**Annual Facility Paving at Various Locations**	35,000	35,000	35,000	35,000	35,000	175,000
48	20600-03	**Smith Ranch CNG Filling Station Function**	45,000	-	-	-		45,000
49	18350-01	**Captains Cove Pump Station Upgrades(2)**	30,000		-	-		30,000
50	18360-01	**Marin Lagoon Pump Station No.1 (2)**	25,000			400,000	400,000	825,000
51	***NEW***	**Sewer Main Collection System Rehabilitation Program**	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
52	***NEW***	**SCADA Integration & Control Panel Repl. for Pump Stations**	250,000	250,000	250,000	250,000		1,000,000
53	***NEW***	**Install Ports in Pump Stations**	30,000		-	-		30,000
54	***NEW***	**Hawthorn Pump Station Fencing - Second Fence line**	25,000	-	-	-		25,000
55		**Descanso Pump Station Odor Control**	-	-	45,000	100,000	150,000	295,000
56	14300-05	**Smith Ranch Rd Combined Force Main**	-	-	-	250,000	2,500,000	2,750,000
57		**Captains Cove and Marin Lagoon Pump Station Telemetry(2)**	-	-	-	250,000	250,000	500,000
58		**Civic Center Pump Station VFD Control**	-	-	-	100,000	-	100,000
59		**Lower Marinwood TS Capacity Upgrade & Relocation**	-	-	-	250,000	1,500,000	1,750,000
60		**McInnis Pump Station Improvements**	-	-	-	75,000	300,000	375,000
61		**Vac Truck Recycled Water Filling Station & Wash Rack**	-	-	-	60,000		60,000
62		**Smith Ranch Pump Station Generator Diesel Conversion**	-	-	-		100,000	100,000
63		**IWMP Pump Station & Force Main Projects (Placeholder)**	-	2,000,000	2,000,000	2,000,000	2,500,000	8,500,000
		Subtotal:	**4,354,751**	**4,836,674**	**3,380,000**	**4,820,000**	**24,955,000**	**26,676,425**

Line No.	Project No.	Project Name	PROPOSED Year 1 Budget 2022-23	PROJECTED EXPEDITURES Year 2 2023-24	Year 3 2024-25	Year 4 2025-26	Year 5 2026-27	5-Year Total Expenditures
RECLAMATION								
73	21500-01	**Reclamation Pump Station Improvements**	130,000	150,000		-		280,000
74	22300-03	**St. Vincent's Pump Station Improvements**	100,000	100,000	200,000	-		400,000
75	22500-02	**Reclamation Storage Pond Valves & Catwalk piers**	100,000	-	-	-		100,000
76	21500-04	**Reclamation Pasture Irrigation System Assessment Study**	45,000	-	-	45,000		90,000
77	11500-09	**Miller Creek Vegetation Maintenance repair, maint.**	75,000	75,000		-		150,000
78	22500-04	**Solar PV System Replacement**	300,000	-	-	-		300,000
79	***NEW***	**Reclamation Pond Diversion Boxes**	60,000	-	-	-		60,000
80	***NEW***	**Reclamation Staging Area**	60,000	-	-	-		60,000
81	***NEW***	**Sludge Lagoon Liner Replacement/Repair**	75,000	75,000	75,000	75,000		300,000
82		**Storage Pond 1 Transfer Pipe Repair**	-	100,000	-	-		100,000
83		**IWMP Reclamation Projects (Placeholder)**	-	150,000	150,000	150,000	2,000,000	2,450,000
		Subtotal:	**945,000**	**650,000**	**425,000**	**270,000**	**2,000,000**	**4,290,000**
TREATMENT PLANT (INCL. RECYCLED WATER)								
94	21100-01	**Plant Operations Control & Admin Building Design**	1,300,000	446,775	-	-		1,746,775
95	21600-07	**Digester Inspection & Coating Improvement**	300,000	-	-	-		300,000
96	21600-06	**Digester Room MCC #2 Upgrade Design & Construction**	625,000			-		625,000
97	20600-04	**Flow Equalization Basin Design and Construction**	375,000	1,000,000		-		1,375,000
98	22600-01	**Primary Clarifier #1 Repair**	150,000	-	-	-		150,000
99	21600-08	**Grit Chambers Coating & Auger Rebuild**	300,000	-	-	-		300,000
100	21600-11	**Annual Plant Paving at Various Locations**	60,000	60,000	60,000	60,000	60,000	300,000
101	21600-09	**Plant Lighting Improvements and Other Electrical Enhan.**	50,000	150,000	-	-		200,000
102	21600-15	**Misc Plant Equipment Demolition & Disposal**	30,000	-	-	-		30,000
103	21600-12	**Maintenance Shop & Locker Room Improvements**	*50,000*	-	-	-		50,000
		Subtotal:	**3,240,000**	**2,306,775**	**2,060,000**	**2,210,000**	**10,310,000**	**20,126,775**
		Total (Non-Financed):	**10,749,690**	**9,321,449**	**6,933,000**	**7,863,000**	**40,743,000**	**59,940,138**
FINANCED AND BOND PROJECTS								
118	12600-07 & 16650-02	**Secondary Treatment Plant Upgrade & Recycled Water Expan.**	8,606,442	-	-	-		8,606,442
119		**Operations Control Center Building Construction & Soft Costs**	3,000,000	3,000,000	24,000,000	-		30,000,000
		Subtotal:	**11,606,442**	**9,000,000**	**30,000,000**	**-**	**-**	**50,606,442**
		GRAND TOTAL CAPITAL OUTLAY:	**22,356,132**	**18,321,449**	**36,933,000**	**7,863,000**	**40,743,000**	**110,044,580**

Las Gallinas VALLEY SANITARY DISTRICT

Item Number 3.4

GM Review CD

Agenda Summary Report

To: Board of Directors

From: Teri Lerch, District Secretary
(415) 526-1510; tlerch@lgvsd.org

Mtg. Date: May 19, 2022

Re: Department Reports

Item Type: **Consent _____ Action _____ Information X Other _____.**

Standard Contract: Yes _____ No _____ (See attached) Not Applicable X .

STAFF RECOMMENDATION
Informational only.

BACKGROUND
Department Reports are given to the Board at regular intervals. This is an opportunity for the Managers' to report on actions taken within their respective departments.

Department Reports at this Board meeting:

- Collections – Greg Pease
- Operations – Mel Liebmann

The presented Collections and Operations Reports are for the period January 1st thru March 31.

PREVIOUS BOARD ACTION
None.

ENVIRONMENTAL REVIEW
N/A

FISCAL IMPACT
None.

SSO SPILL SUMMARY

- 02/1/2022 – Adrian Pump Station – Category 3 SSO (did not make it to waters of the state). 6" Forcemain at drywell sheered due to ground settling.
    - SSO Totaling approximately 5 gallons. 5 gallons recovered.
- 03/18/2022 – 35 Golden Hinde Rd. – Category 3 (did not reach water of state)
    - SSO Totaling 111 gallons. 111 gallons recovered.

KEY MAINTENANCE PROJECTS

- Opened/cleaned Digester heat exchanger
- Repaired PC1 scum skimmer
- Replaced splash curtains on barscreens 1 & 2
- Replaced failed engine block heater on Civic center generator
- Replaced failed ventilation fan in final effluent sample vault
- Repaired cooling jacket on PS submersible pump.
- Routine Preventative Maintenance Work Orders – Treatment Plant/Pump Stations
- (400) Fleet Maintenance Inspections

SAFETY ISSUES AND TRAINING

- Fall Protection
- Safety Responsibilities for Supervisors
- Injury Illness Protection Plan
- Emergency Action Plan and Evacuation Training

OTHER

- Collection System – Pump Station Maintenance (Routine)
- Collection System – Pump Station and easement vegetation cleanup
- Collection System – "Hotspot" maintenance (Quarterly)
- Collection System – ARV maintenance

REQUESTS FOR PROPOSALS

- None

PERFORMANCE METRICS

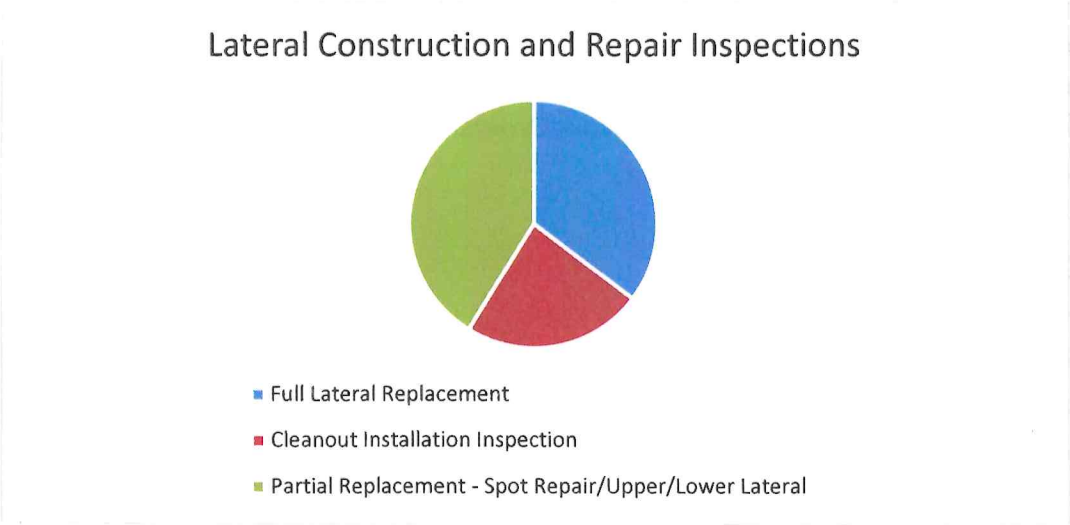
Collection System Cleaning and CCTV Inspection

- Flushed/Rodded = 16,901 feet; Percent of District = 3.0%.
- CCTV Inspected = 6,000 feet; Percent of District = 1.1%.
- Manhole inspections performed = 377

- USA Ticket Work Orders = 633

Lateral Construction and Repair Inspections

- Applications received = 28
- Full Replacement Inspections Performed = 6 Full Replacements
- Cleanout Installation Inspections Performed = 4 Cleanout Installations
- Spot Repairs/Upper/Lower Replacements Performed = 8 partial replacements or spot repairs

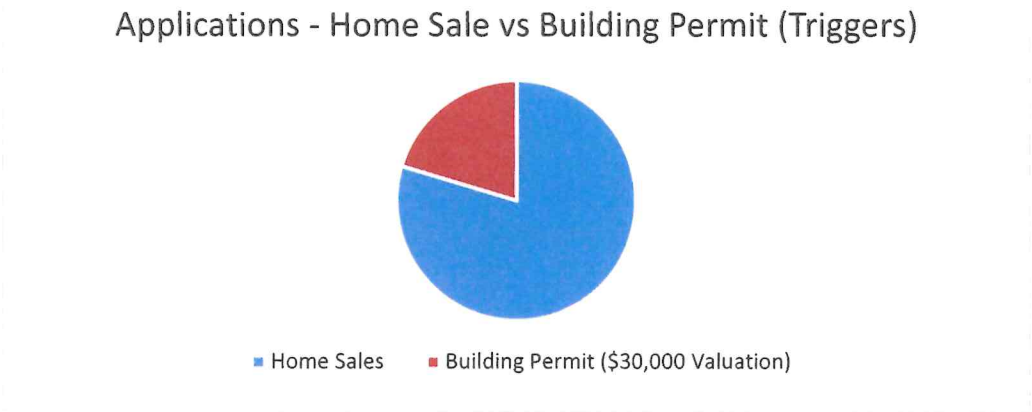


CNG Fueling Stations

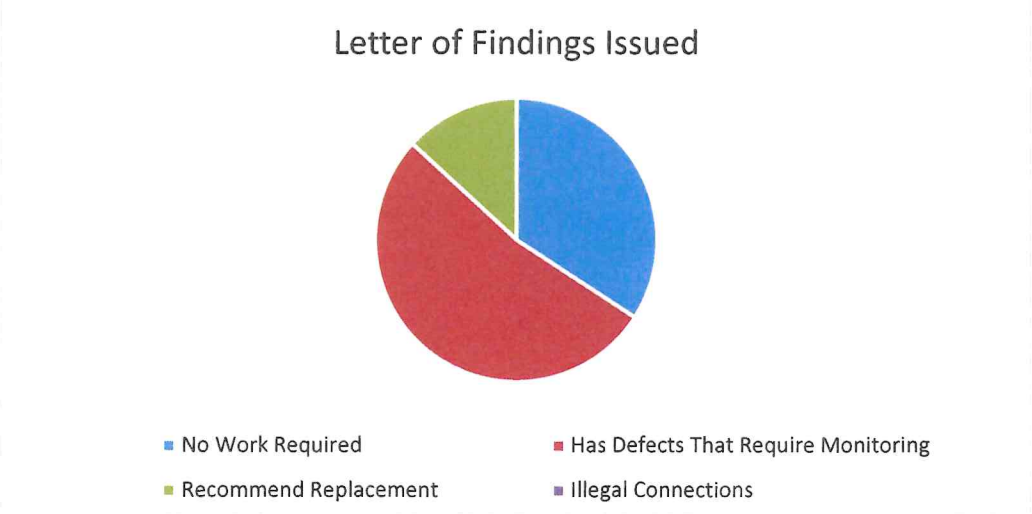
- CNG Fueling Station
  - Plant Slow Fill = 0% Up Time
  - Smith Ranch Fast Fill = 0% Up Time.
- Anderson Drive PG&E Fuel Station
  - 14 Trips to Anderson Drive Fueling Station
  - 201.6 miles driven for refueling (7.2 miles one way)
  - Total Diesel Gallon Equivalent (DGE) = 381.52 DGE

Sewer Lateral Ordinance Inspections - Number of Applications Processed

- Home Sale Applicants = 43 received
- Building Permit ($30,000 valuation) Applicants = 4 received



- Home Sale Letter of Findings Issued = 45; 12 - recommend replacement, 20 -have defects that require monitoring, 13 - no work or monitoring required, 0 – Illegal connection



CRITICAL PROCESS

- Treatment plant effluent was discharged to Miller Creek for the months of January through March with exceptions for periods to accommodate construction activity of the STPURWE project.
- Staff assisted in the coordination of, and modified operations to accommodate 18 service outage requests (SOR) by the General Contractor (GC) for the STPURWE project.
- Two new secondary clarifiers were commissioned this quarter, providing much needed operational flexibility and resiliency to treatment plant operations.
- The new 3 mgd storage pond return pump station was commissioned in February.
- All four Bio-Wheel aeration trains were in operation Jan.-Mar. Multiple problems related to drive chains and or sprockets were addressed by the GC during this period.
- Permanent yard piping connections that tie primary clarifiers 2 & 3 to the primary effluent pump station feeding secondary treatment were completed in March.

NON-CRITICAL PROCESS

- Staff continued to work with the STPURWE project team to resolve deficiencies found with the new bypass control structure, chemical monitoring and delivery systems, sludge thickening units, the new secondary clarifiers, and the recycled water facility process control equipment.
- Suez Water Technologies programmers reconfigured control of the recycled water (RW) membrane feed pumps to the RW facility's programmable logic controller.
- Secondary Digester Cleaning Project was rescheduled for May 2022.

PERFORMANCE METRICS

Sewage Treated

- 2.31 million gallons per day average daily influent flow for January through March.

Recycled Water Production

- 1.82 million gallons of recycled water was pumped to North Marin Water District for distribution.
- 12.09 million gallons of recycled water was pumped to Marin Municipal Water District for distribution.

Reclamation

- Pond Levels Beginning of January – Pond #1 = 9.1' - Pond #2 = 8.9' ~ 100 % of Capacity
  Pond Levels at End of March – Pond #1 = 7.3' - Pond #2 = 7.1' ~ 80 % of Capacity

Solar Power Generation

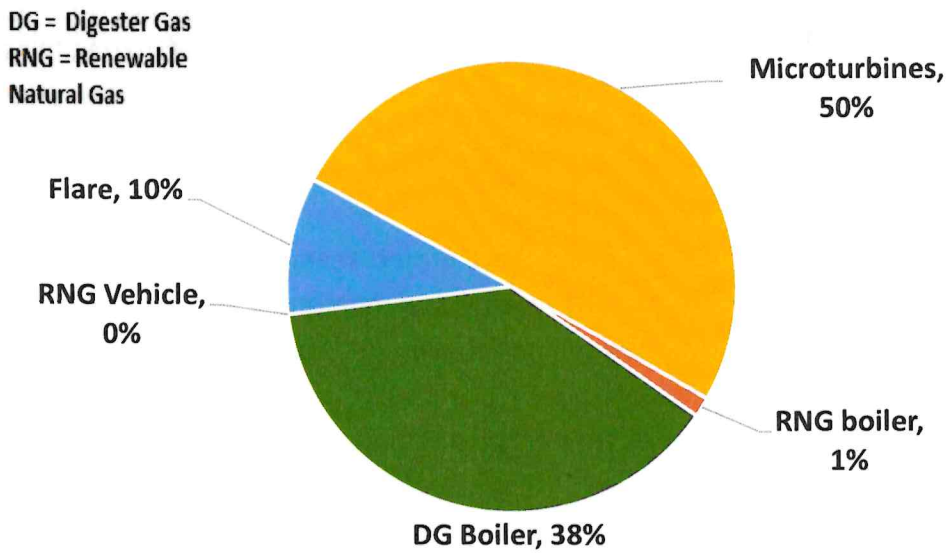
- 16,783 kWh offsetting approximately $3,020 in PG&E/MCE electrical consumption costs using an average rate of $0.18/kWh. Inverters A & B were shut down in Dec. for safety.

Biosolids

- 1.5 million gallons of digested sludge was removed from the sludge lagoons and applied to the dedicated land disposal site in 2021.

Biogas Utilization

- Total Digester Gas Produced – 3,468,089 scf – Microturbines at 75% uptime producing a total of 64,717 kWh, offsetting approximately $11,649 in PG&E/MCE electrical consumption costs using an average rate of $0.18/kWh.



NPDES PERMIT COMPLIANCE

- No self-monitoring violations were reported to the water board in the first quarter of 2022.
- 8 Blending events of relatively low volume (<1 mg) were reported in the month of January.
- In all three months the reclamation storage ponds were utilized at times to accommodate construction activities that would have otherwise affected effluent quality discharged to Miller Creek.

Las Gallinas VALLEY SANITARY DISTRICT

Item Number 4

GM Review CD

Agenda Summary Report

To:	Board of Directors
From:	Chris DeGabriele, Interim General Manager (415) 526-1511; cdegabriele@lgvsd.org
Mtg. Date:	May 19, 2022
Re:	Environmental Compliance Manager Position
Item Type:	**Consent** ____ **Action** X **Information** ____ **Other** ____.
Standard Contract:	**Yes** ____ **No** ____ **(See attached) Not Applicable** X .

STAFF RECOMMENDATION

Board authorize staff to shift budgeted position authorization from vacant Environmental Compliance Manager position to a new Collection System Operator position in FY 2022/23.

BACKGROUND

The Environmental Compliance Manager (ECM), a proposed position which remains vacant, was budgeted and authorized by the Board during the FY 2020/21 budget cycle.

Justification for that position, included in the April 27, 2020 Board meeting agenda wherein the Draft FY 2020/21 Budget was reviewed, follows:

> **Environmental Compliance Manager (ECM)**
> This position will be responsible for all aspects of District compliance with environmental regulations, including NPDES, BAAQMD, and other regulations pertaining to Biosolids, Recycled Water, and Source Control. The position will manage the District's laboratory functions as well as laboratory staff and will provide regulatory compliance assistance to other Divisions within the District. These duties are currently within the purview of the District's Plant Manager, who's scope of responsibility is overly broad, which compromises the District's ability to optimize the operation of the Plant and Reclamation Area. The District's safety program may be incorporated into this position at a later date.
>
> *From Sophia Selivanoff:*
> *"Staff have reported specific need for greater engagement in the District's environmental compliance, including better oversight of consultants. This is not due to trust issues, but to the resulting unacceptable knowledge gap on the part of staff when these critical matters are not part of the regular workflow due to workload."*

Selivanoff is Deputy Executive Director of Regional Government Services (RGS) and co-author of the report: "An Organizational Analysis of the Las Gallinas Valley Sanitary District" prepared in spring 2020 which recommended creating a new Compliance Department encompassing the laboratory operation with the mission of ensuring that all environmental compliance requirements are met.

The description of that new department goes on to state: *"This is a highly regulated function, and standards are continually adjusted. The ability to maintain and demonstrate compliance requires both more focused attention and more robust and technically expert staffing. Adding a broader managerial role will transfer compliance responsibility to a technically competent team versed in the issues and regulations, and away from the plant operations manager, allowing a smaller and coherent span of control for each manager. The addition of a second Laboratory Technician provides redundancy and frees up the manager to participate effectively in the District's system-wide issues and to remain engaged in the larger context of environmental protection and public health."*

Koff & Associates developed a draft classification description for the ECM position, but it was never finalized. No position descriptions have been adopted to define the ECM duties, knowledge/skills/abilities, and education/experience. In December 2021, the Board requested that the ECM position be reconsidered.

Historically, Las Gallinas Valley Sanitary District ("LGVSD") (and other wastewater District's in Marin County) rely on outside consultants to provide regulatory compliance services. In March 2021, requests for proposals were solicited from four regional firms based on their team experience, prominence in the industry, expertise in environmental regulation and NPDES permitting. EOA was selected and LGVSD has used EOA (Ray Goebel) for over 15 years. EOA brings a team of experts with a broad range of regulatory compliance knowledge to the table. Other than managing the District's laboratory, EOA now provides the services outlined as responsibilities listed above for justification of the ECM position.

At the May 5, 2022 Board meeting authorization was received to engage EOA to provide this service for another year on a time and expense basis at an estimated cost of $175,800. This appears to be a cost-effective approach as fully burdened cost of department heads at LGVSD average $272,874. EOA has developed institutional knowledge of LGVSD functions, processes and staff and the working relationship is sound. Recently EOA has been brought into the loop on the proposed biosolids program the District is embarking upon.

Additionally, LGVSD's current organization provides:

- Laboratory staff (Environmental Services Director and Lab Analyst) who perform a wide range of duties including field sampling, sample preparation, testing and reporting pursuant to their respective position descriptions and the functions appears adequately staffed.
- A clear communication pathway and direct reporting between laboratory staff and the Plant Manager.
- Plant Operators who provide adjunct staffing for laboratory responsibilities and substitute as regular lab staff when needed.

The Collections System/Safety/Maintenance Manager also relies on Laboratory staff as needed and coordinates with the Plant Manager and laboratory staff in those instances. EOA staff also communicates regularly with LGVSD staff on collections and treatment operations parameters, water quality results, reporting and permitting.

The proposed FY2022/23 Budget includes another Collection System Operator to enable three teams of 2 to work in the field and keep up with collection system televised inspections and cleaning in addition to supporting maintenance functions. The fully burdened cost of this added position is $145,250.

In summary, there appears no compelling reason to add a manager position for environmental compliance at LGVSD and it's recommended that this position be eliminated from consideration and instead one Collection System Operator be added to staff.

There remains some equity concern among laboratory staff that remains to be fully investigated and it's proposed to bring this back to the Board, if necessary, along with updates to the Environmental Services Director and Lab Analyst classification descriptions.

PREVIOUS BOARD ACTION

ENVIRONMENTAL REVIEW
N/A

FISCAL IMPACT
Eliminating the Environmental Compliance Manager position would save the District $219,000 to $235,000 in additional salary and benefit costs based on anticipated salary that would be required for this position.

Las Gallinas VALLEY SANITARY DISTRICT

Item Number 5

GM Review CD

Agenda Summary Report

To: Board of Directors

From: Teri Lerch, District Secretary
(415) 526-1510; tlerch@lgvsd.org

Mtg. Date: May 19, 2022

Re: Board Committee Assignments

Item Type: **Consent** ____ **Action** X **Information** ____ **Other** ____.

Standard Contract: **Yes** ____ **No** ____ **(See attached) Not Applicable** X .

STAFF RECOMMENDATION

Board to advise staff of any changes to the Board committee assignments.

BACKGROUND

Board President requested to review committee assignments and to consider re-assignments as may be appropriate. Policy B-40 establishes the rules for ad hoc committees and workshops.

PREVIOUS BOARD ACTION

On January 6, 2022, the Board approved the following committee assignments:

Committee	Chair/ Associate Member	Alternate Member
NBWA Board Committee	Clark	Schriebman
NBWA Tech Advisory Committee	Open	Open
NBWA Conference Committee	Clark	
NBWRA	Ford	Clark
JPA Local Task Force**	Schriebman	
Gallinas Watershed Council/Miller Creek	Ford	Schriebman
Marin LAFCO**	Murray	
CASA Energy Committee	Murray	
Marin Special Districts Association	Yezman/Ford	
CSRMA	Yezman	
Flood Zone 7	Yezman	Ford
2022 Engineering Ad Hoc Committee regarding the Secondary Treatment Plant Upgrade	Ford/Yezman	
2022 Operations Control Center Ad Hoc Committee	Clark/Ford	
2022 Legal Services Ad Hoc Committee	Yezman/Schriebman	
2022 GM Recruitment Ad Hoc Committee	Yezman/Murray	
2022 Biosolids Ad Hoc Committee	Yezman/Schriebman	
2022 HR Ad Hoc Committee	Ford/Schriebman	
2022 CSA 18 Review Ad Hoc Committee – Dissolved 2/17/2022	Ford/Yezman	

Las Gallinas VALLEY SANITARY DISTRICT

ENVIRONMENTAL REVIEW
N/A

FISCAL IMPACT
None.

5/19/2022

BOARD MEMBER REPORTS

CLARK

NBWA Board Committee, NBWA Conference Committee, 2022 Operations Control Center Ad Hoc Committee , Other Reports

FORD

NBWRA, Gallinas Watershed Council/Miller Creek Watershed Council, Marin Special Districts Association, 2022 Engineering Ad Hoc Committee re: STPURWE, 2022 Operations Control Center Ad Hoc Committee, 2022 HR Ad Hoc Committee, Other Reports

MURRAY

Marin LAFCO, CASA Energy Committee, 2022 GM Recruitment Ad Hoc Committee, Other Reports

SCHRIEBMAN

JPA Local Task Force, Gallinas Watershed Council, 2022 Legal Services Ad Hoc Committee, 2022 HR Ad Hoc Committee, 2022 Biosolids Ad Hoc Committee, Other Reports

YEZMAN

Flood Zone 7, CSRMA, Marin Special Districts Association, 2022 Ad Hoc Engineering Sub-Committee re: STPURWE, 2022 Legal Services Ad Hoc Committee, 2022 GM Recruitment Ad Hoc Subcommittee, 2022 Biosolids Ad Hoc Committee, Other Reports

Agenda Item 6.3
Date May 19, 2022

CASA Air Quality, Climate Change & Energy (ACE) Workgroup Mtg 4-28-22

Craig K. Murray - Session Notes to supplement CASA ACE Agenda, Slide Deck

LEG Jessica Gauger. CASA bill heard in Assembly Env. Toxic Policy Committee. Did Pass. Republican not in support. This week policy committee (fiscal impact). V.Busy. Therefore, No bill list for ACE group today. June 15 deadline short time frame to hear. Arrearages 6/15 to 12/21 change deadline for Water Board and ask $115M ask for water recycling. Recycled and WW application req. and ask funds for clean fleets. Drought: expect to see addl. Funding Jan. budget $250M and poss. To expand. Sarah and Jessica to go over bill list and revise positions next week and then have an updated bill list to send out. Bill to Abolish State Board is (amazingly) still moving but it is completely gutted. Sarah: you can be on sub-group if you like.

Priority Issues. 1. AB 32 Scoping Plan. 2045 Carbon Neutrality Goal. Governor asked how to achieve by 2035. CARB recommended Alt.3 (by 2045 to achieve Carbon Neutrality). Lot of push back by EJ. Only see HEAVY DUTY vehicles HDV for CNG and our application of CNG. CASA submitted April 4 comments.

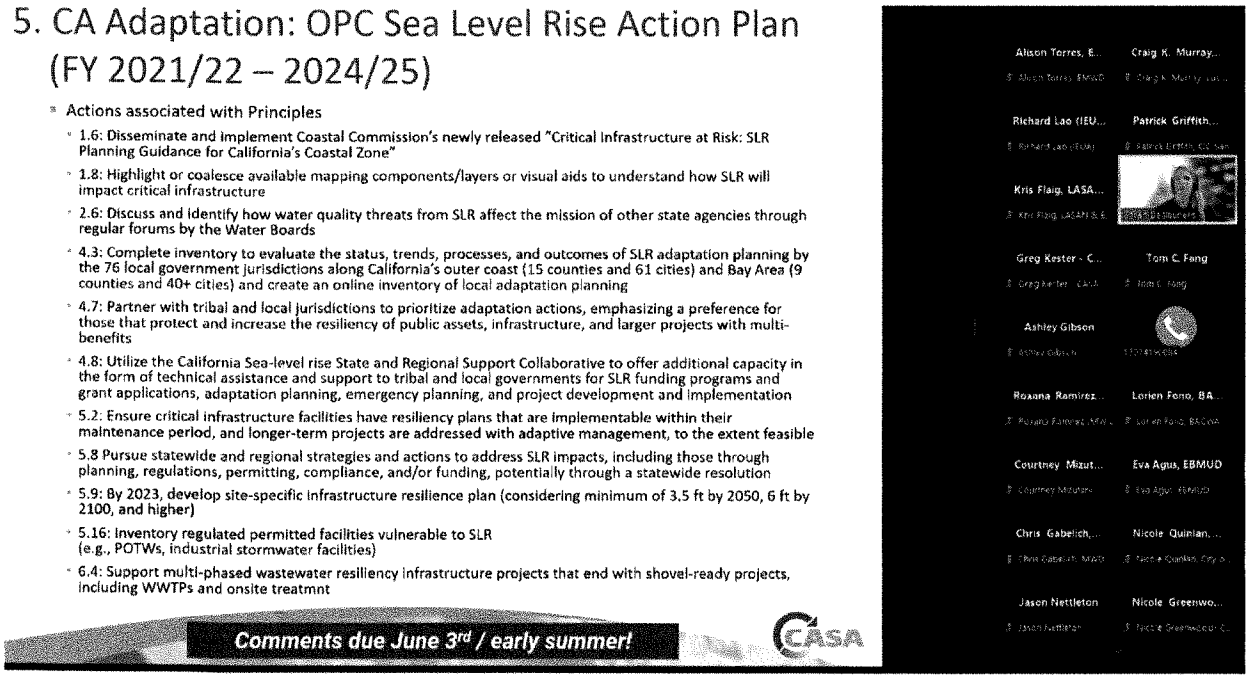
2. CARB Advanced Clean Fleet ACF regs. Hoping to see 2nd draft CASA comments, public hearing today April 28 and May 4. Need language for our sector. No electric vehicle option to perform during emergencies and how will CNG vehicles be addressed in the regulations. CARB Board Member appt. by CA Gov.Newsome: Gideon Kracov & he specifically recognizes esp. in South Coast CNG vehicles but it is not now written in Advanced Clean Fleet (ACF) electrification rules. Review of Key Issues. If you have ability to testify and how regulations relevant to you, your investment in CNG vehicles (Near Zero Emission Vehicles). Near Zero Emissions Vehicle (NZEV) rules not include CNG. No mention of Renewable Gas vehicles going forward. Want to see **100% ZEV by 2024.** Deadlines by date of purchase. Purchase now, takes couple years to get it and reporting needs to show clearly purchase date to make sure we get that early credit. No explicit exemptions for Water and WW. Back up vehicles limited to 1000 miles/year. Fleet reporting must report all vehicles v. only new vehicles. We want to make sure it includes near zero CNG vehicles. Q/A: Tom Fang: Exemptions for Vactor Trucks perhaps with a 2-engine platform. Kris Flaig, LASAN: p. 62 2-engine vehicles exempted. Q: If early purchases, get credit. Richard Lao IEUA: See it by each year. Not sure. Roxana MWD: will 1:1 vehicle purchase such as smaller vehicle. Sarah: Tend to think not and by type. Patrick OC: Mgr. said we just buy bunch Nissan leafs but not understanding. 8,500 lbs or more is covered by this regulation. Alison Torres, EMWD ZEVs and IC vehicles. Not clarified now but don't want to perhaps in regs.so flexibility in application strategy. By 2027 have to do 100% anyway. **2024 to 2027 strategy would only help.** Patrick OC San: Hired fleet, such as hauling biosolids, need to be following regulations and following fleets. If not certified you may be in trouble. Richard Lao IEUA: We should not have to be their enforcement arm. Sarah: Number of members of Sub Group diving deep into the regulations and appreciate. GK: As meet with CARB and retention of NG vehicles. Wonder how many conversion of RNG to transportation fuel? Only a few in the state so far. Sarah: CPUC SB 1330 MW served by Biogas Regs. EPA heavy-duty engine and vehicle rule. 17 states incl. CA signed multi-state medium and heavy-duty zero-emission and heavy-duty **by 2030.** CA v.different is **by 1/1/24** of 50% ZEVs with 100% by 2027. Need Strong showing by MAY 4 Workshops to show some disconnects.

: Notes CASA ACE 4 28 22

3. CNRA Natural & Working Lands (NWL) Draft Climate Smart Strategy. Ref. to where see Biosolids in it. March 15 looked at 4 scenarios of applications. Sarah sent letter out to whole group for GHG or benefit for your applications. GK: felt that mtg with NWL people very receptive.

4. SB 1883 GK. Leg adopted in 2016. Effective this year. Enter into franchise Home owner agreements for organic wastes to be recycled. Big issues now: Overly restrictive County Ordinances on land applications; CA Recycle FAQs for County jurisdictions and will have a follow up mtgs. Stanislaus, Sutter and San Joaquin and suggest to consult with Tulare. Think San Bernardino has very pragmatic one. Isuues with SB someone in county made incorrect that private well on farm is public (incorrect), statue is clear private well is not public water supply (if it was then need sigf. Set backs). Class A & B applications. Monterey also has a practicable ban. Need congeniality not hammer and animosity. GK really just like a cold message when reach out and very pleased with Cal Recycle and their actions taken. Also working on expanding products for procurement. High on their list and do plan to address when regs open for revision. AB 1985 leg. Req. a tabulation of all products available for procurement and post on website and update regular basis. Like to add all biosolids that are land-applied. Think it will be remedied but think legislation will be quicker. New facility like to have RECs and shortages of those in certain air districts working with CAPCO May 24 Annual Mtg. Sarah &/or David will make that presentation. Building collaborative relationships (not conducive to Zoom). Restarting and **mtg May 5** in Rialto Energy Facility and then 2 others including Victor Valley. **If anyone interested in attending shoot GK an email.** Number of Cal Recycle, solid waste and WW folks there.

5. SLR. OPC SLR Action Plan released Feb 2022. 80 principles by SLR actions. Sarah ID number of actions associated with principles.



Adaptation 30x30 California Report: To conserve 6M acres of Land; ½ million acres of coastal waters into 10 pathways. Discharge to coastal waters and infrastructure. Link in agenda. **Send along to others**

: Notes CASA ACE 4 28 22

in your organization that look at these items. Q/A: Sarah Cousins, BACWA: What comments put in? Sarah: More on processes bec. Don't think can change what is already put in.

6. Criteria Pollutants, Air Toxic Hot Spots. AB 2588 compound list greater than 1000 compounds was over 500. Even original lists unknow compound, no emission factors and most not relevant to WW but we receive. We need to be aware what we receive and what is relevant. Business as usual in reporting your toxics. We will figure out what is detectable and if detectable can we quantify and then see if emitting is toxic assuming there is toxic level determination. Task 1 scan of source test reqs. Meeting with Air Districts. Met with So. Coast 2x. Want to determine if can scan for all toxics air board has identified. Sampling and air toxicity steps and want to make sure as effectively and efficiently done as possible. Doodle poll to be sent out for subgroup meeting. Ref. March summary sheet and please use it if Air Districts contact you. Show where we will be getting best science for sampling, testing. Sarah: Need funds by end of FY 2023. Mary Cousins BACWA: hard bec. Everyone doing FY 23 now.

Informational Items 1. White House EO: Clean Energy Net Zero by 2050. Review Climate Smart Strategy bec. CA is NWL. Ag. And regenerative farming to meet carbon sequestration and GHG benefits such as alternative fertilizer use. USDA accepting project applications by FY 2022 April 8: proposals $5M to $100M; May 27: proposals $250k to $4.9999M. 2. Carbon Sequestration Meta-Analysis. VA Tech quantify C sequestration form potential land applied biosolids. 3. EPA RINs. OTEC Office of Transportation and Environment. D3 Highest Qualifying w/Sewage Sludge, get D5 RIN when food waste, co-digestion is introduced. Since last July good discussions. American Biogas Council (reps. WW, Diaries and others) in conjunction. Rec. baseline 15 standard cubic feet for D5 or D3 RIN. 4. Energy Commission reached out to CASA. Anticipate that CA is going to have Energy shortages in coming years. GK: Met with subgroup and made recommendations. Document: Peak Demand Response Opportunities of the California Water Sector. Need relief from CPUC (eg if go off peak demand time and go back on); funding through ELRP to pay OT to workers; capital dollars for co-digestion, battery storage facilities. How much back up energy in WW Sector? GK: Hard to come up with response to this. CEC has ability to give us relief in policy, regulations and funding. Q/A: Emma Maack, SFPUC Opportunities to come out in better situation or just to make sure where we can fit in and be no worse off? GK: View as symbiotic. Water Sector can help State & us (w/Energy Shortages w/o penalty as we are now such as Tariff Changes that are significant, get us capital infrastructure dollars, how we manage resources and our staff hours). GK: If anyone has any ideas on how much generator capacity WW has we are all ears. Sarah: there is a consultant working on it. 5. Best Available Control Technology (BACT). Air Districts. Carb is exploring Tier 5 BACT: NOx emission reduction by up to 90% and PM emissions to up to 75% compared to today's Tier 4 final emission standards. First time C)2 standards. Stringent Exhaust Standards for all power categories including not utilize exhaust aftertreatment (DPFs and SCRs). Board to review expected in 2024.

GK: June 15 CWEA-CASA event: Wendy Link and Panel on PFAS and Craig Krittle Stanford on Innovative Tech. keynote speech.

: Notes CASA ACE 4 28 22

AGENDA

Air Quality, Climate Change, and Energy (ACE) Workgroup Meeting

Meeting Date/Time: April 28, 2022 / 8:30 – 10:30 am
Meeting Location: Zoom Link (provided in the meeting appointment)
Dial-in: Zoom Call-In (provided in the meeting appointment)

COMMENCEMENT

ITEM	LEAD
Welcome/Roll Call	Jackie Zipkin (Chair), Greg Kester and Sarah Deslauriers (CASA)
Review/Approval of Agenda	All

LEGISLATIVE UPDATE

	ITEM	LEAD	STATUS
1.	State Legislation and Budget	Jessica	ACE Bill List (per Subgroup Review), Budget Request Letter (Budget Revise to come in May)

PRIORITY ISSUES/ACTION ITEMS

	ITEM	LEAD	NOTES
1.	AB 32 Scoping Plan Update: Carbon Neutrality by 2035/2045	Sarah	Workshop Series and latest updates on Natural & Working Lands, Clean/Renewable Electricity (SB 100), Vehicle Electrification, SLCPs, Scenario inputs and results, and EJAC responses, Comments on draft scenario modeling results submitted Apr 4
2.	CARB Advanced Clean Vehicle Regulations (Electrification)	Sarah, Greg, Steve, David	Draft Advanced Clean Fleet Regs, Medium/Heavy-Duty Infrastructure Workgroup series – last workshop TBD, CARB Exec meeting Mar 8, commented during Mar 24 Hearing, Draft Public Fleet Requirements text released Apr 25, Subgroup met Apr 27, CARB hearing Apr 28 (today), CARB workshop May 4, EPA's heavy-duty engine and vehicle rule comments due May 13, other states
3.	CNRA Natural & Working Lands	Sarah	Draft Climate Smart Strategy, 2021 legislation, attended Mar 24 Hearing, comments on NWL modeling results submitted Apr 4
4.	SB 1383: Organic Waste Methane Emissions Reductions	Greg, Sarah	CalRecycle ongoing Webinar Series, CASA county ordinance outreach, met w/ SWRCB/CalRecycle on implementation, meet with CAPCOA May 24/25 to discuss implementation needs
5.	CA Adaptation Update	Sarah	Final Adaptation Strategy (released Apr 4), OPC Sea Level Rise Action Plan comments due by early summer, SWRCB climate change preparedness survey expected in 2022, 30x30 California
6.	Criteria Pollutants & Toxics Emissions Reporting & AB 2588 Toxics Program	Sarah, David	Summary of CTR and EICG, CARB Final Statement of Reasons released, business-as-usual reporting of air toxics through 2028, Subgroup preparing approach for statewide two-step process through 2022, meetings with Air Districts to prepare scope

INFORMATIONAL ITEMS

	ITEM	LEAD	NOTES
1.	White House EO: Catalyzing Clean Energy Industries and Jobs through Federal Sustainability	Sarah	Various programs to achieve net zero emissions by 2050, USDA Climate Smart Commodities program and funding
2.	Carbon Sequestration Meta-Analysis	Sarah	Concluding spring 2022, report by end of 2022
3.	Biogas/Biomethane Management: EPA Renewable Fuel Standard RINs	Greg	EPA staff considering D3 vs D5 value for sludge vs food waste-based biogas
4.	CEC Solutions to Peak Demand Energy Shortages	Greg	CASA engagement with CEC, meeting held Mar 25
5.	New BACT for Large Emergency Diesel Engines: BAAQMD, SMAQMD, SCAQMD	Sarah David	BAAQMD and SMAQMD adopted Tier 4; SCAQMD in process, testing requirements for compliant vs certified engines, CARB planning for Tier 5 BACT in 2028 – Public Workgroup to discuss rulemaking May 2

UPCOMING CONFERENCES/EVENTS

NAME	DATE/LOCATION
WEF Residuals & Biosolids Conference	May 24 – 27, Columbus
CWEA-CASA Event: Partnering for Impact	June 15, Bay Area

NEXT MEETING: Canceling May Meeting due to conflict with WEF RBC and need to focus on Subgroup tasks

Additional topics we review periodically for progress or changes:

State
- CARB Mandatory GHG Reporting Regulation
- CARB Scoping Plan Updates (Natural & Working Lands, Vehicle Electrification, Clean/Renewable Energy)
- CEQA Guidance on GHG Emissions
- CNRA Climate Change Assessment
- CNRA Online CA Sea Level Rise Database
- CNRA Safeguarding CA: Implementation Action Plans
- CEC Climate Change Research Plan
- OEHHA CalEnvironScreen Tool
- California's Climate Future report (by Governor Brown)
- Funding Opportunities

Regional Adaptation Collaboratives
- Bay Area Climate Adaptation Network (BayCAN)
- San Francisco Bay Regional Coastal Hazards Adaptation Resiliency Group (CHARG)
- Southern California Association of Governments (SCAG) Regional Climate Adaptation Framework

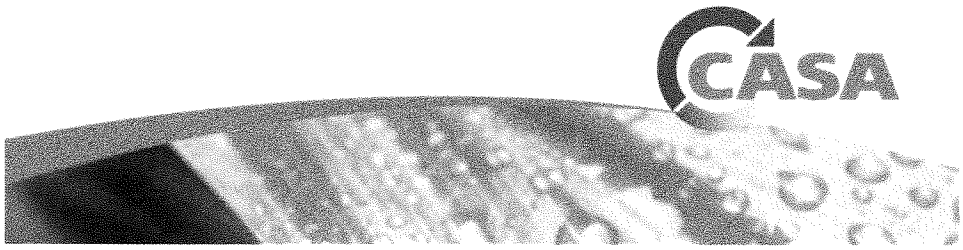
National
- NEPA Guidance on GHG Emissions
- EPA Creating Resilient Water Utilities
- EPA EJScreen Tool
- EPA Mandatory GHG Reporting Regulation Updates
- EPA Clean Power Plan (on stay)
- EPA Existing Source Performance Standards
- EPA Biogenic Emissions Accounting Framework
- White House Budget for DOE Energy Efficiency and Renewable Energy Programs
- White House Climate Change Support Office
- NACWA Energy Workgroup
- NACWA Climate & Resilience Workgroup
- Funding Opportunities

International
- Global GAP (Good Agricultural Practices) & Biosolids
- IWA Nitrous Oxide Modeling

Air Quality, Climate Change, & Energy (ACE) Workgroup Meeting

April 28, 2022 (8:30 – 10:30 am)

Zoom Link – See Meeting Appointment



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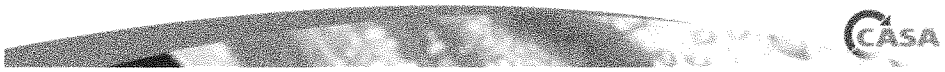
State Legislation and Budget

- 2022 ACE Bill List
- Budget Request Letter (May Revise Budget to come)

2

Priority Issues/ Action Items



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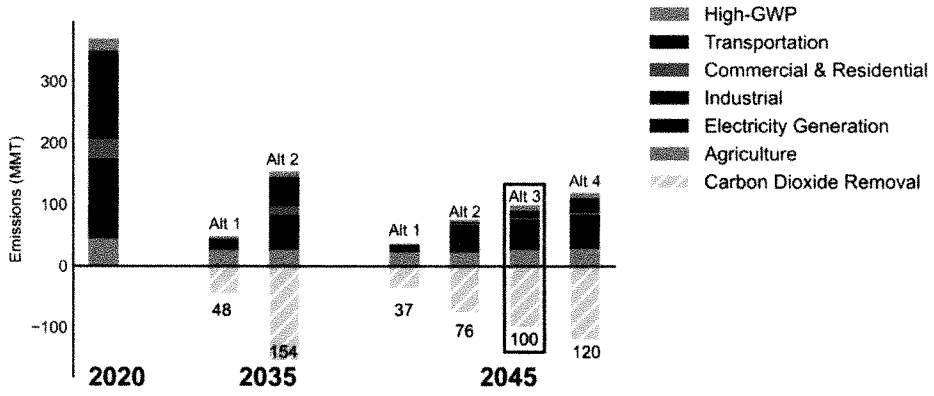
1. AB 32 Scoping Plan Update: Carbon Neutrality

- **Target:** Carbon neutrality by 2035/2045
- Scoping Plan Workshops through Spring/Summer 2022 on:
  - Natural and Working Lands (Draft Climate Smart Strategy)
  - Building Decarbonization
  - Electricity Sector (SB 100 report and Integrated Energy Policy Report)
  - Transportation Sector (ACF regulation)
  - Short-Lived Climate Pollutants (SLCP reduction under SB 1383 regulation)
  - Environmental Justice
- March 24 CARB hearing to provide summary of SPU scenarios
- April 28 CARB hearing to provide updates on vehicle electrification
- Draft of SPU by May 2022 (45-day comment period), June CARB public hearing, final draft in Fall 2022

4

1. AB 32 Scoping Plan Update: Carbon Neutrality

- **Target:** Carbon neutrality by 2035/2045
- March 15 and April 20 workshops on SPU scenario modeling results
- **CARB recommended Alt 3**: Targeting 2045 using broad portfolio of existing and emerging fossil fuel alternatives and alignment with statutes and EOs



Comments submitted April 4th!

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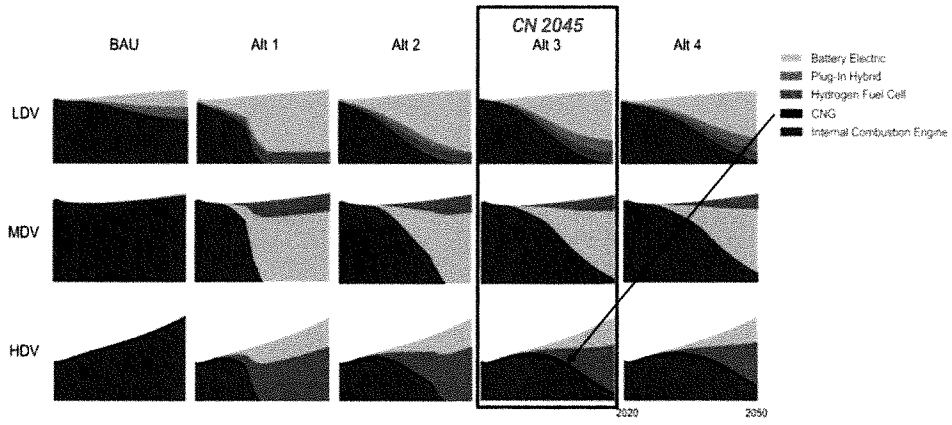
1. AB 32 Scoping Plan Update: Carbon Neutrality



Comments submitted on scenarios April 4th!

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2. CARB Advanced Clean Fleet (ACF) Regulations

- ACF by 2035/2045 - :
  - Draft regulatory language Sept 9th, CASA submitted comments
  - Second draft regulation released April 25th, CASA to testify and submit comments
  - Target adoption by fall 2022 (with Scoping Plan Update)

- CASA Action Items
  - Subgroup met April 27th to discuss draft regulation and testimony opportunities
  - Workshop & Public Hearing participation – Apr 28th/May 4th
  - Comments on second draft (due date not posted)
  - CARB Board Member meeting – May 2nd Gideon Kracov

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2. CARB Advanced Clean Fleet (ACF) Regulations

- Key concerns with second draft
  - Definitions – **ICEV, NZEV**, backup vehicle, emergency operations, emergency support vehicles, notice to proceed, vehicle addition, vehicle purchase, etc.
  - Early or Excess ZEV purchases – needs to recognize date of purchase relative to delivery timing and counting toward mandate, clarification regarding vehicle type
  - Vehicle Exemptions – No explicit exemptions for water/wastewater sector
    - Backup vehicle can be ICEV if no ZEV, but limits to 1000 miles per year or emergency support (that must be a state or federal declaration – not all emergencies for which we must respond are at the level of a state declaration)
    - Infrastructure construction delays
    - ZEV unavailability – pickups are excluded from this exemption
    - Mutual Aid Assistance
    - Two-Engine Vehicles
  - Vehicles Acquired with "Public Funds"
  - Hired Fleets and Dispatch Records
  - Fleet Reporting – must report for all vehicles vs only new vehicles

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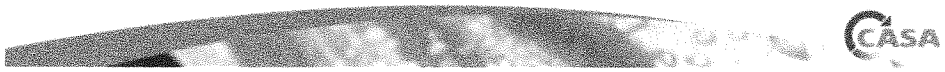
2. CARB Advanced Clean Fleet (ACF) Regulations

- Other concurrent efforts
  - EPA's Heavy-Duty Engine and Vehicle Rule (*comments due May 13th*)
    - Appears to include low-NOx low-carbon CNG derived from wastewater biogas (i.e., NZEV options)
    - Will impact CA's efforts to reduce GHGs and NOx emissions.
  - 17 states (including CA) and Washington DC, signed a Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle MOU – committing to:
    - ZEVs comprising 30% of medium- and heavy-duty vehicle sales by 2030
    - 100% of sales by 2050
  - ***Recall CARB's proposal for public fleets is***
    - *By January 1, 2024, 50% of vehicles added must be ZEVs;*
    - *100% by 2027*



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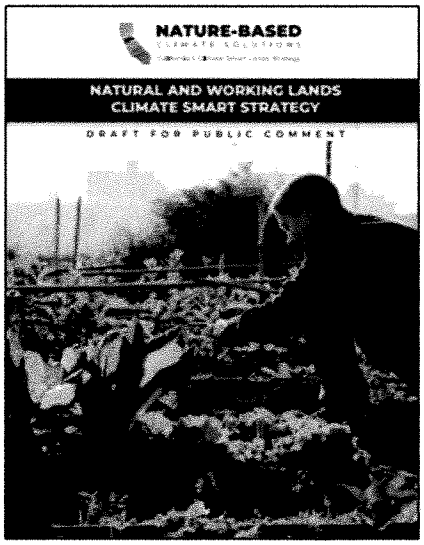
3. CNRA Natural & Working Lands (NWL) Draft Climate Smart Strategy

- Draft Released Oct 2021
- Landscapes
  - Forests
  - Shrublands and Chaparral
  - Developed Lands
  - Wetlands
  - Seagrasses and Seaweeds
  - Croplands
  - Grasslands
  - Sparsely Vegetated Lands
- Met with CNRA March 1 (leads of NWL, Water, and Energy Innovation) – Very supportive of biosolids land application, open to feedback on the draft Strategy



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3. NWL Initial Modeling Results

- Goal – estimate trajectory of sources and sinks
- Four scenarios + BAU
- Reviewed approach, as well as modeling limitations, a couple of which are:
  - Not including benefit of offsetting synthetic fertilizer with organic
  - Cropland c-sequestration
- **Comments submitted April 4th**
  - Local research on c-sequestration (and other co-benefits) - provided references
  - Unclear if acknowledging CARB's emission reduction factor for organic waste compost land app and SWRCB's replication of ERF for biosolids land app
  - Meta-analysis on c-sequestration resulting from land app of biosolids

FY 2022-23 proposed budget for Scaled support for climate smart agriculture planning and practices.

Funding Agricultural Replacement Measures for Emission Reductions Program (FARMER)—$150 million

Healthy Soils Initiative: $85M for on-farm conservation practices to sequester carbon in soil.

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4. SB 1383: Organic Waste Methane Emissions Reduction

- 40% methane reduction by 2030 (relative to 2013 levels)
- Organic waste diversion from landfills (*includes biosolids, digestate, and sludges*)
  - 50% by 2020 (relative to 2014 levels)
  - 75% by 2025 (relative to 2014 levels)
- Implementation
  - State to enforce jurisdictions Jan 1, 2022 (local entities enter agreements)
  - Local jurisdictions to start enforcement Jan 1, 2024
  - Compliance by Jan 1, 2025
- CalRecycle/CASA outreach to counties county ordinances
- Reconvening wastewater and solid waste sectors May 5th
- CASA to attend May 24th CAPCOA meeting on the subject

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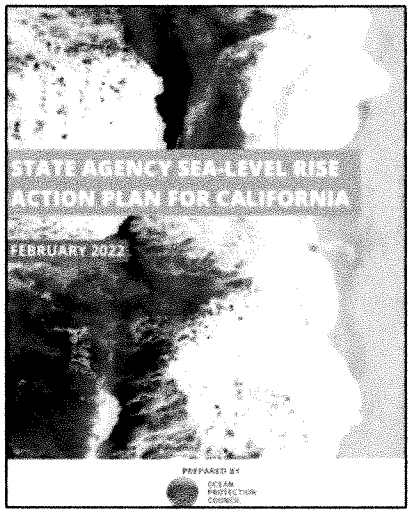
5. CA Adaptation: OPC Sea Level Rise Action Plan (FY 2021/22 – 2024/25)

- Released Feb 2022 by SLR Leadership Team
- ~80 State Actions categorized by SLR Principle
  1. **Best Available Science**
  2. **Partnerships**
  3. Communications
  4. **Local Support**
  5. **Alignment**
  6. **Resilience Projects**
  7. Equity & Social Justice



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5. CA Adaptation: OPC Sea Level Rise Action Plan (FY 2021/22 – 2024/25)

- Actions associated with Principles
  - 1.6: Disseminate and implement Coastal Commission's newly released "Critical Infrastructure at Risk: SLR Planning Guidance for California's Coastal Zone"
  - 1.8: Highlight or coalesce available mapping components/layers or visual aids to understand how SLR will impact critical infrastructure
  - 2.6: Discuss and identify how water quality threats from SLR affect the mission of other state agencies through regular forums by the Water Boards
  - 4.3: Complete inventory to evaluate the status, trends, processes, and outcomes of SLR adaptation planning by the 76 local government jurisdictions along California's outer coast (15 counties and 61 cities) and Bay Area (9 counties and 40+ cities) and create an online inventory of local adaptation planning
  - 4.7: Partner with tribal and local jurisdictions to prioritize adaptation actions, emphasizing a preference for those that protect and increase the resiliency of public assets, infrastructure, and larger projects with multi-benefits
  - 4.8: Utilize the California Sea-level rise State and Regional Support Collaborative to offer additional capacity in the form of technical assistance and support to tribal and local governments for SLR funding programs and grant applications, adaptation planning, emergency planning, and project development and implementation
  - 5.2: Ensure critical infrastructure facilities have resiliency plans that are implementable within their maintenance period, and longer-term projects are addressed with adaptive management, to the extent feasible
  - 5.8 Pursue statewide and regional strategies and actions to address SLR impacts, including those through planning, regulations, permitting, compliance, and/or funding, potentially through a statewide resolution
  - 5.9: By 2023, develop site-specific infrastructure resilience plan (considering minimum of 3.5 ft by 2050, 6 ft by 2100, and higher)
  - 5.16: Inventory regulated permitted facilities vulnerable to SLR (e.g., POTWs, industrial stormwater facilities)
  - 6.4: Support multi-phased wastewater resiliency infrastructure projects that end with shovel-ready projects, including WWTPs and onsite treatmnt

Comments due June 3rd / early summer!

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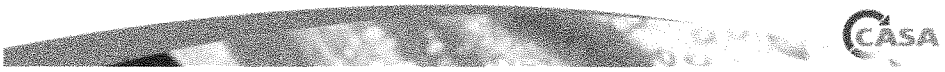
5. CA Adaptation: 30x30 California

- Released April 22, 2022
- Strategy to conserve additional 6 million acres of land and half a million acres of coastal waters, organized into 10 Pathways:
  1. Accelerate Regionally Led Conservation
  2. Execute Strategic Land Acquisitions
  3. Increase Voluntary Conservation Easements
  4. Enhance Conservation of Existing Public Lands and Coastal Waters
  5. Institutionalize Advance Mitigation
  6. Expand and Accelerate Environmental Restoration and Stewardship
  7. Strengthen Coordination Among Governments
  8. Align Investments to Maximize Conservation Benefits
  9. Advance and Promote Complementary Conservation Measures
  10. Evaluate Conservation Outcomes and Adaptively Manage



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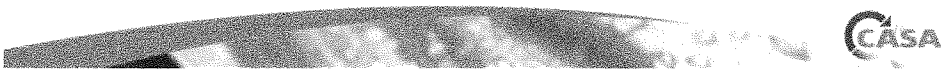
6. Criteria Pollutants & Toxics Reporting and Air Toxics "Hot Spots" Program Updates

- AB 617 gives CARB authority to "harmonize" air monitoring, reporting, & emission reductions from stationary sources
- AB 2588 Hot Spots compound list is >1000 compounds (from >500)
  - Many of the compounds have unknown toxicity levels
  - Many of the compounds have unknown emission factors
  - Many of the compounds are not relevant to WWTPs
- CASA worked closely with CARB to negotiate phased compliance, allowing WWTPs to:
  - Report business as usual through 2028 (begin reporting in 2029 for 2028 data)
  - Perform a "two-step process" for determining a shortlist of compounds
    - Scanning air space of unit processes to determine detectable compounds
    - Determining the sampling and analysis methods to quantify emissions (Mimic 1990 Pooled Emissions Estimation Program, PEEP)



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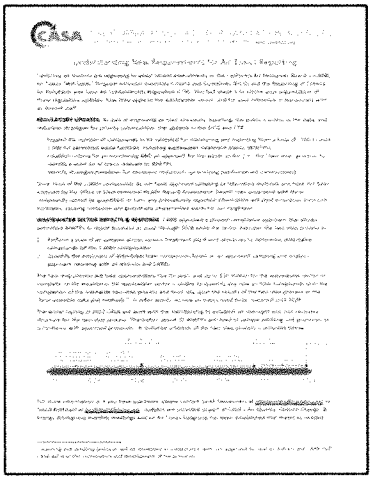
6. Next steps for the Wastewater Sector…

- CASA 2022 actions:
  - Draft approach for Step 1 of two-step process (examining scan and source test requirements)
  - Identify participating agencies
  - Select governing structure
- Meeting with air districts and source test specialists to discuss scan methods – may lead to a paper exercise
- Collecting doodle poll responses for subgroup meeting!



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Informational Items

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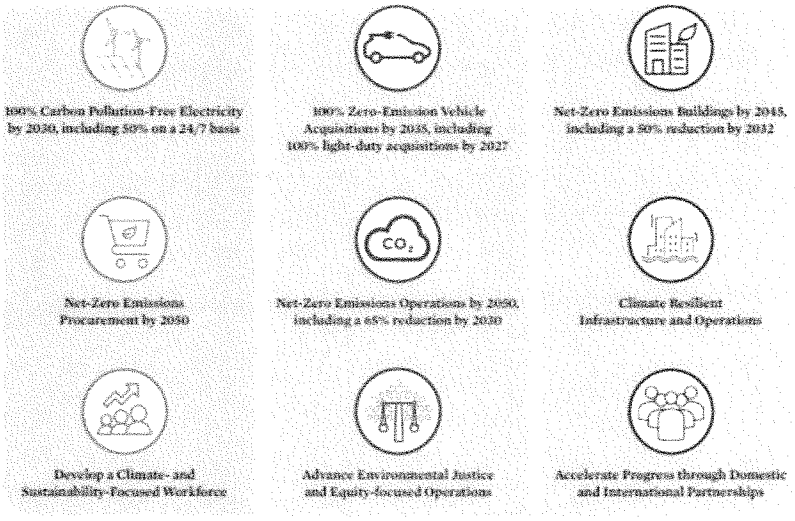
1. White House EO: Catalyzing Clean Energy Industries and Jobs through Federal Sustainability

- **Dec 2021: Government-Wide Goals – Net-zero by 2050**



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1. White House EO: Catalyzing Clean Energy Industries and Jobs through Federal Sustainability

- **USDA Climate Smart Commodities – finance pilot projects that:**
  - Implement climate-smart production practices, activities, and systems on working lands
  - Measure/quantify, monitor and verify the carbon and GHG benefits
  - Develop markets and promote resulting climate-smart commodities

- USDA is now accepting project applications for fiscal year 2022
  - April 8th – proposals from $5 million to $100 million
  - **May 27th – proposals from $250,000 to $4,999,999**

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2. Carbon Sequestration Meta-Analysis

Systematic Reviews & Data Extraction

- Virginia Tech to quantify C-sequestration potential from land-applied biosolids
- Systematic review of published and unpublished data
- Data (with consent of authors) to be added to open-access repository
- Promote biosolids research, identify gaps, and inform/harmonize future collection methods

Can You or Someone You Know Help?

- Review full text
  - Materials and Methods section
  - Checking soil organic carbon/matter data
- If you have unpublished data and it shows changes in soil organic carbon/matter concentrations and stocks, please share
- **Please reach out to Mike Badzmierowski!**

- **Presentation at WEF RBC**
- **Report by end of 2022**

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3. Biogas/Biomethane Management: RINs

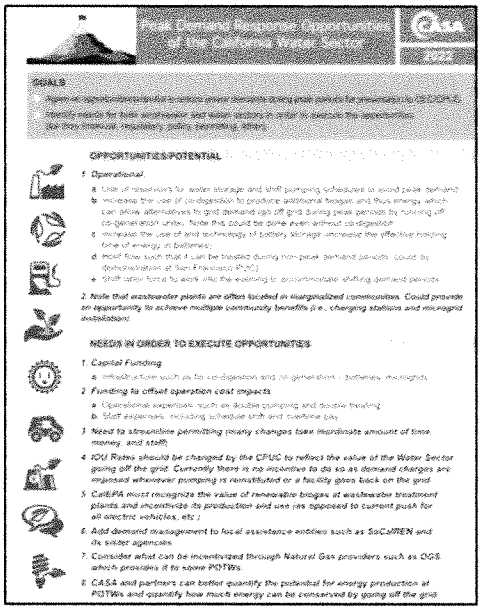
- EPA Renewable Fuel Standard RINs
  - RFS RIN values for sludge-based biogas (D3, cellulosic) vs food waste-based biogas (D5, advanced biomass fuel)
  - Current interpretation is all biogas from co-digestion will be valued at D5
  - Discussed "plan b" – to allocate D3 and D5 per feedstock
  - Greg surveyed POTWs across US to collect average MCRT, VSR, and scf/lb VSR and submitted data to EPA (to establish a baseline)

- EPA considering approach to determining allocation
  - Letter sent to EPA July 26th, met team July 27th
  - Distributed survey and summarized results for submission
  - Met February 22nd to answer EPA's questions
  - Draft Rule for public comment expected in May

22

4. CEC Solutions to Peak Demand Energy Shortages

- Met with CEC March 25th
- Working to estimate backup generation capacity across the state and collecting other data



5. New BACT for Large Emergency Diesel Engines ≥1,000 bhp

- Air District Activities
  - BAAQMD – December 2020
  - Sacramento Metro AQMD – May 2021
  - South Coast AQMD –
    - BACT scientific review committee and public review process underway
    - Negotiating testing requirements for compliant engines
- CARB is exploring Tier 5 BACT:
  - Aiming to reduce NOx emissions (up to 90%) and PM emissions (up to 75%) compared to today's Tier 4 final emission standards
  - Stringent exhaust standards for all power categories, including those that do not utilize exhaust aftertreatment (i.e., DPFs and SCRs)
  - First-time CO_2 standards
  - Proposal to Board expected 2024, implementation to start in 2028
  - May 2nd Public Workgroup rulemaking discussion

Conferences/Events

- **WEF Residuals & Biosolids Conference**
  May 24th – 27th, Columbus
- **CWEA-CASA Event: Partnering for Impact**
  June 15th, Bay Area

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Upcoming Meetings

- May – conflicts with WEF RBC, will cancel meeting to focus on subgroup tasks the month of May
- June 23rd – Virtual
- July 28th – In-person (considering if the NACWA Annual Leadership Conference will

Thank you!

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CASA ACE Committee Bill Tracker
4/28/2022

AB 1001 **(Garcia, Cristina D) Environment: mitigation measures for air quality impacts: environmental justice.**

Current Text: Amended: 3/22/2022 html pdf

Introduced: 2/18/2021

Last Amend: 3/22/2022

Status: 3/22/2022-From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on RLS.

Location: 2/1/2022-S. RLS.

Summary: The California Environmental Quality Act (CEQA) requires a lead agency to prepare a mitigated negative declaration for a project that may have a significant effect on the environment if revisions in the project would avoid or mitigate that effect and there is no substantial evidence that the project, as revised, would have a significant effect on the environment. This bill would require mitigation measures, identified in an environmental impact report or mitigated negative declaration to mitigate the adverse effects of a project on air quality of a disadvantaged community, to include measures for avoiding, minimizing, or otherwise mitigating for the adverse effects on that community. The bill would require mitigation measures to include measures conducted at the project site that avoid or minimize to less than significant the adverse effects on the air quality of a disadvantaged community or measures conducted in the affected disadvantaged community that directly mitigate those effects.

Position	Assigned
Disapprove	Alma, CASA ACE Cmte, Jessica

AB 1640 **(Ward D) Office of Planning and Research: regional climate networks: regional climate adaptation and resilience action plans.**

Current Text: Amended: 3/23/2022 html pdf

Introduced: 1/12/2022

Last Amend: 3/23/2022

Status: 4/27/2022-In committee: Set, first hearing. Referred to suspense file.

Location: 4/27/2022-A. APPR. SUSPENSE FILE

Summary: Current law requires, by July 1, 2017, and every 3 years thereafter, the Natural Resources Agency to update, as prescribed, the state's climate adaptation strategy, known as the Safeguarding California Plan. Current law establishes the Office of Planning and Research in state government in the Governor's office. Current law establishes the Integrated Climate Adaptation and Resiliency Program to be administered by the office to coordinate regional and local efforts with state climate adaptation strategies to adapt to the impacts of climate change, as prescribed. This bill would authorize eligible entities, as defined, to establish and participate in a regional climate network, as defined. The bill would require the office, through the program, to encourage the inclusion of eligible entities with land use planning and hazard mitigation planning authority into regional climate networks.

Position	Assigned
Watch	CASA ACE Cmte

AB 1749 **(Garcia, Cristina D) Community Air Protection Blueprint: community emissions reduction programs: toxic air contaminants and criteria air pollutants.**

Current Text: Amended: 3/14/2022 html pdf

Introduced: 2/1/2022

Last Amend: 3/14/2022

Status: 4/27/2022-In committee: Set, first hearing. Referred to suspense file.

Location: 4/27/2022-A. APPR. SUSPENSE FILE

Summary: Existing law requires the State Air Resources Board to prepare, and to update at least once every 5 years, a statewide strategy, known as the "Community Air Protection Blueprint" or "Blueprint," to reduce emissions of toxic air contaminants and criteria air pollutants in communities affected by a high cumulative exposure burden. This bill would require the state board to identify in each statewide strategy update measures to reduce criteria air pollutants and toxic air contaminants. The bill would authorize an air district that is required to adopt a community emissions reduction program to take up to one additional year to adopt the program, if the community steering committee agrees. The bill would require an air district that is required to adopt a community emissions reduction program to additionally include in its annual report a summary of updates to the program made to ensure consistency with the statewide strategy.

Position	Assigned
Watch	CASA ACE Cmte

AB 1857 **(Garcia, Cristina D) Solid waste.**
Current Text: Introduced: 2/8/2022 html pdf
Introduced: 2/8/2022
Status: 3/22/2022-From committee: Do pass and re-refer to Com. on APPR. (Ayes 8. Noes 3.) (March 21). Re-referred to Com. on APPR.
Location: 3/21/2022-A. APPR.
Summary: (1)The California Integrated Waste Management Act of 1989 requires the department and local agencies to maximize the use of all feasible source reduction, recycling, and composting options in order to reduce the amount of solid waste that must be disposed of by transformation and land disposal. This bill would require the department to certify that a local agency is in compliance with that requirement before approving a permit for a new transformation, EMSW, or land disposal facility serving the local agency.

Position	Assigned
Watch	CASA ACE Cmte

AB 1985 **(Rivas, Robert D) Organic waste: list: available products.**
Current Text: Introduced: 2/10/2022 html pdf
Introduced: 2/10/2022
Status: 4/27/2022-In committee: Set, first hearing. Referred to suspense file.
Location: 4/27/2022-A. APPR. SUSPENSE FILE
Summary: Current law requires, no later than January 1, 2018, the State Air Resources Board to approve and begin implementing a comprehensive short-lived climate pollutant strategy to achieve a reduction in statewide emissions of methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030. Current law requires the methane emissions reduction goals to include a 50% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75% reduction by 2025. Current law requires the Department of Resources Recycling and Recovery, in consultation with the state board, to adopt regulations to achieve these organic waste reduction goals, including a requirement intended to meet the goal that not less than 20% of edible food that is currently disposed of be recovered for human consumption by 2025. This bill would require the department to compile and maintain on its internet website a list, organized by ZIP Code, of information regarding persons or entities that produce and have available in the state organic waste products and update the list at least every 6 months.

Position	Assigned
Support, if amended, work with author	CASA ACE Cmte

AB 2247 **(Bloom D) Perfluoroalkyl and polyfluoroalkyl substances (PFAS) and PFAS products and product components: publicly accessible reporting platform.**
Current Text: Amended: 4/20/2022 html pdf
Introduced: 2/16/2022
Last Amend: 4/20/2022
Status: 4/27/2022-From committee: Do pass and re-refer to Com. on APPR. (Ayes 7. Noes 2.) (April 26). Re-referred to Com. on APPR.
Location: 4/26/2022-A. APPR.
Summary: Would require, as part of the hazardous waste control laws, the Department of Toxic Substances Control to work with the Interstate Chemicals Clearinghouse to establish, on or before January 1, 2024, a publicly accessible reporting platform to collect information about perfluoroalkyl and polyfluoroalkyl substances (PFAS) and products or product components containing regulated PFAS, as defined, being sold, offered for sale, distributed, or offered for promotional purposes in, or imported into, the state. The bill would require, on or before July 1, 2024, and annually thereafter, a manufacturer, as defined, of PFAS or a product or a product component containing regulated PFAS that is sold, offered for sale, distributed, or offered for promotional purposes in, or imported into, the state to register the PFAS or the product or product component containing regulated PFAS, and specified other information, on the publicly accessible reporting platform.

Position	Assigned
Support/Co-Sponsor	CASA ACE Cmte, Jessica

AB 2667 **(Friedman D) Integrated Distributed Energy Resources Fund.**
Current Text: Amended: 4/27/2022 html pdf
Introduced: 2/18/2022
Last Amend: 4/27/2022
Status: 4/27/2022-Read second time and amended.
Location: 4/25/2022-A. APPR.
Summary: Would establish the Integrated Distributed Energy Resources Fund as a special fund in the

State Treasury, the moneys in which would be available to the Energy Commission, upon appropriation by the Legislature, for purposes of the bill. The bill would require the Energy Commission to administer the fund in consultation with the Public Utilities Commission and the State Air Resources Board to provide incentives for eligible resources to support statewide customer adoption of clean distributed energy resources, as specified. The bill would require the commission to establish a system to equitably award incentives, as specified. The bill would require the commission to establish a process to allow a load-serving entity to apply for incentives on behalf of a customer or a set of customers as part of that load-serving entity's customer program to reduce its resource adequacy requirement obligations.

Position	Assigned
Refer to ACE Committee	CASA ACE Cmte

AB 2674 **(Villapudua D) California Global Warming Solutions Act of 2006: Low Carbon Fuel Standard regulations.**

Current Text: Amended: 4/18/2022 html pdf

Introduced: 2/18/2022

Last Amend: 4/18/2022

Status: 4/19/2022-Re-referred to Com. on NAT. RES.

Location: 3/10/2022-A. NAT. RES.

Summary: The California Global Warming Solutions Act of 2006 requires the state board to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions to ensure that the statewide greenhouse gas emissions are reduced to at least 40% below the statewide greenhouse gas emissions limit, as defined, no later than December 31, 2030. Pursuant to the act, the state board has adopted the Low Carbon Fuel Standard regulations. This bill would require the state board to recognize as a method to generate credits under the Low Carbon Fuel Standard regulations the use of renewable natural gas or biogas by a source that the state board determines to directly reduce the emissions of methane in the state and that both displaces the existing use of natural gas and reduces the carbon intensity of fuels, as specified. The bill would specify that the credits generated shall only be available for use by a source within the state.

Position	Assigned
Refer to ACE Committee	CASA ACE Cmte

AB 2700 **(McCarty D) Transportation electrification: electrical distribution grid upgrades.**

Current Text: Amended: 4/27/2022 html pdf

Introduced: 2/18/2022

Last Amend: 4/27/2022

Status: 4/27/2022-Read second time and amended.

Location: 4/26/2022-A. APPR.

Summary: Would require the State Air Resources Board to annually gather fleet data for on-road and off-road vehicles in the medium- and heavy-duty sectors from entities subject to its regulations and share that data with electrical corporations and local publicly owned electric utilities to help inform electrical grid planning efforts, as specified. The bill would require electrical corporations and local publicly owned electric utilities, as part of their distribution planning processes, to incorporate fleet data produced by the State Air Resources Board pursuant to this bill, and other available data, to facilitate the readiness of their distribution systems to support the state's anticipated level of electric vehicle charging, as specified.

Position	Assigned
Spot Bill	CASA ACE Cmte

AB 2802 **(Muratsuchi D) Air pollution: carbon tax and dividend.**

Current Text: Introduced: 2/18/2022 html pdf

Introduced: 2/18/2022

Status: 2/19/2022-From printer. May be heard in committee March 21.

Location: 2/18/2022-A. PRINT

Summary: The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. Current law requires the state board to adopt greenhouse gas emissions limits and emissions reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions in furtherance of achieving a specified statewide greenhouse gas emissions limit. This bill would express the intent of the Legislature to enact future legislation that would create a carbon tax and dividend program that would impose charges on entities responsible for air pollution emissions and allocate the revenue from those charges to frontline communities that suffer from the air pollution caused by those emissions.

Position	Assigned

AB 2864 **(Rivas, Robert D) Local Government Renewable Energy Self-Generation Program.**
Current Text: Amended: 4/25/2022 html pdf
Introduced: 2/18/2022
Last Amend: 4/25/2022
Status: 4/26/2022-Re-referred to Com. on APPR.
Location: 4/20/2022-A. APPR.
Summary: Current law authorizes the Public Utilities Commission to fix the rates and charges for every public utility and requires that those rates and charges be just and reasonable. Current law, the Local Government Renewable Energy Self-Generation Program, authorizes a local government to receive a bill credit, as specified, to be applied to a designated benefiting account for electricity exported to the electrical grid by an eligible renewable generating facility, as defined, and requires the commission to approve a rate tariff for the benefiting account. Under current law, an electrical corporation is obligated to provide a bill credit to a benefiting account designated by a local government only until that electrical corporation reaches its proportionate share of 250 megawatts of the combined statewide cumulative rated generating capacity of all eligible renewable generating facilities within the service territories of the state's 3 largest electrical corporations. This bill would increase the statewide 250-megawatts limitation to 300 megawatts. The bill would authorize the commission to additionally increase the statewide limitation, as specified, to up to 500 megawatts.

Position	Assigned
Seek Info	CASA ACE Cmte

SB 45 **(Portantino D) Short-lived climate pollutants: organic waste reduction goals: local jurisdiction assistance.**
Current Text: Amended: 1/3/2022 html pdf
Introduced: 12/7/2020
Last Amend: 1/3/2022
Status: 1/24/2022-Read third time. Passed. (Ayes 36. Noes 0.) Ordered to the Assembly. In Assembly. Read first time. Held at Desk.
Location: 1/24/2022-A. DESK
Summary: Current law requires the Department of Resources Recycling and Recovery, in consultation with the State Air Resources Board, to adopt regulations to achieve the organic waste reduction goals established by the state board for 2020 and 2025, as provided. Current law requires the department, no later than July 1, 2020, and in consultation with the state board, to analyze the progress that the waste sector, state government, and local governments have made in achieving these organic waste reduction goals. This bill would require the department, in consultation with the state board, to provide assistance to local jurisdictions, including, but not limited to, any funding appropriated by the Legislature in the annual Budget Act, for purposes of assisting local agencies to comply with these provisions, including any regulations adopted by the department.

Position	Assigned
Support, if amended	CASA ACE Cmte, Jessica

SB 867 **(Laird D) Sea level rise planning: database.**
Current Text: Introduced: 1/24/2022 html pdf
Introduced: 1/24/2022
Status: 4/21/2022-Read third time. Passed. (Ayes 39. Noes 0.) Ordered to the Assembly. In Assembly. Read first time. Held at Desk.
Location: 4/21/2022-A. DESK
Summary: Current law requires the Natural Resources Agency, in collaboration with the Ocean Protection Council, to create, update biannually, and post on an internet website a Planning for Sea Level Rise Database describing steps being taken throughout the state to prepare for, and adapt to, sea level rise. Current law further requires that various public agencies and private entities provide to the agency, on a biannual basis, sea level rise planning information, as defined, that is under the control or jurisdiction of the public agencies or private entities, and requires the agency to determine the information necessary for inclusion in the database, as prescribed. Current law repeals these provisions on January 1, 2023.This bill would extend the sunset date for the above provisions until January 1, 2028.

Position	Assigned
Watch	CASA ACE Cmte

SB 1075 **(Skinner D) Hydrogen: green hydrogen: emissions of greenhouse gases.**
Current Text: Amended: 4/7/2022 html pdf
Introduced: 2/15/2022
Last Amend: 4/7/2022

Status: 4/26/2022-VOTE: Do pass as amended, but first amend, and re-refer to the Committee on [Appropriations] (PASS)
Location: 4/26/2022-S. APPR.
Summary: Would create the California Clean Hydrogen Hub Fund within the State Treasury, and make the moneys in the fund available for expenditure, upon appropriation by the Legislature. The bill would require the California Infrastructure and Economic Development Bank to administer the fund and would authorize the bank to provide grants to public, private, and nonprofit businesses and entities for the support of projects in California that demonstrate and scale the production, processing, delivery, storage, and end use of clean hydrogen, as specified. The bill would require the bank to prepare, and the bank board to approve, criteria, priorities, and guidelines for the provision of grants under the fund in line with specified priorities and requirements of the federal Infrastructure Investment and Jobs Act as well as specified state goals.

Position	Assigned
Refer to ACE Committee	CASA ACE Cmte

SB 1078 **(Allen D) Sea Level Rise Revolving Loan Pilot Program.**
Current Text: Amended: 3/23/2022 html pdf
Introduced: 2/15/2022
Last Amend: 3/23/2022
Status: 4/4/2022-April 4 hearing: Placed on APPR suspense file.
Location: 4/4/2022-S. APPR. SUSPENSE FILE
Summary: Current law requires the Ocean Protection Council to, among other things, establish policies to coordinate the collection, evaluation, and sharing of scientific data related to coastal and ocean resources among agencies. Current law establishes the State Coastal Conservancy with prescribed powers and responsibilities for implementing and administering various programs intended to preserve, protect, and restore the state's coastal areas. This bill would require the council, in consultation with the conservancy, to develop the Sea Level Rise Revolving Loan Pilot Program for purposes of providing low-interest loans to local jurisdictions for the purchase of coastal properties in their jurisdictions identified as vulnerable coastal property located in specified communities, including low-income communities, as provided. The bill would require the council, before January 1, 2024, in consultation with other state planning and coastal management agencies, as provided, to adopt guidelines and eligibility criteria for the program. The bill would authorize specified local jurisdictions to apply for, and be awarded, a low-interest loan under the program from the conservancy, in consultation with the council, if the local jurisdiction develops and submits to the conservancy a vulnerable coastal property plan and completes all other requirements imposed by the council.

Position	Assigned
Seek Info	CASA ACE Cmte

SB 1109 **(Caballero D) California Renewables Portfolio Standard Program: bioenergy projects.**
Current Text: Amended: 3/14/2022 html pdf
Introduced: 2/16/2022
Last Amend: 3/14/2022
Status: 4/26/2022-VOTE: Do pass as amended, but first amend, and re-refer to the Committee on [Appropriations] (PASS)
Location: 4/26/2022-S. APPR.
Summary: The Public Utilities Commission has regulatory authority over public utilities, including electrical corporations, while local publicly owned electric utilities are under the direction of their governing boards. Current law requires electrical corporations, by December 1, 2016, to collectively procure, through financial commitments of 5 years, their proportionate share of 125 megawatts of cumulative rated generating capacity from bioenergy projects commencing operation before June 1, 2013. Current law requires at least 80% of the feedstock of a bioenergy project, on an annual basis, to be a byproduct of sustainable forestry management, which includes removal of dead and dying trees from Tier 1 and Tier 2 high hazard zones, and requires at least 60% of that feedstock to be from Tier 1 and Tier 2 high hazard zones. If, on a monthly basis, a bioenergy facility opts out of, or misses, the mandated fuel or feedstock usage levels or targets, existing law specifies the price to be paid for the output from the facility for that month. Current law additionally requires a local publicly owned electric utility serving more than 100,000 customers to procure their proportionate shares of 125 megawatts of cumulative rated generating capacity from those kinds of bioenergy projects subject to terms of at least 5 years. This bill would increase the cumulative rated generating capacity from bioenergy projects to 225 megawatts and would require electrical corporations collectively to procure that amount by December 31, 2023.

Position	Assigned
Seek Info	CASA ACE Cmte

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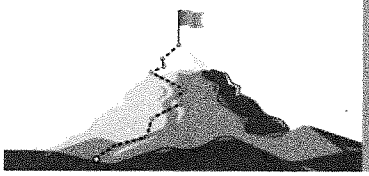

Peak Demand Response Opportunities of the California Water Sector

CASA 2022

GOALS

- Agree on opportunities/potential to reduce power demands during peak periods for presentation to CEC/CPUC.
- Identify needs for both wastewater and water sectors in order to execute the opportunities (be they financial, regulatory, policy, permitting, other).

OPPORTUNITIES/POTENTIAL

1. *Operational:*
   - **a.** Use of reservoirs for water storage and shift pumping schedules to avoid peak demand.
   - **b.** Increase the use of co-digestion to produce additional biogas and thus energy which can allow alternatives to grid demand (go off grid during peak periods by running off co-generation units). Note this could be done even without co-digestion.
   - **c.** Increase the use of and technology of battery storage (increase the effective holding time of energy in batteries).
   - **d.** Hold flow such that it can be treated during non-peak demand periods (could do demonstration at San Francisco PUC)
   - **e.** Shift labor force to work into the evening to accommodate shifting demand periods.
2. ***Note that wastewater plants are often located in marginalized communities. Could provide an opportunity to achieve multiple community benefits (i.e., charging stations and microgrid installation)***

NEEDS IN ORDER TO EXECUTE OPPORTUNITIES

1. *Capital Funding*
   - **a.** Infrastructure such as for co-digestion and co-generation – batteries, microgrids
2. ***Funding to offset operation cost impacts***
   - **a.** Operational expenses, such as double pumping and double treating
   - **b.** Staff expenses, including schedule shift and overtime pay
3. ***Need to streamline permitting (many changes take inordinate amount of time, money, and staff).***
4. ***IOU Rates should be changed by the CPUC to reflect the value of the Water Sector going off the grid. Currently there is no incentive to do so as demand charges are imposed whenever pumping is reinstituted or a facility goes back on the grid.***
5. ***CalEPA must recognize the value of renewable biogas at wastewater treatment plants and incentivize its production and use (as opposed to current push for all electric vehicles, etc.).***
6. ***Add demand management to local assistance entities such as SoCalREN and its sister agencies.***
7. ***Consider what can be incentivized through Natural Gas providers such as OGS, which provides it to some POTWs.***
8. ***CASA and partners can better quantify the potential for energy production at POTWs and quantify how much energy can be conserved by going off the grid.***

Teresa Lerch

From: Teresa Lerch
Sent: Monday, May 9, 2022 12:52 PM
To: Teresa Lerch
Subject: FW: Briefing Materials Online: Green Hydrogen Briefing Series: Scaling Up Innovation to Drive Down Emissions

From: Daniel O'Brien <dobrien@eesi.org>
Sent: Monday, May 9, 2022 11:58 AM
To: Daniel O'Brien <dobrien@eesi.org>
Subject: Briefing Materials Online: Green Hydrogen Briefing Series: Scaling Up Innovation to Drive Down Emissions

Hello,

Thank you for your interest in April 27th's briefing, ***Green Hydrogen Briefing Series: Scaling Up Innovation to Drive Down Emissions***, which was hosted by EESI.

All materials from the briefing are now available at www.eesi.org/042722tech including a video recording, speaker slides, and written highlights (also included below).

We hope you will join us for future EESI briefings, especially the briefings in the series: Living with Climate Change, and the series: Scaling Up Innovation to Drive Down Emissions. You can see all previous and future briefings here: eesi.org/briefings.

If you're interested in climate solutions like those highlighted in this briefing, consider subscribing to EESI's biweekly newsletter, Climate Change Solutions, where you will receive the latest news on policy, action, and EESI events related to climate change. You can also sign up for our briefing notices, newsletters, or fact sheets at that link as well!

Thank you,

Dan

Highlights

Key Takeaways

- In June 2021, the Department of Energy (DOE) launched the Energy Earthshots initiative with hydrogen as a top priority. The Hydrogen Shot goal is to reduce the price of clean hydrogen by 80 percent to $1 per kilogram (kg) by 2031. Hydrogen currently costs about $1.50/kg when derived from natural gas, but over $5/kg when made via electrolysis (the use of electricity to split water into hydrogen and oxygen) using renewable energy.

- A preliminary modeling analysis by the Natural Resources Defense Council (NRDC) examines how the United States can achieve net-zero greenhouse gas emissions by 2050. Hydrogen growth in this model is dramatic and begins to take off in the 2030s, primarily in hard-to-electrify sectors. Leading up to this deployment, the United States should focus on laying a solid foundation through policy.
- Heavy industry and transport sectors such as steelmaking, metals production, maritime shipping, heavy-duty vehicles, and, in the longer term, aviation will require hydrogen to decarbonize. From these areas alone, four to six percent of U.S. emissions can be addressed with clean hydrogen.
- Hydrogen from Next-generation Electrolyzers of Water (H2NEW) is a consortium of nine national labs and three universities working to advance hydrogen-making via electrolysis. Electrolysis has the most competitive economics in the long term and allows for a balance of renewable energy generation and demand in ways that other hydrogen generation methods do not.

Representative Don Beyer (D-Va.)

- The *Clean Hydrogen Production and Investment Tax Credit Act of 2021* (H.B.5192), introduced by Rep. Beyer, Rep. John Larson (D-Conn.) and Rep. Suzan DelBene (D-Wash.), is designed to stimulate green hydrogen production. The tax credit would be available to hydrogen producers that achieve a 40 percent reduction in greenhouse gas emissions compared to steam-methane hydrogen production.
- Electrification is part of the solution to address climate change, but electrification will not be the most effective tool in all situations. Heavy-duty trucks that are driven 21 hours per day and industrial facilities present good opportunities to put green hydrogen to use. Green hydrogen is a promising carbon-free, mobile energy source that can supplement and complement electrification.

Dr. Sunita Satyapal, Director, U.S. Department of Energy Hydrogen and Fuel Cell Technologies Office

- U.S. energy consumption is still heavily reliant on fossil fuels. The Biden-Harris Administration has a goal to achieve economy-wide net-zero emissions by 2050 and an interim goal of a 50-52 percent reduction in emissions by 2030. The administration is also aiming for a completely carbon-free electric grid by 2035.
- The Justice40 initiative is designed to direct 40 percent of federal investment benefits to disadvantaged communities. People who have historically experienced energy and environmental injustice are a high priority for the Biden-Harris Administration and the Department of Energy (DOE).
- Hydrogen is one part of a comprehensive energy portfolio.
- The DOE Hydrogen Project is funding over 400 active projects for more than 200 companies and universities and 15 national labs. These funding awards range from a total of $100 million to $400 million per year.
- DOE's top priorities are low-cost, clean hydrogen; low-cost, efficient, and safe hydrogen infrastructure; and at-scale end-use applications.
- DOE is focused on sectors that are difficult to decarbonize. Industrial fuel alone accounts for over 7 percent of global emissions. Heavy-duty transportation, especially long-haul trucks, and long-duration energy storage are also priorities.
- The United States produces over 10 million metric tons of hydrogen, mostly from natural gas. There is opportunity for significant growth. If the United States were to produce an additional 10 million metric tons of green hydrogen, it would require doubling today's wind and solar deployment.
- The United States has thousands of fuel cells used for backup power, forklifts, proton exchange membrane (PEM) electrolyzers, fuel-cell buses, and fuel-cell cars.
- The United States has over 1,600 miles of hydrogen pipelines, three storage caverns, including the world's largest geological cavern in Texas, and a growing infrastructure for hydrogen.

- In June 2021, DOE launched the Energy Earthshots initiative with hydrogen as a top priority. Similar to the Moonshot initiative President John F. Kennedy created over half a century ago, these are bold, ambitious targets to galvanize the community and help meet our climate goals. The Hydrogen Shot goal is to reduce the price of clean hydrogen by 80 percent to $1 per kilogram (kg) by 2031. Hydrogen currently costs about $1.50/kg when derived from natural gas, but over $5/kg when made via electrolysis (the use of electricity to split water into hydrogen and oxygen) using renewable energy.
- At the Hydrogen Shot Summit, DOE asked about the greatest barriers to widespread hydrogen deployment in the United States. Cost was considered the largest barrier, but there are many others, including insufficient infrastructure and limited public awareness.
- The *Infrastructure Investment and Jobs Act* (P.L.117-58) allocates $9.5 billion specifically for clean hydrogen, including $1 billion for electrolysis research, development, and demonstration; $0.5 billion for research and development of clean hydrogen manufacturing and recycling; and $8 billion for at least four regional clean hydrogen hubs that would co-locate the production and use of hydrogen.
- Collaboration is important to advancing diversity, equity, and inclusion in the clean energy sector. Industry, governments, investors, and the environmental justice community must collaborate globally on this issue. DOE has a large and growing number of partnerships.
- DOE's strategy is to accelerate R&D, to reduce costs, and to create long-term demonstrations and hydrogen hubs.

Alexa Thompson, U.S. Program Manager, Climate Aligned Industries, RMI

- Similar to fossil fuels, hydrogen combustion produces high temperatures. Whereas burning methane, natural gas, and coal forms carbon dioxide, burning hydrogen only produces water. Hydrogen is energy dense and can take part in chemical reactions, differentiating it from electricity.
- The current production of hydrogen from methane (as opposed to electrolysis) accounts for around 2 percent of U.S. total emissions.
- Clean hydrogen (made via electrolysis) has a special role in a net-zero emissions economy, because it is one of the only clean tools for applications that are hard to electrify—applications that require high temperatures, high energy density, or where hydrogen is needed as a chemical feedstock. Clean hydrogen is likely to be the primary decarbonization solution for applications that currently use hydrogen, like fertilizer production, oil refining, and chemical production. It will also be a key tool for replacing fossil fuels in heavy industry and transportation.
- Heavy industry and transport sectors such as steelmaking and metals production, maritime shipping, heavy-duty vehicles, and, in the longer term, aviation will require hydrogen to decarbonize. From these areas alone, four to six percent of U.S. emissions can be addressed with clean hydrogen.
- Direct electrification is preferable for most applications such as home and commercial heating. Direct electrification uses less energy overall and does not have the same conversion losses that hydrogen has. It is also a more complete decarbonization solution, whereas hydrogen is only a partial one.
- Hydrogen should only be used in certain sectors. The International Energy Agency's net-zero emission scenario shows that hydrogen is vital, but it plays a limited role. Hydrogen will account for about 10 percent of final energy consumption, according to this model.
- The different colors of hydrogen refer to its method of production:
    - Gray hydrogen is produced using natural gas and steam methane reforming. Greenhouse gas emissions associated with gray hydrogen range from about 10 to 12 kg of carbon dioxide per kilogram of hydrogen produced (kgCO2/kgH2).
    - Blue hydrogen uses nearly the same process but incorporates carbon capture. Blue hydrogen produces between three to nine kgCO2/kgH2. This range occurs because a specific capture rate is not required. Operating carbon capture projects achieve an average capture rate

of less than 50 percent, so emission-reduction claims by blue hydrogen projects must be scrutinized and monitored closely.
    - For both gray and blue hydrogen, upstream methane leakage can contribute substantially to their emissions.
    - Green hydrogen uses renewable energy to electrolyze water molecules, splitting water into its separate components, hydrogen and oxygen. This method produces no operational emissions.
    - The electrolyzing process is energy intensive, so using a non-renewable source of electricity can significantly increase emissions. For example, an electrolyzer connected to the average U.S. grid will produce about 20 kgCO2/kgH2 or about double the emissions of gray hydrogen.
    - Green and blue hydrogen are often both considered clean, but the emissions of each are significantly different.
- It is important to get policy definitions and incentives right from the outset to promote the lowest cost, lowest emissions forms of hydrogen production.
- Green hydrogen is the only form of hydrogen production that is fully compatible with a net-zero emission energy future.
- Green hydrogen also has a long-term outlook to become the lowest cost method of production. Today, gray hydrogen in the United States costs around $1 to $1.50/kg. Blue hydrogen costs about $1.70 to $2.20/kg. Green hydrogen is about $5/kg today but can range anywhere between $3 to $7/kg.
- RMI hopes to achieve $2/kg green hydrogen by mid-decade and $1/kg by 2030. The $2/kg threshold is seen as an inflection point at which many end uses become economic, and the $1/kg threshold is where green hydrogen competes with or outcompetes gray hydrogen.
- While $1.50/kg is the benchmark for gray hydrogen in the United States, its price has skyrocketed following the Russian invasion of Ukraine due to its reliance on natural gas. BloombergNEF reported that the cost of gray hydrogen in Europe has reached $6.70/kg. It is unlikely that that price increase will be permanent, but it suggests that green hydrogen is better for energy security and resilience.
- Green hydrogen costs are heavily dependent on capital costs of both the electrolyzer and renewable energy. Both of these capital costs are expected to fall substantially, making steep green hydrogen cost reductions likely. For example, electric electrolyzers cost about $700/kilowatt (KW) today and are expected to drop to $200/KW in only a few years. As electrolyzer costs decline, operators can afford to move from a high-utilization profile, which is currently necessary to make returns on the electrolyzer, to a more variable, lower-utilization profile, which allows operators to capitalize on the lowest costs of renewable energy generation. The cost of renewable energy will also continue to fall.
- Since different locations have different renewable energy resources and different costs of storage, the costs of green hydrogen production will continue to vary by location. Today, we already see prices for green hydrogen production in West Texas at about $3/kg, but prices in California are about $5.05/kg. Prices are expected to converge to $3/kg in the near term, but location-based price differences will remain.
- The *Infrastructure Investment and Jobs Act* includes critical precedent-setting measures, like directing DOE to develop a clean hydrogen definition and a national clean hydrogen strategy. The law will provide funding for a first wave of infrastructure development, which is critically important.
- However, $8 billion is a drop in the ocean compared to a market that could potentially be as large as $100 billion per year by 2030. To realize this market growth, commercial viability of green hydrogen is needed.
- Federal and state policy is needed for the hydrogen economy to scale successfully. In particular, states have an important role to play in prioritizing end uses, integrating, planning, permitting, and handling regulations, standards, and certifications that verify emissions and ensure safety.

- States are interested in building hydrogen economies. About half of states have publicly announced they are interested in developing a hydrogen hub and receiving funding from DOE's program. Several of these states are already developing policies and strategies, including California, Colorado, Illinois, New Mexico, New York, and Washington. California is a frontrunner with zero-emission vehicle targets that include heavy-duty vehicles. Hydrogen will be important in meeting this goal.
- These policies must be improved to direct hydrogen to appropriate uses and regulate production emissions. The precedent set at the federal level will be important for national hydrogen outcomes.
- Green Hydrogen Catapult is a private-sector coalition and the world's largest green hydrogen program. Its mission is to mobilize 80 gigawatts of green hydrogen production capacity by midyear 2026 and to simultaneously drive costs down to below $2/kg. The Green Hydrogen Catapult is taking a systems approach, recognizing that it must focus on product development, demand aggregation, policy development, marketing, and finance to meet these goals.
- Hydrogen is a powerful decarbonization tool, but we must get the basics right to enable the hydrogen economy to scale successfully. Success means that outcomes are equitable and inclusive, commercially viable, and sustainable over the long term.

Rachel Fakhry, Senior Advocate, Climate & Clean Energy Program, Natural Resources Defense Council (NRDC)

- A preliminary modeling analysis by NRDC examines how the United States can achieve net-zero greenhouse gas emissions by 2050. Hydrogen growth in this model is dramatic and begins to take off in the 2030s, primarily in hard-to-electrify sectors. Leading up to this deployment, the United States should focus on laying a solid foundation through policy.
- Scaling up hydrogen should not be undertaken for the sake of hydrogen, but with a view toward supporting the most affordable, efficient, and safe transition to a clean economy.
- Hydrogen production processes are energy intensive. Without regulations and policies, production emits a significant amount of greenhouse gases. A study by Cornell and Stanford professors found that, absent climate regulation, blue hydrogen can produce more emissions than fossil fuels. Electrolysis-generated hydrogen that uses fossil fuel-based energy rather than renewable energy could produce more pollution and emissions than gray or blue hydrogen.
- Hydrogen is generally inefficient, especially compared to direct electrification. Hydrogen equipment and appliances also tend to be less efficient than electric appliances. About five times more renewable electricity is required to heat a home with hydrogen than with direct electrification. The use of hydrogen in applications better served by direct electrification would increase total energy demand significantly, adding even more pressure to decarbonization plans.
- These inappropriate applications could also significantly increase costs for consumers. The European Consumer Organisation's comprehensive study evaluated the annual costs of heating homes using hydrogen across various countries in Europe and found that a heat pump is significantly cheaper than a hydrogen boiler. This study took into account climate and housing stock differences across Europe.
- Hydrogen leakage has potentially negative climate consequences. Hydrogen is an indirect greenhouse gas, meaning that hydrogen emissions do not directly warm the atmosphere, but instead increase the concentration of other greenhouse gases like methane, water vapor, and ozone, contributing to global warming.
- New peer-reviewed research by the Environmental Defense Fund found that hydrogen leakage impacts are greater than previously thought. As a small molecule, hydrogen can leak relatively easily into the atmosphere. We currently cannot measure hydrogen leakage to the granularity necessary. Currently, large leaks are measured for safety concerns as opposed to smaller leaks, but small leaks likely also have negative climate impacts.

- There is a narrow path forward that would enable us to scale hydrogen in a climate-aligned and no-regrets manner. Strict standards are needed to ensure that emissions are minimized to the extent possible. Steps needed include:
    - Devising rigorous methodology to account for greenhouse gas emissions that arise both at the site of hydrogen production and upstream of production. For blue hydrogen, methane leaks would significantly impact how clean it actually is. This accounting step is complicated.
    - Creating strict measurement, reporting, and verification protocols. The Environmental Protection Agency (EPA) must ensure that claims about greenhouse gas emissions of hydrogen are accurate.
    - Setting limits on hydrogen emissions. The lowest-emitting and the most climate-aligned energy resources are the ones that should be deployed. DOE and EPA are directed by the *Infrastructure Investment and Jobs Act* to develop a clean hydrogen standard, which is expected by as early as May 2022. States are also passing their own standards and have an important role to play.
    - Instead of providing incentives on the supply side, the focus should be on creating targeted demand centers, starting with a rigorous evaluation of hydrogen's highest-value applications such as existing highly-polluting hydrogen uses.
    - Focusing on hard-to-electrify applications. Steel and maritime shipping are close to being commercially ready for hydrogen use and need policy nudges to enable further investment.
    - Implementing public procurement standards that support hydrogen. As one of the largest purchasers of steel for public infrastructure projects, the federal government could set a procurement standard to purchase steel that uses hydrogen-based production processes to nudge the steel industry toward hydrogen use.
    - Establishing minimum standards for hydrogen users. For example, requiring a minimum share of ammonia to be green ammonia (produced with green hydrogen) by 2030, or a minimum share of maritime fuel oil to be green hydrogen-based fuel by 2030. A number of countries are considering this.
    - Investing in research, development, and demonstration (RD&D) is important. High-value applications for hydrogen are still not commercial, and their technology-readiness level varies. We need more RD&D to advance possibilities, especially given the necessary timeline.
- Pipelines have 30- to 40-year lifetimes and are capital intensive, so, once they are built, you are stuck with them for a while. There are still many uncertainties about the hydrogen market, including the locations of users and producers. Until the market has better clarity, building long-term infrastructure may not be logical. In addition, the cost of building new pipelines and the cost of repurposing gas pipelines is still uncertain.
- Until the proper tools to measure leakage and understand the types of materials and pipes that can minimize leakage are developed, it is prudent to be cautious and not to invest in infrastructure that could ultimately be climate damaging. One of the easiest, most effective, and safest approaches is to forego widespread infrastructure investment altogether, at least in the near term. Hydrogen hubs make sense where users and producers are in close proximity and significant transport infrastructure is not needed.
- There is a need for academia to produce more scientific, transparent assessments of the future hydrogen landscape and to assess the need, if any, for pipelines. For instance, the National Academy of Sciences said the hydrogen landscape is likely to develop on a regional scale, because hydrogen can be produced widely across various regions unlike oil and gas.
- It is critical that the hydrogen market be truly beneficial for society, for example by prioritizing labor and equity from the start and by engaging in robust and proactive outreach.

- Equity considerations about both health and labor surround hydrogen. Production and use patterns for hydrogen can produce high levels of air pollution. It is important to examine the issue from a health standpoint to ensure that there are rigorous health and safety standards in place.
- Higher labor standards can be achieved across the hydrogen value chain by creating good jobs and investing in training programs. These programs can focus on communities that will bear the brunt of a transition away from the fossil fuel industry, offering economic revitalization opportunities.

Dr. Bryan Pivovar, Senior Research Fellow, National Renewable Energy Laboratory (NREL)

- At NREL, the 2010s is seen as the decade of wind and solar, and the 2020s is expected to be the decade of hydrogen.
- NREL has been involved in early-stage research to help evolve and limit the risks of hydrogen technologies, and to understand how hydrogen can be made, moved, stored, and used more efficiently.
- Hydrogen can be used directly as a fuel through fuel cells or combustion, used with carbon dioxide to upgrade it into synthetic fuels, and used to upgrade things like crude oil and biomass. Hydrogen can also be used in green ammonia and metals production.
- About six percent of all greenhouse gas emissions can be reduced or eliminated with hydrogen when hydrogen is used in the hard-to-electrify sectors of industry and heavy-duty transportation.
- NREL has examined the different levels of demand hydrogen would have at different price points for different sectors. There is greater demand for ammonia, refining fuel, and biofuels. The next level of demand is for metals. Seasonal energy storage and heating are much lower in value due to electrification possibilities.
- R&D needs are still significant. Fuel cells have evolved from a research project to something actually viable for road transportation. Now, there is a focus on the heavy-duty vehicle market. NREL is part of the Million Mile Fuel Cell Truck Consortium working on this. There are R&D needs on green ammonia, green steel, and hydrogen burners and turbines.
- Hydrogen prices are dominated by storage and distribution costs. These infrastructure needs are a major obstacle and require an investment on the trillion-dollar order of magnitude.
- Like natural gas, hydrogen is a gaseous chemical energy carrier. However, natural gas has a half-trillion-dollar infrastructure that allows it to be distributed economically.
- The difference between chemical energy carriers and electrical energy carriers is how expensive it is to move energy over distance. Liquids are the most economic transport of energy available over a thousand-mile scale.
- There are some limitations in the materials that can be used to transport hydrogen and safety concerns. However, electrical wires themselves are much less efficient and economical at moving energy. They have no capacity for energy storage. Hydrogen can make the energy system more resilient.
- Hydrogen from Next-generation Electrolyzers of Water (H2NEW) is a consortium of nine national labs and three universities working to advance hydrogen-making from electrolysis. Electrolysis has the most competitive economics in the long term and allows for a balance of renewable energy generation and demand in ways that other hydrogen generation methods do not.
- Low-temperature electrolysis aligns with the intermittency of the energy system (hydrogen can be produced when electricity costs are lower). High-temperature electrolysis offers increased efficiency but does not necessarily align with the intermittency of electricity generation now or that of renewables in the future.
- Current hydrogen costs are about $3 to $7/kg. Enablers for lower-cost hydrogen (i.e., low-cost electricity, high electrical efficiency, low-cost capital expense, low-cost manufacturing processes) can help reduce costs from about $3.50 down to a $2 range, which is the 2026 target. Beyond that, the

focus will be on taking advantage of variable electricity costs, cheaper electricity, and capital cost reductions to achieve $1/kg.

Q&A

Q: What considerations are important for building out hydrogen infrastructure? What is the potential for the funding and programs that were provided for in the *Infrastructure Investment and Jobs Act*?

Thompson:

- Distribution and storage infrastructure makes up much of the levelized cost of hydrogen. For early hydrogen projects, there will be an effort to minimize this cost by co-locating production and use.
- A HYBRIT green steel project in Sweden uses co-location of production and end use.
- The exception is existing hydrogen transport infrastructure. For example, Texas already has a significant set of hydrogen pipelines. Early projects do not necessarily require a full distribution network, but they may need storage components.
- Over time, the need for regional infrastructure, in particular, will emerge. The costs and specific complexities of building large-scale, multi-state infrastructure may take many years to develop.
- The potential of the *Infrastructure Investment and Jobs Act* will depend on the other policy mechanisms that emerge. For example, tax credits in the House-passed *Build Back Better Act* (H.R.5376) could subsidize the costs of production.
- If we do not see additional incentives at the federal or state levels, funding from the hydrogen hubs program will be directed towards simply trying to achieve commercial viability for production and end uses.

Fakhry:

- Many new applications for hydrogen are novel, such as a steel plant that uses hydrogen or a bunkering facility for ammonia. Testing and piloting of various infrastructure is necessary. More understanding is needed, and the hydrogen hubs initiative could be illuminating in this regard.
- The extent to which we need transport infrastructure is unknown. It could be at the regional or national level. Research on hydrogen leakage is needed. The first round of hydrogen projects should be co-located with end uses, until we can build out knowledge around transport infrastructure.

Pivovar:

- Co-location of production and demand is challenging. There are only a couple sites where this is currently possible. Generally, replacing gray hydrogen in the reforming process or in the ammonia generation process is a current opportunity ready for green hydrogen. The economic transport of hydrogen is most concerning to me.

Q: What are other countries doing to deploy green hydrogen that the United States could learn from? Are there applications being used elsewhere that we should consider?

Thompson:

- The first wave of hydrogen projects will require an immense amount of coordination with both public-sector agencies and private companies. The HYBRIT green steel project in Sweden was the result of multi-year collaboration between multiple private-sector companies that were responsible for different parts of the value chain. It included an iron ore miner, a steel maker, an electricity utility, and Volvo as the end user. Swedish government agencies worked to build the business case for the project. We can expect a similar model of collaboration in the United States and around the world.

- The next wave of projects will be easier, more commercial, and more rapid. One mechanism for incentivizing production is centered around price discovery and efficient subsidization. For example, in the United Kingdom, the exact level of cost subsidization is negotiated for each project to ensure efficient use of public dollars and a viable business case for the project. Similarly, Germany and other countries are using a reverse auction process in which contracts are awarded to the projects that need the lowest subsidy. That would be a complex mechanism to implement in the United States, but it is going to help industries overseas grow rapidly and efficiently.

Fakhry:

- Two of the biggest steel companies in Europe now have a significant commitment to start using hydrogen technology commercially before the end of the decade.
- The Port of Rotterdam is moving aggressively towards decarbonizing maritime shipping using hydrogen.

Pivovar:

- Ports and heavy-duty shipping are both important areas in which the United States could learn from other countries.

Q: What is the biggest opportunity in terms of unlocking green hydrogen?

Pivovar:

- Market certainty is important. There has been no shortage of being able to raise funds in the hydrogen space.

Fakhry:

- Targeted policies can help develop markets. Targeted policies towards hard-to-electrify sectors are important to getting this transition right.

Thompson:

- Cost is the number one factor. We must overcome the current cost premium for green hydrogen.
- Policy has a crucial role to play this decade in bringing the cost premium down to a certain extent. The federal government can also provide early market commitments through public procurement to catalyze market development while paying a slight premium to get the best projects off the ground.

Compiled by S. Grace Parker and edited for clarity and length. This is not a transcript.

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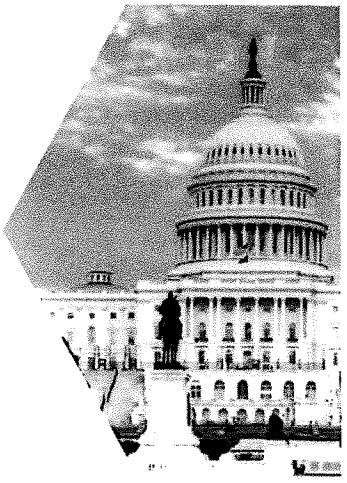
Murray

California Association of Sanitation Agencies 2022 Federal Legislative Priorities



.omote Continued Infrastructure Investment in the Clean Water Sector

The recent passage of the Infrastructure Investment and Jobs Act (IIJA) provided the clean water sector with a significant down payment toward addressing critical infrastructure needs, and represents a revitalized federal partnership with local agencies. This investment was critical for California, where agencies are implementing increasingly complex treatment and water supply solutions due to drought conditions, rising temperatures, and sea level rise. However, Congress must build on the bipartisan infrastructure law and continue to support future clean water sector needs. Specifically, CASA urges Congress to provide:

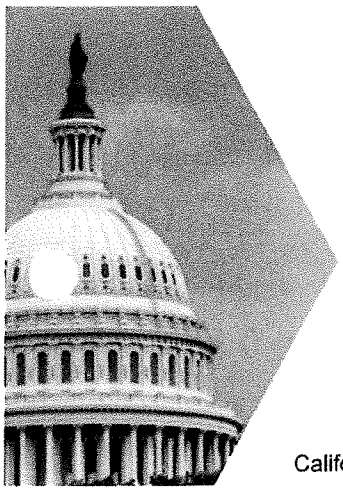
- **Robust Ongoing Federal Assistance**: Support annual appropriations for the federal programs that support improved water quality and reliable water supply. This includes the Clean Water Act's State Revolving Loan Fund, Water Infrastructure Finance and Innovation Act and Title XVI (water recycling) that are the backbone of the federal partnership that has evolved over the past fifty years.
- **Climate Resilience Funding**: Support federal climate programs and appropriations that assist projects and planning for wastewater treatment facilities to address climate change impacts. This includes impacts from sea level rise, drought, wildfire response activities, and diversifying renewable energy supplies.
- **Cybersecurity**: Deliver robust financial and technical assistance to clean water agencies to address cybersecurity concerns. The sector is identified by the Department of Homeland Security as critical infrastructure.

..ew Buy American Mandates to be Workable for Clean Water Agencies

As the federal government implements IIJA, it is vital that provisions intended to boost domestic manufacturing (Build America, Buy America mandates) do not cause project delays, cost increases, or create a disincentive to rely on federal assistance that could result in disinvestment in the clean water sector.

Due to the advanced treatment processes used to fulfill water quality permit requirements, clean water agencies often rely upon advanced and unique technologies and equipment. For more than fifty years, clean water agencies have invested billions of dollars to acquire Best Available Technology (BAT) compliant technologies, many if not most of which are manufactured outside of the United States. We are concerned that implementation of the new Buy American mandates for manufactured products, without appropriate transition time and an effective waiver process, will sacrifice our ability to deliver meaningful water quality improvements at a reasonable cost to ratepayers.

As such, we request that Congress and the Administration allow:



- **Project Flexibility**: Provide increased time for implementation of new Buy American mandates, allowing projects that are complete with design and planning but do not yet have fully executed funding agreements to not have to go back to the drawing board or forego federal funds; and
- **Efficient Waiver Process**: Develop an efficient, effective waiver process that will expedite waiver requests to avoid project disruptions. To ensure that agencies meet permit requirements and uphold water quality and public health responsibilities, we must ensure that an effective and efficient waiver process is established within the new Buy America mandates.

CASA has previously submitted comments highlighting our position on these important issues.

Develop an Approach to PFAS Focused on Pretreatment and "Polluter Pays" Principles

The presence of PFAS in the environment is a significant concern that clean water agencies are working to address, despite the fact that we are neither a producer nor generator of this class of chemicals. While we work diligently to identify sources of contamination and potential treatment options, Congress and USEPA must develop policy solutions that hold those responsible for the production, distribution and subsequent contamination to account. Clean water agencies and their ratepayers should not be burdened with the costs of response.

As Congress considers various approaches to address PFAS, we ask that you:

- Recognize the clean water sector as "passive receivers" of PFAS and exempt us from CERCLA liability if PFAS becomes a CERCLA designated hazardous substance.
- Require any new pretreatment requirements to focus source control measures on those responsible for the introduction of these chemicals into the stream of commerce.
- Provide federal grants assistance to the publicly owned treatment works to implement pretreatment activities that address PFAS contamination.

CASA has previously submitted comments highlighting our position on these important issues.

Support Efforts to Address Improper Flushing of Single-Use Wet Wipes

Single-use wet wipes are a significant source of damage and disruption to clean water collection and treatment infrastructure. Improperly flushed wet-wipes pose costly operational challenges, impede the effectiveness of wastewater treatment infrastructure and pose risks to public health and the environment. As a positive step towards addressing this issue, we ask Congress to support the WIPPES Act (H.R. 4602) and the PIPES Act (H.R. 6591). Together, H.R. 4602 and H.R. 6591 holistically address the pervasive, but preventable, flushing of single-use wet wipes. Specifically:

- **H.R. 4602 (Lowenthal)** requires "Do Not Flush" labeling on non-flushable wet wipes packaging, and recognizes that non-flushable wipes can be composed of synthetic materials that are not designed or intended to be flushed down the toilet, such as diaper wipes, cleaning wipes, and personal care wipes. The bill also offers a voluntary opportunity for wipes manufacturing industries to execute national education and outreach campaigns to educate consumers, and is the federal equivalent of a recently adopted California law.

- **H.R. 6591 (McClain)** codifies the International Water Services Flushability Group (IWSFG) code of practice for flushability standards and requires manufacturers to certify with EPA that wipes products are indeed "flushable." It also establishes a flushability certification process that ensures truthful marketing and labeling practices, establishes a USEPA reporting website to house manufacturer certification reports, and defines flushable wipes to include single-use wet wipes that are intentionally marketed by the manufacturer to be flushable and sewer safe.

CASA is a strong supporter of both of these bills and we ask Congress to help us address this pervasive wipe problem through bipartisan, holistic legislation.

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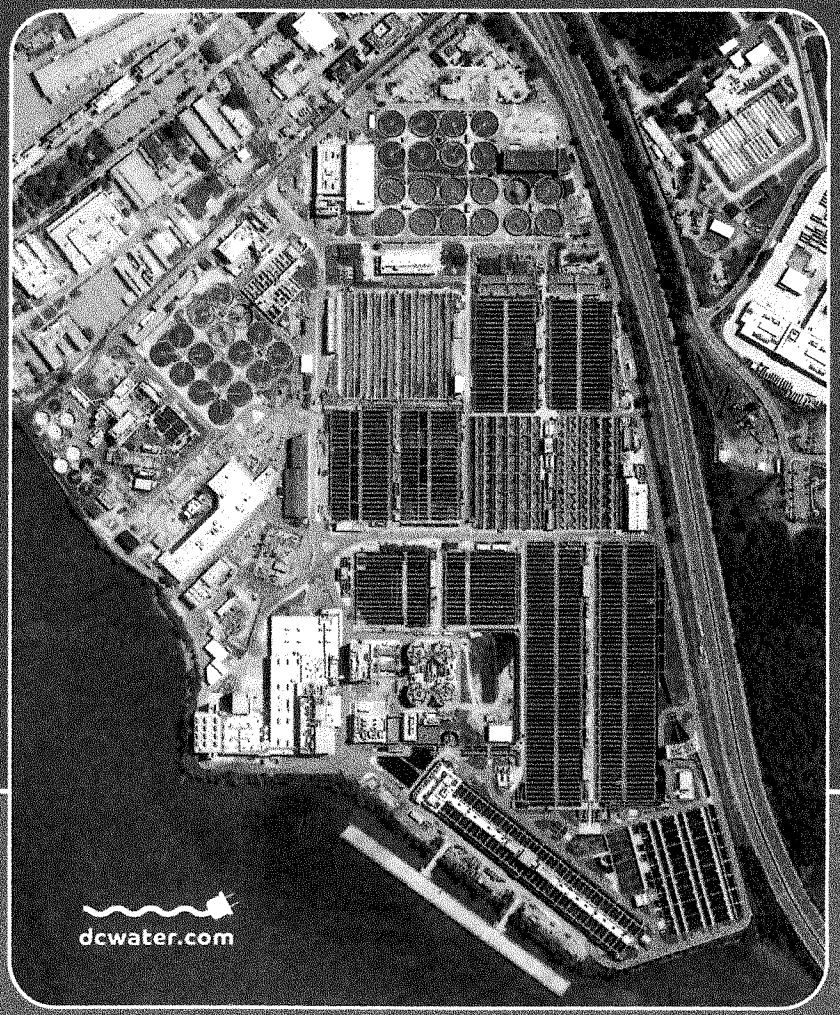
dc BLUE PLAINS ADVANCED WASTEWATER TREATMENT PLANT



A resource recovery facility. Transforming wastewater into clean water, green energy, and renewable soil amendments.

dc6 The Wastewater Treatment Process

Screening and grit removal
Wastewater comes to Blue Plains through 1,800 miles of sewers from around the District and from the Potomac Interceptor, a large sewer that begins at Dulles Airport, bringing with it wastewater from the Maryland and Virginia suburbs along the way.

The sewage is pumped up from below ground for treatment at the plant. A series of screens removes objects and large particles. The grit chamber removes rocks and other non-degradable particles. These are loaded into trucks and taken to a landfill. The wastewater then flows to the next stage of treatment.

↓

Primary clarifiers
Primary treatment is a physical process that takes place in a cone-shaped tank. Solid particles settle out and fall to the bottom, while the wastewater flows outward, over a set of weirs. An arm skims the fats, oils and grease (FOG) off the top while the solids settle to the bottom. The FOG and solids are directed to Solids thickening.

↓

Secondary reactors and sedimentation
Secondary treatment is a biological process that uses microbes to treat organic material (fats, sugars, short-chain carbon molecules). At Blue Plains, activated sludge is the process used to achieve secondary treatment.

For the process to be most effective, the microbes need both oxygen and food. Blue Plains supplies the oxygen by blowing air into the tanks through bubble diffusers. The wastewater contains the food (organic matter, or carbon). The microbes consume this food and grow more microbes. The bubbling oxygen also mixes the wastewater and the microbes give the flow a reddish-brown color.

It is a delicate environment that requires diligent monitoring to ensure the health of the microbial ecology. Once the bugs have done their duty, they are settled out from the wastewater in secondary sedimentation tanks. A portion of the settled microbes are then returned to secondary reactors to sustain the process, with the remainder recycled with the biosolids.

Many wastewater treatment plants stop nutrient treatment here. But Blue Plains discharges to the Potomac, a tributary to the Chesapeake Bay, and nitrogen must be further removed to protect the watershed.

↓

Nitrification, denitrification, filtration and disinfection establish Blue Plains as an advanced wastewater treatment facility

Nitrification
The first step of advanced treatment is oxidizing the nitrogen from ammonia to nitrate. This is achieved through another biological process using microbes supplied with a large amount of air in the nitrification reactors.

↓

Denitrification
The second step to nitrogen removal requires converting the nitrate to nitrogen gas, which releases the nitrogen safely into the atmosphere. This process is achieved in the denitrification reactors. No oxygen is added here, which forces microbes to consume the oxygen in nitrates instead. The microbes require a carbon source as food. Methanol is added in this process as the carbon source.

Multimedia filtration and disinfection
The treated plant flow is filtered through sand and anthracite in the world's largest wastewater filtration facility. The flow is disinfected with sodium hypochlorite-based chlorination at the filter influent, and the residual chlorine is removed before discharge with sodium bisulfite. The final plant effluent after processing looks the same as drinking water.

Solids thickening, dewatering
In the treatment processes, solids are removed from settling tanks. In the primary clarifiers, these solids are sent to screening and grit removal, and then sent to gravity thickeners for thickening. Secondary or final effluent is used for dilution water for the gravity thickening process.

Solids that come from the secondary and nitrification processes are sent to dissolved air flotation tanks where a process using supersaturated air is able to float the solids to the surface.

The gravity thickened solids and the dissolved air flotation solids are combined and homogenized in a blend tank. Blended solids are screened, dewatered to 16-18 percent solids, and sent through a thermal hydrolysis process.

↓

Thermal Hydrolysis and Anaerobic Digestion
Thermal hydrolysis uses high heat and pressure to eliminate pathogens and prepare the "food" for hungry archaea and bacteria microbes in the digesters.

The digesters produce methane and Class A biosolids. The biosolids are then further dewatered through a belt filter press. The liquid removed from the biosolids, called filtrate, has significantly higher ammonia content than regular wastewater and is treated separately.

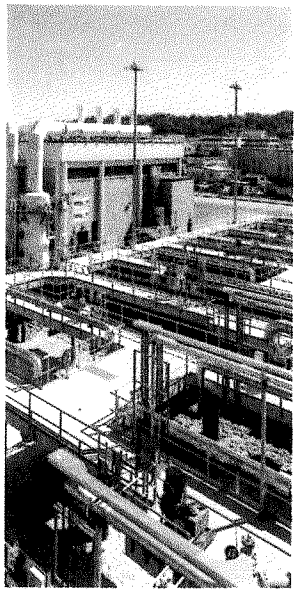
The captured methane is used as fuel in turbines providing net 10 megawatts of electricity and steam to heat the thermal hydrolysis process.

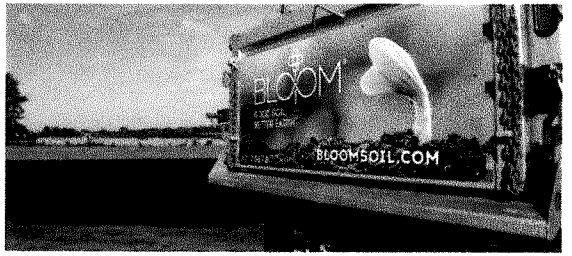
↓

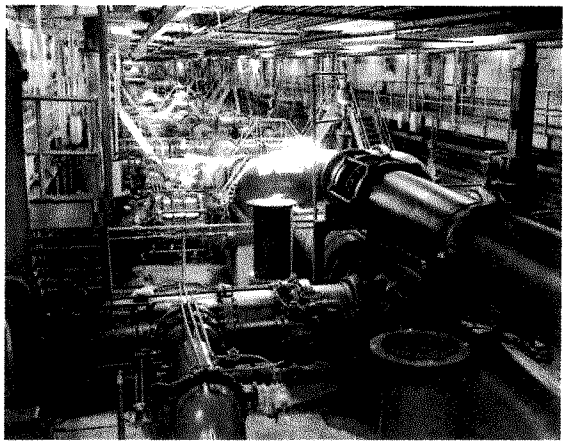
Biosolids end use
The Class A biosolids product is loaded onto trucks and hauled to farmlands, forests and reclamation projects as well as to local soil blenders. The biosolids are land-applied, recycling the carbon and nutrients—nitrogen and phosphorus—back to the soil. Because the biosolids meet Class A standards, they can be used in both rural and urban settings.

↓

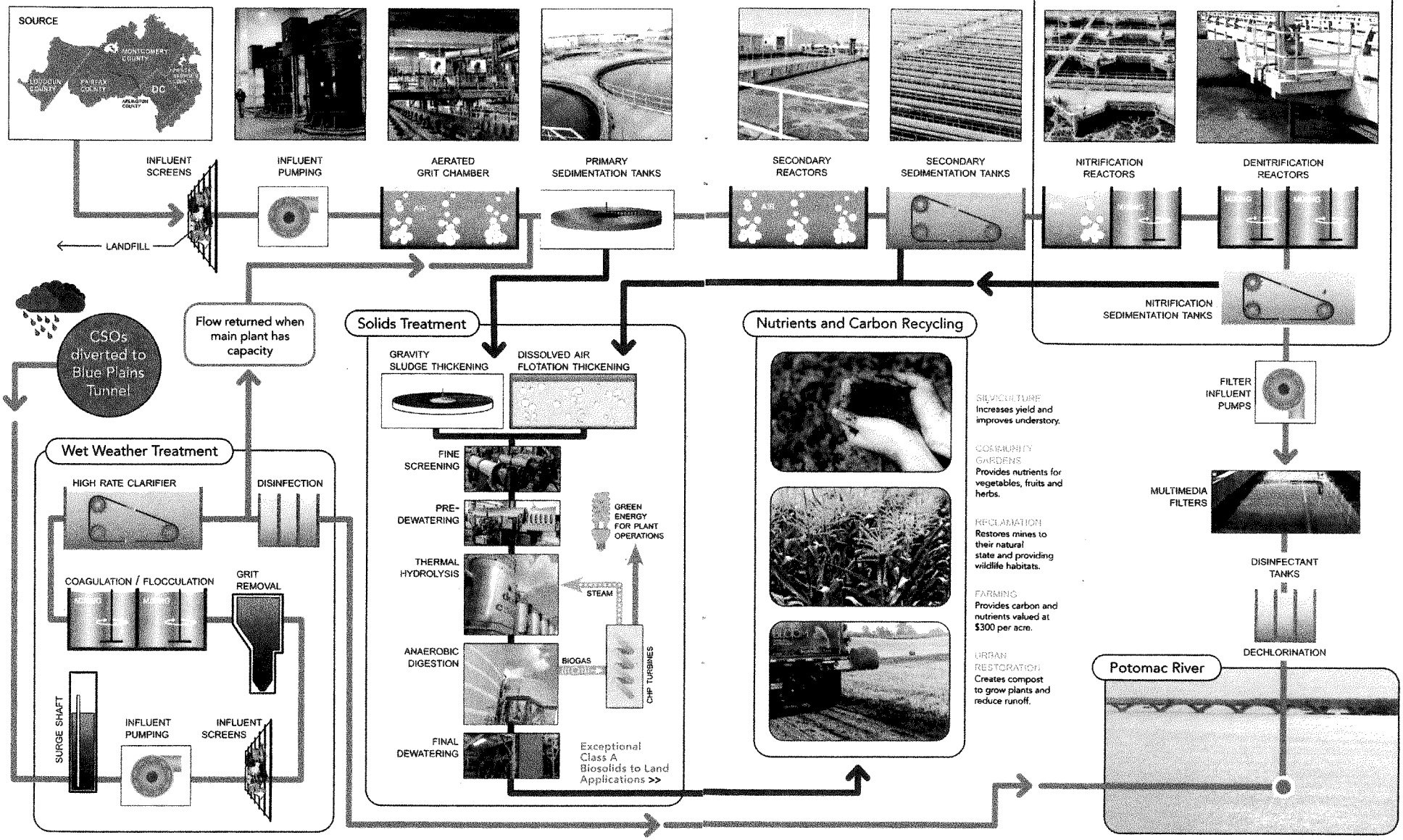
Filtrate Treatment Facility
The Filtrate Treatment Facility operates the DEMON process, which uses a special group of bacteria called anammox to remove nitrogen without the use of methanol, reducing chemical costs. ←○







dc Water The Wastewater Treatment Process



Enhanced Nutrient Removal

The enhanced nutrient removal project reduced the level of nitrogen from the final effluent that DC Water discharges to the Potomac River. Nitrogen can act as a fertilizer in the Potomac River and Chesapeake Bay, creating unruly grasses that deplete oxygen needed by marine life to live and thrive.

With the $950 million project complete, Blue Plains will produce effluent with some of the lowest levels of nitrogen in the country. At 4 mg/L, it is extremely low, and is considered near the limit of conventional treatment technology. The facilities include more than 40 million gallons of additional anoxic reactor capacity for nitrogen removal, new post-aeration facilities, an 890 mgd lift station, new channels and conveyance structures, and new facilities to store and feed methanol.

Filtrate Treatment Facility

The Filtrate Treatment Facility was commissioned in 2018 to remove ammonia nitrogen from the filtrate stream that is generated from dewatering of the digested biosolids. The DEMON process uses a special group of bacteria called anammox to efficiently remove nitrogen without the use of an organic carbon source such as methanol. This helps minimize the volume of methanol used in the main plant Enhanced Nitrogen Removal Facility and reduces chemical costs.

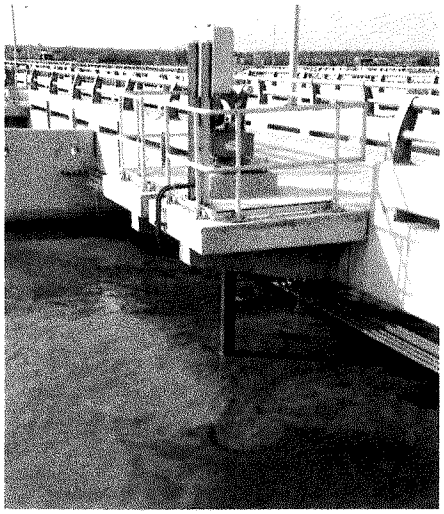
Thermal Hydrolysis and Anaerobic Digestion

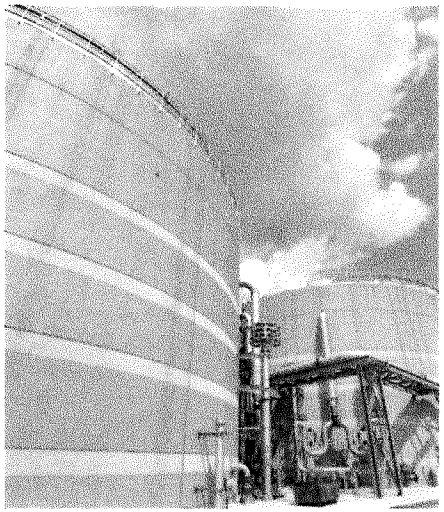
DC Water was the first utility in North America to use thermal hydrolysis for wastewater treatment. It is the largest thermal hydrolysis plant in the world. Though thermal hydrolysis has been employed in Europe, the water sector in North America has been slow to adopt this technology.

The thermal hydrolysis process (THP) eliminates pathogens and allows the digesters to be half the size otherwise needed. In the digesters, microbial methanogens converts solids into biogas. The biogas is cleaned for its methane, which is then used in the combined heat and power (CHP) system to generate 10 MW of electricity for Blue Plains and steam to operate THP.

DC Water is the largest single source consumer of electricity in the District, and CHP cuts consumption up to a third. The final product is a Class A biosolids that has many more reuse options as a soil amendment than the former Class B product. The solids product is a smaller volume, and even when land-applied, will reduce hauling and emissions, further reducing the plant's carbon footprint.

How much energy is 10 MW?
That's enough to power 8,000 homes.





dc clean RIVERS PROJECT

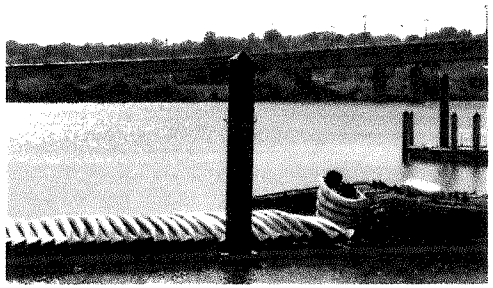
As in many older cities, the District has a combined sewer system, which carries both wastewater and stormwater in a single pipe serving about a third of the District's area. A combined sewer overflow (CSO) occurs during heavy rain when the mixture of sewage and stormwater exceeds the capacity of the system and overflows to the nearest water body to prevent upstream flooding. Prior to the start of the Clean Rivers Project, the CSO over flow volume was about three billion gallons into the Anacostia and Potomac Rivers and Rock Creek in an average year of rainfall.

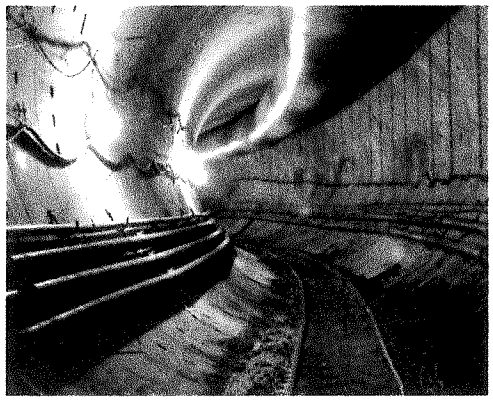
DC Water's Clean River Project is a massive infrastructure program to reduce CSOs into the District's waterways. It includes green infrastructure and more than 18 miles of tunnels. With the Clean Rivers Project, DC Water will improve our waterways by reducing CSO volume systemwide by 96% in the average year and by 98% to the Anacostia River alone. The Clean Rivers Project will also provide flood relief to neighborhoods in the Northeast Boundary section of the city, such as Bloomingdale, LeDroit Park, Trinidad, and Ivy City.

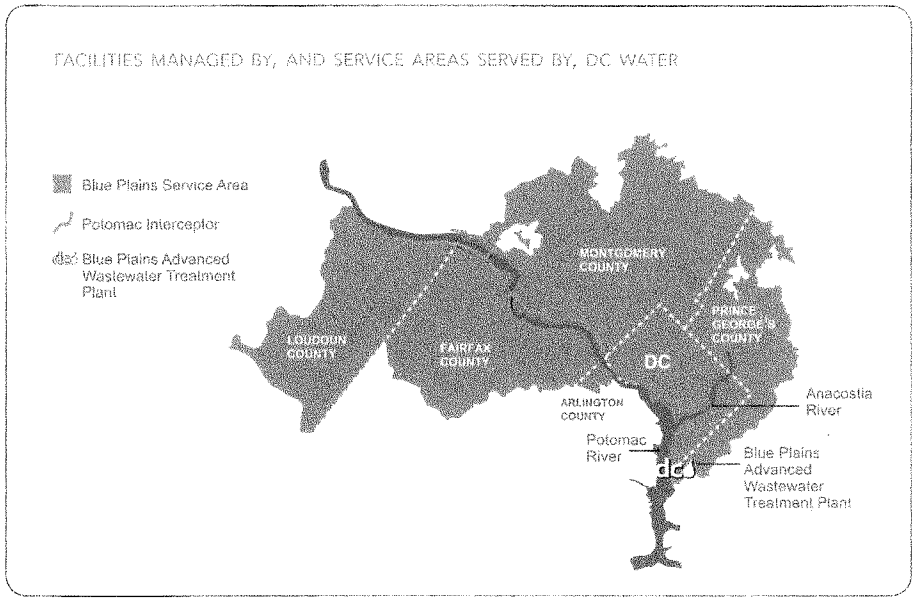
The Anacostia River tunnel system from Blue Plains to RFK Stadium began operation in March 2018. As of September 2020, it has captured almost 9 billion gallons of combined sewage and over 4,300 tons of trash, solids, and debris that otherwise would have been discharged to the river. Instead, these flows were diverted to Blue Plains for treatment.

The Northeast Boundary Tunnel (NEBT) is the final 5-mile segment of the CSO controls serving the Anacostia River, which will add 90 million gallons of storage capacity and provide flood relief for neighborhoods in Northwest and Northeast DC. Construction of the NEBT will be completed in 2023. The Potomac River Tunnel, currently in design, will control CSOs to the Potomac River between the Lincoln Memorial and Georgetown. It will be placed into operation in March 2030.

The Clean Rivers Project includes green infrastructure – bioretention (rain gardens) in planter strips and curb extensions, permeable pavement in streets and alleys, parks, streetscapes, and a downspout disconnection and rain barrels program – to manage CSOs Potomac River and Rock Creek. Green infrastructure practices manage stormwater by taking advantage of the earth's natural processes that allow water to infiltrate into the soil, evaporate into the air, or for plants to use the water and transpire it as vapor. These practices can slow down, clean, and, in some cases, reduce stormwater runoff prior to it entering the combined sewer system. In addition to managing stormwater and promoting cleaner waterways, green infrastructure enhances natural habitats and contributes to beautifying the streetscape and making it more welcoming for pedestrians, bicyclists and drivers while also providing the District with green jobs.







WELCOME

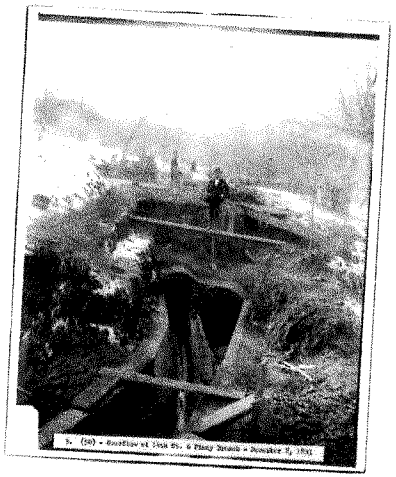
water is life®

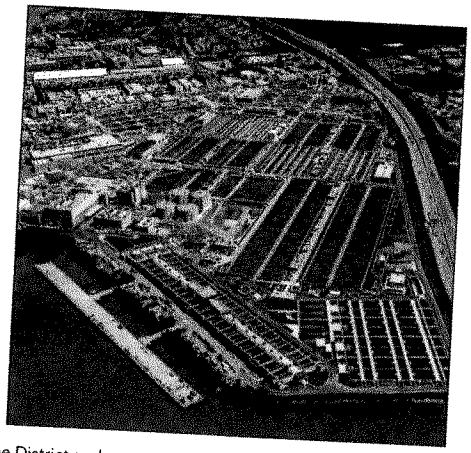
INSIDE:

1. DC Water's Blue Plains Advanced Wastewater Treatment Plant is the largest plant of its kind in the world. It has a design average treatment capacity of 384 million gallons per day (MGD), a peak four-hour capacity of 555 MGD, and an additional wet weather treatment capacity of 225 MGD.
2. The average treatment capacity of 384 MGD is enough to fill RFK stadium daily.

3. The plant opened as a primary treatment facility in 1937 and added processes, technology and capacity in subsequent years. The facility continues to expand with new environmental and sustainable energy projects, using all of its 153 acre footprint.
4. While larger plants employ primary and secondary treatment, and stop there, Blue Plains provides advanced treatment – nitrification and denitrification, multimedia filtration and chlorination/dechlorination.
5. In 2015, DC Water started anaerobic digestion, converting over half the organic matter from the water treatment process to methane to generate electricity to help power operations at Blue Plains. The remaining half of the solids are processed into Class A biosolids. DC Water's Class A biosolids can be applied to gardens and farms as a soil amendment.
6. Blue Plains treats used water for the entire District of Columbia and more than 1.6 million people in Montgomery and Prince George's counties in Maryland and Loudoun and Fairfax counties in Virginia, for a total service area of more than 725 square miles.
7. The pretreatment program manages industrial dischargers from all four counties in the service area and the District of Columbia including temporary construction discharges, dental dischargers, and hauled waste. Blue Plains receives over 30 million gallons of hauled waste a year from within the local service area.
8. DC Water uses both contracted and on-site laboratories to analyze samples to ensure it is meeting federal, state and local regulatory requirements. The in-house lab conducts more than 100,000 tests a year.
9. Blue Plains captures over 99% of the stormwater runoff within its 153 acre footprint and treats it in the process.
10. The Blue Plains operations team covers the 24/7 operations rotating through four crews, each with one General Foremen, three Area Foremen, and roughly 15 Operators.
11. The Blue Plains maintenance team performs corrective, preventative and predictive work on over 5,000 rotating machines with 11 maintenance foremen and nearly 90 trades peoples.
12. Our employees continually improve and enhance our wastewater treatment processes to better serve the community, protect the environment and ensure the safety and reliability of our wastewater treatment. Blue Plains is run by a team of nearly 230 employees, including skilled maintenance trades, administrators, engineers, lab technicians and wastewater operators licensed at the highest level of certification for their position.

Evolution of Wastewater Treatment





Before 1937, wastewater flowed through the District in open sewers and discharged untreated to the nearest waterway. Before sewers, disposal methods were even more primitive, contributing to epidemics of cholera and dysentery that caused a high death rate. Sewage conveyance and treatment, and the sanitation they brought to the District, were heralded for public health, quality of life and economic benefits. Blue Plains' treatment provided the first barrier to protect the environment from wastewater generated by those living or working in the region.

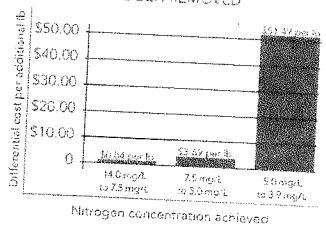
Local waterways suffered from the population growth of the District and upstream suburbs. Urban and suburban runoff, agricultural runoff and wastewater degraded the health of the Potomac and Anacostia rivers, Rock Creek and the Chesapeake Bay. The Blue Plains Advanced Wastewater Treatment Plant remains the best protection for our waterways, as it cleanses the wastewater generated by more than two million people, every minute of every day. The plant serves as a barrier to the receiving waters, minimizing the environmental impact of the things we do in our daily lives—not only using the toilet, but washing our clothes, cars, dishes, food, bodies and teeth. It is an essential service for the region.

Environmental protection is an ongoing commitment. The engineers at DC Water continually examine wastewater technology and facilities to remain on the cutting edge and to implement innovative solutions. DC Water has massive environmental wastewater programs underway, totaling nearly $4 billion. DC Water is committed to improving the health of local waterways, producing exceptional Class A biosolids and generating sustainable energy from the wastewater treatment process.

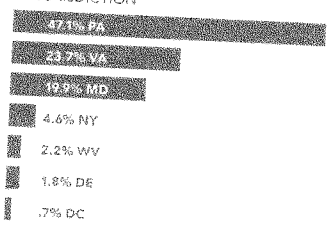
The Cost of Environmental Stewardship

The cost of innovation and stewardship is significant. For example, the Blue Plains discharge permit issued by the United States Environmental Protection Agency (U.S. EPA) has three times required the Authority to dramatically reduce the level of nitrogen in its treated water. This has been achieved through technological and engineering projects. As the nitrogen limits are further reduced, the price increases exponentially. The recently completed enhanced nitrogen removal project cost close to $1 billion and is at the limit of technology.

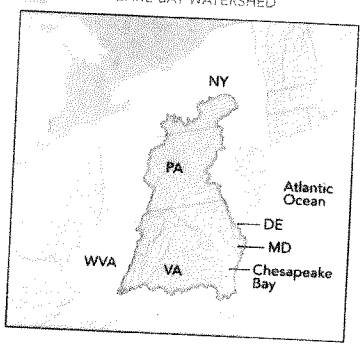
DIFFERENTIAL COST PER POUND OF TOTAL NITROGEN REMOVED



2017 NITROGEN LOADS TO THE BAY BY JURISDICTION



CHESAPEAKE BAY WATERSHED



DC Water joined the Chesapeake Bay Agreement and was the first in the watershed to meet its voluntary program goals for nitrogen removal of 40 percent of the 1985 levels, or 7.5 milligrams per liter (mg/L), two years ahead of schedule. With the recent completion of enhanced nutrient removal facilities, the plant meets its nitrogen goals under the Chesapeake 2000 Agreement. The plant already meets its phosphorus goals, as phosphorus is captured in primary and secondary treatment and stored in biosolids which are land applied, recycling this valuable nutrient back to the land. DC Water continues to meet or exceed performance levels set by the U.S. EPA.

Customers bear the bulk of the costs of these environmental protections. DC Water has received limited federal funding for environmental projects under construction at Blue Plains, but their ultimate cost is nearly $4 billion.

It is important to note that even if nitrogen levels at Blue Plains were reduced to zero, local waterways and the Chesapeake Bay would still be impaired by other sources of nitrogen. Blue Plains contributes less than two percent of the estimated nitrogen load to the Chesapeake Bay. Although Blue Plains is the largest point-source discharger of nitrogen, the nitrogen in the Bay is largely from non-point sources like agriculture.

It is imperative that other sources of nitrogen, including agricultural, and urban and suburban runoff, are addressed to improve the health of local waters. States in the Chesapeake Bay watershed are formulating watershed implementation plans to do just that, but many are finding the solutions to be cost-prohibitive.

State-of-the-Art Technology and Innovative Research

As part of the nearly $1 billion plant-wide upgrades in the 2000s, the Authority streamlined operations by automating many processes and built a state-of-the-art operations center, where performance of the entire plant can be monitored.

Blue Plains is world-renowned for its research programs that analyze technologies years before they are put into practice. DC Water's engineering team is recognized for innovation, exploring technologies that have not been adopted in the United States. In fact, delegations of international wastewater engineers visit Blue Plains regularly to learn more about DC Water's management, engineering, finance, research and technology.

While the plant provides advanced wastewater treatment, the maintenance of our equipment also uses advanced techniques to determine the health of equipment including laser alignment, oil analysis, ultrasound lubrication, infrared thermography, and vibration analysis.

Agenda Item 6.4
Date May 19, 2022

Working Lands (WL)/Biosolids Zoom meeting
Sarah Deslauriers, Greg Kester and Judy Schriebman
April 29, 2022

Greg: Biosolids overview: 2020 is last year for data. 70% were beneficially used on working lands. 25% for landfills; half was ADC and half was burial. 5 plants in state which do surface disposal. 3% of biosolids in state. One incinerator (3%). 2016 SB1383 has all organics diverted. Biosolids are cleanest stuff out there. Phos will be exhausted w/o replenishment in soil. Pretreatment program—when in operation, less of a problem.

Greg wrote a letter to Sierra Club indicating inaccuracies in their approach that was led by anti-biosolids in 90's. DC has had success w/local SC Chapters. Local groups often have different take on biosolids vs old official policy.

Land application will increase. Under SB1383 our process counts as landfill disposal. CalRecycle included language that disallowed local ordinances that prohibited land ap. Map of state showing counties adopting restrictive land aps.

Some can't land apply during Nov to April b/c of rain regulations. Whether it rains or not.

Greg: Biosolids regulator for Wisconsin years ago. CASA 15 years.

Sarah: AB 32 Scoping Plan Update: Carbon Neutrality by 2035/45. Need for Natural and Working lands to meet this. Draft Climate Smart Strategy in May 2022; June CARB hearing; final draft Fall 2022.

WL: CNRA is lead. Draft released in Oct. 2021. ID'ing different landscapes to model carbon sequestration. Calarose Ostrander of Marin Carbon project good w/biosolids. Different landscapes have different possibilities for carbon sequestration. Encouraging that CNRA report expressed their limitations—offered room for additional comment.

CARB had a lot of input on land app. AB 986—organic collection from residential and commercial; had some initial bad actors/practices which soured them; educated them on benefit of biosolids.

Have enough land that we own that could be farmed and used beneficially. Class B is fine.

Biosolids in the BayLands: Sonoma Land Trust—working on SLR by removing dikes and restoring them to marsh. SFEI working with BACWA, that got biosolids to the table. Concern: can biosolids be used w/o harm to future marsh. Data showed they met criteria. Regional board interested in this. Want to look at all the land areas that are receiving biosolids to put a monitoring program together. What do we think we can put together to show that this is ok? RWQCB met w/Santa Rosa and Vallejo. They want to know; not carrying a heavy hammer. Sonoma Land Trust and Ducks Unlimited were very helpful.

Argonaut mine in Jackson wants to use biosolids for remediation of the superfund site. Another potentially good project use.

Regional Board asked if they could measure PFAS and microplastics as top issues.

Working w/CARB to have biogas be an ok transportation fuel.

Aug 10-12 CASA in Tahoe.

Video recording of this meeting available if board members would like to see it.

Las Gallinas
VALLEY SANITARY DISTRICT

BOARD MEMBER
MEETING ATTENDANCE REQUEST

Date:_____ **Name:**_____

I would like to attend the _____ **Meeting**

of _____

To be held on the _____ **day of** _____ **from** _____ **a.m. / p.m. to**

_____ **day of** _____ **from** _____ **a.m. / p.m.**

Location of meeting:_____

Actual meeting date(s):_____

Meeting Type: (In person/Webinar/Conference)_____

Purpose of Meeting:_____

_____

Meeting relevance to District:_____

	YES	NO
Request assistance from Board Secretary to register for Conference:	☐	☐

Frequency of Meeting: _____

Estimated Costs of Travel (if applicable):_____

_____

Date submitted to Board Secretary:_____

Board approval obtained on Date:_____

Please submit this form to the Board Secretary no later than 1 week prior to the Board Meeting.

REVISED 06012021

5/19/2022

BOARD AGENDA ITEM REQUESTS

Agenda Item 7B

☐ Separate Item to be distributed at Board Meeting

☐ Separate Item to be distributed prior to Board Meeting

☑ Verbal Report

☐ Presentation

E&E NEWS

Agenda Item 8
Date May 19, 2022

Vilsack: PFAS in fertilizer a 'significant funding issue'

By Marc Heller

04/29/2022 06:27 AM EDT

The Department of Agriculture will face climbing costs to confront the latest environmental threat to farms: chemical pollution from years of spreading sewage sludge as fertilizer, Agriculture Secretary Tom Vilsack told lawmakers yesterday.

At a hearing on the USDA's budget request for the next fiscal year, Vilsack warned the House Agriculture Appropriations Subcommittee that his agency will soon have to spend more to help farmers whose land has been contaminated with "forever chemicals" called PFAS.

"This is a significant funding issue," Vilsack told lawmakers, who are weighing a budget request that already boosts USDA spending by about 10 percent for the fiscal year beginning Oct. 1. How much cleanup would cost is still being worked out, he said.

Whether Congress addresses the issue in the annual spending bill or in the farm bill — or both — remains to be seen. Rep. Chellie Pingree (D-Maine), who chairs the Agriculture Appropriations Subcommittee and also sits on the separate Agriculture panel where the farm bill will be hashed out, has been the leading lawmaker on the matter. She has followed up on action by state authorities in Maine to gain a full picture of the crisis on PFAS, short for per- and polyfluoroalkyl substances.

The chemicals, with several thousand variations, have been used in many consumer and industrial products since the 1950s and received their nickname for their longevity. They find their way into sewer systems and into the biosolids that come from treatment plants — which authorities promoted for years as an excellent soil additive.

As much as 5 percent of all crop fields in the U.S. may be using sludge as fertilizer, the Environmental Working Group recently reported. As much as 20 million acres may be contaminated, the group said, although researchers and government agencies say they're not sure how much PFAS in the ground poses human health risks when taken up into crops for food or livestock feed (*E&E News PM*, April 14).

"I think we need a national standard," Vilsack told the panel.

Some food companies, such as Heinz and Del Monte Foods Inc., have policies against using food grown with sludge as fertilizer. But the practice is still widely accepted and little-regulated, according to the United Sludge-Free Alliance, based in Kempton, Pa.

"Land application of sewage sludge is not recycling, it is pollution transfer," the group said on its website.

Farmers who discover contamination face a "dead stop" in their operations, especially for organic farmers, Pingree said.

"It's just devastating," she said, adding that Maine won't be the only state to confront the issue. "We've really just seen the tip of the iceberg."

'Overwhelming situation'

While PFAS contamination is trouble for any farmer, organic growers face particular pain.

Organic standards don't allow the spreading of sludge, said Patty Lovera, policy director for the Organic Farmers Association, a national producers group. But farmers may not know it was spread on a farm by a previous owner. Even if they follow organic transition rules by not spreading the material for three years prior to certification, that time period doesn't have much effect on PFAS, she told E&E News.

"It's an overwhelming situation," Lovera said. And while PFAS have been identified for several years as an issue for groundwater, its presence in the soil and questions about how it got there are only just entering the national conversation.

"If sewer sludge is the route, that's going to be tremendous around the country," Lovera said.

Officials in Maine have discovered hundreds of affected sites, Lovera said. But until assistance becomes available and national standards adopted, farmers nationally won't have much incentive for soil testing, she said.

The farm bill is a potential way to provide help, although appropriators may look for faster action through the spending bill for fiscal 2023. Although the USDA has a program to help dairy farmers whose groundwater has been contaminated, for instance, no such program exists for crop farmers, and Vilsack said such a program is needed.

Price tag TBD

Vilsack cautioned lawmakers to be ready for a yet-to-be-determined price tag. "We always go into the farm bill discussions with the notion that we have to do it within the existing budget," he said. "I think that's a mistake."

Farmers whose soil is contaminated have few choices but to set aside land in the Conservation Reserve Program or similar initiatives that preclude harvesting, said Scott Faber, senior vice president for government affairs at the EWG, in statement. The group said EPA should require the testing of biosolids for PFAS, and the EWG has backed legislation, S. 1907, from Sen. Kirsten Gillibrand (D-N.Y.) to limit PFAS in industrial discharges.

Separately yesterday, EPA announced next steps in its PFAS efforts, including a new method to screen for the chemicals in water.

Vilsack faced other questions on rural broadband, efforts to stem livestock disease and drought relief to California farmers.

He also promoted the USDA's request to increase staff at the Natural Resources Conservation Service, including 535 positions in conservation technical assistance provided to farmers. The NRCS will play a big role in the department's effort to tackle climate change through conservation. NRCS staff work with farmers on a one-by-one basis around the country.

The panel's top Republican, Rep. Andy Harris of Maryland, took issue with Vilsack's prepared remarks that referenced "overwhelmingly positive" economic indicators, noting climbing inflation and, more recently, a drop in gross domestic product in the first quarter of this year.

"If we start from unrealistic predicates, we're going to make bad decisions," Harris said, adding that the government needs to "do more with less" in its budget.

Vilsack said a "balanced view" is that job growth has been climbing, although unemployment remains high in low-income areas and inflation has risen. "So there's still challenges."

BIOCYCLE

THE ORGANICS RECYCLING AUTHORITY

SINCE 1960

SEPTEMBER 20, 2021 | BUSINESS+FINANCE, CONNECTIONS, CONTAMINATION

Connections: A Dose Of PFAS Reality

The data very strongly suggest that restricting concentrations of PFAS in composts and biosolids, or restricting their use, will have no impact on human exposure. To eliminate exposure, common sense tell us to stop making and using them in the first place.

Top: PFAS compounds are in many household and consumer products. Photos by Sally Brown

Sally Brown

The U.S. Environmental Protection Agency just released a well-written and well-researched document about the presence of perfluorinated compounds (and select pesticides and other organics) in food waste (US EPA, 2021). It includes consideration of the fate of these compounds in compost and digestates. It summarizes much of the current knowledge and provides recommendations. These include placing limits on these compounds in composts and digestates and/or limiting the use of th materials because of their PFAS (perfluoroalkyl substances) content. "A valuable resource" may be your

[redacted] first reaction. For me it was resisting the temptation to rant and rave at the authors from the comfort of my PFAS treated sofa.

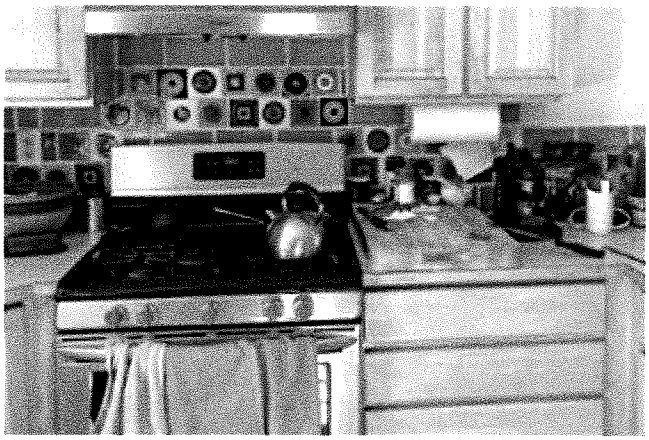
Best to start with a brief review for those of you who haven't been immersed in PFAS for the last few years. It turns out that if you add fluorine to carbon you can make a slew of compounds that can be very useful. These compounds make things resistant to grease, oil, heat and water. That means that you'll find them in a wide range of products including food packaging (pizza boxes, take-out containers, nonstick cookware, popcorn bags, etc.) and consumer products. Examples of consumer products include stain resistant furniture and carpeting, clothing, rain gear, dental floss, and cosmetics. These compounds have been around for many, many decades. They have only recently (last two decades) made the transition from "useful" to highly hazardous.

So many uses for these compounds means that everyone has been exposed to them. They are in our homes. Quite often, they are in our drinking water. They are also in us. PFAS compounds have been detected in blood (100% of individuals sampled) and in breast milk (Olsen et al., 2017; Zheng et al., 2021). You can even find the stuff in beluga whales swimming in the northern reaches of the Canadian Arctic (Kelly et al., 2009).

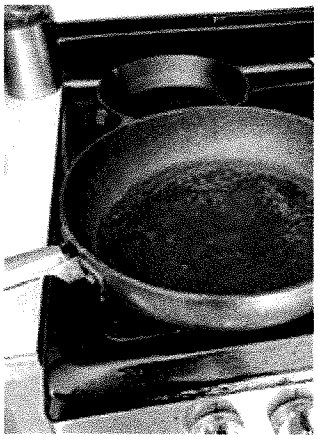
While this stuff may be handy in your carpet, I for one don't relish the thought of it being in my blood. I'm sure the whales aren't too happy about it either. The question then becomes "What is the best way to get PFAS out of the environment?" A follow up to that — with our industry first and foremost in my brain — is whether paying attention to concentrations in composts and biosolids has a significant part to play in this saga.

A wide range of bad outcomes has been reported for people who either work in or live close to factories where these compounds are produced. Check out an article from 2016 in the *New York Times* for an example. The understanding of potential hazards resulted in a ban in U.S. use and manufacture of two of the longest chain (most complex) of these compounds — PFOA (perfluorooctanoic acid) and PFOS (perfluorooctane sulfonate) — prior to 2010. The bans are working. A survey of blood concentrations over time (Table 1) shows that both PFOS and PFOA have declined (Olsen et al., 2017). Bans and patience appear to be virtues in this case.

Kitchen



A study found that food packaging was a significant source of PFAS with 20% of paperboard products, 38% of sandwich and burger wrappers, and 56% of dessert and bread wrappers containing fluorine — likely indicating the presence of PFAS compounds (Schaider et al., 2017). These compounds can and do enter the food that they package.



Even if you make your own food, there is a potential exposure from nonstick cookware, eating seafood, and microwave popcorn. Direct ingestion is the critical pathw here.

Table 1. Concentrations of PFOS and PFOA (ng ml^{-1}) in human blood over time

	2000	2006	2010	2015
PFOS	35.1	14.5	8.4	4.3
PFOA	4.7	3.4	2.4	1.1

Forever Chemicals

With the bans however, has come the proliferation of shorter chain versions of these chemicals (Pan et al., 2018). These newer versions are still being made and still being used. Something tells me that the shorter length does not mean a clean bill of health but the jury is still out on that. You have a long list of these compounds that have a multitude of uses and that have been used for decades. New versions are being made and used every day. That means that they are everywhere and will be for a long time. What exactly do I mean by everywhere? They are almost certainly in your blood whether or not you indulge in microwave popcorn or have carpet in your home. The newer versions of these compounds have been detected in surface waters across the world (Pan et al., 2018). It would seem that very little can escape the utility of compounds that make everything nonstick and moisture resistant.

While these compounds are very useful, they are also very persistent. You read now about "forever" chemicals. Used to be that they were talking about dioxins. Since those were banned 20+ years back, they are now a distant memory. Today, forever chemicals refer to compounds in the overall PFAS class. In general, the PFAS compounds are nearly impossible to degrade. You can change shorter ones into longer ones but they just don't decompose. They are also expensive and tricky to analyze for. As the new EPA document points out, no standard protocol exists for analysis of these compounds in solids or soils. There are methods that people seem to use a lot and likely are good but there is no certified EPA method for analysis.

This gets a little more complicated because the concentrations that people are worried about here are so low that you need to really have a good understanding of units and zeros to quantify them. The normal units that people use are parts per billion (ppb) or 1 in 1,000,000,000. Although often, particularly in reference to water quality standards, those drop to parts per trillion (ppt) or 1 in 1,000,000,000,000. For example, the EPA health advisory standards for PFAS in water is 70 parts per trillion or 70 in 1,000,000,000,000. Several states have gone one step further and lowered that to 10 parts per trillion or 10 in 1,000,000,000,000.

PFAS In The Organics World

In the organics world, these compounds first made the

Bathroom

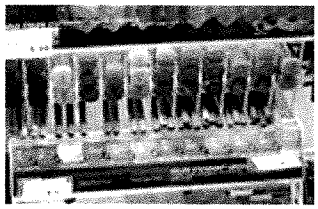
Enhancing one's appearance also enhances exposure to PFAS compounds. A recent study found high concentrations of fluorine in lipstick, mascara, foundation, and other products for eyes and skin (Whitehead et al., 2020). PFAS concentrations in the cosmetics tested ranged from 22 ppb to 10,500 ppb with an average concentration of 264 ppb.

headlines when biosolids produced by a treatment plant that accepted influent from a PFAS factory in Decatur, Alabama was land applied (Washington et al., 2010). The soils at the farm that received the biosolids had screamingly high concentrations of these compounds. Remember that "screamingly high" concentrations of these compounds are very, very low in comparison to contaminants of the past. Studies generally report the concentrations of the individual types of PFAS

compounds in addition to the sums. The soils at the site did have high concentrations of these compounds: up to 320 ug g (ppb) for PFOA and 410 ug g for PFOS. Summing across all of the different compounds tested, soils in 6 of the 7 sites tested had total concentrations ranging from 1,000 to 6,000 ppb of PFASs (1-6 ppm).

From Decatur the fear traveled quickly to New England. A farm there had used pulp and paper residuals as soil amendments in the 1980s (Brown and Beecher, 2018). Remember how useful PFAS is to stop pizza from sticking to the top of the box? Well, those pulp and paper residuals came from mills making paper products for the food service industry. The soils at this farm — decades after the sludges had been applied — had concentrations of total PFAS of up to 880 ppb. The well water at the farm had concentrations of about 50 ppt but the milk from the cows had 690 ppt. To me these cases sound like exceptions rather than rules, but in many parts of the country they have been treated like they are status quo.

In the meantime, only a limited number of studies have measured concentrations of PFAS in biosolids and composts. Here the handful of studies have analyzed under 20 or so different materials. With that said, they suggest that while present, concentrations are more like muted tones rather than loud screams. A reported range for municipal biosolids and biosolids products is 9 ppb to 199 ppb (Lazcano et al., 2020). The range for composts containing food scraps is 2 ppb to 75 ppb. These concentrations are the sums of the different PFAS compounds tested.



Even if you are just cleaning your teeth, fluorine has been detected in certain types of dental floss and use of these

flosses to higher blood PFAS concentrations (Boronow et al., 2019).

In each case, you have several pathways of exposure including inhalation and ingestion. They can also enter through your tear ducts.

Living Room

Household dust and even dust in childcare centers have high concentrations of PFAS compounds (Hall et al., 2020; Wu et al., 2020). This is likely from use of PFAS products in stain resistant fabrics and carpets. One study found median concentrations of PFAS in carpets and dust of 471 ppb and 523 ppb, respectively. Dust inhalation is the critical pathway here.

Over time, with the bans on PFOA and PFOS, one would expect the concentrations of these two big guys to decrease. To test this in a not scientifically rigorous way, I averaged the concentrations in biosolids seen in one study published in 2005 with another published in 2020 (Higgins et al., 2005). While both studies sampled material from about the same number of wastewater plants, I have no idea if any of those plants were in the same part of the country, let alone the same plants over time. Turns out that PFOA has stayed the same and pretty low over time and PFOS seems to have come down quite a bit from much higher numbers (Table 2). Bans and patience likely work for biosolids as well as blood. Also note that the concentrations of both compounds in biosolids are not overly different than what is coursing through your veins.

When you look at the concentrations of these two compounds and then the concentrations of the sum

Table 2. PFOA and PFOS contamination levels in biosolids

of the range of compounds, you can see that these days, the two bad boys are only a small fraction of the PFAS compounds currently seen in biosolids. The key takeaway is that the majority of the compounds we are seeing in biosolids and food scraps composts are still legal, still being manufactured and still being used in everything from dental floss to rain gear (Boronow et al., 2019).

	2005	2014 and after
PFOS	304 ± 703	19 ± 23
PFOA	9.6 ± 6.8	10 ± 8.5

Will Bans, Rules And Limits Make A Difference?

Despite that, some states are banning biosolids applications and/or setting limits for PFAS in solids and waters that are in the "near impossible to see even with the finest equipment" range of detection. The Sierra Club just came out with a new document touting the hazards of biosolids because of these compounds (Sierra Club, 2021). These regulatory actions have certain communities looking at pyrolysis (a high capital-intensive option that may reduce/destroy PFAS) as an alternative to standard stabilization and land application. They also have the EPA in its newest document suggesting that concentration limits in composts and biosolids might be appropriate or even that use restrictions for these products might be merited.

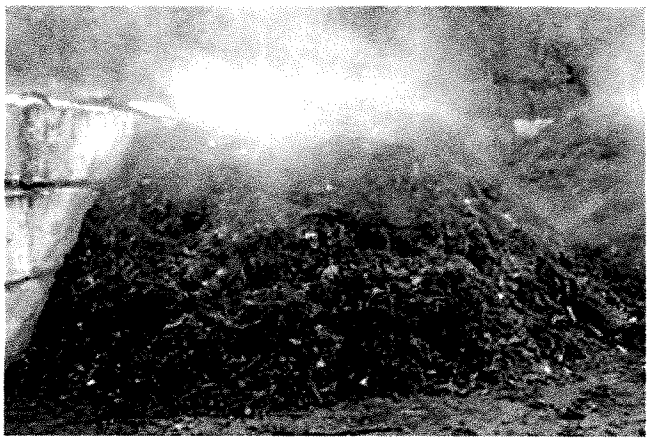
My big question is would any of these bans reduce exposure to these compounds for the general public? Would the bans/rules/limits make a difference? Here a critical thing to remember is the whole notion of pathways. In order for a compound to get into you, you have to have a path of contact. There has to be a way for the compound in whatever media it is in to get from it into you. In order to understand pathways and probability of entry let's take a walk around the house and the compost pile. The graphics and explanations on our tour (see boxes throughout this article) give you a sense of whether primary exposure for almost all individuals is from the compost/biosolids or from another source.

One of the other recommendations that the EPA document made was that source control, or banning/restricting/limiting use of these products *in the first place* is a potential solution. This recommendation was the one section of the report that actually made me give EPA a fist pump or equivalent sign of approval. Let's put it this way. If the PFAS in the food scraps/biosolids are coming from your food, your bathroom or your dust rag, there is a far higher exposure potential for you in your home than in any compost pile. If there are concerns about PFAS from commercial sources, pretreatment has worked well for every other class of contaminants. Stopping that rug manufacturer from discharging into your system would likely have the same effect.

Then there is the real question of how necessary these compounds are in so many of the products that they are used in. We have seen that the bans of the longer chain compound, the PFOA and PFOS, have decreased over time in human blood and in biosolids. That isn't a coincidence. It is the *direct result* of the ban in their manufacture. If we are truly concerned about this class of compounds then the appropriate action is source

Compost Pile/Biosolids

For the vast majority of biosolids and composts, the sources of PFAS in the finished products are from the food we eat, the dust in our homes, and the cosmetics we wipe off our faces. Concentrations in these organics are much lower than those in many household products. The EPA report noted that one study tested food waste for PFAS and found one compound in 14 of the 25 samples measured.



For PFAS from these products to impact people we would need to eat the organics directly (yuck) or have them move from the pile/soil to water that we drink (highly unlikely for all but a few very rare exceptions) or into food that we eat (unlikely for agronomic crops). The EPA report noted only one study that showed plant uptake by produce and that was for vegetables (0.7 ppb) grown near a PFAS production factory.

control. Lipstick will still come in lovely shades if it is manufactured without PFAS. Pizza may stick to the top of the box a little more but it will still be deliciously gooey and greasy. The data very strongly suggest that restricting concentrations of PFAS in composts and biosolids or restricting use of some of these materials will have no impact on human exposure. If that is really the goal, stop making and using them in the first place. That we know will have an impact.

Sally Brown, BioCycle's Senior Adviser, is a Research Professor in the College of the Environment at the University of Washington.

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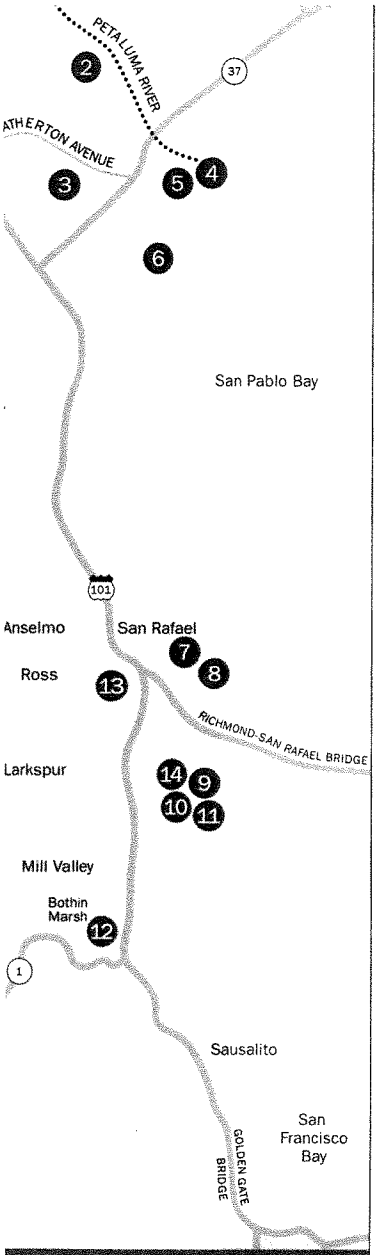


N AUDUBON PROPERTIES

etaluma Marsh pansion Site	180 acres
ahia	60 acres
mmons Slough	144 acres
rton Avenue Pond	4 parcels
ack Point Parcels	many parcels
royo San Jose	2 parcels
scornia Marsh	20 acres
delands and urphy's Rock	34 acres
n Clemente Creek delands	4.34 acres
d of Channel Drive	1 acre
angle Marsh	31 acres
royo Corte Madera l Presidio	2 acres
l Park	<1 acre
rte Madera Ecological eserve Expansion Site	5.2 acres

Tule Elk

continued from page 1

that will be evaluated in an Environmental Impact Statement (EIS), in compliance with the National Environmental Policy Act (NEPA). Various alternatives will be developed and evaluated for their potential impacts on the elk and other resources. The EIS analyses will be used to decide how the Tomales Point wilderness, and the Tule Elk herd that is confined within it, will be managed, and, if appropriate, to update the Park's General Management Plan. Issues, concerns and options submitted by the public will be addressed in the EIS.

The NPS has already identified some issues:

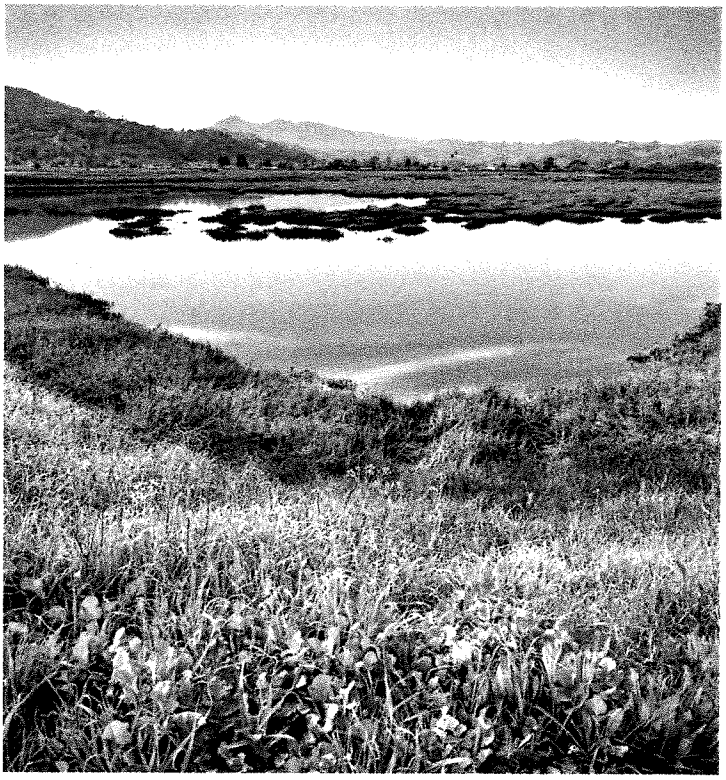
- Maintenance or removal of the fence that confines the Tule Elk
- Population management of the Tomales Point herd
- Providing supplemental water for the Tule Elk herd in times of need
- Wilderness management
- Visitor use and management of Pierce Point Ranch.

Some of our thoughts on additional issues to be addressed:

- Why NPS thinks the fence is needed
- Impacts on other wild animals that are confined by the elk fence.

WHAT YOU CAN DO:

Submit your comments by May 2, the end of the 30-day comment period. Comments will not be accepted by email or fax. The preferred method to submit comments is online through the NPS Planning, Environment and Public Comment site at https://parkplanning.nps.gov/tpap or via USPS to Tomales point Area Plan, Superintendent Point Reyes National Seashore, 1 Bear Valley Road, Point Reyes Station, CA 94956.



Jay Salzman

Water ponded in diked section at McInnis Park. Although the ponds provide habitat, if restored to tidal marsh they would be more productive habitat for more species, including endangered Ridgway Rails.

GRANT DECLINED FOR FOR McINNIS MARSH RESTORATION PROJECT

Unfortunately, after years of planning, Marin County Parks has declined the opportunity to receive a large grant to restore 180 acres of acres of currently diked marsh to tidal action at McGinnis Park. Reasons given are the presence of a Gallinas Sanitary District forcemain in the path of a proposed levee and lack of staffing to manage the project.

Planning for this restoration has been underway for 10 years. Commitments to restore the diked areas have existed for many more years. There have been at least two dredgings of Gallinas Creek over probably 30 years. The sediments they dredged were placed in the diked lands at McInnis with a commitment that they would be restored to tidal marsh. Obviously, neither of those restorations ever happened. Now the goal of tidal marsh is again thwarted.

The Gallinas Creek tidal marshes support the largest population of endangered Ridgway Rails in the county. The County's tidal marsh restoration project would have significantly expanded tidal marsh habitat allowing the Ridgway Rail population to significantly expand as well.

Utilities assess supply options

DISTRICT STUDIES

Growth, drought test Marin water services

By Will Houston

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Marin County's two largest water utilities are working to narrow down what new sources of supply would provide the most benefit in droughts.

The North Marin Water District presented findings of a study looking at how to bolster supplies for the more than 60,000 residents it serves in its greater Novato service area.

The top scorers were projects to enhance the storage at the district's Stafford Lake reservoir. Other options such as desalination, creating new reservoirs, dredging the lake and a major recycled water expansion were deemed too expensive or infeasible given the district's size.

"We're trying to maximize the amount of local water that enters the lake," Tony Williams, the district's assistant general manager, said during a public workshop on the assessment last week.

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The Marin Municipal Water District, which serves 191,000 residents in central and southern Marin, is working to complete a similar study to determine how much water it needs to meet future demands and have more supply in major droughts.

The studies come months after the Marin Municipal Water District faced the prospect of depleting its reservoirs during the current drought and after the North Marin Water District experienced its driest winter on record in 2020-2021.

The North Marin district estimates its water demand will increase by about 26% in the next 25 years, from about 2.9 billion gallons per year to about 3.6 billion gallons. Population increase is the main driver of the larger water demand, according to the assessment by the West Yost engineering firm.

The study looked at new supply options that could provide another additional 326 million to 652 million gallons of water per year for the district.

The three highest-scoring options in the study were to reduce the waste of water during its treatment; to increase the capacity of Stafford Lake by installing an adjustable gate to cover its spillway; and to divert captured stormwater into the lake. Put together, the actions would produce an estimated 323 million to 516 million gallons within the next five years at a price ranging from $3.8 million to as much as $15 million, according to the study.

That doesn't mean other options such as desalination are off the table for the district, staff said, but would likely be accomplished in cooperation with other water suppliers on the North Coast.

Only 25% of the North Marin district's supply comes from Stafford Lake. The remainder comes from Russian River imports from the Sonoma Water agency. Sonoma Water is looking to complete a study on a variety of new water supplies, including groundwater banking, desalination and the potential to reduce environmental water releases for wildlife.

"The more you can do it at the regional basis rather than doing it individually by one agency to another is incredibly more powerful, more cost-effective," Drew McIntyre, the district's general manager, told the board of directors.

North Marin Water District board member Mike Joly said during the workshop last week that the district should be looking at desalination and emerging technology.

"I am glad that North Marin Water is going to be following up on the designation concept, which is a long lead time and an expensive proposition," Joly said.

Board member Rick Fraites called for the district to continue to explore creating a dam in Bowman Canyon, which the study estimated could provide up to 245 million gallons of water per year.

"It's local, it's right near our main water supply," Fraites said during the workshop. "Maybe it'll happen, maybe it won't. Putting up a reservoir is a little dicey these days but I'd like us to take a harder look at that option."

The Marin Municipal Water District plans to hold two workshops in the coming months to discuss water supply options and how effective they would be in various drought scenarios.

District adjusts rules on water

MARIN MUNICIPAL

Some measures stay, others are rescinded

By Will Houston

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Some water use restrictions that were imposed on most Marin County residents during the drought last year are now set to become permanent.

The Marin Municipal Water District Board of Directors voted unanimously on Tuesday to continue limiting sprinkler use to two days per week, which is down from three days it allowed before it adopted its drought restrictions in 2021. Drip irrigation will be allowed three days a week. All pool owners in the district must also have a pool cover.

These rules will be part of the district's list of permanent conservation rules that include prohibitions of washing down sidewalks, driveways and other hard surfaces by direct hosing; watering lawns between 9 a.m. and 7 p.m.; and us-

WATER» PAGE2

3

Wa t e r

FROM PAGE 1

ing a hose without a shutoff nozzle.

"We want to recognize that despite the recovery for our local supplies, much of California does remain in a severe drought," the district's water efficiency manager Carrie Pollard told the board.

At the same time, the board also voted to rescind

several rules that have been in effect for the past year. These include a ban on residents washing their cars at home, the prohibition of landscape planting for new water service connections and an irrigation rule limiting golf courses to only watering tees and greens. Sanitary districts a re being asked, but not required, to use recycled water when possible to flush out sewage systems.

The rule changes come after the Marin Municipal Water District and the 191,000 residents in central and southern Marin it serves came close to the possibility of running out of water. Following two dry winters in 2019-20 and 2020-21, the district had forecast it could deplete all seven of its reservoirs by mid-2022 and was preparing to build a $100 million pipeline across the Richmond-San Rafael Bridge to pump in Sacramento Valley water.

Unusual downpours from October through December rescued the district by nearly refilling its reservoirs. The reservoirs are now about 90% full.

The board has since been working to reconcile what rules should remain in effect given its flush reservoir supplies and what rules should become common practice given the vulnerability of its water supplies in future droughts.

On Tuesday, there was some debate about how extensive the district's regulations should be. Board Director Jack Gibson objected to what he described as potential overregulation.

"Our community saves water," Gibson said during the meeting. "They understand that, they got the message. Let them choose the way they can best do it."

The Marin Municipal Water District's water supply is somewhat of an outlier compared to other Bay Area and California counties, which have been implementing stricter conservation rules in recent months and weeks as the drought continues into its third year. In Northern California, the first three months of this year were the driest three months of any year since rainfall records began in 1849.

More than 95% of the state is in a severe drought, according to the U.S. Drought Monitor published by the federal government and the University of Nebraska.

Last year, Gov. Gavin Newsom ordered a voluntary 15% statewide reduction in water use compared to 2020. Residents fell far short by cumulatively conserving by 6% from July 2021 through January, according to the State Water Resources Control Board.

The Marin Municipal Water District set its own target in April 2021 of a 40% collective reduction given its supply concerns. Marin ratepayers conserved about by half that amount for most of the year, though still significantly more than compared to the rest of the state.

Newsom then issued an executive order in late March requiring all urban water suppliers to institute their stage 2 conservation measures as part of their drought contingency plans. These plans require suppliers to create six levels of drought response actions, with each level including more intensive conservation rules.

For Marin Municipal Water District, the stage 2 level calls for 20% voluntary conservation, increased public outreach efforts and initiating water waste patrols, for example.

The district's latest report showed it conserved by 12% in March.

The n eighboring North Marin Water District has continued to call for a 20% reduction in water use from the 60,000 residents in its Novato service area because of ongoing drought conditions. The district has also set a three-day watering limit per week.

(2)

Other board members said the n ew permanent rules are meant to produce water waste such as evaporation of pool water.

"We have a charge to provide reliable water supply," Director Monty Schmitt said in response to Gibson's comments. "In order to do that we absolutely need our customers to be partners in this, in conserving h ow much water we use and to use it w isely."

Water ethic should include drinking recycled wastewater

Marin Voice

By Steven Moore

We are water, literally, by weight and so much more. It's the sparkle in your eye, the sweat on your brow and the blood in your veins. All life and communities are totally dependent on a healthy water supply.

These truths are often overlooked in times of plenty, but when water's scarcity becomes plainly evident, we are forced to reckon with doing what is right, because so much is at stake: our lives, livelihoods and quality of life.

We should therefore embrace a water ethic.

In other parts of California with higher populations than Marin, this idea of a water ethic has taken hold and resulted in sustainable water supply projects in the ground and in the works. It is past time for Marin to join this community of doers. Each of us can participate.

The water ethic is a personal commitment to know where our water comes from, how much water we use, what we put into the water before it leaves our homes and businesses, and where it goes after we use it. The water ethic also includes a commitment to use the water more than once whenever possible.

Much like we have learned to minimize single-use plastic, part of the water ethic is to minimize single-use water.

When we're done with it, most Marin water goes to San Francisco Bay with negligible ecological benefit. We can and should reuse this water. Water is so precious in Marin and its use so consequential that, like plastic, we should not use it only once.

We try to minimize singleuse plastic to help the oceans and conserve energy. We should minimize single-use water to help the rivers and stretch our water supply during droughts. Other communities such as Orange County, the Inland Empire, the Monterey-Salinas area, Los Angeles and the coastal town of Cambria are reusing wastewater, stormwater and salty groundwater for drinking water. All of it is equally safe as Marin's current supply.

More than 30 cities in California are going to add over a half-million acre-feet annually of wastewater-to-drinking water projects in the next five years, including some central coast communities, San Diego and Silicon Valley.

As we face the challenges of limited water supply, Marin should embrace a water ethic that includes minimizing singleuse water. We should join the movement, do the right thing and invest now in water recycling, or wastewater "potable reuse," to enhance our potable drinking water supply.

Drink purified wastewater? Absolutely. If you think about it, we already do. There is only one water. The impurities move in and out of it throughout its cycle. The same principles astronauts utilize on the space station apply here in water-scarce California.

They have proven safe and reliable for decades right here in our state.

In Marin we reuse less than 2% of our wastewater — mostly for landscape irrigation (aka lawns). While this is helpful, these uses are limited and shrinking over time. We need to turn it up a notch.

Studies show the Central Marin Sanitation Agency wastewater plant in San Rafael can provide almost as much potable water as the Marin Municipal Water District imports from Sonoma County, one-fourth of its water supply. This additional supply would dwindle if a drought continued for many years. So, while it does not complete the supply portfolio, it would be a significant step forward.

To have a sustainable water supply with the climate changing, we should embrace a new water ethic in all its dimensions. This includes tapping into a local sustainable source — wastewater — which will reduce our drawdown of local reservoirs, extending water supply in times of scarcity.

We are water. With so much at stake, what we do about water is an ethical choice. We should avoid single-use water if we can. Recycling water for drinking is ethical and smart, like Marin. We can afford it. We can't afford not to do it. Most importantly, it's the right thing to do. *Steven Moore, of Sausalito, is a former member of the California Water Resources Control Board and the regional water board. He is general manager of the Ross Valley Sanitary District and an advisor to the Marin Coalition for Water Solutions.*

We should minimize single-use water to help the rivers and stretch our water supply during droughts.

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Take a 'silver buckshot' approach to water reliability

Marin Voice

By Cynthia Koehler

Water is the sharp edge of climate change, the place where people are experiencing climate impacts most acutely.

Last month, Gov. Gavin Newsom issued an executive order directly connecting California's ongoing drought to climate change and calling for a 15% voluntary cutback in water use. While we are fortunate that Marin's local reservoirs are currently at 90% of capacity, prudent management dictates that we assume more dry years on the horizon.

Because of climate change, the past is no longer prologue in the water industry. Our solutions must evolve to meet that dryer future.

I have long maintained that Marin's water supply security requires a diverse and robust portfolio of options rather than reliance on a single silver bullet. Let's call this multifaceted approach the "silver buckshot" strategy.

The centerpiece of this strategy will be water technology, which is advancing at an extraordinary rate. Newer technologies are increasing efficiencies at system and consumer levels, while bringing costs down. Just as technology revolutionized energy use and our ability to do more with far less, water tech will be the new path to successful water management, from reuse to grey water to energy capture to real time information.

It's not about having less, but wasting less.

Making the most efficient use of our water supply is the obvious and most affordable foundation for a multilayered strategy that should also include new supply options. Indeed, increasing water efficiency is far from the only thing that the Marin Municipal Water District is doing, or has done, to ensure a reliable and resilient water supply for the future.

In addition to diligently upgrading local water infrastructure, protecting our watershed and limiting the risk of debilitating fire, the district has, in recent years, invested substantially in supplemental water supply, primarily by stabilizing and expanding access to water from Sonoma County.

Today, Marin Water is in the midst of a supply assessment, which will determine our direction forward. Indeed, the findings of the assessment will be central to successfully navigating our increasingly water-constrained future. The most promising options are those that lean into innovative water technology.

Advanced water purification facilities would enable Marin Water to include highly purified recycled water in our system. Automated meter-reading technology allows for tracking water use at the ratepayer level in real time, improving water management and leak detection.

Groundwater banking in Sonoma County, known as "aquifer storage and recovery," now appears to be a serious future option to store water underground, avoiding evaporation losses. Regional desalination, and versions of Marin-only desalination are on the table, as are connections or interties to Bay Area partner water agencies that would provide the district with multiple opportunities for water transfers.

The most expensive options are those that pretend we are not living in a world of tradeoffs that require us to make the best use of our existing water resources in addition to developing supplemental supplies.

The key to the silver buckshot portfolio will be balancing the cost of supply options to local ratepayers. Any set of solutions will have a price tag, but some will be higher than others. Under state law (Proposition 218), all local ratepayers will have to pay for these investments regardless of how much water they use. The result is that the low water users who stay within Tier 1 — more than 60% of district consumers — will shoulder most of this burden.

For low income ratepayers, this can quickly become unsustainable. It will be essential, therefore, that the mix of water supply augmentation, efficiency and conservation options ultimately selected is not only cost effective, but also equitable in terms of who benefits and who will bear the costs.

The assessment is the next step in Marin Water's ongoing efforts to enhance drought resilience while maintaining rate affordability and access to safe, healthy water for everyone. This process is an opportunity to engage, be heard and learn more about these complex issues. While the changing climate is bringing new water challenges for the region, we have the ability to choose a path forward that is reliable, secure and sustainable for the long term. *Cynthia Koehler serves on the Marin Water Board of Directors.*