# **AGENDA**

# **REMOTE MEETING NOTICE**

This meeting will be accessible by remote video conferencing. The public may observe and participate in this meeting remotely via Zoom as set forth below.

#### INSTRUCTIONS FOR USING ZOOM

- Join the meeting using the link below.
- You must have audio and microphone capabilities on the device you are using to join the meeting.
- When you join the meeting make sure that you join the meeting with audio and follow the prompts to test your speaker & microphone prior to joining the meeting.

#### TO SPEAK DURING PUBLIC COMMENT USING ZOOM

- The Board President will announce when it is time for Public Comment.
- Click on the Raise Hand icon if you would like to speak during Public Comment.
- Your name will be called on when it's your turn to speak.
- When your name is called, you will be prompted to unmute yourself.
- You will have three (3) minutes to speak. When your time is up, you will be muted.

#### TO SPEAK ON AN ITEM USING ZOOM

- The Board President will call the item and staff will begin the staff report.
- Click on the Raise Hand icon if you would like to speak on the item.
- Your name will be called on when it's your turn to speak.
- When your name is called, you will be prompted to unmute yourself.
- You will have three (3) minutes to speak. When your time is up, you will be muted.
- You will repeat this process for each item you want to speak on.

#### FOR OPEN SESSION PARTICIPATION

Join Meeting Electronically at:

# **Join Zoom Meeting**

https://us02web.zoom.us/j/84193745953?pwd=MzJpaSttQVNSb2 9COXB2VIE0RGM4QT09

Meeting ID: 841 9374 5953

Passcode: **559481** 

#### AGENDA

# REGULAR MEETING OF THE GOVERNING BOARD OF THE GOLETA SANITARY DISTRICT A PUBLIC AGENCY

One William Moffett Place Goleta, California 93117

November 20, 2023

CALL TO ORDER: 6:30 p.m.

**ROLL CALL OF MEMBERS** 

**BOARD MEMBERS**: Sharon Rose

Edward Fuller Jerry D. Smith

Steven T. Majoewsky

**Dean Nevins** 

#### CONSIDERATION OF THE MINUTES OF THE BOARD MEETING

The Board will consider approval of the Minutes of the Regular Meeting of November 6, 2023.

**PUBLIC COMMENTS -** Members of the public may address the Board on items within the jurisdiction of the Board. Under provisions of the Brown Act, the Board is prohibited from taking action on items not listed on the agenda. Please limit your remarks to three (3) minutes and if you wish, state your name and address for the record.

**POSTING OF AGENDA** – The agenda notice for this meeting was posted at the main gate of the Goleta Sanitary District and on the District's web site 72 hours in advance of the meeting.

# **BUSINESS:**

- REVIEW OF FISCAL YEAR 2023-24 FIRST QUARTER BUDGET TO ACTUAL REPORT
- 2. REVIEW OF BIOSOLIDS END USE MARKET ASSESSMENT TECHNICAL MEMORANDUM
- 3. CONSIDERATION OF NOMINATIONS TO THE SANTA BARBARA LOCAL AGENCY FORMATION COMMISSION (LAFCO) REGULAR AND ALTERNATE SPECIAL DISTRICT MEMBER (Board may take action on this item.)

Regular Meeting Agenda November 20, 2023 Page 2

- 4. GENERAL MANAGER'S REPORT
- LEGAL COUNSEL'S REPORT
- 6. COMMITTEE/DIRECTOR'S REPORTS AND APPROVAL/RATIFICATION OF DIRECTOR'S ACTIVITIES
- 7. PRESIDENT'S REPORT
- 8. ITEMS FOR FUTURE MEETINGS
- CORRESPONDENCE
   (The Board will consider correspondence received by and sent by the District since the last Board Meeting.)

#### **ADJOURNMENT**

Persons with a disability who require any disability-related modification or accommodation, including auxiliary aids or services, in order to participate in the meeting are asked to contact the District's Finance & H.R. Manager at least 3 hours prior to the meeting by telephone at (805) 967-4519 or by email at <a href="mailto:info@goletasanitary.org">info@goletasanitary.org</a>.

Any public records which are distributed less than 72 hours prior to this meeting to all, or a majority of all, of the District's Board members in connection with any agenda item (other than closed sessions) will be available for public inspection at the time of such distribution at the District's office located at One William Moffett Place, Goleta, California 93117.

# **MINUTES**

## **MINUTES**

# REGULAR MEETING OF THE GOVERNING BOARD GOLETA SANITARY DISTRICT A PUBLIC AGENCY DISTRICT OFFICE CONFERENCE ROOM ONE WILLIAM MOFFETT PLACE GOLETA. CALIFORNIA 93117

November 6, 2023

<u>CALL TO ORDER:</u> President Rose called the meeting to order at 6:32 p.m.

**BOARD MEMBERS PRESENT:** Sharon Rose, Edward Fuller, Jerry Smith, Steven T.

Majoewsky, Dean Nevins

BOARD MEMBERS ABSENT: None

**STAFF MEMBERS PRESENT:** Steve Wagner, General Manager/District Engineer, Rob

Mangus, Finance Director/Board Secretary and Reese Wilson, Senior Project Engineer, Jeff Ferre, General

Counsel (via Zoom)

OTHERS PRESENT: Craig Geyer, Director, Goleta West Sanitary District (via

Zoom)

**APPROVAL OF MINUTES:** Director Majoewsky made a motion, seconded by Director

Fuller, to approve the minutes of the Regular Board meeting of October 16, 2023. The motion carried by the

following vote:

(23/11/2279)

AYES: 5 Rose, Fuller, Smith, Majoewsky, Nevins

NOES: None ABSENT: None ABSTAIN: None

**POSTING OF AGENDA:** The agenda notice for this meeting was posted at the

main gate of the Goleta Sanitary District and on the District's website 72 hours in advance of the meeting.

PUBLIC COMMENTS: None

# **BUSINESS:**

REVIEW OF DISTRICT'S CONFLICT OF INTEREST CODE

Mr. Wagner gave the staff report and review of this discussion item, no Board action was taken.

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# 2. <u>CONSIDERATION OF PARTICIPATION IN THE CENTRAL COAST REGIONAL BIOSOLIDS COOPERATIVE MEMORANDUM OF UNDERSTANDING</u> Mr. Wagner gave the staff report.

Director Fuller made a motion, seconded by Director Nevins to approve the Central Coast Regional Biosolids Cooperative Memorandum of Understanding and to authorize the General Manager to sign, subject to final review by legal counsel. The motion carried by the following vote:

(23/11/2280)

AYES: 5 Rose, Fuller, Smith, Majoewsky, Nevins

NOES: None ABSENT: None ABSTAIN: None

# 3. REVIEW OF ONGOING SUCCESSION PLANNING EFFORTS

Mr. Wagner gave the staff report on this review item, no Board action was taken.

# 4. GENERAL MANAGER'S REPORT

Mr. Wagner gave the report.

## 5. LEGAL COUNSEL'S REPORT

Mr. Ferre reported on the updated State Board Enforcement Policy which was discussed at the CASA attorneys meeting. He also reported on recently signed legislation, AB 557, which removed the sunset clause under AB 361 for virtual meetings during a state of emergency.

# 6. <u>COMMITTEE/DIRECTORS' REPORTS AND APPROVAL/RATIFICATION OF DIRECTORS' ACTIVITIES</u>

Director Smith - No report.

Director Fuller - No report.

Director Nevins – Reported on his Special Districts Leadership Academy Training attendance.

Director Majoewsky – No report.

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# 7. PRESIDENT'S REPORT

President Rose – Reported on the Santa Barbara Local Chapter CSDA meeting she attended.

# 8. ITEMS FOR FUTURE MEETINGS

No Board action was taken to return with an item.

# 9. CORRESPONDENCE

The Board reviewed and discussed the list of correspondence to and from the District in the agenda.

# 10. <u>APPROVAL OF BOARD COMPENSATION AND EXPENSES AND RATIFICATION OF</u> CLAIMS PAID BY THE DISTRICT

Director Smith made a motion, seconded by Director Fuller, to ratify and approve the claims, for the period 10/17/2023 to 11/06/2023 as follows:

Running Expense Fund #4640	\$ 612,906.12
Capital Reserve Fund #4650	\$ 6,151.18
Depreciation Replacement Reserve Fund #4655	\$ 126,255.67
Retiree Health Insurance Sinking Fund #4660	\$ 12,004.32

The motion carried by the following vote:

(23/11/2281)

AYES: 5 Rose, Fuller, Smith, Majoewsky, Nevins

NOES: None ABSENT: None ABSTAIN: None

# **ADJOURNMENT**

There being no further business, the meeting was adjourned at 7:42 p.m.

Sharon Rose Robert O. Mangus, Jr.
Governing Board President Governing Board Secretary

# **AGENDA ITEM #1**

AGENDA ITEM: 1

**MEETING DATE:** November 20, 2023

#### I. NATURE OF ITEM

Review of Fiscal Year 2023-24 First Quarter Budget to Actual Report

#### II. BACKGROUND INFORMATION

On June 20, 2023, the Governing Board adopted the District's FY 2023-24 budget. In order to ensure the adopted budget is followed, staff monitors expenditures on a monthly basis. This monthly review provides the opportunity to correct any entries that may have been misclassified in error. A quarterly review of expenditures is typically completed every 3 months of the fiscal year. With the passage of the first quarter of this fiscal year, a quarterly expenditure report has been prepared and is presented herein for the Board's consideration.

## III. COMMENTS AND RECOMMENDATIONS

A review of first quarter expenditures can provide a quick check to determine if the actual expenses are tracking with the approved budget. However, since many types of expenses are neither frequent nor uniform, certain line-item accounts can be ahead of, or behind budget at the end of the first quarter.

The attached expenditure report includes a roll up summary of line-item expenses across all departments, along with the breakdown of expenses for individual departments. The column on the right side of the report shows the percentage of budget remaining for the various line items. Since there are nine months remaining in this fiscal year the target percentage remaining for the first quarter report is 75% (9/12).

Overall, the total amount of expenditures at the end of the first quarter, \$2,979,677 is tracking close to budget with 73% remaining. However, this includes \$987,201 in encumbrances for expenses not yet paid. When you deduct the additional amount encumbered for future payments the actual remaining budget is 80%. While the remaining budget varies from 0% to 100% on individual line items, total expenditures are in line with the approved budget and no budget adjustments are recommended at this time.

This report is for information purposes only. As such, no formal Board action is required at this time.

#### IV. REFERENCE MATERIALS

FY 2023-24 First Quarter Budget Expenditure Report

# GOLETA SANITARY DISTRICT FY23-24 QUARTER 1, BUDGET TO ACTUAL

		Budget	Period		YTD		ncumbered	Available	Percent
	Personnel Costs:	\$ 6,433,343	\$ 1,237,945	\$	1,237,945	\$	3,465	\$ 5,191,933	819
4140	Public Education	\$ 75,000	\$ 6,032	\$	6,032	\$	-	\$ 68,968	929
4150	Janitorial	\$ 49,800	\$ 10,227	\$	10,227	\$	-	\$ 39,573	799
4160	Uniforms	\$ 17,175	\$ 1,463	\$	1,463	\$	-	\$ 15,712	919
4170	Licenses & Permits	\$ 150,882	\$ 3,222	\$	3,222	\$	3,399	\$ 144,261	969
4180	Postage/Courier	\$ 3,265	\$ 1,645	\$	1,645	\$	-	\$ 1,620	509
4190	Subscriptions	\$ 7,900	\$ 1,050	\$	1,050	\$	3,150	\$ 3,700	47
4200	Vehicle Repairs & Maintenance	\$ 68,751	\$ 36,546	\$	36,546	\$	29,542	\$ 2,663	4
4210	Liability & Property Insurance	\$ 306,608	\$ 82,222	\$	82,222	\$	-	\$ 224,386	73
4220	Dues & Memberships	\$ 45,833	\$ 689	\$	689	\$	-	\$ 45,144	98
4230	Office Supplies	\$ 16,900	\$ 1,761	\$	1,761	\$	-	\$ 15,139	90
4235	Analysis & Monitoring	\$ 181,200	\$ 2,134	\$	2,134	\$	20,464	\$ 158,602	88
4240	Operating Supplies	\$ 782,005	\$ 198,310	\$	198,310	\$	467,236	\$ 116,459	15
4250	Attorney Fees	\$ 99,000	\$ 699	\$	699	\$	-	\$ 98,301	99
4260	Printing & Publications	\$ 8,058	\$ 560	\$	560	\$	-	\$ 7,498	93
4270	Repairs & Maintenance	\$ 571,392	\$ 65,880	\$	65,880	\$	18,184	\$ 487,328	85
4280	Travel	\$ 66,350	\$ 12,852	\$	12,852	\$	-	\$ 53,498	8
4290	Seminar & Conference Registrat	\$ 57,270	\$ 5,468	\$	5,468	\$	-	\$ 51,802	90
4300	Utilities	\$ 769,887	\$ 179,111	\$	179,111	\$	-	\$ 590,776	7
4310	Election Expense	\$ 12,000	\$ -	\$	-	\$	-	\$ 12,000	100
4320	Depreciation	\$ 3,652,628	\$ 916,244	\$	916,244	\$	-	\$ 2,736,384	75
4330	Computer Service & Maintenance	\$ 207,785	\$ 53,296	\$	53,296	\$	43,584	\$ 110,905	53
4340	Lease/Rentals	\$ 129,263	\$ 27,924	\$	27,924	\$	97,900	\$ 3,439	,
4370	Other Professional Services	\$ 480,455	\$ 53,025	\$	53,025	\$	65,421	\$ 362,009	75
4380	Interest Expense	\$ , -	\$ 41,941	\$	41,941	\$	, -	\$ (41,941)	(
4390	Other Expense	\$ 22,750	\$ 15,264	\$	15,264	\$	_	\$ 7,486	33
4400	Budgeted Machinery & Equip	\$ 91,000	\$ 1,478	\$	1,478	\$	12,553	\$ 76,969	8
	TOTAL:	\$ 14,961,310	\$ 2,979,677	\$	2,979,677	\$	987,201	10,994,432	73
		Budget	Period	<b>y</b>	Year to Date	E	ncumbered	Available	Percen
	Personnel	\$ 6,433,343	\$ 1,237,945	\$	1,237,945	\$	3,465	\$ 5,191,933	8
	Operating Expenses	\$ 4,784,340	\$ 824,010	\$	824,010	\$	971,183	\$ 2,989,146	62
	Depreciation .	\$ 3,652,628	\$ 916,244	\$	916,244	\$	-	\$ 2,736,384	75
	Machinery & Equipment	\$ 91,000	\$ 1,478	\$	1,478	\$	12,553	\$ 76,969	8
	• • •	\$ 14,961,310	\$ 2,979,677	\$	2,979,677	\$	987,201	\$ 10,994,432	73
4315	OPEB Expense	\$ 339,202	\$ 38,617	\$	38,617	\$	-	\$ 300,585	89
	Reconciles to Dept. Detail:	14,622,108	\$ 2,941,060	\$	2,941,060	\$	987,201	10,693,847	7:
	Departmental Report sum:	\$ 14,622,108	\$ 2,941,060	\$	2,941,060	\$	987,201	\$ 10,693,847	
	Unencumbered:								80

# Expense vs Budget

Printed: 11/14/2023 - 10:32 AM

Period: 01 to 03, 2024

Fiscal Year: 2024								
Dept	Description	Budgeted	Period	YTD	YTD Var	<b>Encumbered</b>	Available	%
41	COLLECTION SYSTEM							
	Manager Salary	27,147.22	5,817.78	5,817.78	21,329.44	0.00	21,329.44	78.57
	Operator Salary	650,956.99	134,257.50	134,257.50	516,699.49	0.00	516,699.49	79.38
	Overtime	2,000.00	86.57	86.57	1,913.43	0.00	1,913.43	95.67
	Admin Salary	0.00	372.01	372.01	-372.01	0.00	-372.01	0.00
	Temp Salary	3,114.07	47.90	47.90	3,066.17	0.00	3,066.17	98.46
	PERS	154,144.32	36,820.09	36,820.09	117,324.23	0.00	117,324.23	76.11
	Health Reimb Arrangement Exp.	134,607.67	37,420.45	37,420.45	97,187.22	0.00	97,187.22	72.20
	Health/Life Insurance	40,704.86	10,748.07	10,748.07	29,956.79	821.71	29,135.08	71.58
	W/C Insurance	14,204.68	3,339.18	3,339.18	10,865.50	0.00	10,865.50	76.49
	FICA/Medicare	51,576.31	10,511.72	10,511.72	41,064.59	0.00	41,064.59	79.62
	SUI/ETT	831.01	0.76	0.76	830.25	0.00	830.25	99.91
	Public Education	12,000.00	965.08	965.08	11,034.92	0.00	11,034.92	91.96
	Janitorial	13,300.00	2,639.91	2,639.91	10,660.09	0.00	10,660.09	80.15
	Uniforms	3,675.00	365.85	365.85	3,309.15	0.00	3,309.15	90.04
	Licenses & Permits	4,100.00	0.00	0.00	4,100.00	0.00	4,100.00	100.00
	Postage/Courier	600.00	234.71	234.71	365.29	0.00	365.29	60.88
	Subscriptions	1,100.00	245.01	245.01	854.99	734.99	120.00	10.91
	Vehicle Repairs & Maintenance	45,000.00	34,579.74	34,579.74	10,420.26	22,542.02	-12,121.76	-26.94
	Liability & Property Insurance	72,620.00	20,158.65	20,158.65	52,461.35	0.00	52,461.35	72.24
	Dues & Memberships	2,858.00	188.87	188.87	2,669.13	0.00	2,669.13	93.39
	Office Supplies	2,700.00	357.28	357.28	2,342.72	0.00	2,342.72	86.77
	Analysis & Monitoring	1,000.00	0.00	0.00	1,000.00	0.00	1,000.00	100.00
	Operating Supplies	8,000.00	576.68	576.68	7,423.32	1,819.05	5,604.27	70.05
	Attorney Fees	8,600.00	-1,492.60	-1,492.60	10,092.60	0.00	10,092.60	117.36
	Printing & Publications	800.00	107.77	107.77	692.23	0.00	692.23	86.53
	Repairs & Maintenance	85,000.00	2,908.02	2,908.02	82,091.98	3,773.12	78,318.86	92.14
	Travel	9,400.00	1,280.67	1,280.67	8,119.33	0.00	8,119.33	86.38
	Seminar & Conference Registrat	12,770.00	370.00	370.00	12,400.00	0.00	12,400.00	97.10
	Utilities	19,490.00	4,634.57	4,634.57	14,855.43	0.00	14,855.43	76.22
	Depreciation	696,667.00	174,389.55	174,389.55	522,277.45	0.00	522,277.45	74.97
	Computer Service & Maintenance	49,810.00	21,912.24	21,912.24	27,897.76	7,726.85	20,170.91	40.50
	Lease/Rentals	1,500.00	215.08	215.08	1,284.92	0.00	1,284.92	85.66
	Other Professional Services	133,350.00	24,496.54	24,496.54	108,853.46	22,135.06	86,718.40	65.03
	Interest Expense	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other Expense	1,000.00	0.00	0.00	1,000.00	0.00	1,000.00	100.00
	Budgeted Machinery & Equip	40,500.00	1,478.33	1,478.33	39,021.67	12,552.88	26,468.79	65.36
41	COLLECTION SYSTEM	2,305,127.13	530,033.98	530,033.98	1,775,093.15	72,105.68	1,702,987.47	73.88

# Expense vs Budget

Printed: 11/14/2023 - 10:32 AM

Period: 01 to 03, 2024

Fiscal Year: 2024

Fiscal Year: 2024								
Dept	Description	Budgeted	Period	YTD	YTD Var	Encumbered	<b>Available</b>	%
42	TREATMENT FACILITIES							
	Manager Salary	162,883.30	34,450.62	34,450.62	128,432.68	0.00	128,432.68	78.85
	Operator Salary	1,492,620.20	215,006.83	215,006.83	1,277,613.37	0.00	1,277,613.37	85.60
	Overtime	9,000.00	1,751.13	1,751.13	7,248.87	0.00	7,248.87	80.54
	Admin Salary	0.00	9,604.31	9,604.31	-9,604.31	0.00	-9,604.31	0.00
	Temp Salary	7,395.91	240.08	240.08	7,155.83	0.00	7,155.83	96.75
	PERS	426,664.68	89,269.87	89,269.87	337,394.81	0.00	337,394.81	79.08
	Health Reimb Arrangement Exp.	328,627.16	68,035.89	68,035.89	260,591.27	0.00	260,591.27	79.30
	Health/Life Insurance	99,375.64	19,511.61	19,511.61	79,864.03	1,187.15	78,676.88	79.17
	W/C Insurance	34,678.89	8,152.14	8,152.14	26,526.75	0.00	26,526.75	76.49
	FICA/Medicare	123,760.98	18,965.44	18,965.44	104,795.54	0.00	104,795.54	84.68
	SUI/ETT	2,025.50	3.85	3.85	2,021.65	0.00	2,021.65	99.81
	Public Education	29,000.00	2,292.08	2,292.08	26,707.92	0.00	26,707.92	92.10
	Janitorial	23,500.00	4,799.52	4,799.52	18,700.48	0.00	18,700.48	79.58
	Uniforms	11,180.00	868.71	868.71	10,311.29	0.00	10,311.29	92.23
	Licenses & Permits	128,682.00	3,152.34	3,152.34	125,529.66	3,399.16	122,130.50	94.91
	Postage/Courier	1,100.00	1,081.03	1,081.03	18.97	0.00	18.97	1.72
	Subscriptions	4,600.00	647.49	647.49	3,952.51	1,942.51	2,010.00	43.70
	Vehicle Repairs & Maintenance	17,511.00	1,761.00	1,761.00	15,750.00	7,000.00	8,750.00	49.97
	Liability & Property Insurance	163,928.00	42,813.21	42,813.21	121,114.79	0.00	121,114.79	73.88
	Dues & Memberships	6,900.00	95.16	95.16	6,804.84	0.00	6,804.84	98.62
	Office Supplies	5,900.00	301.74	301.74	5,598.26	0.00	5,598.26	94.89
	Analysis & Monitoring	99,100.00	0.00	0.00	99,100.00	0.00	99,100.00	100.00
	Operating Supplies	681,534.00	184,994.65	184,994.65	496,539.35	455,382.16	41,157.19	6.04
	Attorney Fees	17,100.00	414.00	414.00	16,686.00	0.00	16,686.00	97.58
	Printing & Publications	3,500.00	38.67	38.67	3,461.33	0.00	3,461.33	98.90
	Repairs & Maintenance	390,500.00	59,998.70	59,998.70	330,501.30	12,181.04	318,320.26	81.52
	Travel	13,000.00	3,357.35	3,357.35	9,642.65	0.00	9,642.65	74.17
	Seminar & Conference Registrat	20,300.00	874.00	874.00	19,426.00	0.00	19,426.00	95.69
	Utilities	539,400.00	130,220.70	130,220.70	409,179.30	0.00	409,179.30	75.86
	Depreciation	2,285,485.12	574,339.89	574,339.89	1,711,145.23	0.00	1,711,145.23	74.87
	Computer Service & Maintenance	113,800.00	24,440.31	24,440.31	89,359.69	28,300.65	61,059.04	53.65
	Lease/Rentals	125,000.00	27,297.00	27,297.00	97,703.00	97,900.00	-197.00	-0.16
	Biosolids Hauling	654,810.00	22,688.53	22,688.53	632,121.47	222,303.35	409,818.12	62.59
	Other Professional Services	193,300.00	14,025.06	14,025.06	179,274.94	36,656.96	142,617.98	73.78
	Other Expense	400.00	200.00	200.00	200.00	0.00	200.00	50.00
	Budgeted Machinery & Equip	7,500.00	0.00	0.00	7,500.00	0.00	7,500.00	100.00
42	TREATMENT FACILITIES	8,224,062.38	1,565,692.91	1,565,692.91	6,658,369.47	866,252.98	5,792,116.49	70.43

# Expense vs Budget

Printed: 11/14/2023 - 10:32 AM

Period: 01 to 03, 2024

Fiscal Year: 2024

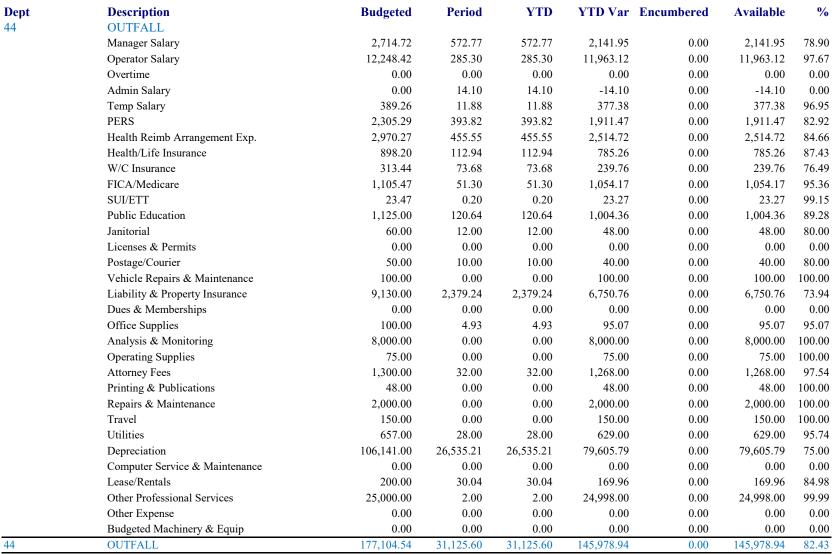
Dept	Description	Budgeted	Period	YTD	YTD Var	Encumbered	Available	%
43	PUMP STATION							
	Manager Salary	8,144.16	1,723.26	1,723.26	6,420.90	0.00	6,420.90	78.84
	Operator Salary	119,985.68	24,472.19	24,472.19	95,513.49	0.00	95,513.49	79.60
	Overtime	300.00	97.31	97.31	202.69	0.00	202.69	67.56
	Admin Salary	0.00	1,807.84	1,807.84	-1,807.84	0.00	-1,807.84	0.00
	Temp Salary	194.63	11.88	11.88	182.75	0.00	182.75	93.90
	PERS	28,248.90	8,050.31	8,050.31	20,198.59	0.00	20,198.59	71.50
	Health Reimb Arrangement Exp.	25,434.53	5,050.41	5,050.41	20,384.12	0.00	20,384.12	80.14
	Health/Life Insurance	7,691.31	1,518.25	1,518.25	6,173.06	0.00	6,173.06	80.26
	W/C Insurance	2,684.02	630.96	630.96	2,053.06	0.00	2,053.06	76.49
	FICA/Medicare	9,632.81	2,288.21	2,288.21	7,344.60	0.00	7,344.60	76.25
	SUI/ETT	150.72	0.18	0.18	150.54	0.00	150.54	99.88
	Public Education	750.00	60.31	60.31	689.69	0.00	689.69	91.96
	Janitorial	100.00	18.00	18.00	82.00	0.00	82.00	82.00
	Postage/Courier	100.00	15.00	15.00	85.00	0.00	85.00	85.00
	Vehicle Repairs & Maintenance	200.00	0.00	0.00	200.00	0.00	200.00	100.00
	Liability & Property Insurance	7,600.00	2,636.10	2,636.10	4,963.90	0.00	4,963.90	65.31
	Dues & Memberships	100.00	0.00	0.00	100.00	0.00	100.00	100.00
	Office Supplies	200.00	9.88	9.88	190.12	0.00	190.12	95.06
	Operating Supplies	1,000.00	182.08	182.08	817.92	0.00	817.92	81.79
	Attorney Fees	400.00	10.00	10.00	390.00	0.00	390.00	97.50
	Printing & Publications	50.00	0.00	0.00	50.00	0.00	50.00	100.00
	Repairs & Maintenance	22,000.00	926.01	926.01	21,073.99	617.47	20,456.52	92.98
	Travel	100.00	0.00	0.00	100.00	0.00	100.00	100.00
	Utilities	78,300.00	5,884.55	5,884.55	72,415.45	0.00	72,415.45	92.48
	Computer Service & Maintenance	6,500.00	783.50	783.50	5,716.50	893.14	4,823.36	74.21
	Lease/Rentals	250.00	30.94	30.94	219.06	0.00	219.06	87.62
	Other Professional Services	1,000.00	21.00	21.00	979.00	0.00	979.00	97.90
	Other Expense	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Budgeted Machinery & Equip	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43	PUMP STATION	321,116.76	56,228.17	56,228.17	264,888.59	1,510.61	263,377.98	82.02

# Expense vs Budget

Printed: 11/14/2023 - 10:32 AM

Period: 01 to 03, 2024

Fiscal Year: 2024



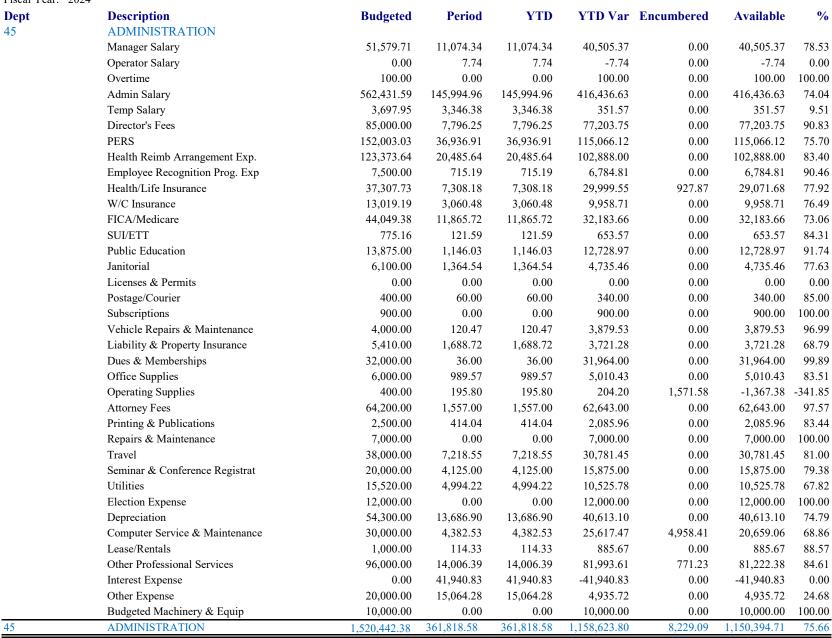


# Expense vs Budget

Printed: 11/14/2023 - 10:32 AM

Period: 01 to 03, 2024

Fiscal Year: 2024

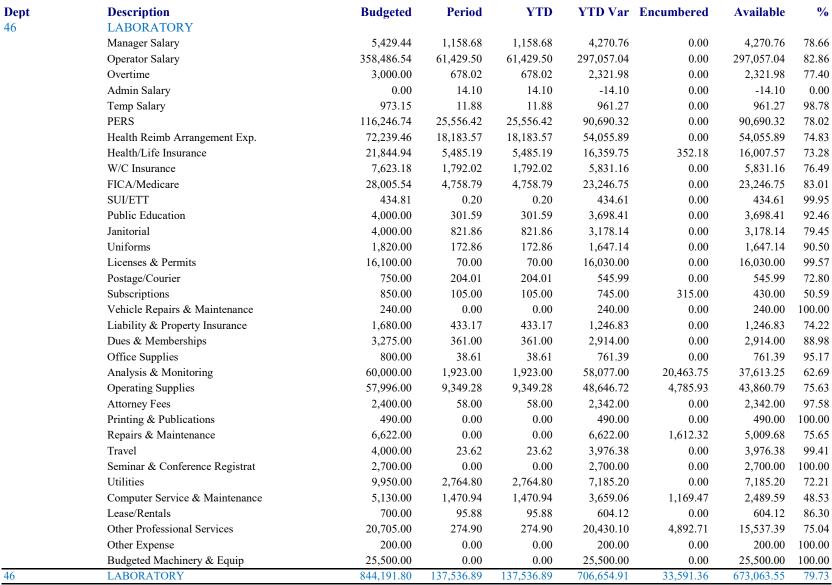


# Expense vs Budget

Printed: 11/14/2023 - 10:32 AM

Period: 01 to 03, 2024

Fiscal Year: 2024



**GOLETA SANITARY** 

Water Resource Recovery District One William Moffett Place, Goleta, CA 93117

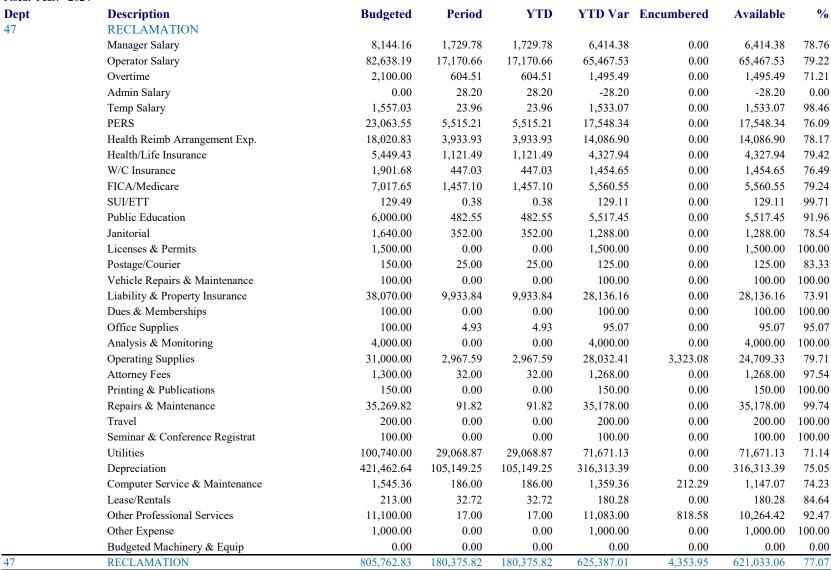
Phone:(805) 967-4519 Fax: (805) 964-3583

# Expense vs Budget

Printed: 11/14/2023 - 10:32 AM

Period: 01 to 03, 2024

Fiscal Year: 2024



**GOLETA SANITARY** 

Water Resource Recovery District One William Moffett Place, Goleta, CA 93117

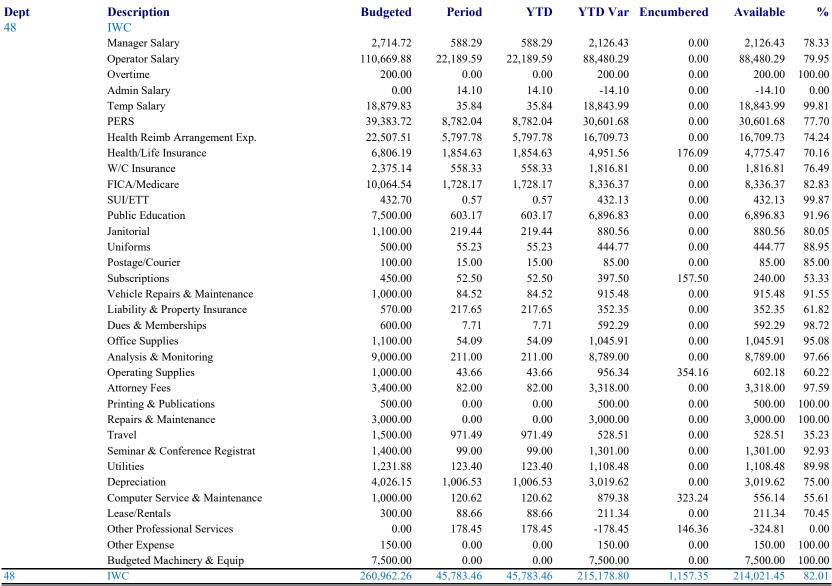
Phone:(805) 967-4519 Fax: (805) 964-3583

# Expense vs Budget

Printed: 11/14/2023 - 10:32 AM

Period: 01 to 03, 2024

Fiscal Year: 2024



**GOLETA SANITARY** 

Water Resource Recovery District One William Moffett Place, Goleta, CA 93117

Phone:(805) 967-4519 Fax: (805) 964-3583

# Expense vs Budget

Printed: 11/14/2023 - 10:32 AM

Period: 01 to 03, 2024

Fiscal Year: 2024

Dept	Description	Budgeted	Period	YTD	YTD Var	Encumbered	Available	%
49	FIRESTONE LIFT STATION							
	Manager Salary	2,714.72	579.32	579.32	2,135.40	0.00	2,135.40	78.66
	Operator Salary	25,392.77	2,580.04	2,580.04	22,812.73	0.00	22,812.73	89.84
	Overtime	100.00	0.00	0.00	100.00	0.00	100.00	100.00
	Admin Salary	0.00	14.10	14.10	-14.10	0.00	-14.10	0.00
	Temp Salary	194.63	11.87	11.87	182.76	0.00	182.76	93.90
	PERS	4,811.75	1,012.45	1,012.45	3,799.30	0.00	3,799.30	78.96
	Health Reimb Arrangement Exp.	5,579.50	1,070.43	1,070.43	4,509.07	0.00	4,509.07	80.81
	Health/Life Insurance	1,687.22	283.70	283.70	1,403.52	0.00	1,403.52	83.19
	W/C Insurance	588.79	138.42	138.42	450.37	0.00	450.37	76.49
	FICA/Medicare	2,103.77	237.57	237.57	1,866.20	0.00	1,866.20	88.71
	SUI/ETT	35.49	0.21	0.21	35.28	0.00	35.28	99.41
	Public Education	750.00	60.31	60.31	689.69	0.00	689.69	91.96
	Licenses & Permits	500.00	0.00	0.00	500.00	0.00	500.00	100.00
	Postage/Courier	15.00	0.00	0.00	15.00	0.00	15.00	100.00
	Vehicle Repairs & Maintenance	600.00	0.00	0.00	600.00	0.00	600.00	100.00
	Liability & Property Insurance	7,600.00	1,961.91	1,961.91	5,638.09	0.00	5,638.09	74.19
	Dues & Memberships	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Office Supplies	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Analysis & Monitoring	100.00	0.00	0.00	100.00	0.00	100.00	100.00
	Operating Supplies	1,000.00	0.00	0.00	1,000.00	0.00	1,000.00	100.00
	Attorney Fees	300.00	7.00	7.00	293.00	0.00	293.00	97.67
	Printing & Publications	20.00	0.00	0.00	20.00	0.00	20.00	100.00
	Repairs & Maintenance	20,000.00	1,954.98	1,954.98	18,045.02	0.00	18,045.02	90.23
	Utilities	4,598.59	1,391.97	1,391.97	3,206.62	0.00	3,206.62	69.73
	Depreciation	84,546.00	21,136.38	21,136.38	63,409.62	0.00	63,409.62	75.00
	Computer Service & Maintenance	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lease/Rentals	100.00	19.74	19.74	80.26	0.00	80.26	80.26
	Other Professional Services	0.00	4.00	4.00	-4.00	0.00	-4.00	0.00
	Budgeted Machinery & Equip	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49	FIRESTONE LIFT STATION	163,338.23	32,464.40	32,464.40	130,873.83	0.00	130,873.83	80.12
	D (T) 1	14 (22 100 21	2.041.050.01	2.041.050.01	11 (01 040 70	007.201.02	10 (02 047 40	72.12
	Report Totals:	14,622,108.31	2,941,039.81	2,941,059.81	11,681,048.50	987,201.02	10,693,847.48	73.13

# **AGENDA ITEM #2**

AGENDA ITEM: 2

**MEETING DATE: November 20, 2023** 

#### I. NATURE OF ITEM

Review of Biosolids End Use Market Assessment Technical Memorandum

#### II. BACKGROUND INFORMATION

The District currently produces Class B biosolids, which are hauled and composted by Synagro at their Liberty Composting facility in Kern County, CA. After completion of Phase 2 of the Biosolids and Energy Strategic Plan (BESP), now known as the Solids Handling Improvement Project (SHIP), the District will produce Class A biosolids, which are much drier and of greater beneficial use. Compared to Class B biosolids, Class A biosolids have fewer use restrictions and more potential end users.

During preparation of the BESP in 2018, Hazen and Sawyer (Hazen) assessed the District's biosolids management and reuse options. Hazen conducted a preliminary assessment of the regional market demand for Class A biosolids to evaluate viable options for the District's solid waste stream. Several potential end users were identified during this effort. In 2023, the District requested that Hazen revisit the end use market assessment to understand how the market for the Class A product has changed since 2018. Hazen subsequently conducted a renewed biosolids end use market assessment, including regulatory review, prospective product characterization, local markets and businesses identification, and potential end user survey. The updated Biosolids End Use Market Assessment Technical Memorandum is attached for reference.

The key takeaways are as follows:

- 1. Entities from both private and public sectors expressed potential interest in receiving the District's biosolids including parks, nurseries, and a landscaping company.
- 2. Interest is contingent on several factors, including seeing the physical product, the results of chemical and physical analyses, the cost to the end user, and quantity which can be received by the end user. Each potentially interested end user requested a sample of the Class A biosolids.
- 3. End users had hesitations about the public's perception of using biosolids, indicating the potential for increased public education and outreach on the benefits of biosolids.
- 4. Emerging contaminants like PFAS and microplastics are another hindrance to public perception of biosolids. Furthermore, any future regulation of PFAS or microplastics may affect interested end users' ability to receive and utilize biosolids. The District will continue to monitor the evolution of regulations surrounding emerging contaminants and biosolids.

The District plans to utilize the information enclosed in the technical memorandum to continue conversations with local entities which expressed potential interest in Class A biosolids. As part of the SHIP, several drums of class B biosolids were dried in a test facility operated by a thermal dryer vendor. The resulting Class A biosolids were shipped back to the District, and Staff are preparing to provide samples to potential end users as requested.

# III. COMMENTS AND RECOMMENDATIONS

This is an informational item only, and no Board action is required at this time.

## IV. REFERENCE MATERIALS

Biosolids End Use Market Assessment Technical Memorandum



November 14, 2023

To: Steve Wagner, PE

From: Derya Dursun, PhD, PE

Anne Sun, PhD

Reviewed by: Rion Merlo, PhD, PE, PMP

# FINAL - Biosolids End Use Market Assessment

# **Executive Summary**

Goleta Sanitary District (GSD) owns and operates the Goleta Water Resource Recovery Facility (WRRF) which currently produces Class B biosolids that is managed by a third-party contractor. In an effort to establish a long-term and sustainable biosolids management program, GSD has decided to implement a new thermal dryer facility, which will enable GSD to produce Class A/EQ¹ dried product upon its completion. To understand whether there is a viable market for the Class A product, a biosolids end use market assessment was conducted with tasks including regulatory review, prospective product characterization, local markets and businesses identification, and potential end user survey.

The market assessment findings revealed existing and potential demands for biosolids in the markets of agriculture, soil and sod manufacturing, landscaping and organizations in areas surrounding GSD. Entities from both private and public sectors showed interest in taking GSD's prospective product biosolids because of GSD's close proximity and potential cost savings. They also expressed reservations due to the limited characteristics information and public perception of biosolids. These findings emphasized the importance of distributing sample products among end users and improving public education on the environmental and economic benefits of biosolids, ultimately leading to more market potential. Lastly, three potential product delivery approaches including third-party contracting, direct delivery and in-house marketing, and request for proposal of purchase, are discussed regarding their advantages and disadvantages.

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Class A biosolids have higher levels of pathogen removal and are virtually free of pathogens. Class A biosolids have the same metals requirements as Class B. The metals requirements of EQ biosolids are lower than Class A and Class B and GSD currently meets the metals requirements of EQ biosolids.



# 1. Background and Introduction

Goleta Sanitary District (GSD) owns and operates the Goleta Water Resource Recovery Facility (WRRF). The WRRF has an annual average design flow capacity of 9.6 million gallons per day (mgd) and is currently treating an annual average wastewater flow of approximately 5.0 mgd. The treatment process at the WRRF begins with bar screens to remove large debris and aerated grit tanks and two cyclone separators to remove grit and sand. The wastewater then flows into three primary clarifiers for solids removal prior to secondary treatment. The secondary treatment at the WRRF includes biofilters, three aeration basins, and four secondary clarifiers.

Currently, solids treatment process includes screw thickener followed by mesophilic anaerobic digestion and dewatering via screw press to produce Class B biosolids. As part of *Solids Handling Improvement Project (SHIP)*, GSD will address future needs for the increasing solids flow and loads and diversify biosolids beneficial use outlets by implementing a thermal dryer system to produce Class A/Exceptional Quality (EQ) biosolids. In 2018, as part of Biosolids and Energy Strategic Plan (BESP) Hazen conducted a preliminary assessment of the market demand for end products to evaluate viable options for GSD's biosolids. As the project moved into the design phase, indirect thermal dryers were selected for implementation. It is now critical to review and update the end use market study and ensure sustainable, economic outlet for thermal dryer end product.

To this end, Hazen conducted a biosolids end-use market assessment, with an overarching goal to incorporate the recent regulatory information and provide an overview of local market viability. The study incorporated the following three essential topics associated with the thermal dryers, including:

- the regulatory requirements guiding local biosolids end use;
- the end product characteristics;
- the preferences and demand of potential local customers.

# 2. Approach

The biosolids end-use market assessment was conducted in a systematic manner including the following five tasks shown in Figure 2-1. The details for each step are briefly described below.

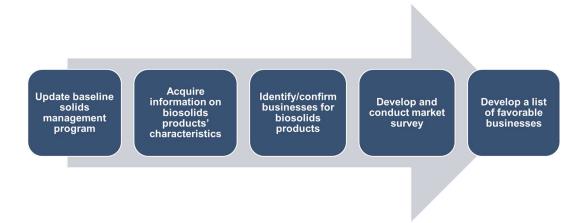


Figure 2-1 Biosolids End-use Market Assessment Approach



### Update baseline biosolids management program

Understanding the existing biosolids management program provides a comparison of baseline to alternative biosolids products and market options. Biosolids management data from 2015 through 2018 was reviewed in Biosolids End Use Market Study in 2018. The review was updated with data from 2018 to 2023 to understand the trends in biosolids produced, land applied, stored, processed at an off-site facility, as well as the location of land application sites where the District's biosolids are land applied.

#### Acquire information on biosolids products' characteristics

Characterizing each biosolids product is critical to understand product marketability. Hazen reached out to thermal dryer technology providers for biosolids products' physical (moisture content, stickiness, dustiness, hardness) and chemical (odor, nutrients, pH, soluble salts, etc.) characteristics, and request to have a sludge sample from Goleta processed with a pilot-scale thermal dryer. A biosolids sample from thermal dryer will be sent to some interested businesses listed in a later step. In parallel, characteristics of thermally dried biosolids reference installations and previous project reports were reviewed and summarized in Section 4. The collected data was used for following steps of evaluation.

#### Identify/confirm businesses for receiving biosolids products

Per Biosolids End Use Market Study, a list of biosolids beneficial use markets and businesses were identified. Hazen reached out to the businesses listed in the 2018 End-use study to confirm their interests in receiving dried Class A/EQ product from the GSD.

### Develop survey questions and conduct market survey

An updated survey for the identified businesses in the study is critical to understanding the current market acceptance and viability. A specific questionnaire was developed to ensure adequate and consistent data collection and compilation for each interview/survey. Businesses were surveyed with the questionnaire via emails and/or phone calls. Biosolids products' characteristics were provided to each interviewee for consideration. A subset of interviewed individuals will receive product samples to further evaluate the products.

#### Develop a list of favorable businesses

The information gathered from the previous step was used to identify the benefits and challenges associated with each biosolids products outlet as it pertains specifically to GSD and the surrounding area.



# 3. Regulatory Review

In California, biosolids use is regulated at the Federal, State, and Local levels. Regulations governing biosolids establish standards for the quality of biosolids generated and the opportunities available for beneficial use or disposal. The regulations have been crafted in a manner to provide flexibility in management options, while also protecting human health and the environment. The following sections briefly describe the primary regulations related to biosolids generation and end use in California, specifically related to GSD's current and potential biosolids processing and management methods.

# 3.1 Federal Regulations

The management practices for the use and disposal of biosolids are regulated at the federal level by the Standards for the Use or Disposal of Sewage Sludge (40 Code of Federal Regulations (CFR) Part 503). The management practices are mainly focused on pollutant limits, pathogen reduction (PR), and vector attraction reduction (VAR) as summarized in Table 3-1 and Table 3-2.

Table 3-1 Federal Regulations on Biosolids Land Application

Category	Description
Pollutants	Nine pollutants, including arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc are regulated for land application per Table 1, 2 and 3 of Part 503. Table 1, 2 and 3 of Part 503 are summarized in Table 3-2 below.
Pathogen Reduction (PR)	40 CFR Part 503 defines six Alternatives to meet Class A PR (Processes to Further Reduce Pathogens), and three Alternatives to meet Class B PR standards (Processes to Significantly Reduce Pathogens). Class A/EQ PR is defined as consisting of processes to further reduce pathogens (PFRP) to very low limits as defined in Part 503.Class A/EQ biosolids can be used as fertilizer, soil amendments, soil conditioner, surface disposal, and other uses at public contact sites in addition to agricultural land.
Vector Attraction Reduction (VAR)	VAR is the ability of biosolids to attract vectors that may come in contact and transport pathogens offsite from the application site. Ten alternatives are available for Class A and B biosolids, including eight options that are of the biosolids processing at the wastewater treatment plant, and two barrier Options. VAR must be met when biosolids are applied to agricultural land, forest, a public contact site, a reclamation site, a lawn, a home garden, or transported in a bag or other container for land application. Specific requirements must be met depending on the application of the biosolids according to Part 503.



Table 3-2 Ceiling concentrations, cumulative pollutant loading rates, and pollutant concentrations per Part 503

Pollutant	Ceiling concentration (milligrams per kilogram) <sup>1</sup>	Cumulative pollutant loading rate (kilograms per hectare)	Monthly average concentration (milligrams per kilogram) <sup>1</sup>
Arsenic	75	41	41
Cadmium	85	39	39
Copper	4300	1500	1500
Lead	840	300	300
Mercury	57	17	17
Molybdenum	75	-	-
Nickel	420	420	420
Selenium	100	100	100
Zinc	7500	2800	2800

<sup>&</sup>lt;sup>1</sup> Dry weight basis.

# 3.2 State and Local Regulations

California's biosolids regulations regarding biosolids end use options including land application, composting, or landfill disposal are summarized in Table 3-3 below. A more detailed description of regulations on each category can be found in the initial Biosolids End Use Market Study conducted in 2018.

Table 3-3 State Regulations on Biosolids Disposal in California

Biosolids	Regulatory	Policy	Description
Disposal  Land Application	Agency in Charge State Water Resource Control Board (SWCB)	No. 2004-12-DWQ (also known as General Order)	In line with 40 CFR Part 503 regulations of pollutants, PR, and VAR  Mercury limits more restrictive (GO Ceiling Concentration 17 mg/kg)  Streamline the process to permit the beneficial use of Class B biosolids products  EQ biosolids are generally exempt from the General Order except for large quantity application
Compost	CalRecycle	California Integrated Waste Management Regulations Composting General Order (CGO)	Tiered permit requirements for composting operations Finished products to meet Class pathogen reduction standards and pollutant limits, and requires contaminants to be <0.5% (dry weight basis) when screened by a 4 mm sieve (CGO) Up-to-date farm water quality management plans required for agricultural application in bulk (CGO) Waste Discharge Requirement (WDR) or exempt if non-agricultural use (CGO)
Landfilling	CalRecycle	Assembly Bill 1594 Senate Bill (SB) 1383	<ul> <li>Removes the incentive for the use of green waste (including biosolids) as Alternative Daily Cover (AB 1594)</li> <li>Divert 75% of organic waste from landfills (based on 2014 levels) by 2025 (SB 1383)</li> </ul>



Local jurisdictions in California currently have the ability to set regulations that are more restrictive than the State or Federal Regulations. Santa Barbara County currently has no additional ordinances or regulations enacted for biosolids end use. However, among the surrounding counties, Kern County and San Luis Obispo County have enacted bans on Class B biosolids, and Ventura County requires conditional use permits.

# 3.3 Future Regulatory Considerations

There has been significant progress related to the occurrence of emerging contaminants in biosolids in the last decade and their impact on overall biosolids end use is still uncertain. The following section briefly describes the anticipated future regulatory changes around emerging contaminants and provides information on anticipated timeline.

# 3.3.1 Per- and Polyfluoroalkyl Substances (PFAS)

With an increasing understanding of the ecological and health toxicity of PFAS over the last two decades, the EPA took a series of actions to mitigate PFAS contamination in the environment and engineered water systems. However, to date, the EPA has not established requirements for biosolids but has taken steps toward doing so by developing the PFAS Strategic Roadmap in 2021 ("PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024", 2021).

As part of the PFAS Strategic Roadmap, the EPA outlined the pathway to understand, reduce and remediate PFAS in the environment. In the PFAS Strategic Roadmap, the EPA announced their plan to leverage the National Pollutant Discharge Elimination System (NPDES) authorities for PFAS discharge permits and address two of the most widely used PFAS, PFOA and PFOS in biosolids, by conducting a risk assessment by Winter 2024. The risk assessment will serve as the basis for regulation of PFOA and PFOS in biosolids to protect public health and wildlife health from the effects resulting from exposure. It is anticipated that a final rule that regulates the PFAS content in biosolids will be issued between 2025 and 2026 with a 5-year compliance schedule of 2026-2031. In April 2023, the EPA took another important step to advance PFAS Strategic Roadmap and requested public input and data to inform potential future regulations for hazardous substance designations of PFAS under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Figure 3-1 summarizes a roadmap of PFAS regulations pertaining to biosolids in the near future.



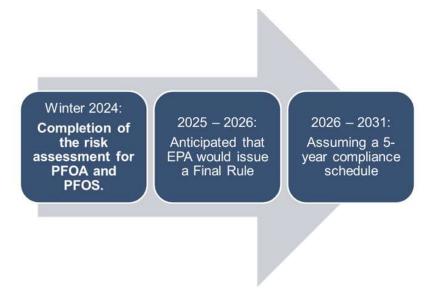


Figure 3-1 EPA Regulatory Roadmap for Biosolids

States are also subjected to EPA's 40 CFR Part 503 Rule for biosolids use and disposal, but also can make independent decisions on biosolids management while complying with the federal rule. Many state agencies have taken actions to address PFAS contamination in treated wastewater and biosolids concerning their toxicity. Table 3-1 shows a summary of actions taken in other states.

Table 3-3-4 Examples of Statewide Actions regarding PFAS in Biosolids

State	Action					
Maine	Land application of biosolids fully suspended					
Michigan	Biosolids exceeding 125 μg/kg PFOS deemed to be industrially impacted and cannot be					
	land applied; launched Industrial Pretreatment Program (IPP) Initiative which requires					
	PFAS pretreatment for industrial dischargers					
Massachusetts	Require facilities approved for biosolids land application to test for PFAS quarterly					
New Hampshire	Require PFAS monitoring in biosolids					
New York	Established interim PFOS and PFOA criteria for biosolids that are recycled in New York					
	State:					
	- Biosolids with PFAS (PFOS/PFOA) between 20 and 50 μg/kg will be restricted					
	from recycling after one year					
	- Biosolids with PFAS (PFOS/PFOA) greater than 50 μg/kg are deemed					
	industrially impacted and prohibited from recycling until dropping below 20 μg/kg					
South Carolina	Request producers of municipal and industrial sludge sample for PFAS constituents in					
	permit application for land application of sludge					
Wisconsin	Biosolids exceeding 150 μg/kg PFOS and PFOA combined deemed to be industrially					
	impacted and cannot be land applied					

The California State Water Resource Control Board currently does not regulate PFAS in wastewater and biosolids, yet per Order WQ 2020-0015-DWQ required POTWs with dry weather design flows higher than one million gallons per day of wastewater to conduct testing of PFAS in wastewater influent, effluent, biosolids, and in some cases groundwater. GSD has collected samples and conducted monitoring of PFAS for a year. The reported data is published on California State Water Resource Control Boards



webtool (<a href="https://geotracker.waterboards.ca.gov/map/pfas\_map">https://geotracker.waterboards.ca.gov/map/pfas\_map</a>). The biosolids end use can be directly impacted if/when PFAS regulations take effect.

#### 3.3.2 Other emerging contaminants

Besides PFAS, microplastics have recently been considered as emerging contaminants for biosolids. Microplastics are solid polymeric material that vary in their sizes, morphology, origin, structure (Harley-Nyang et al., 2022). In scientific literature, microplastics typically refer to plastics particles, fibers, and fragments between 1 µm and 5 mm. California is leading the development of regulations regarding microplastics in drinking water; there are no regulations under development for microplastics in wastewater biosolids at this time. Research has shown that microplastics can accumulate in sludge and biosolids (Beni et al., 2023). Microplastics can be potentially removed in some PFAS destructive technologies, yet their removal efficiency along with occurrence and transformation in solid treatment is insufficiently understood and requires further scientific investigation. While the formation of regulatory measures for microplastic content in biosolids and wastewater is still relatively distant in the future, it would be beneficial for GSD to follow regulatory developments around emerging contaminants and understand the associated risks in case of potential changes in regulatory requirements.

# 4. End Product Projections

It is critical to understand the end product's quantity, quality including nutrient characteristics, and potential future regulations related to contaminants of emerging concerns. The following sections summarize the projections for future anticipated biosolid amount, characteristics.

# 4.1 Projected Products Biosolids Quantity

GSD currently processes combined primary and secondary sludge with screw thickening, mesophilic anaerobic digestion, and screw press dewatering. The dewatered sludge has an average solid content of 16%. As part of the SHIP, GSD will install a centrifuge as the primary dewatering unit upstream from the thermal dryer. Originally GSD considered including co-digestion of high strength waste (HSW), however that project is currently put on hold. Table 4-2 summarizes the projected dried cake production based on the preliminary design. It needs to be noted that the solid content in thermal dryer product biosolids can reach beyond 90% TS, however the projections below were approximated based on a 90% TS. Moreover, Table 4-2 includes conditions with and without HSW co-digestion, to evaluate the worst-case scenario in case GSD will move forward to implement co-digestion.



Condition	8 Hour ( Without HS	Operation W Addition		peration With o-digestion <sup>1</sup>				
	2025	2045	2025	2045				
Dried Product Rate Ibs/week <sup>2</sup>								
Annual Average	66,491	74,084	71,009	78,856				
Maximum Month	85,392	89,251	90,638	94,665				
Dried Product Rate cuyd/week								
Annual Average	49	55	53	58				
Maximum Month	63	66	67	70				

Table 4-1 Projected Dried Class/A product generation

#### 4.2 Product Characteristics

In order to understand the characteristics of dried product, Hazen reached out to thermal dryer vendors for sample analysis from reference installations and searched literature for thermally dried biosolids. The characteristics of thermal dryer product biosolids were summarized from literature information, and reported historical data from GSD. The results are compiled in Table 4-1, and the individual reference can be found in Appendix A.

The dewatered biosolids currently produced by GSD have an average solids content of 16%, whilst the dried granules/pellets from thermal dryers will be higher than 90% TS. As a result, the volume of biosolids produced will be significantly reduced and consequently reduce the storage and hauling needs. Current product solids contain a relatively high percentage of volatile solids, which could be significantly removed through thermal processing in thermal dryers.

End-users' selection of fertilizers and soil amendments is largely driven by the N-P-K (nitrogen, phosphorous, potassium) content of the material. To this end, it can be helpful to understand the N-P-K content of biosolids materials if used for various land applications. The nutrient content of thermal dryer product biosolids from previous installments are also listed in the table above. The ratio of N-P-K is lower compared to synthesized commercial fertilizers – for instance, many fertilizers on the market has N-P-K ratio of 10-5-5 (10% nitrogen and 5% of potassium and phosphorous). However, Class A/EQ biosolids typically are much more cost-efficient although a higher application rate is needed. It should be noted that biosolids from each facility are unique and it will not be possible to have a representative sample unless the thermal dryer is in place.

<sup>&</sup>lt;sup>1</sup>HSW Co-digestion currently excluded from SHIP and could be implemented in the future

<sup>&</sup>lt;sup>2</sup>Assume 90% TS



**Table 4-2 Characteristic of End Products** 

	Current (Class B Cake) 1	Anticipated Future (Class A/EQ Dried Product)
Process	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,
Product	Dewatered Cake	Dried Granule/Pellet
Classification	Class B	Class A
General Characteristics		
pH	7.84	5.5-7.5
Total Solids	16.3%	≥ 90-98%
Volatile Solids	69.5%	60-70%
Bulk Density (lb/cy)	-	Approximately 1,400
Odor Potential	Moderate	Low to Moderate
Storage Type/Stacking	Storage tank	Silo or Storage Pad
Texture	Sticky	Granules with Some Dust
Nutrients		
Total-Nitrogen	8,036 ppm	4.4-8.3%
Organic-Nitrogen	6,818 ppm	3.5-8.0%
Sulfur	N/A	0.65-0.75%
Phosphorous as P <sub>2</sub> O <sub>5</sub>	N/A	3.5-6.3%
Potassium as K <sub>2</sub> O	N/A	0.5-1.0%
Sodium	N/A	0.04-0.07%
Carbon Content	N/A	25-50%

<sup>&</sup>lt;sup>1</sup> Based on 2018-2022 Historical Average

# 4.3 Regulated Pollutants

Conservative estimates of the regulated metal concentrations were estimated based on the solid content in product biosolids and historical values. As seen in Table 4-3, the predicted levels of regulated pollutants in thermally dried biosolids are similar to the historical dry weight value, significantly falling below the EPA ceiling values. Therefore, it is not anticipated that dried product will exceed ceiling limits.



Table 4-3 Historical and approximated metal pollutant concentrations in product biosolids

Pollutant	Ceiling concentration (milligrams per kilogram) <sup>1</sup>	Historical Biosolids Concentration (milligrams per kilogram) <sup>1,2,3</sup>	Anticipated Thermal Dryer End Product Concentration (2025) (milligrams per kilogram) <sup>4</sup>
Arsenic	75	6.3 <sup>3</sup>	5.7-6.2
Cadmium	85	0.94 <sup>3</sup>	0.85-0.92
Copper	4300	912	821-894
Lead	840	18	16.2-17.6
Mercury	57	0.95	0.86-0.93
Molybdenum	75	18	16.2 17.6
Nickel	420	33	29.7-32.3
Selenium	100	7.8	7.0-7.6
Zinc	7500	1319	1187-1293

<sup>&</sup>lt;sup>1</sup> Dry weight basis

#### 4.4 PFAS Considerations

GSD has conducted PFAS testing in its wastewater influent, effluent and biosolids in 2020 and 2021, and the sampling results are summarized in Table 4-4. Among the 32 targeted analytes, N-MEFOSAA, N-MEFOSA, PFBS, PFOA and PFUDA were detected in the biosolids. Currently, there are no PFAS regulations in California, however it is important to consider the potential for regulations in the future. Although some PFAS compounds can volatilize or break down into short-chain PFAS at high temperatures, thermal dryers are not effective at removing PFAS. If PFAS regulations were promulgated in the future, the dried product produced from the thermal dryer could be directed to a destruction process such as pyrolysis that could be located adjacent to the thermal dryer facility.

<sup>&</sup>lt;sup>2</sup> Average value from 2018-2022

<sup>&</sup>lt;sup>3</sup> High estimate from 2018-2022

<sup>&</sup>lt;sup>4</sup> The range corresponds to dried product with 90-98% TS



Table 4-4 PFAS Testing Results of Biosolids in 2020 and 2021

		Class B Biosolids				
Analyte (ng/L)	Dec 202	Mar-21	Apr-21	Aug-21		
11-CL- PF3OUNDS	< LOQ	< LOQ	< LOQ	< LOQ		
9-CL-PF3ONS	< LOQ	< LOQ	< LOQ	< LOQ		
ADONA	< LOQ	< LOQ	< LOQ	< LOQ		
FTS 4:2	< LOQ	< LOQ	< LOQ	< LOQ		
FTS 6:2	< LOQ	< LOQ	< LOQ	< LOQ		
FTS 8:2	< LOQ	< LOQ	< LOQ	< LOQ		
HFPO-DA	< LOQ	< LOQ	< LOQ	< LOQ		
N-ETFOSA	< LOQ	60,000	< LOQ	< LOQ		
N-ETFOSAA	< LOQ	< LOQ	< LOQ	< LOQ		
N-ETFOSE	< LOQ	< LOQ	< LOQ	< LOQ		
N-MEFOSA	13,000 <sup>1</sup>	54,000 <sup>1</sup>	< LOQ	< LOQ		
N-MEFOSAA	9,500 <sup>1</sup>	15,000 <sup>1</sup>	< LOQ	< LOQ		
N-MEFOSE	< LOQ	< LOQ	< LOQ	< LOQ		
PFBA	< LOQ	< LOQ	< LOQ	< LOQ		
PFBS	8,300 <sup>1</sup>	7,000 <sup>1</sup>	< LOQ	10,000		
PFDA	4,000 <sup>1</sup>	< LOQ	< LOQ	6,200 <sup>1</sup>		
PFDOA	< LOQ	16,000 <sup>1</sup>	< LOQ	< LOQ		
PFDS	< LOQ	< LOQ	< LOQ	< LOQ		
PFHPA	< LOQ	< LOQ	< LOQ	< LOQ		
PFHPS	< LOQ	< LOQ	< LOQ	< LOQ		
PFHXA	< LOQ	< LOQ	< LOQ	< LOQ		
PFHXS	< LOQ	6,600 <sup>1</sup>	< LOQ	< LOQ		
PFNA	< LOQ	< LOQ	< LOQ	< LOQ		
PFNS	< LOQ	< LOQ	< LOQ	< LOQ		
PFOA	5,500 <sup>1</sup>	12,000 <sup>1</sup>	< LOQ	7,000 <sup>1</sup>		
PFOS	< LOQ	2,000 <sup>1</sup>	< LOQ	< LOQ		
PFOSA	< LOQ	< LOQ	< LOQ	< LOQ		
PFPEA	< LOQ	< LOQ	< LOQ	< LOQ		
PFPES	< LOQ	< LOQ	< LOQ	< LOQ		
PFTEDA	< LOQ	< LOQ	< LOQ	< LOQ		
PFTRDA	< LOQ	< LOQ	< LOQ	< LOQ		
PFUDA	87.4	84.1	84.5	88.1		

<sup>&</sup>lt;sup>1</sup> Estimated value

<sup>&</sup>lt; LOQ: lower than limits of quantification



# 5. Identification of End Use Markets and Businesses

In the initial Biosolids End Use Market Study conducted in 2018, the end user markets and businesses were determined by Material Matters through a regional market assessment. In this study, Hazen updated and refined end user markets and businesses based on regulatory review, maturity of markets, and status of businesses. The end user markets categories are listed in Figure 5-1.

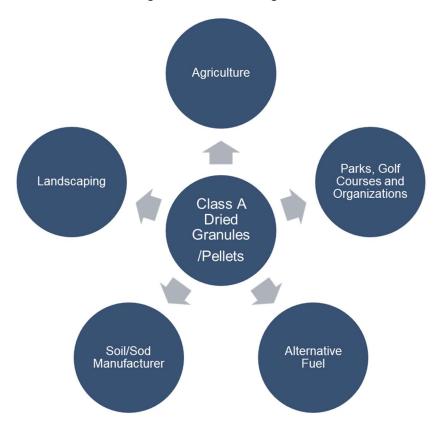


Figure 5-1 Biosolids End User Markets for Dried Product

# 5.1 Existing Biosolids End Use in California

Existing biosolids end use in California was investigated to evaluate potential markets in the region. The National Biosolids Data Project (Beecher et al., 2022) was developed in close collaboration between the Water Environment Federation (WEF), National Association of Clean Water Agencies, large scale public utilities, third party management companies, regional biosolids associations, fertilizer providers, and a number of environmental engineering consultants, including Hazen, and serves as the basis for the following data presentation. This effort was centered around the year 2018 to be representative of the late 2010s and the early 2020s and found that 53% of United States biosolids were land applied, and the remainder 47% were landfilled, disposed, or incinerated, and a small amount were used to produce green energy.



In California, agricultural land application and landfill are the two main pathways of biosolids disposal, accounting for 66% and 13% of total disposed biosolids (Fig. 5-2). Additionally, biosolids are also employed in land reclamation efforts (5%), such as mine site remediation and landfill cover projects, contributing to ecosystem restoration and fostering sustainable development. Land disposal of biosolids is a prevalent emission source of greenhouse gas, and to this end, the state of California passed SB 1383 which established targets of a 75% reduction in statewide organic waste disposal by 2025. An increasing number of utilities in California is driven to upgrade solids handling processes and produce Class A/EQ biosolids products.

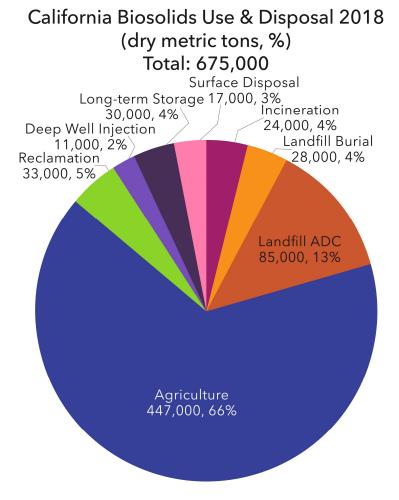


Figure 5-2 Biosolids Management in California

There is an existing market for Class A/EQ biosolids products, which includes dried granules/pellets. A number of utilities in California are equipped with systems that produce Class A/EQ biosolids products. For instance, Inland Empire Utility Agency (IEUA) receives biosolids from several regional producers such as Los Angeles County Sanitation District (LACSD) and produces Class A/EQ composts for beneficial use. Irvine Ranch Water District (IRWD) recently installed and started operating solids treatment processes including a pellet drum dryer to produce Class A/EQ pellets. Class A/EQ biosolids products can be sold or given away for resident use, land-applied in public areas without restriction, and be used as an agricultural amendment. The market for Class A/EQ granules/pellets is appealing because



these products are nutrient rich and can significantly reduce the transportation and retail cost for local businesses compared to commercial fertilizers.

## 5.2 Defined End Users for the Market Study

Biosolids distribution occurs via two major pathways in southern CA: Full Service Providers and Direct Marketing. This study focuses on potential customers in Direct Marketing, in which GSD can contract directly with the end use businesses and avoid professional service fees. The end use markets and business are listed in Table 5-1.

Table 5-1. Defined Markets and Businesses for Market Study

Market	Definition	Business/Facility Name		
Soil/Sod Manufacturer	Biosolids have been widely used as soil amendments and fertilizers	Agromin		
Manufacturer	as they are rich in nutrients and	The Soil and Sod Depot		
	organic matte. For soil and sod	All Around Landscape Supply		
	manufacturing, the nitrogen, phosphorus, and potassium ratios	Santa Ynez Stone and Topsoil		
	are important for their usefulness.	C&M Topsoil		
		Santa Barbara Sand and Topsoils		
		American Soil Amendments Product and Nursery		
		Organic Soil Blend		
		Sun-land Garden Products		
		Southland		
		Central Coast Sod		
		Valley Sod Farm		
		A-G Sod Farm		
Nursery	Biosolids have been commonly used for agriculture including nursery due to their nutrient-rich and organic nature. They contain essential plant nutrients like nitrogen, phosphorus, and potassium, promoting healthy	B&G Color		
		Gallup and Stribling Orchids		
		Westerslay Orchids		
		Valley Flowers		
		Por la Mar Nursery		
	plant growth. The organic matter in biosolids enhances soil	Bonita Foliage		
	structure, water retention, and	Pacific Green Nursery		
	nutrient availability, benefiting seedling establishment and root	Quality Tree Care		
	development.	Island Seed & Feed		
		Terra Sol Garden Center		
		San Marcos Growers		
		West Covina Wholesale Nursery		
		Santa Barbara Orchid Estate		
Local Parks/Organization	Parks, sports field, recreational landscapes have applied biosolids	Elings Park		
raiks/Organization	for their nutrient content and soil- enhancing properties. Biosolids	Girsh Park Goleta Parks (Lake Los Carneros, Santa Barbara Shores County Park, and Stow Grove Park)		



	also improve soil structure, water retention, and aeration, enhancing	Santa Barbara Botanic Garden		
	the overall resilience of the	Santa Barbara Zoo		
	surface.	UCSB		
		Lotus Land		
Landscaping	Biosolids have been known for their beneficial effects on soil	BrightView		
	fertility and plant growth. When	Kitson Landscape		
	applied to landscaping areas,	Athletic Field Specialists		
	biosolids enhance the health and vigor of plants, leading to lush and			
	thriving landscapes.	Holloway Group		
Golf Course	Class A/EQ biosolids, dried pellets included, have been used extensively as fertilizers historically at golf courses for turfgrass management as well as at turf production farms.	Glen Annie Golf Club		
		Sandpiper Golf Club		
		Montecito Country Club		
		Birnam Wood Golf Club		
		Twin Lakes Golf Course		
		Hidden Oaks Golf Course		
		Santa Barbara Golf Club		
Alternative Fuel	Cement kilns require a significant amount of energy to convert	Mitsubishi		
	limestone and other inputs into the final product. Biosolids can be used as an alternative fuel source for cement production due to their high organic content, which makes them suitable for energy sources.	CEMEX		
		Lehigh Cement		

## 6. Market Survey

Hazen conducted a market survey with the potential end users in each market category. The development of survey questions and survey results are summarized in the following section.

## 6.1 Survey Development

Hazen identified the critical factors that should be included in the survey based on a review of the regulatory requirements, the initial market study, and conversations with technology providers. The goal was to incorporate a wide range of factors that can influence the decisions of end users and should be considered in the process of technology implementation.



Critical Factor	Description		
Onsite Storage Requirements	Frequency and volume of storage required		
Product Requirements	Quality and quantity of product required by end user		
Transportation Requirements	Preferred method to obtain the product		
Purchase Decision Making	Information the end user references to make product purchasing decisions		
Staffing requirements	Labor on the end user's side to manage the biosolids, including acquiring, storing, and applying the product		
Public acceptance of product	The likelihood the public will accept the end use of the product (e.g., landscaping, building materials) / the level of public outreach/ education that may be required for a specific end use.		

Based on the critical factors listed in Table 6-1, Hazen developed three sets of survey questions, which were provided to different markets. We grouped the markets for the survey because the markets in the same group are expected to share similar goals with biosolids application and there are questions particularly addressed to each group. The three sets of survey can be found in Appendix A. Below are the three groups and included markets.

- sod/soil manufacturers and nurseries;
- parks, organizations, golf courses, and landscaping;
- alternative fuel.

## 6.2 Survey Execution and Results

Hazen conducted the survey by phone outreach and email. Project team members reached out to each end user by phone and conducted interviews with them by asking the questions on the survey. The survey was sent along with a biosolids factsheet via email if the end user requested email follow up or the call was not answered. Approximately 25% of the potential end users responded over the phone and the majority refused to answer the survey questions by indicating no interests in taking biosolids. A summary of the survey findings is provided below.

## 6.2.1 Agriculture – Soil manufacturer, Sod manufacturer, Nursery

- The owner of American Soil Amendments Product and Nursery Kurt Mikell, initially showed low interests, indicated that the company is no longer interested in taking biosolids from Goleta Sanitary District (GSD).
- Organic Soil Blend informed Hazen that the business is currently receiving and utilizing composts from Inland Empire Utility Agency (IEUA). The front desk staff was unable to provide further details regarding biosolids characteristics but share the fact that there is a number of soil/sod businesses in Santa Barbara that take composts from IEUA.
- Mr. Gonzalez, the president of B&G Color a local nursery, informed the team that he was satisfied with his current blend of soil that is made of composts, but was also willing to receive a



sample biosolids from GSD to create a soil blend and compare it to the current blend in terms of nutrients content, moisture, pH, etc.

## 6.2.2 Landscaping – Organizations, Parks, Landscaping Companies, Golf Courses

- Hazen staff spoke with Alex Rex, the manager of Park, Recreational and Open Space at the City of Goleta, and was informed that the city was not interested in using GSD's biosolids at the moment as the city is using a natural blend from a local distributor. The city currently is not fertilizing but plans on starting the fertilization program soon which includes 10 acres of turf in parks and golf courses. The quantity of fertilizer is yet to be determined at the city. The city is open to switch to GSD's biosolids in the future but is the concerned of public perception.
- Per conversations with Abel Landeros, the direct of Facilities & Horticulture at Santa Barbara Zoo, the zoo is interested in working with GSD to use its biosolids in the near future. The zoo currently uses compost from relatively far facilities and would like to work with local facilities if possible. Mr. Landeros requested a sample and identified the key questions that need to be answered, including the health implications of biosolids to animals and human beings, unit cost of product biosolids, and the advantages and disadvantages of using GSD's biosolids.
- Santa Barbara Botanic Garden showed moderate to high interests in taking product biosolids from GSD. Keith Nevison, the director of Horticulture and Operations, informed Hazen staff that the garden is currently using composts made from wood chips and other natural materials and planning on expanding their nursery in the near future, which will require fertilizer. Mr. Nevison expressed interest in receiving a sample of biosolids and referred Hazen staff to Lotus Land, another botanic garden in Santa Barbara.
- Kitson Landscaping expressed interests and reservations in using biosolids for its landscaping practice. The company uses over 14,000 lbs of commercial fertilizers per year and can store up to 48,000 lb of fertilizer onsite. The purchasing agent Lindsey Lucera expressed concerns with the customer perception and the nutrient content (nitrogen, potassium, phosphorous), and would like to get a sample from GSD.
- University of California, Santa Barbara (UCSB) previously showed some interests, but the
  person contacted was no longer at UCSB and the front desk had a limited understanding of
  biosolids.

In addition to the potential end users listed in Table 5-1, Hazen also contacted Ventura County Farm Bureau in order to reach more nearby agricultural end users. Farm Bureau outline the following pathways that Hazen and GSD can interface with agricultural businesses in the region:

- Join the events hosted by Farm Bureau, such as Agri-Tech Fair, and host a booth;
- Purchase a space on the quarterly magazine by Farm Bureau where Hazen and GSD can distribute the survey to the bureau members and advertise product biosolids;
- Conduct individual phone outreach to farms and ranches listed on the farm bureau website.



#### 6.2.3 Key Findings from Survey

The interviews and conversations with the potential end users allowed a deeper understanding of the specific challenges and requirements by these end use businesses. We also gained valuable insights into the unique concerns associated with different businesses and the properties they seek in the product. It is worth noting that many of these individual businesses have relatively small capacity of biosolids intake compared to farms and ranches but can help GSD to diversify its biosolids outlets and provides an avenue to improve the public perception, potentially opening up more outlets. The key points and action items extracted from the survey are summarized as follows:

- All end users who expressed interest requested a sample. Collaborating with technology providers
  to obtain a representative sample and its characteristics, then disseminating it to the end users,
  will facilitate a more comprehensive assessment of how well GSD's biosolids align with their
  requirements.
- Product cost is an important consideration of the end users. GSD can benefit from conducting a cost analysis and provide the end users an estimated unit cost.
- Concerns surrounding public perception were frequently brought up during conversations. GSD should improve public perception of biosolids through increased transparency, community education and engagement, and effective education about beneficial environmental impact and their sustainable use.

## 6.3 Thermal Dryer Facility Visit

In July 2023, GSD and Hazen project team visited three facilities equipped with thermal dryers from three different technology providers. The staff at each dyer facility was interviewed regarding the solids production and end use. The interview results are summarized in Table 6-2.

The major end users of the biosolids from the three facilities are agricultural entities. Agricultural end users usually take a relatively large quantity of biosolids, making them desirable partners for utilities. Meanwhile, the demand of agricultural end users changes seasonally. Notably, Stevens Point Sewage Plant used to send the dried product to one farm but currently has no end user. This highlights the importance of improving the robustness of product biosolids management by diversifying biosolids outlets.

Sufficient storage space can make utilities more resilient to seasonal changes in demand. Wisconsin Dells Wastewater Treatment Plant has sufficient storage capacity in the adjacent building, which serves as a buffer for the facility when the demand for biosolids reduces by two-thirds in winter seasons.



	McHenry Wastewater Treatment Plant (Illinois)	Stevens Point Sewage Plant (Wisconsin)	Wisconsin Dells Wastewater Treatment Plant		
Dryer Type/Model	K-S paddle dryer	Andritz GPD 10W80	BCR 3600		
Plant Rated Capacity (mgd)	16	11.8	4.4		
Current Operating Flow (mgd)	2.5-3.5	3	0.8-3.2		
Dryer Rated Capacity (pounds per hour)	2,250	-	4,000		
Dryer Feed Material (%TS)	15-16	-	13		
Product Solids (%TS)	>90%	>90%	-		
Current Product Dry Solids Production (pounds per day [ppd] dry solids)	3,000	-	17,000		
Design Storage Capacity (cubic yards)	-	-	100 (two 50-cubic yard each)		
Operating Time	Weekdays	-	5 days a week and 24 hours a day		
End Users	Agricultural fertilizer	Previously a farmer, and no current end user	Farming, yard, golf course		

## 7. Product Delivery Approach Considerations

In the decision-making process of product delivery approach, it is crucial to consider GSD's overall goals, priority (e.g., offsetting costs, long-term and stable product outlets, etc.), and its internal strengths and weaknesses. How risks are perceived is also an important factor when considering delivery approaches.

There are several approaches to deliver biosolids products. Table 7-1 summarizes the typical options that could be considered. A typical third-party contractor (TPC) option entails that the GSD pays a management fee, and the TPC takes the responsibility of hauling and distributing product biosolids. If GSD contracts with a TPC, it does not need to execute brand development, communication and outreach or construct packaging or storage processes regardless of the end user. This approach will be a good fit for GSD if long-term product outlets and minimum internal efforts are prioritized.

Alternatively, GSD can manage the products via direct delivery and in-house marketing program. This option is usually not well explored by public utilities. In-house marketing programs often offer products in packaged or bulk form, which is the current delivery approach of most end users interviewed. Direct delivery could save GSD contract fee, provide GSD with more flexibility in individual contracts, and diversify the biosolids outlets. However, this option brings the tradeoffs including significant initial effort, inconsistent buyers, and seasonality in purchase. To mitigate risks of inconsistency and seasonality, GSD should plan for onsite storage as a buffer. Several potential end use partners have been



identified in the previous section, who showed interest in GSD's dried product. GSD has the opportunity to further engage in focused discussions with these potential partners to develop a long-term collaboration, which is sustainable for years to come with potential to lower operating costs, improve public perception, and provide sustainable outlets.

**Options Disadvantages Advantages** Entails large volumes contracted or Forgoes the opportunities to brand committed to one or a few entities, the product or improve public Contract with a third-party reducing management requirements. knowledge of biosolids. contractor (TPC) (e.g. Transfers marketing risks to the Subjects GSD to contract service broker, biosolids contractor fees and potential increases in fees management firm) Makes GSD more robust seasonal changes in demand Enables the generation of considerable income and publicity GSD assumes the greatest amount Direct delivery and Gains flexibility in product delivery of responsibility and risks develop in-house Diversify product outlets Requires potential staffing and the marketing program Minimizes product management most internal effort costs Transfers marketing risks to the Often poorly executed (advertised contractor to the wrong organizations) Issue a request for Allows the casting of a broad net, proposals for purchase of Potentially reduces value of the identifying potential interested product products

**Table 7-1 Product Biosolids Delivery Options** 

## 8. Conclusion

The biosolids end use market assessment was conducted to review regulatory requirements, products characteristics, to define and understand the market viability and needs of dried product in GSD surrounding areas to support long-term consideration for market development efforts. The results of the study suggest that there is a viable market for Class A/EQ products in soil/sod manufacturing and landscaping applications. Surveys and interviews show that end users in the area have the potential of taking biosolids, however they have reservations due to the lack of detailed information, such as characteristics and unit cost, and limited knowledge of end product. The following list of actions is recommended for GSD moving forward:

- Continue to monitor regulatory and marketplace changes that will impact the viability of Class A dried product biosolids management in the future;
- Acquire a representative sample for distribution among end users and characterize the sample;
- Engage in public education on the benefits and sustainable use of biosolds.

parties



## Appendix A Survey Questions



## Biosolids End-Use Survey for Agricultural and Soil Industry

Goleta Sanitary District (GSD) currently implements anaerobic digestion followed by dewatering to produce Class B biosolids for beneficial use. Anaerobic digestion is a biosolids stabilization process in which bacteria consume volatile wastewater solids in the absence of oxygen to produce stabilized solids and biogas. GSD is planning to add a thermal drying system to the solids handling process that produces Class A dried pellets/granules, which have higher quality and can be used in various markets such as soil manufacturing, landscaping, nurseries, agriculture, etc.

## Agriculture industry specific questions: Soil and Sod manufacturers, Specialty Agriculture/nursery

- 1. What type of products/crops does your business produce? Open ended
- 2. How much fertilizer does your business/facility use every year (lbs/year or tons/year)? Open ended
- 3. Are you familiar with biosolids pellets/granules? Please refer to the attached fact sheet for more information.
  - a. Yes, describe:
  - b. No
- 4. Do you currently use or have you used any of the following products from wastewater treatment facilities in land application/fertilizer blending/soil blending?
  - a. If so, which type of material do/did you use? Select all that apply:
    - i. Biosolids
    - ii. Biosolids pellets/granules
    - iii. Biochar
    - iv. Other, please specify
  - b. If not, what type of fertilizer(s) do you use? Select all that apply
    - i. Conventional granular fertilizer
    - ii. Conventional drip fertilizers
    - iii. Custom blends
    - iv. Cake manure
    - v. Liquid manure
    - vi. Compost
    - vii. Other, please specify:
- 5. Would you be interested in receiving dried biosolids as an input to your process? If yes, please estimate how much material per year do you think you could use? If not, please explain why not.
- 6. What are the top fertilizer sources relative to your location (50-100 mile radius)? Open ended
  - a. Who are the major suppliers?

## Hazen

- 7. At what points during the year does your business/facility require fertilizer? Select all that apply
  - a. Year Round
  - b. Winter (Dec-Feb)
  - c. Spring (Mar May)
  - d. Summer (June Aug)
  - e. Fall (Sept Nov)
- 8. Where do you obtain your fertilizer inputs? Multiple choice
  - a. Delivered
  - b. Picked-Up
  - c. Both
  - d. From what vendor(s):
- 9. In what size are these fertilizers received? Select all that apply
  - a. Trucked (bulk)
  - b. Bagged (ex. 50-lb)
  - c. Super Sacks
- 10. Do you have on-site storage for fertilizers? Open-ended
  - a. If yes, what is the typical storage quantity?
- 11. Do you have dedicated personnel for fertilizer management? Open-ended
  - a. If not, please specify the number of hours spent on fertilizer management:
- 12. Are there any major complaints with the use of typical fertilizers? Select all that apply
  - a. Odors
  - b. Application issues
  - c. Cost
  - d. Availability
  - e. Other, please specify:
- 13. What characteristics/guidelines do you follow to determine the type of fertilizer input you purchase? Please specify for each of the categories listed below:
  - a. Percent Solids:
  - b. pH:
  - c. Alkalinity:
  - d. Nutrient Content:
  - e. Pollutant Limits:
  - f. Other, please specify:
- 14. Do you have any other thoughts/questions regarding the use of biosolids pellets/granules as fertilizer? Open ended



## **Biosolids End-Use Survey for Agricultural Industry**

Goleta Sanitary District (GSD) currently implements anaerobic digestion followed by dewatering to produce Class B biosolids for beneficial use. Anaerobic digestion is a biosolids stabilization process in which bacteria consume volatile wastewater solids in the absence of oxygen to produce stabilized solids and biogas. Class B cake from GSD is currently hauled and land applied by a third-party manager for disposal. GSD is planning to add a thermal drying system to the solids handling process that produces Class A dried pellets/granules, which have higher quality and can be used in various markets such as soil manufacturing, landscaping, nurseries, agriculture, etc.

## Agriculture industry specific questions: Soil and Sod manufacturers, Specialty Agriculture/nursery

- 1. What type of products/crops does your business produce? Open ended
- 2. How much fertilizer does your business/facility use every year (lbs/year or tons/year)? Open ended
- 3. Which type of biosolids material do you use? Select all that apply:
  - a. Biosolids
  - b. Biosolids pellets/granules
  - c. Biochar
  - d. Other, please specify
- 4. What are the top fertilizer sources relative to your location (50-100 mile radius)? Open ended
  - a. Who are the major suppliers?
- 5. Do you generally have a set contract with your fertilizer/soil input distributor? Y/N
  - a. How much do you pay for your fertilizer inputs? Open ended
  - b. How much fertilizer does your business purchase and use every year (lbs/year or tons/year)? Open ended
- 6. At what points during the year does your business/facility require fertilizer? Select all that apply
  - a. Year Round
  - b. Winter (Dec-Feb)
  - c. Spring (Mar May)
  - d. Summer (June Aug)
  - e. Fall (Sept Nov)
- 7. Where do you obtain your fertilizer inputs? Multiple choice
  - a. Delivered
  - b. Picked-Up
  - c. Both
  - d. From what vendor(s):
- 8. In what size are these fertilizers received? Select all that apply
  - a. Trucked (bulk)
  - b. Bagged (ex. 50-lb)
  - c. Super Sacks
- 9. Do you have on-site storage for fertilizers? Open-ended
  - a. If yes, what is the typical storage quantity?



- 10. Do you have dedicated personnel for fertilizer management? Open-ended
  - a. If not, please specify the number of hours spent on fertilizer management:
- 11. Are there any major complaints with the use of typical fertilizers? Select all that apply
  - a. Odors
  - b. Application issues
  - c. Cost
  - d. Availability
  - e. Other, please specify:
- 12. What characteristics/guidelines do you follow to determine the type of fertilizer input you purchase? Please specify for each of the categories listed below:
  - a. Percent Solids:
  - b. pH:
  - c. Alkalinity:
  - d. Nutrient Content:
  - e. Pollutant Limits:
  - f. Other, please specify:
- 13. Do you have any other thoughts/questions regarding the use of biosolids pellets/granules as fertilizer? Open ended



## **Biosolids End-Use Survey for Alternative Fuel**

Goleta Sanitary District (GSD) currently implements anaerobic digestion followed by dewatering to produce Class B biosolids for beneficial use. Anaerobic digestion is a biosolids stabilization process in which bacteria consume volatile wastewater solids in the absence of oxygen to produce stabilized solids and biogas. Class B cake from GSD is currently hauled and land applied by a third-party manager for disposal. GSD is planning to add a thermal drying system to the solids handling process that produces Class A dried pellets/granules, which have higher quality and can be used in various markets such as soil blender, landscaping, nurseries, agriculture, alternative fuel, etc.

## Alternative fuel specific questions

- 1. What would you identify your facility as? Open ended
- 2. Are you familiar with biosolids pellets/granules? Please refer to the attached fact sheet for more information.
  - a. Yes, describe:
  - b. No
- 3. Do you currently use or have you used any of the following products from wastewater treatment facilities as fuel in your current operation?
  - a. If so, which type of material do/did you use? Select all that apply
    - i. Biosolids
    - ii. Biosolids pellets/granules
    - iii. Biochar
    - iv. Other, please specify:
  - b. What was/is the yearly quantity of material received and used? Open ended
  - c. How often do/did you receive biosolids? Open ended
- 4. Would you be interested in receiving dried biosolids as an input to your process? If yes, please estimate how much material per year do you think you could use? If not, please explain why not.
- 5. What characteristics do you require for a fuel source for your operation? Please specify for each of the categories listed below:
  - a. Percent Solids:
  - b. Specific Size:
  - c. Energy Density:
  - d. Specific Carbon Content:
  - e. pH:
  - f. Pollutant Limits:
  - g. Other, please specify:
- 6. Do you have any other thoughts/questions regarding the use of biosolids pellets/granules as an alternative fuel source? <u>Open-ended</u>



## Biosolids End-Use Survey for Parks, Organizations and Golf Course

Goleta Sanitary District (GSD) currently implements anaerobic digestion followed by dewatering to produce Class B biosolids for beneficial use. Anaerobic digestion is a biosolids stabilization process in which bacteria consume volatile wastewater solids in the absence of oxygen to produce stabilized solids and biogas. Class B cake from GSD is currently hauled and land applied by a third-party manager for disposal. GSD is planning to add a thermal drying system to the solids handling process that produces Class A dried pellets/granules, which have higher quality and can be used in various markets such as soil blending, landscaping, nurseries, agriculture, etc.

## Land application specific questions: Parks, Organizations and Golf Course

- 1. What type of facility would you classify your location? <u>Select all that apply</u>:
  - a. Park
  - b. Campus
  - c. Recreational field
  - d. Golf course
- 2. How large is your golf course, park or sports field (acres)? Open-ended
- 3. How much fertilizer does your facility use every year (lbs/year or tons/year)? Open-ended
- 4. Are you familiar with biosolids pellets/granules? Please refer to the attached fact sheet for more information. Open-ended
  - a. Yes, describe:
  - b. No
- 5. Do you currently use or have you used any of the following products from wastewater treatment facilities in land application/fertilizer blending/soil blending?
  - a. If so, which type of material do/did you use? Select all that apply:
    - i. Biosolids
    - ii. Biosolids pellets/granules
    - iii. Biochar
    - iv. Other, please specify
  - b. If not, what type of fertilizer(s)/soil amendments do you use for your facility? <u>Select all that apply</u>
    - i. Synthetic? If yes, which:
    - ii. Natural? If yes, which:
- 6. Would you be interested in receiving dried biosolids as an input to your process? If yes, please estimate how much material per year do you think you could use? If not, please explain why not.
- 7. Does your facility operate seasonally or year-round? Open-ended
- 8. Is there a season when you do the most blending/ Or have the highest demand for fertilizer blends? Open-ended
  - a. How do you store fertilizer inputs?
  - b. How much storage capacity do you have for fertilizer/soil inputs?
  - c. How do you decide how much to store?
    - i. Cost, please provide cost of storage



- ii. Availability?
- 9. Where do you obtain your existing fertilizer/soil amendment? Select all that apply
  - a. Fertilizer blender
  - b. Local distributor
  - c. Other, specify:
- 10. Do you generally have a set contract with your fertilizer/soil input distributor? Y/N
  - a. How much do you pay for your fertilizer inputs? Open ended
  - b. How much fertilizer does your park/field/gold course purchase and use every year (lbs/year or tons/year)? Open ended
- 11. In what size are these fertilizers received? Select all that apply
  - a. Trucked (bulk)
  - b. Bagged (ex. 50-lb)
  - c. Super Sacks
- 12. Do you have on-site storage for fertilizers? If yes, what is the typical storage quantity? Openended
- 13. Do you have dedicated personnel for fertilizer management? Open-ended
  - a. If not, please specify the number of hours spent on fertilizer management:
- 14. Do the fertilizer/soil amendments you use have any odor? Open ended
  - a. What types of odors?
- 15. What characteristics/guidelines are important to you in choosing a fertilizer/soil amendment? Open ended
  - a. The Nitrogen-Phosphorous-Potassium (N-P-K) content of the material?
    - i. What N-P-K content do you prefer/require? Open ended
  - b. Micronutrients? Open-ended
  - c. Are there any nutrients (other than Nitrogen) that are particularly important? Open-ended
  - d. Are there other important specifications? Open-ended
    - i. Slow release:
    - ii. Color:
    - iii. Specific Size:
    - iv. Moisture Content:
    - v. Other, please specify:
- 16. What do you require to prove a fertilizer/soil input will be successful? (Select all that apply)
  - a. Academic Research
  - b. Demonstrations
  - c. Common Practice in the Industry
  - d. Fertilizer Representative
  - e. Other, please specify:



17. Do you have any other thoughts regarding the use of biosolids pellets/granules as fertilizer? <u>Open ended</u>

# **AGENDA ITEM #3**

AGENDA ITEM: 3

**MEETING DATE:** November 20, 2023

#### I. NATURE OF ITEM

Consideration of Nominations to the Santa Barbara Local Agency Formation Commission (LAFCO) Regular and Alternate Special District Member

## II. BACKGROUND INFORMATION

Mike Prater, the LAFCO Executive Officer has a call for nominations to fill two Special District vacancies on their commission via a mail in process. The two vacancies include a Regular and Alternate Special District Member.

The terms of office for both the Regular Special District member and Alternate Special District member currently end on March 1, 2024.

The attached notice from LAFCO also calls for nominations to be submitted by January 4, 2024. Following the nomination period, ballots containing the names of qualified nominees, will be mailed to each eligible special district. Mailed ballots will also include voting instructions to each eligible district. The voting period would be up to 45 days. This will be followed by the tabulation of votes and the election of the top vote recipients to the vacant seats. During the interim, LAFCO will operate with only one Regular Special District Member.

## III. COMMENTS AND RECOMMENDATIONS

The Board President is typically designated as the District's voting member at the Special District Selection Committee meetings. However, since this item is being brought to the Board for consideration, the Board may wish to review the attached letter with attachments and take action regarding a nomination for the LAFCO Commission Special District Regular and/or Alternate Member if any Board member is interested in serving in this capacity.

If approved by the Board, the Board President would submit a nomination form on behalf of the District.

## IV. REFERENCE MATERIAL

Letter from LAFCO and Nomination Packet

## **LAFCO**

## Santa Barbara Local Agency Formation Commission

105 East Anapamu Street ◆ Santa Barbara CA 93101 805/568-3391 ◆ FAX 805/568-2249 www.sblafco.org ◆ lafco@sblafco.org

November 1, 2023

TO: Members of the Independent Special District Selection Committee

SUBJECT: Nominations for one Regular and one Alternate Special District Member to

Santa Barbara LAFCO;

# CALL FOR NOMINATIONS FOR AND NOTICE OF ELECTION FOR LAFCO REGULAR AND ALTERNATE SPECIAL DISTRICT MEMBERS

This is a Call for Nominations of one Regular and one Alternate Special District Member to serve as the special district members on LAFCO. It is recommended that this be placed on your Board's Agenda. The Committee is made up of the presiding officer of each district; however, if a presiding officer is unable to participate, a district board may appoint one of its members as an alternate to participate in the presiding officer's place, a copy of the meeting minutes showing the appointment needs to be presented along with your nomination form.

A Nomination Form is attached and must be filled out and signed by the presiding officer of a district or, if that person is unable to participate, then by his or her alternate as designated by the district board. (See GC § 56332.) Nominations are requested by no later than January 4, 2024.

- 1. <u>Nominations for the one LAFCO Regular and one Alternate Special District Member.</u> The current term of office of the current Regular Special District Member and the Alternate Special District Member ends on March 1, 2024. The term of office shall be four years or until the appointment and qualification of his or her successor. The new term of office ends on March 1, 2028.
- 2. <u>Voting Requirements.</u> The Independent Special District Selection Committee consist of the presiding officer of the legislative body of each independent special district. If the presiding officer of an independent special district is unable to participate in the nomination process or an election, the legislative body of the district may appoint one of its members as an alternate to participate in the presiding officer's

place. A copy of the meeting minutes showing the appointment needs to be presented along with your nomination form and future ballot.

- **3.** <u>Nomination Period and Voting Period.</u> The Nomination Period will end on January 4, 2024. Following the nomination period, unless there is only one nominee for a seat, ballots containing the names of quailified nominees will be mailed to each eligible special district. The voting period will be up to 45-days.
- 4. Quorum; Majority Vote; Possible Runoff Election. There are 39 special districts. For the election to be valid, at least 20 valid votes must be received. Election shall be by a majority of those voting, and not by plurality. In the event that a nominee does not receive a majority of votes cast, a runoff election shall be held between the two nominees receiving the highest number of votes.

**Notice**: There will be no election if pursuant to Government Code section 56332(c)(2), "[at] the end of the nomination period, if only one candidate is nominated for a vacant seat, that candidate shall be deemed appointed" to the Commission.

Nominations for one Regular Special District Member and one Alternate Special District Member should be submitted to the LAFCO Executive Officer, at the following address, faxed, or emailed by <u>January 4, 2024</u> Nomination Forms are attached to this notice.

Santa Barbara Local Agency Formation Commission 105 East Anapamu Street, Santa Barbara CA 93101 FAX 805/568-2249

Email Address: lafco@sblafco.org

Please contact the LAFCO office if you have any questions.

Sincerely,

Mike Prater Executive Officer

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Enc.

## SANTA BARBARA LOCAL AGENCY FORMATION COMMISSION

# NOMINATION FOR <u>ALTERNATE</u> SPECIAL DISTRICT MEMBER

Return to: Executive Officer
Santa Barbara LAFCO
105 East Anapamu Street, Room 407
Santa Barbara CA 93101
FAX to (805) 568-2249 or email to lafco@sblafco.org

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Date Received	•

or FAX to	o (805) 568-2249 o	or email to larco@sblarco.org	
		Please print in ink or typ	e
POSITION	SOUGHT:	Alternate Special Distri	ct Member
NAME OF N	OMINEE:		
NOMINEE'S	DISTRICT:		
MAILING AD	DRESS:		
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Phone: Bus.		Cell:	
SIGNATURE	OF NOMINATOR:		
Name	of Independent Sp	pecial District	
Signat	ture		
Print 1	Name		
Nomi	nator Title (pleas	e check one)	
	Presiding Officer	of the Special District Board	
		r's alternate as designated by Spe make a nomination in this election	
Date:			

ADDITIONAL INFORMATION: On this form <u>or</u> an accompanying letter, describe the nominee's personal interests, qualifications, experience, education, volunteer activities or community organization memberships that may bear on the nomination for the Alternate Special District Member: This information will be distributed to all independent special districts.				

## SANTA BARBARA LOCAL AGENCY FORMATION COMMISSION

# NOMINATION FOR <u>REGULAR</u> SPECIAL DISTRICT MEMBER

Return to: Executive Officer
Santa Barbara LAFCO
105 East Anapamu Street, Room 407
Santa Barbara CA 93101
or FAX to (805) 568-2249 or email to lafco@sblafco.org

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NOMINEE'S DISTRICT:	
MAILING ADDRESS:	
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$\pi$ Phone: Bus	Cell:
SIGNATURE OF NOM	IINATOR:
Name of Independent Special District	
Signature	
Print Name	<del></del> •
Nominator Ti	tle (please check one)
☐ Presidi	ng Officer of the Special District Board
	ng Officer's alternate as designated by Special District
Board	to vote or make a nomination in this election. (Gov. Code sec. 56332.)
<b>Date:</b>	

ADDITIONAL INFORMATION: On this form or an accompanying letter, describe the nominee's personal interests, qualifications, experience, education, volunteer activities or community organization memberships that may bear on the nomination for the Regular Special District Member: This information will be distributed to all independent special districts.

# GENERAL MANAGER'S REPORT

## GOLETA SANITARY DISTRICT GENERAL MANAGER'S REPORT

The following summary report describes the District's activities from November 7, 2023, through November 20, 2023. It provides updated information on significant activities under three major categories: Collection System, Treatment/Reclamation and Disposal Facilities, and General and Administration Items.

## 1. COLLECTION SYSTEM REPORT

## **LINES CLEANING**

Staff has been conducting priority areas lines cleaning through-out the District.

## **CCTV INSPECTION**

Staff continues with routine Closed-Circuit Television (CCTV) inspections in the area of Hollister Avenue and Modoc Road.

## **REPAIR AND MAINTENANCE**

Staff continues to work on the annual winter storm preparation program. Staff replaced the seals on the 3-inch trash pump.

## **COLLECTION SYSTEM MAINTENCE TECHNICIAN I RECRUITMENT**

Alex Cardenas has completed the pre-employment physical and background checks and has been tentatively scheduled to begin work the first week of December 2023.

## PROFESSIONAL DEVELOPMENT/TRANSITION

Staff has been attending a variety of classes and webinars focused on leadership and technical skill development through California Water Environment Association and DKF Solutions.

## **UNIFORM PUBLIC CONSTRUCTION COST ACCOUNTING ACT UPDATE (UPCCAA)**

Staff continues to update the annually revised District qualified contractor list as requests are submitted.

## 2. TREATMENT, RECLAMATION AND DISPOSAL FACILITIES REPORT

Plant flows for the month of October, 2023 averaged 5.4 million gallons a day. The University of California, Santa Barbara and Santa Barbara City College fall semesters are in full swing. The Reclamation Plant has been on line since July 10, 2023. High concentrations and loadings during the weekends continue to cause intermittent challenges and various levels of Plant interference.

The Nanobubbler was put back online at the Headworks on August 22, 2023. The first sampling cycle has ended and was sent to the Lab for analysis. The Nanobubbler is offline for 3 weeks and then we will start our next sampling schedule. The next sampling will begin November 26, 2023.

The construction phase of the Influent Pump Station Rehabilitation Project is coming to a close. The Influent Pumps have been put online and the Automated Transfer Switch (ATS) has been installed and tested. The general contractor, GSE Construction, will

General Manager's Report November 20, 2023 Page 2

continue to work on punch list items as the project approaches completion. The final project close out is expected by the end of November 2023.

Construction of the Biosolids and Energy (BESP) Phase 1 project has begun. Excavation of the Primary Effluent 24-inch line for the relocation of utilities has begun.

The maintenance staff is working on various preventive maintenance workorders. Synagro has begun hauling our biosolids to their Liberty Farms composting facility.

## **GENERAL AND ADMINISTRATIVE ITEMS**

## **Financial Report**

The District account balances as of November 20, 2023 shown below are approximations to the nearest dollar and indicate the overall funds available to the District at this time.

Operating Checking Accounts: \$ 665,192
Investment Accounts: \$ 30,486,330
Total District Funds: \$ 31,151,522

Claims list and financial information will be presented in the December 4, 2023 General Managers Report.

## **Personnel Update**

A verbal update will be provided at the meeting.

# DISTRICT CORRESPONDENCE

**Board Meeting of November 20, 2023** 



## <u>Date:</u> <u>Correspondence Sent To:</u>

1. 11/13/2023 Hone Trust or Current Resident

**Subject:** Roots at Sewer Mainline Connection:

A.P.N. 059-061-011 at 4592 Camino Del Mirasol, Santa Barbara, CA

Letters also sent to:

Howard, Alan C & Kimberly A Trust
 A.P.N. 065-403-009 at 4835 Zink Pl., Goleta, CA

Jose Ramirez or Current Resident
 A.P.N. 065-421-012 at 5082 Santa Susana Ave., Santa Barbara, CA