Executive Board Meeting
AGENDA
Friday, August 18, 2017, 9:00 a.m. – 12:30 p.m.
SFPUC, Hetch Hetchy Room, 13th Floor
525 Golden Gate Ave., San Francisco, CA

Agenda Item				Time	Pages
ROLL CALL AND INTRODUCTIONS				**9:00 AM**	
PUBLIC COMMENT				**9:03 AM**	
CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER				**9:04 AM**	
CONSENT CALENDAR				**9:05 AM**	
1	July 16, 2017, BACWA Executive Board Meeting Minutes				**3-10**
2	June 2017 Treasurer's Reports (FY17 Close)				**11-21**
APPROVALS & AUTHORIZATIONS				**9:06 AM**	
3	Approval: Nutrient Management Strategy Voluntary Contribution				**22-23**
4	Approval: Agreement with Solano for BACWWE Classes - Fall 2017				**24-29**
OTHER BUSINESS - POLICY/STRATEGIC					
5	Discussion: Nutrients			**9:10 AM**	
	a. Regulatory				
	i. Annual Report Data Update				
	ii. Optimization/Upgrade Schedule Update				
	iii. 2nd Watershed Permit Update				**30-33**
	iv. Oro Loma Permit				
	b. Technical Work				
	i. N Control Through Source Separation				
	c. Governance Structure				
	i. Planning Subcommittee Meeting #27 Debrief				**34**
6	Discussion: RMP & NMS Update			**10:10 AM**	
7	Discussion: Mercury/PCBs Watershed Permit	**Draft Permit**	**Attach G**	**10:30 AM**	**35-38**
8	Discussion: WOTUS Proposal Issued in Federal Register	**FWQC Comments**	**Congress'l Brief** **Fed'l Register**	**10:40 AM**	**39-47**
9	Discussion: Public Policy Institute of California Project Support			**10:45 AM**	**48**
10	Discussion: ELAP Regulations Update			**10:50 AM**	
11	Discussion: Draft Supplemental Environmental Project (SEP) Regulation Amendments	**Amendments**		**11:00 AM**	
12	Discussion: Bacterial Objectives Amendments to SIP & Ocean Plan			**11:10 AM**	**49-50**
13	Discussion: Toxicity Workshop			**11:15 AM**	**51**
14	Discussion: Final Agenda Pre-Pardee Technical Seminar			**11:20 AM**	**52**
15	Discussion: Draft Agenda Pardee Technical Seminar			**11:30 AM**	**53-55**
16	Discussion: Water Board/BACWA Joint Meeting DRAFT Agenda (8/30/17)			**11:40 AM**	**56**
17	Discussion: Sewer Lateral Ordinance Requirement			**11:50 AM**	**57-58**
OTHER BUSINESS - OPERATIONAL				**12:00 PM**	
18	Discussion: Biosolids Survey	**Survey**			
19	Discussion: Options for Executive Board Meeting Venue(s)				**59-61**
20	Discussion: Review of BACWA Representatives				**62-63**
21	Discussion: BACWA Comment Letters				**64-88**
22	Discussion: State of the Estuary Presentation Submittal				**89-90**

REPORTS		**12:20 PM**	
23	Committee Reports		**91-94**
24	Member Highlights		
25	Executive Director Report		**95-103**
26	Regulatory Program Manager Report		**104**
27	Other BACWA Representative Reports		
	a. RMP TRC	Rod Miller	
	b. RMP Steering Committee	Karin North; Leah Walker; Jim Ervin	
	c. Summit Partners	Dave Williams; Laura Pagano	
	d. ASC/SFEI	Laura Pagano; Jim Ervin; Dave Williams	
	e. Nutrient Governance Steering Committee	Jim Ervin; Mike Connor	
	f. SWRCB Nutrient SAG	Dave Williams	
	g. SWRCB Focus Group – Bacterial Objectives	Lorien Fono; Amy Chastain	
	h. SWRCB Focus Group – Mercury Amendments to the State Plan	Tim Potter; Laura Pagano; David Williams	
	i. Nutrient Technical Workgroup	Eric Dunlavey	
	j. NACWA Taskforce on Dental Amalgam	Tim Potter	
	k. BAIRWMP	Cheryl Munoz; Linda Hu; Dave Williams	
	l. NACWA Emerging Contaminants	Karin North; Melody LaBella	
	m. CASA Statewide Pesticide Steering Committee	Melody LaBella	
	n. CASA State Legislative Committee	Lori Schectel	
	o. CASA Regulatory Workgroup	Lorien Fono	
	p. ReNUWIt	Mike Connor; Karin North	
	q. RMP Microplastics Liaison	Nirmela Arsem	
	r. AWT Certification Committee	Maura Bonnarens,	
	s. Bay Area Regional Reliability Project	Roger Bailey; Mike Connor	
	t. WateReuse Working Group	Cheryl Munoz;	
	u. San Francisco Estuary Partnershiop	Eileen White; Dave Williams; Lorien Fono	

28 **SUGGESTIONS FOR FUTURE AGENDA ITEMS**	**12:27 PM**	

NEXT MEETING **The next regular meeting of the Board is scheduled for September 15, 2017 from 8:30 am – 8:45 am at EBMUD Treatment Plant, Lab Library, 2020 Wake Ave., Oakland, CA. A Pre-Pardee Seminar is scheduled to follow from 8:45 am to 4:00 pm.**	**12:28 PM**	

ADJOURNMENT	**12:30 PM**	

Executive Board Meeting Minutes

July 21, 2017

ROLL CALL AND INTRODUCTIONS

Executive Board Representatives: Jim Ervin (San Jose); Lori Schectel (Central Contra Costa Sanitary District); Amy Chastain (SFPUC); Mike Connor (East Bay Dischargers Authority); Eileen White (East Bay Municipal Utility District).

Other Attendees:

Name	Agency/Company
Amit Mutsuddy	San Jose
Bhavani Yerrapotu	City of Sunnyvale
David Senn	SFEI
Eric Dunleavy	San Jose
Greg Baatrup	FSSD
Karin North	City of Palo Alto
Linda Sawyer	Brown & Caldwell
Tom Hall	EOA
Yuyun Shang	EBMUD
Mike Falk	HDR
Sarah Scheidt	San Mateo
Jay Witherspoon	CH2M Hill/San Mateo
Derek Danquin	San Mateo
Alina Constantinesco	LWA
David Williams	BACWA
Lorien Fono	BACWA
Sherry Hull	BACWA

PUBLIC COMMENT

None.

CONSIDERATION TO TAKE AGENDA ITEMS OUT OF ORDER – None.

CONSENT CALENDAR

1. June 16, 2017, BACWA Executive Board Meeting Minutes – The approved minutes will be posted on the BACWA website.

2. May 2017 Treasurer's Reports and Financial Summary – A Financial Summary Report was included in the Packet. A copy of the FY17 Budget as of April 30, 2017, (92% of the fiscal year) was included. It, along with the Summary, provides the Board with a concise overview of the Fund Balances and the current status of the Annual Budget and points out any variances in the budget to date. The Executive Director noted that the Funds Report includes a report on the

Alternative Investments and, because those investments are less liquid than previous investments, this report is included to provide a check on BACWA liquidity.

Consent Calendar items 1 and 2 *were approved in a motion made by Jim Ervin and seconded by Lori Schectel. The motion carried unanimously.*

APPROVALS & AUTHORIZATIONS

3. Approval: Annual Nutrient Watershed Permit Payment – A Board Authorization Request, Letter of Request, and Invoice from SFEI were included in the Packet. The Executive Director gave an overview and explanation of the timing of the payment.

Items 3 *was approved in a motion made by Mike Connor and seconded by Jim Ervin. The motion carried unanimously.*

4. Authorization: An Executive Director Authorization, Agreement, Proposal, and Rate Sheet for the development of a scope of work for technical assistance needed to support Regional Water Board staff in the adoption of a chlorine residual Basin Plan Amendment were included in the Packet. The Executive Director gave an overview of the authorization and noted that a later agenda item includes an update on the work.

OTHER BUSINESS-POLICY/STRATEGIC

Agenda **Item 5 –** Discussion: Nutrients

a. Regulatory
   i. 2nd Watershed Permit DRAFT Key Tenets – The Executive Director provided two documents and gave an overview of the process leading up to this point. He has contacted all 37 major and 3 minor plants to confirm their individual intent to participate in the 2nd Watershed Permit. The Regional Water Board has also provided a draft letter proposing these tenets. The tenets include 1) continued monitoring; 2) the Group Annual Report; 3) increased funding for Nutrient Management Scientific investigations, nominally at 2.5 times the current rate; 4) regional assessment of the reduction of nutrients through means other than treatment and discharge at the POTW; and 5) the establishment of a baseline for POTWs that take early actions to reduce nutrients. A sixth tenet might be the intent to establish a nutrient trading framework. The Board discussed the value of credits that could be banked against future growth by agencies performing early actions and suggested additional language and examples.
   ii. Data Due for Annual Report July 31, 2017 –A LINK to the data input spreadsheet was included in the Packet and the Regulatory Program Manager gave an overview and

deadlines. The Group Annual Report is due to the Regional Water Board on October 1, 2017.

b. Technical Work -
    i. Nutrient Trading Article – A **LINK** was provided to an article on an EPA funded project that looked at reducing nutrients in the San Francisco Bay through sidestream treatment and exploring a watershed-based nutrient trading program as a potential management option. Dr. David Senn of SFEI gave an update on the Nutrient Management Strategy and what data tools are still needed to inform management decisions. He discussed the conceptual nutrient load response model and explained the status of the existing monitoring network, and further monitoring needs. The group has already got a model that estimates the contribution of nutrients from different WWTPs to any given location in the SF Bay. He also gave a summary of fundraising efforts performed as part of the program management task.
c. Governance Structure – The Executive Director noted that the next Steering Committee meeting is on September 8, 2017.

Agenda **Item 6 –** Discussion: Climate Change – This item will be moved to a future meeting agenda. It was suggested that the focus be on California/Bay Area impact, with an emphasis on changes in precipitation and observations at tide gauges.

Agenda **Item 7 –** Discussion: Draft Agenda Pre-Pardee Technical Seminar – A DRAFT Program for the Pre-Pardee Technical Seminar, scheduled for September 2017, was included in the Packet. The Executive Director gave an overview and requested input from the Board. It was suggested that Toxicity be replaced with AIR issues and shallow water discharge be added.

Agenda **Item 8 –** Discussion: Draft Agenda Pardee Technical Seminar – A DRAFT Program for the Pardee Technical Seminar, scheduled for October 2017, was included in the Packet. The Executive Director gave an overview and requested input from the Board. It was suggested that under the brainstorming segment on how to make BACWA better, BACWA staff procure and provide input from the general membership to advise the Board and move the AIR issues to the Pre-Pardee Technical Seminar in September.

Agenda **Item 9 –** Discussion: Public Policy Institute of California Project Support – A letter from the Public Policy Institute of California requesting project support was included in the Packet. The Executive Director gave an overview and requested input from the Board. Board members will explore further and submit input.

Agenda **Item 10 –** Discussion: Basin Plan Amendment for Chlorine Residual Update – Dr. Thomas Hall of EOA, Inc. provided a description of the scope of work for technical assistance needed to support Regional Water Board staff in the adoption of a chlorine residual Basin Plan Amendment. He outlined the history, current status and key issues, and provided key components of a workplan to complete the BPA. BACWA will fund the analysis and

development of needed language for amending the Basin Plan.

Agenda **Item 11 –** Discussion: Bacterial Objectives – A DRAFT of the Bacteria Provisions and a Water Quality Standards Variance Policy, along with a LINK to the State Water Boards Bacterial Objectives, was included in the Packet. The Regulatory Program Manager gave an overview of the draft Provisions that will result in a lowering of the enterococcus limits in permits. It was suggested that BACWA submit comments recommending that dilution be included in the Provisions. The comments are due August 14, 2017.

Agenda **Item 12 –** Discussion: Pesticide Regulations – A document providing links to one BACWA Comment Letter on pyrethroids submitted on July 7, 2017, and three DRAFT BACWA Comment Letters on imidacloprid, diquat dibromide, and boric acid in swimming pools to be submitted on July 24, 2017, were included in the Packet. The Board suggested one change to the imidacloprid letter about the findings on pesticide toxicity in POTW effluent.

Agenda **Item 13 –** Discussion: State Revolving Fund Prioritization Screening System – The Clean Water State Revolving Fund (CWSRF) Potential Application Scoring System Survey was included in the Packet. The Regulatory Program Manager explained that the Recycled Water Committee had completed the form as an example of how BACWA might respond. The Board indicated that it preferred that individual POTW's respond to the survey and to not weigh in as BACWA due to the differing interests on funding priorities amongst the BACWA membership.

Agenda **Item 14 –** Discussion: Mercury/PCBs Watershed Permit – A LINK to the current Mercury/PCBs Watershed Permit was included in the Packet. The Regulatory Program Manager gave an overview of the key issues, which are risk reduction and monitoring frequency for PCB congeners. An Administrative Draft is expected in early August. It was suggested that the issue be added to the Water Board/BACWA Joint Meeting Agenda in August.

Agenda **Item 15 –** Discussion: AIR Issues

i. Regulation 2 Comment Letter – A BACWA Comment Letter on BAAQMD Proposed Revisions to Regulation 2, Rules 1, 2 & 6, submitted on June 26, 2017, was included in the Packet. The Executive Director gave an overview.
ii. Rule 11-18 Update – A Summary of the June 1, 2017 BACWA-BAAQMD Workshop on the Impact of Propose Rule 11-18 on Bay Area Wastewater Treatment Facilities, along with a draft email on data collection, was included in the Packet. The Regulatory Program Manager gave an overview. It was suggested that BACWA collect and improve the data working with CASA and/or Summit Partners and incorporating the work already done in southern California. The Regulatory Program Manager also noted that an email requesting BACWA members to estimate their proximity adjustment factors under Rule 11-18 will be going out.
iii. BAAQMD Annual Meeting Summary - A Summary of the June 21, 2017 BACWA-BAAQMD Annual Meeting was included in the Packet.

OTHER BUSINESS-OPERATIONAL

Agenda **Item 16** – Discussion: Closure of Proposition 50 Accounts – An email describing the final expenditures and transfers to close out the Proposition 50 Accounts was included in the Packet. The Executive Director noted that BACWA received $10,075.48 as a final transfer for Administrative Expenses from the Fund. BACWA will send a letter of thanks to Brian Campbell and Paul Gilbert-Snyder for their hard work on the administration of Proposition 50.

Agenda **Item 17** – Discussion: 2017 State of the Estuary Conference Passes (2) – An email regarding the availability of two complimentary passes to the conference was included in the Packet. The Executive Director asked if any of the Board members wanted a pass and two requested the passes. It was noted that the RMP portion of the Conference is open to all BACWA members.

Agenda **Item 18** – Discussion: 2018 Arleen Navarret Award – The Schedule, Nomination Form and Evaluation Form for the award that will be presented at the 2018 BACWA Annual Meeting was included in the Packet. The Executive Director asked for volunteers for the Nominating Committee and EBMUD and SFPUC volunteered. The Board discussed if the award amount should be increased and it was decided to leave it at the same level, but expand the outreach for nominees to include operators.

Agenda **Item 19** – Discussion: ELAP Preliminary DRAFT Regulations – An Outline of the Preliminary Draft Regulations was included in the Packet. The full draft regulations are expected to be release in the next few weeks.

Agenda **Item 20** – Discussion: BACWA Annual Meeting Date & Location – A document with information on the date, location, and other information about the BACWA Annual Meeting was included in the Packet. The Assistant Executive Director will send a Hold the Date to BACWA Members.

Agenda **Item 21** – Discussion: BACWA Annual Invoices – A spreadsheet showing the BACWA Dues and Fees for FY18 was included in the Packet. The Executive Director gave an overview of the changes to the dues and fees.

Agenda **Item 22** – Discussion: BACWA Representative to SF Estuary Partnership – The Executive Director asked for suggestions from the Board for a BACWA representative. EBMUD volunteered to represent BACWA.

Agenda **Item 23** – Discussion: BACWWE Update – A Summary of the June 15, 2017 and the July 7, 2017 Conference Calls was included in the Packet. The Executive Director gave an overview of the progress.

Agenda **Item 24** – Discussion: Manager's Roundtable Update – An email outlining the consensus of the Manager's Roundtable group on protocols for future meetings was included in the Packet. The Executive Director gave an overview of the protocols that have been developed.

REPORTS

Agenda **Item 25** – Committee Reports – BACWA Committee Reports were included in the Packet.
AIR Committee: Summary earlier in the agenda.
BAPPG: No meeting.
Biosolids Committee: No meeting.
Collections Committee: No meeting.
InfoShare - Asset Management: No meeting.
InfoShare – Operations & Maintenance: No meeting.
Lab Committee: A Report from the July 12, 2017 meeting was included in the Packet.
Permits Committee: A Report from the July 11, 2017 meeting was included in the Packet.
Pretreatment Committee: No meeting.
Recycled Water Committee: A Report from the July 11, 2017 meeting was included in the Packet.

Agenda **Item 26** - Discussion: Member Highlights - Executive Board Representatives (Board) were given an opportunity to provide updates from each of the Principal agencies. Non-principal members were also given an opportunity to report out on behalf of their agencies. No actions were taken on the report-outs.

EBDA: Outfall was recently inspected. Will be inspecting transport pipes.
EBMUD: Met with the Regional Water Board regarding wet weather violations.
Central Contra Costa: Have had inspections by Air District and Regional EPA regulators. Their wet scrubber pilot project is ongoing. Pre-testing shows good results. They are replacing screens with a smaller mesh, which will hopefully reduce toxic emissions from the incinerators. Recently completed an internal health risk assessment for Rule 11-18.
San Francisco: Received approval of a $625 million loan from the EPA for a biosolids project and thanked Alexandra Gunnell for providing key support. Asked other agencies for any information regarding experience with bypassing their deep-water outfall during a construction project.
San Jose: Currently under construction so all tours are on hold. Had a historic toxicity hit. In accelerated monitoring and recently passed a toxicity test.
Sunnyvale: No comment.
Palo Alto: Under construction of a dewatering facility.
Fairfield: No comment.

Agenda **Item 27** - The **Executive Director's (ED) Report** for June 2017, along with the Board Calendar, and BACWA Action Items, were included in the Packet. It was noted that 96 of the 97 action items from FY16 and 76 of the 76 action items from FY17 have been completed. The Executive Director also noted that the no-cost petition with LACSD, CASA and SCAP on Whitter Narrows is due for extension. It was extended once previously in 2015 and he stated that due to on-going issues with toxicity testing that he intended to let the Plaintiff's attorney know that BACWA was ok with the extension of the abeyance. No one disagreed with that approach.

Agenda **Item 28** - The **Regulatory Program Manager (RPM) Report** for June 2017 was included in the Packet.

Agenda **Item 29 - Other BACWA Representative Reports** – BACWA Representative were given an opportunity to provide updates. No actions were taken based on the reports.

a. RMP-TRC: Rod Miller; Laura Pagano – No report.
b. RMP Steering Committee: Karin North; Leah Walker; Jim Ervin – No report.
c. Summit Partners: Dave Williams; Laura Pagano **–** No report.
d. **ASC/SFEI:** Laura Pagano; Dave Williams; Karin North –A **LINK** to the June 23, 2017 Board of Director's Meeting Agenda was included in the Packet.
e. Nutrient Governance Steering Committee: Jim Ervin; Mike Connor – No report.
f. **SWRCB Nutrient SAG:** Dave Williams – A Document with Links to the Science Panel Report, the July 26, 2017 Biostimulatory & Biointegrity SAG Meeting Agenda, the ASCI Webinar, the Biostimulatory/Biointegrity Watershed Approach Presentation, and the Watershed & Categorical Approach was included in the Packet.
g. SWRCB Focus Group – Bacterial Objectives: Lorien Fono; Amy Chastain – No report.
h. SWRCB Focus Group – Mercury Amendments to the State Plan: Tim Potter; Dave Williams; Laura Pagano – No report
i. Nutrient Technical Workgroup: Eric Dunlavey – No report.
j. NACWA Taskforce on Dental Amalgam: Tim Potter – No report.
k. BAIRWMP: Cheryl Munoz, Linda Hu, Dave Williams – No report.
l. NACWA Emerging Contaminants: Karin North, Melody La Bella – No report
m. CASA Statewide Pesticide Steering Committee: Melody La Bella – No report.
n. CASA State Legislative Committee: Lori Schectel – No report.
o. CASA Regulatory Workgroup – Lorien Fono - No report.
p. RMP Microplastics Liaison: Nirmela Arsem – No report.
q. ReNUWIt: Mike Connor; Karin North – No report.
r. AWT Certification Committee: Maura Bonnarens – No report.
s. Bay Area Regional Reliability Project: Roger Bailey; Mike Connor – No report
t. WateReuse Working Group: Cheryl Munoz – No report.

Agenda **Item 30 - SUGGESTIONS FOR FUTURE AGENDA ITEMS**.
Future venues for BACWA Board meetings was discussed and EBMUD will explore the use of the small 2nd Floor Training Room at the Headquarters.

ANNOUNCEMENTS:
The next regular meeting of the Board is scheduled for **August 18, 2017 from 9:00 am – 12:30 pm** at the **SFPUC, Hetch Hetchy Room, 13th Floor, 525 Golden Gate Ave., San Francisco, CA**

To receive a copy of any materials provided to the Board at a BACWA Executive Board meeting contact Sherry Hull at shull@bacwa.org.

The meeting adjourned at 12:45 pm.

Fund Balances
In FY 16 BACWA had seven funds of which three were operating funds (BACWA, Legal, and CBC) and four were pass-through funds for which BACWA provided only contract administration services. Beginning in FY17, with the AIR Committee becoming a regular BACWA committee supported by BACWA dues, the balance from the Pass-through AIR Fund has been consolidated into the BACWA Fund. (Please note that the $13,698 balance in the AIR Fund that was transferred to the BACWA fund shows up on the Treasurer's Reports as Revenue for FY17, but does not show up as an Expense for FY17. This is corrected on the Budget to Actuals. So, the Net Revenue on the Budget to Actuals Report is correct.) The remaining three pass-through funds are not of particular concern as these funds simply track expenses and revenues to ensure that receipts are adequate to pay all expected expenses.

BACWA Fund: This fund provides the resources for BACWA staff, its committees, and other administrative needs. The ending fund balance on June 30, 2017 was $1,184,558 which is significantly higher than the target reserve of $160,000 which is intended to cover 3 months of normal operating expenses. $63,902 of the ending fund balance is shown on the June Fund & Investments Balance Report as obligated to meet on-going operating line item expenses for BAPPG Committee Support, Legal services, IT services, Board meeting expenses, accounting services and BACWA staff support. However, $32,820 of those Encumbrances expired on July 1, 2017. The remaining Encumbrances of $31,082 will be carried forward into FY18. This encumbrance is for a multi-year agreement with AXYS for the Pharmaceutical Studies and Carollo for Rule 11-18. This leaves an actual unobligated excess fund balance of $1,153,476 as of June 30, 2017. As the details of what regulatory requirements will be included in the next Nutrient Watershed Permit, these excess funds may be transferred to the CBC fund and used to offset potential Nutrient Surcharge increases to the BACWA members.

CBC Fund: This fund provides the resources for completing special investigations as well as meeting regulatory requirements. The ending fund balance on June 30, 2017 was $1,461,240 which is significantly higher than the target reserve of $400,000. $183,743 of the ending balance is obligated to meet line item expenses for completion of the Optimization/Upgrade Studies contract, the Risk Reduction contracts, and for technical support. However, $2,034 of those Encumbrances expired on July 1, 2017. The remaining Encumbrances of $181,709 Will be carried forward into FY18. This leaves an actual unobligated excess fund balance of $1,279.532 as of June 30, 2017. Total Disbursements for FY17 from the CBC Fund include the annual payment of $880,000 to SFEI for the Nutrient Watershed Permit commitment. As the details of what regulatory requirements will be included in the next Nutrient Watershed Permit, any excess CBC funds may be used to offset potential Nutrient Surcharge increases to the BACWA members.

Legal Fund: This fund provides for needed legal services. The ending balance was $300,000 which is at the target reserve of $300,000.

Budget To Actual
The BACWA Annual Budget includes all expected revenues as well as budgeted expenses. Transfers are made from the BACWA Fund and/or the CBC Fund to balance the Annual Budget if expenses exceed revenues and vice versa. It is therefore important to achieve the anticipated revenues and not exceed the

budgeted expenses on an annual basis in order to maintain the BACWA and CBC Fund balances at the levels projected in the 5 Year Plan.

Revenues as of June 30, 2017 (100% of the FY) are at 119% primarily due to higher than budgeted interest earnings. Another major factor is the receipt of $285,000 in voluntary contributions by some members to fund additional scientific investigations; The voluntary contributions and the Pharmaceutical Study revenue will be offset with a FY 17 expense as the collected funds from the members have been passed on to SFEI for conducting the scientific investigations. A second major factor is the receipt of $67,650 for the Pass-through for the Pharmaceutical Studies. This revenue however will also be offset with FY17 and FY18 expenses as the collected funds from the members is passed on to SGS-AXYS for conducting the studies. Finally, BACWA received $11,575 for Administrative Costs from the close of Proposition 50 in June, 2017.

Overall Expenses as of June 30, 2017 (100% of the FY) are at 123% and are tracking in accordance with the Annual Budget due to payment of the Passthroughs mentioned above. Individual expense categories with a plus or minus 10% variance at this point in the fiscal year are as follows:

Meetings: This category is over-expended at 113% due to higher than expected expenditures for Miscellaneous meetings.

Communications: This category is under-expended (i.e. 46%) due primarily to no expenditures on website changes and low expenditures on IT Support.

Legal Support: Budget of $4,500 and expenditures to date of $498 resulting in a favorable variance of $4,002 due to a low need for legal administrative advice.

Committees: This category is under-expended (i.e. 86%) due primarily to lower and no expenditures by some Committees and to only 62% use of Miscellaneous Committee Support.

Tech Support: This category is 139% expended at 100% of the FY primarily due to the payment of Optimization/Upgrade obligations. The Opt/Upgrade expenditures were significantly below budget in FY16 and are, therefore, significantly above budget in FY17. In addition, expenses were incurred for the voluntary contributions for FY 17 by some members for funding additional science, and for the Pharmaceutical Studies. However as mentioned above these are pass-thru expenses that will be negated by revenues over the two-year period of contributions.

BACWA
BAY AREA
CLEAN WATER
AGENCIES

BACWA
FY 2017 Budget
Approved 4/15/16

100% of Fiscal Year

BACWA FY17 BUDGET	***Line Item Description***	**FY 2017 Budget**	**Actuals June 2017**	**Actual % of Budget June 2017**	**Variance**	**NOTES**
REVENUES & FUNDING						
Dues	Principals' Contributions	$477,544	$477,545	100%	$1	**FY17:** 2% increase.
	Associate & Affiliate Contributions	$175,072	$176,850	101%	$1,778	**FY17:** approx. 2% increase.
Fees	Clean Bay Collaborative	$675,000	$675,000	100%	$0	Unchanged from FY16
	Nutrient Surcharge	$800,000	$800,133	100%	$133	Increased from $600,000 in FY16 (Invoiced $800,133 in FY17 due to rounding)
	Voluntary Nutrient Contributions	$0	$285,000		$285,000	**FY17:** Palo Alto ($30k); Sunnyvale ($60k) CCCSD ($195k) **FY18:** Palo Alto ($30k)
	Other	$0	$67,650		$67,650	Passthrough for Pharm Study;
Other Receipts	AIR Non-Member	$6,350	$6,350	100%	$0	Approx. 2% increase.
	BAPPG Non-Members	$3,700	$3,699	100%	-$1	Approx. 2% increase.
	Other	$0	$13,698		$13,698	Transfer of AIR Fund to BACWA Fund
Fund Transfer	Special Program Admin Fees	$2,500	$14,075	563%	$11,575	Budget = WOT only. Close out of Prop 50 includes FY15 & FY16 @ $522.62 & $11,052.86 forFY17
Interest Income	Funds	$4,000	$17,391	435%	$13,391	**FY17:** Actuals includes BACWA, Legal, & Nutrients Funds from LAIF
	Investments	$0	$3,906		$3,906	Alternative Investments Interest
	Total Revenue	**$2,144,166**	**$2,541,297**	119%	$397,131	
BACWA FY16 BUDGET	***Line Item Description***	**FY 2017 Budget**	**Actuals June 2017**	**Actual % of Budget June 2017**	**Variance**	**NOTES**
EXPENSES						
Labor						
	Executive Director	$189,370	$189,370	100%	$0	3.2% CPI (SF/Oakland/San Jose Metro Area Dec 2015)
	Assistant Executive Director	$85,000	$84,991	100%	-$9	8.08% increase - requested 8.2%
	Regulatory Program Manager	$112,500	$94,770	84%	-$17,730	New contract for FY17 with L Fono
	Total	**$386,870**	**$369,131**	95%	-$17,739	
Administration						
	EBMUD Financial Services	$40,000	$38,020	95%	-$1,980	$3,070 is Audit Fee from FY16 when it was on same line item as Accounting.
	Auditing Services (Maze)	$6,200	$6,200	100%	$0	**FY17:** a separate line item from EBMUD Financial Services. ($6,200 accrued to FY18)
	Administrative Expenses	$7,500	$4,807	64%	-$2,693	Travel, Supplies, Parking, Mileage, Tolls, Misc.
	Insurance	$4,500	$4,266	95%	-$234	
	Total	**$58,200**	**$53,293**	92%	-$4,907	
Meetings						
	EB Meetings	$2,500	$1,678	67%	-$822	Catering, Venue, other expenses
	Annual Meeting	$7,000	$7,127	102%	$127	Catering, Venue, other expenses
	Pardee	$6,000	$4,421	74%	-$1,579	Catering, Venue, other expenses
	Misc. Meetings	$1,100	$5,607	510%	$4,507	Holiday Lunch, Comm Chair Lunch, Staff Mtgs, Summit Partners, CASA, Opt/Upgrade WS, WEF,
	Total	**$16,600**	**$18,833**	113%	$2,233	
Communication						
	Website Hosting (Computer Courage)	$600	$600	100%	$0	
	File Storage (Box.net)	$750	$720	96%	-$30	
	Website Development/Maintenance	$1,200	$0	0%	-$1,200	Domains, website changes, Logo EPS file
	IT Support (As Needed)	$2,600	$383	15%	-$2,217	
	Other Communication (MS, SM & Code42)	$800	$1,008	126%	$208	MS Exchange, Survey Monkey, CrashPlanPro
	Total	**$5,950**	**$2,71**	46%	-$3,239	

EXPENSES						
Legal						
	Regulatory Support	$2,500	$498	20%	-$2,002	
	Executive Board Support	$2,000	$0	0%	-$2,000	
	Total	**$4,500**	**$498**	11%	-$4,002	
Committees						
	AIR	$50,000	$51,038	102%	$1,038	Full BACWA Committee beginning in FY17; Lunches provided by RPM
	BAPPG	$86,000	$85,732	100%	-$268	Includes CPSC @ $10,000,
	Biosolids Committee	$3,100	$1,952	63%	-$1,148	
	Collections System	$1,000	$300	30%	-$700	
	InfoShare Groups	$1,200	$1,071	89%	-$129	funds for 2 workgroups (Asset Mgmt & O&M)
	Laboratory Committee	$6,000	$2,641	44%	-$3,359	
	Permit Committee	$1,000	$0	0%	-$1,000	
	Pretreatment	$7,000	$181	3%	-$6,819	Request includes specific training sessions
	Recycled Water Committee	$1,000	$0	0%	-$1,000	
	Misc Committee Support	$35,000	$21,668	62%	-$13,332	Includes Baywise website & Rule 11-18 work
	Total	**$191,300**	**$164,583**	86%	-$26,717	
Collaboratives						
	Collaboratives					
	State of the Estuary-PSSEP (biennial)	$20,000	$20,000	100%	$0	Bienniel in Odd Years (Conf in Sept, 2017 - FY18)
	Arleen Navarret Award	$0	$0		$0	Bienniel in Even Years
	FWQC (Fred Andes)	$7,500	$7,500	100%	$0	Dues raised to $7,500 in FY16
	Stanford ERC (ReNUWIt)	$10,000	$10,000	100%	$0	
	CWCCG	$0	$0		$0	State-wide function, being absorbed by CASA in FY17
	Misc	$3,000	$0	0%	-$3,000	new budget line item in recognition of unanticipated expenses
	Total	**$40,500**	**$37,500**	93%	-$3,000	
Other	**Unbudgeted Items**					
	Passthrough	$0	$44,550		-$44,550	Passthrough for Pharm Study; bal at end of FY17: $23,100
	Transfer	$0	$13,698		-$13,698	Transfer of AIR Fund to BACWA Fund (to balance out amount shown as revenue)
		$0	**$58,248**		**-$13,698**	
Tech Support	**Technical Support**					
	Nutrients					
	Watershed	$880,000	$880,000	100%	$0	
	Additional work under permit	$50,000	$17,367	35%	-$32,633	**FY17:** Pilot. LimnoTech
	Opt/Upgrade/Annual Reporting Studies	$18,128	$275,570	1520%	$257,442	**FY17:** remainder of lump sum budget. (FY17 Budget under-estimated)
	Nutrient Program Coordination	$50,000	$0	0%	-$50,000	Prog Coord Pilot Study scheduled for FY17, started in April 2016
	Voluntary Nutrient Contributions	$0	$285,000		$285,000	**FY17:** Palo Alto ($30k); Sunnyvale ($30k) CCCSD ($97,500k)
	General Tech Support	$50,000	$23,273	47%	-$26,727	SFEI agrmt bal: $28,409.12 expires 6/30/17. **FY17:** Assesmt Framework
	Chemicals of Concern	$15,000	$15,000	100%	$0	Pesticide Mgmt support (Kelly Moran-TDC)
	Risk Reduction	$32,500	$21,246	65%	-$11,254	Remainder of Contracts executed for $50k in FY16 to be paid over two years
	Total	**$1,095,628**	**$1,517,456**	139%	$421,828	
	TOTAL EXPENSES	**$1,799,548**	**$2,222,253**	**123%**	**$422,705**	June Exp Actuals diff is $13,698 which is transfer from AIR Fund. Not shown on Expense Rpt
	NET INCOME BEFORE TRANSFERS	**$344,618**	**$319,044**			
	TRANSFERS FROM RESERVES	**$0**				
	NET INCOME AFTER TRANSFERS	**$344,618**				

CHECK ON BACWA LIQUIDITY THRESHHOLD

	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Budget Total FY 17	Budget Total FY 18
BEGINNING UNOBLIGATED FUND BALANCE	$3,038,509	$2,961,880	$2,843,492	$2,220,846	$2,678,200	$3,135,554	$3,592,908	$3,474,520	$3,356,131	$3,237,743	$3,119,355	$3,000,967	$2,882,579		
Average Monthly Revenues	$0	$0	$575,742	$575,742	$575,742	$575,742	$0	$0	$0	$0	$0	$0	$0	$2,144,165	$2,302,969
Average Monthly Expenditures (Less Large one time Expenses)	($76,629)	($118,388)	($118,388)	($118,388)	($118,388)	($118,388)	($118,388)	($118,388)	($118,388)	($118,388)	($118,388)	($118,388)	($118,388)	$919,548	$1,420,659
Less Large Expenditures	$0	$0	($1,080,000)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0		
NET AVAILABLE FOR INVESTMENT	$2,961,880	$2,843,492	$2,220,846	$2,678,200	$3,135,554	$3,592,908	$3,474,520	$3,356,131	$3,237,743	$3,119,355	$3,000,967	$2,882,579	$2,764,191		
NEW INVESTMENTS															
Higher Yield (non-liquid)	($605,000)	($605,000)	($605,000)	($605,000)	($605,000)	($605,000)	($605,000)	($605,000)	($605,000)	($605,000)	($605,000)	($605,000)	($905,000)		
MATURITIES															
Higher Yield (non-liquid)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0		
AVAILABLE LIQUID FUNDS	$2,356,880	$2,238,492	$1,615,846	$2,073,200	$2,530,554	$2,987,908	$2,869,520	$2,751,131	$2,632,743	$2,514,355	$2,395,967	$2,277,579	$1,859,191		
TARGET AVAILABLE LIQUID FUNDS	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok	$1,500,000 ok		

Bay Area Clean Water Agencies
A Joint Powers Public Agency
Leading the Way to Protect our Bay

July 28, 2017

MEMO TO: Bay Area Clean Water Agencies Executive Board
MEMO FROM: D. Scott Klein, Controller, East Bay Municipal Utility District
SUBJECT: Twelfth Month Treasurer's Report

As required by section eight of the Joint Powers Agreement establishing the Bay Area Clean Water Agencies (BACWA) and California Government Code Sections 6500 et seq., attached is the BACWA Treasurer's Report for the period covering **July 1, 2016 through June 30, 2017** (twelfth months of Fiscal Year 2017). This report covers expenditures, cash receipts, and cash transfers for the following BACWA funds:

- Bay Area Clean Water Agencies (BACWA),
- BACWA Legal Reserve Fund (Legal Rsrv),
- Water Quality Attainment Strategy (WQA CBC),
- Air Issues and Regulation Group (AIR),
- Water/Wastewater Operator Training (WOT),
- Prop84 Bay Area Integrated Regional Water Mgmt (PRP84),
- Prop50 Bay Area Integrated Regional Water Mgmt (PRP50)

BACWA Fund Report as of June 30, 2017

		BACWA FUND BALANCES - DATA PROVIDED BY ACCOUNTING DEPT.						Provided by BACWA	
DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL RECEIPTS TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	OUTSTANDING ENCUMBRANCES	MONTH-END UNOBLIGATED FUND BALANCE	ENCUMBRANCES EXPIRING 6/30/17	ACTUAL MONTH-END UNOBLIGATED FUND BALANCE
800	BACWA	1,060,239	770,867	646,548	1,184,558	63,902	1,120,656	32,820	1,153,476
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000	0	300,000
805	CBC	1,252,817	1,770,430	1,562,006	1,461,240	183,743	1,277,498	2,034	1,279,532
802	AIR	13,698	-	13,698	0	-	0		
	SUBTOTAL 1	*2,626,754*	*2,541,297*	*2,222,252*	*2,945,799*	*247,645*	*2,698,154*	*34,854*	**2,733,008**
810	WOT	33,608	148,714	72,406	109,916	-	109,916		
	SUBTOTAL 2	*33,608*	*148,714*	*72,406*	*109,916*	-	*109,916*		
811	PRP84	118,356	902,287	902,736	117,907	-	117,907		
815	PRP50	150,663	558,049	708,712	-	-	-		
	SUBTOTAL 3	269,019	1,460,336	1,611,448	117,907	-	117,907		
	GRAND TOTAL	**2,929,381**	**4,150,347**	**3,906,107**	**3,173,622**	**247,645**	**2,925,977**		

Top Chart: Reflects CASH on the Books — Includes Encumbrances
Bottom Chart: Reflects CASH in the Bank — Includes Payables (bills received but not paid)
Allocations: Priority for non-liquid investments

		BACWA INVESTMENTS BALANCES - DATA PROVIDED BY TREASURY DEPT.											
DEPTID	DESCRIPTION	FISCAL YEAR BEGINNING FUND BALANCE	TOTAL RECEIPTS TO-DATE	TOTAL DISBURSEMENTS TO-DATE	MONTH-ENDING FUND BALANCE	RECONCILIATION TO FINANCIAL STATEMENTS	MONTH-END RECONCILED FUND BALANCE	UNINVESTED CASH BALANCES	LAIF INVESTMENTS AMOUNTS	LAIF INVESTMENTS PERCENTAGE	ALTERNATIVE INVESTMENTS AMOUNTS	ALTERNATIVE INVESTMENTS IDENTIFIERS	ALTERNATIVE INVESTMENT INSTRUCTIONS AND NOTES
800	BACWA	1,060,239	770,867	646,548	1,184,558	107,164	1,291,723	-	1,291,723	57%	(0)	n/a	priority # 3 for allocation
804	LEGAL RSRV	300,000	-	-	300,000	-	300,000	-	-	0%	300,000	AR5	priority # 1 for allocation
805	CBC	1,252,817	1,770,430	1,562,006	1,461,240		1,461,240	-	856,241	38%	605,000	F5, SM4, G64, PS5	priority # 2 for allocation
802	AIR	13,698	-	13,698	0	-	0	-	-	0%	0	n/a	This fund is gone
	SUBTOTAL 1	2,626,754	2,541,297	2,222,252	2,945,799	107,164	3,052,963	-	2,147,963	95%	905,000		
810	WOT	33,608	148,714	72,406	109,916		109,916	109,916		0%	-		pass-through funds, no allocation
	SUBTOTAL 2	33,608	148,714	72,406	109,916	-	109,916	109,916	-	0%	-		
811	PRP84	118,356	902,287	902,736	117,907		117,907	117,907	-	0%	-		pass-through funds, no allocation
815	PRP50	150,663	558,049	708,712	-		-	-	-	0%	-		pass-through funds, no allocation
	SUBTOTAL 3	269,019	1,460,336	1,611,448	117,907	-	117,907	117,907	-	0%	-		
	GRAND TOTAL	**2,929,381**	**4,150,347**	**3,906,107**	**3,173,622**	**107,164**	**3,280,786**	**227,823**	**2,262,600**		**905,000**		
						verification	(114,637)	-	114,637		-		

To be used to cover Reconciliation to Financial Statements ($107,164)

Reconciliation to Trial Balance - accrual basis

Per Report above:

General		2,541,297
WOT		148,714
PROP		1,460,336
subtotal		**4,150,347**

Billings-Pending Receipts

4686	Mem Contrib	(120,000)
4687	Transfer	-
4690	Assoc Contrib	-
4696	Other	73,698
4731	State Grant	(8,747)
4732	Grant Retention	(435,188)
subtotal		**(490,238)**

Trial Balance Revenue Accounts

4411	Interest	(22,539)
4686	Mem Contrib	(1,229,045)
4687	Transfer	(14,075)
4690	Assoc Contrib	(176,850)
4696	Other	(1,188,530)
4731	State Grant	(907,300)
4732	Grant Retention	(108,072)
subtotal		**(3,646,412)**
Difference		**13,698**

BACWA Revenue Report as of June 30, 2017

FUND #	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers,Others	Admin & General	Contributons	Interest, Transfers,Others	ACTUAL	
800	BACWA	1011099	Principal's Contributions	477,544	-	-	-	-	477,545	-	477,545	(1)
800	BACWA	1011133	Assoc.& Affiliate Contr	175,072	-	-	-	-	176,850	-	176,850	(1,778)
800	BACWA	0408511	Administrative & General	-	-	-	-	-	-	(369)	(369)	369
800	BACWA	1014251	Non-Member Contributions (BAPPG)	3,700	-	-		-	3,699	-	3,699	1
800	BACWA	1011109	Fund Transfers	2,500	-	-	11,053	-	-	14,075	14,075	(11,575)
800	BACWA	1011117	BDO- Interest Income from LAIF	4,000	-	-	-	-	-	9,569	9,569	(5,569)
800	BACWA	1011108	BDO Other Receipts	-	-	-	-	-	-	13,698	13,698	(13,698)
800	BACWA	1014252	BDO Non-Member Contr AIR	6,350	-	-	-	-	6,350	-	6,350	-
800	BACWA	1014511	BDO-Alternative Investment Inc	-	-	-	-	1,105	-	695	1,800	(1,800)
800	BACWA	1014550	BDO-Other Receipts (PHARM)	-	-	-	-	-	67,650	-	67,650	(67,650)
	BACWA TOTAL			**669,166**	**-**	**-**	**11,053**	**1,105**	**732,094**	**37,668**	**770,867**	**(101,701)**
802	LEGAL	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	-	-	-
	LEGAL TOTAL			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
805	WQA-CBC	1011099	BDO Member Contributions	675,000	-	-	-	-	735,000	(60,000)	675,000	-
805	WQA-CBC	1011108	BDO Other Receipts	800,000	-	-	-	-	800,133	-	800,133	(133)
805	WQA-CBC	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	8,191	8,191	(8,191)
805	WQA-CBC	1011511	BDO-Alternative Investment Inc	-	-	-	-	-	-	2,106	2,106	(2,106)
805	WQA-CBC	1014528	BDO-Voluntary Nutrient Contrib	-	-	97,500	-	-	225,000	60,000	285,000	(285,000)
	WQA CBC TOTAL			**1,475,000**	**-**	**97,500**	**-**	**-**	**1,760,133**	**10,297**	**1,770,430**	**(295,430)**
	TOTAL			**2,144,166**	**-**	**97,500**	**11,053**	**1,105**	**2,492,227**	**47,965**	**2,541,297**	**(397,131)**

	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers, Others	Admin & General	Contributons	Interest, Transfers, Others	ACTUAL	
810	WOT	1011099	BDO Member Contributions	-	-	6,000	-	-	136,500	-	136,500	(136,500)
810	WOT	1011108	BDO Other Receipts	-	-	-	-	-	12,000	-	12,000	(12,000)
810	WOT	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	214	214	(214)
	WOT TOTAL			**-**	**-**	**6,000**	**-**	**-**	**148,500**	**214**	**148,714**	**(148,714)**

	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE				UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers, Others	Admin & General	Contributons	Interest, Transfers, Others	ACTUAL	
811	PROP 84			-	-	-	-	-	901,808	479	902,287	(902,287)
815	PROP 50			-	-	-	-	-	557,500	549	558,049	(558,049)
	PROP TOTAL			**-**	**-**	**-**	**-**	**-**	**1,459,308**	**1,028**	**1,460,336**	**(1,460,336)**
	Grand Total			**2,144,166**	**-**	**103,500**	**11,053**	**1,105**	**4,100,035**	**49,207**	**4,150,347**	**(2,006,181)**

BACWA Expense Detail Report as of June 30, 2017

EXPENSE TYPE	JOB	AMENDED BUDGET	CURRENT PERIOD ENC	CURRENT PERIOD PV	CURRENT PERIOD DA	CURRENT PERIOD JV	YEAR TO DATE ENC	YEAR TO DATE PV	YEAR TO DATE DA	YEAR TO DATE JV	OBLIGATED	UNOBLIGATED
LABOR												
AS-Executive Director	1011123	189,370	(15,781)	15,781	-	-	0	189,370	-	-	189,370	-
AS-Assistant Executive Directo	1011124	85,000	(7,820)	7,820	-	-	9	84,991	-	-	85,000	-
AS-Regulatory Program Manager	1011149	112,500	(6,930)	6,930	-	-	17,730	94,770	-	-	112,500	-
ADMINISTRATION												
AS-EBMUD Financial Services	1011125	40,000	(5,782)	5,782	-	-	1,980	38,020	3,666	(3,666)	40,000	-
AS-Audit Services	1014512	6,200	-	-	-	6,200	6,200	-	-	6,200	6,200	-
AS-BACWA Admin Expense	1011118	7,500	-	-	2,105	-	-	-	4,807	-	4,807	2,693
AS-Insurance	1011126	4,500	-	-	-	-	-	-	4,266	-	4,266	234
MEETINGS												
GBS-Meeting Support-Exec Bd	**1014513**	2,500	-	-	218	-	373	627	1,051	-	2,051	449
GBS-Meeting Support-Annual	**1014514**	7,000	-	-	-	-	-	-	7,127	-	7,127	(127)
GBS-Meeting Support-Pardee	**1014515**	6,000	-	-	-	-	-	-	4,421	-	4,421	1,579
GBS-Meeting Support-Misc	**1014516**	1,100	-	-	3,134	-	-	-	5,607	-	5,607	(4,507)
GBS- Meeting Support	1011122	-	-	-	-	-	-	-	-	-	-	-
COMMUNICATION												
CAR-BACWA Website Hosting	**1014517**	600	-	-	-	-	-	-	600	-	600	-
CAR-BACWA File Storage	**1014518**	750	-	-	-	-	-	-	720	-	720	30
CAR-BACWA IT Support	**1014519**	2,600	-	-	-	-	2,218	383	-	-	2,600	-
CAR-BACWA IT Software	**1014520**	800	-	-	144	-	-	-	1,008	-	1,008	(208)
CAR-BACWA Website Development/	1011116	1,200	-	-	-	-	-	-	-	-	-	1,200
LEGAL												
LS-Regulatory Support	1011107	2,500	-	-	-	-	2,002	498	-	-	2,500	-
LS-Executive Board Support	1011110	2,000	-	-	-	-	2,000	-	-	-	2,000	-
COMMITTEES												
AIR-Air Issues&Regulation Grp	1014253	50,000	(12,553)	12,553	368	-	40	49,961	1,078	-	51,078	(1,078)
BC-BAPPG	1011147	86,000	(7,505)	(7,730)	1,840	-	269	58,232	27,500	-	86,000	-
BC-Biosolids Committee	1011101	3,100	-	-	-	-	-	-	1,952	-	1,952	1,148
BC-Collections System	1011097	1,000	-	-	-	-	-	-	300	-	300	700
BC-InfoShare Groups	1011102	1,200	-	-	-	-	-	-	1,071	-	1,071	129
BC-Laboratory Committee	1011103	6,000	-	-	-	-	-	-	2,641	-	2,641	3,359
BC-Permit Committee	1011098	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Pretreatment Committee	1011146	7,000	-	-	-	-	-	-	181	-	181	6,819
BC-Water Recycling Committee	1011100	1,000	-	-	-	-	-	-	-	-	-	1,000
BC-Miscellaneous Committee Sup	1011104	35,000	(10,887)	10,887	3,694	-	7,982	17,974	3,694	-	29,650	5,350
COLLABORATIVES												
CAS-Arleen Navaret Award	1012201	-	-	-	-	-	-	-	-	-	-	-
CAS-FWQC	1012202	7,500	-	-	-	-	-	-	7,500	-	7,500	-
CAS-Stanford ERC	1011969	10,000	-	-	-	-	-	-	10,000	-	10,000	-
CAS-CWCCG	1011148	-	-	-	-	-	-	-	-	-	-	-
CAS-PSSEP	1011112	20,000	-	-	-	-	-	-	20,000	-	20,000	-
CAS-Misc Collaborative Sup	1014521	3,000	-	-	-	-	-	-	-	-	-	3,000
BACWA TOTAL		**703,920**	**(67,258)**	**52,023**	**11,503**	**6,200**	**40,802**	**534,824**	**109,190**	**2,534**	**681,150**	**22,770**
TECH SUPPORT												
WQA-CE Addl Work Under Permit	1014254	50,000	-	-	-	-	57,000	12,367	5,000	-	74,367	(24,367)
WQA-CE-Technical Support	1011127	50,000	(26,375)	26,375	-	(3,102)	2,034	26,375	-	(3,102)	25,307	24,693
WQA-CE CASA Chem of Concern	1011128	15,000	(765)	12,500	-	-	-	15,000	-	-	15,000	-
WQA-CE Opt-Upgrade Studies	1014255	18,128	(98,936)	98,936	-	-	114,856	275,570	-	-	390,426	(372,298)
WQA-CE Risk Reduction	1014023	32,500	(9,794)	9,794	-	-	9,854	21,246	-	-	31,099	1,401
WQA-CE-Nutrient WS Permit Comm	1014021	880,000	-	-	-	-	-	-	880,000	-	880,000	-
WQA-CE-Program Mgmt	1011131	50,000	-	-	-	-	-	-	-	-	-	50,000
WQA-CE Voluntary Nutr Contrib	1014529	-	-	-	97,500	-	-	-	285,000	-	285,000	(285,000)
BDO-Contract Expenses (PHARM)	1014551	-	-	-	-	-	23,100	44,550	-	-	67,650	(67,650)
TECH SUPPORT (CBC) TOTAL		**1,095,628**	**(135,870)**	**147,605**	**97,500**	**(3,102)**	**206,843**	**395,108**	**1,170,000**	**(3,102)**	**1,768,849**	**(673,221)**
GRAND TOTAL		**1,799,548**	**(203,129)**	**199,629**	**109,003**	**3,098**	**247,645**	**929,932**	**1,279,190**	**(568)**	**2,450,000**	**(650,452)**
							TOTAL	**2,208,554**				
WOT												
Administrative Support	1011142	-	-	-	-	-	-	-	-	2,500	2,500	(2,500)
BDO Contract Expenses	1011143	-	-	-	-	-	-	-	69,906	-	69,906	(69,906)
		-	**-**	**-**	**-**	**-**	**-**	**-**	**69,906**	**2,500**	**72,406**	**(72,406)**
GRAND TOTAL (BDO, CBC, WOT)		**1,799,548**	**(203,129)**	**199,629**	**109,003**	**3,098**	**247,645**	**929,932**	**1,349,097**	**1,932**	**2,522,406**	**(722,858)**

Propositions Revenue Report as of June 30, 2017

DEPTID	DEPARTMENT	JOB	REVENUE TYPE	AMENDED BUDGET	CURRENT PERIOD			YEAR TO DATE			ACTUAL	UNOBLIGATED
					Admin & General	Contributons	Interest, Transfers,Others	Admin & General	Contributons	Interest, Transfers,Others		
811	Prop84BayAreaIntegRegnlWtrMgmt	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	479	479	(479)
811	Prop84BayAreaIntegRegnlWtrMgmt	1011142	Administrative Support	-	-	-	-	-	31,348	-	31,348	(31,348)
811	Prop84BayAreaIntegRegnlWtrMgmt	1011691	Water Efficient Landscape Reba	-	-	-	-	-	191,983	-	191,983	(191,983)
811	Prop84BayAreaIntegRegnlWtrMgmt	1011705	Regional Green Infrastructure	-	-	-	-	-	72,778	-	72,778	(72,778)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012209	Water Efficient LRP	-	-	-	-	-	33,180	-	33,180	(33,180)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012210	Bay Friendly Landscape TP	-	-	-	-	-	10,613	-	10,613	(10,613)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012211	Weather Based Irrigation Cntrl	-	-	-	-	-	4,766	-	4,766	(4,766)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012212	High Efficiency Toilet & UR	-	-	-	-	-	163,008	-	163,008	(163,008)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012213	High Efficiency Toilet & UI	-	-	-	-	-	94,681	-	94,681	(94,681)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012214	High Efficiency Clothes Washrs	-	-	-	-	-	83,014	-	83,014	(83,014)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012215	Napa Co. Rainwater HP	-	-	-	-	-	11,490	-	11,490	(11,490)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012216	Conservation Program Admin	-	-	-	-	-	30,980	-	30,980	(30,980)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012219	Flood Infrastructure Mapping T	-	-	-	-	-	89,902	-	89,902	(89,902)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012220	Stormwater Improvements & PBP	-	-	-	-	-	1,033	-	1,033	(1,033)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012221	Richmond Shoreline & San PFP	-	-	-	-	-	2,268	-	2,268	(2,268)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012222	Pescadero Integrated FRAH	-	-	-	-	-	10,453	-	10,453	(10,453)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012223	Restoration Guidance, San FC	-	-	-	-	-	12,733	-	12,733	(12,733)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012224	SF Estuary Steelhead MP	-	-	-	-	-	50,725	-	50,725	(50,725)
811	Prop84BayAreaIntegRegnlWtrMgmt	1012225	Watershed Program Admnstrtn	-	-	-	-	-	6,852	-	6,852	(6,852)
	PROP 84 TOTAL			**-**	**-**	**-**	**-**	**-**	**901,808**	**479**	**902,287**	**(902,287)**
815	Prop50BayAreaIntegRegnlWtrMgmt	1011117	BDO- Interest Income from LAIF	-	-	-	-	-	-	549	549	(549)
	Prop50BayAreaIntegRegnlWtrMgmt	1011142	Administrative Support	-	-	-	-	-	23,753	-	23,753	(23,753)
	Prop50BayAreaIntegRegnlWtrMgmt	1011542	EBMUD Ca. Waterstar Initiative	-	-	-	-	-	525,000	-	525,000	(525,000)
815	Prop50BayAreaIntegRegnlWtrMgmt	1011543	EBMUD New Biz Guidebook	-	-	-	-	-	8,747	-	8,747	(8,747)
	PROP50 TOTAL			**-**	**-**	**-**	**-**	**-**	**557,500**	**549**	**558,049**	**(558,049)**
	GRAND TOTAL			**-**	**-**	**-**	**-**	**-**	**1,459,308**	**1,029**	**1,460,336**	**(1,460,336)**

Proposition Expense Detail Report for June 2017

DEPTID	DEPARTMENT	EXPENSE TYPE	AMENDED BUDGET	CURRENT PERIOD ENC	CURRENT PERIOD PV	CURRENT PERIOD DA	CURRENT PERIOD JV	YEAR TO DATE ENC	YEAR TO DATE PV	YEAR TO DATE DA	YEAR TO DATE JV	OBLIGATED	UNOBLIGATED
811	Prop84BayAreaIntegRegnlWtrMgmt	BDO Fund Transfers	-	-	-	-	-	-	-	-	-	-	-
811	Prop84BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	-	-	-	-	53,033	-	53,033	(53,033)
811	Prop84BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	-	-	-	-	-	-	14	-	14	(14)
811	Prop84BayAreaIntegRegnlWtrMgmt	Regional Green Infrastructure	-	-	-	-	-	-	-	72,778	-	72,778	(72,778)
811	Prop84BayAreaIntegRegnlWtrMgmt	Water Efficient LRP	-	-	-	-	-	-	-	42,854	-	42,854	(42,854)
811	Prop84BayAreaIntegRegnlWtrMgmt	Bay Friendly Landscape TP	-	-	-	-	-	-	-	11,512	-	11,512	(11,512)
811	Prop84BayAreaIntegRegnlWtrMgmt	Weather Based Irrigation Cntrl	-	-	-	-	-	-	-	9,041	-	9,041	(9,041)
811	Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UR	-	-	-	-	-	-	-	186,321	-	186,321	(186,321)
811	Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Toilet & UI	-	-	-	-	-	-	-	149,160	-	149,160	(149,160)
811	Prop84BayAreaIntegRegnlWtrMgmt	High Efficiency Clothes Washrs	-	-	-	-	-	-	-	158,145	-	158,145	(158,145)
811	Prop84BayAreaIntegRegnlWtrMgmt	Napa Co. Rainwater HP	-	-	-	-	-	-	-	12,279	-	12,279	(12,279)
811	Prop84BayAreaIntegRegnlWtrMgmt	Conservation Program Admin	-	-	-	-	-	-	-	33,631	-	33,631	(33,631)
811	Prop84BayAreaIntegRegnlWtrMgmt	Flood Infrastructure Mapping T	-	-	-	-	-	-	-	89,902	-	89,902	(89,902)
811	Prop84BayAreaIntegRegnlWtrMgmt	Stormwater Improvements & PBP	-	-	-	-	-	-	-	1,033	-	1,033	(1,033)
811	Prop84BayAreaIntegRegnlWtrMgmt	Richmond Shoreline & San PFP	-	-	-	-	-	-	-	2,268	-	2,268	(2,268)
811	Prop84BayAreaIntegRegnlWtrMgmt	Pescadero Integrated FRAH	-	-	-	-	-	-	-	10,453	-	10,453	(10,453)
811	Prop84BayAreaIntegRegnlWtrMgmt	Restoration Guidance, San FC	-	-	-	-	-	-	-	12,733	-	12,733	(12,733)
811	Prop84BayAreaIntegRegnlWtrMgmt	SF Estuary Steelhead MP	-	-	-	-	-	-	-	50,725	-	50,725	(50,725)
811	Prop84BayAreaIntegRegnlWtrMgmt	Watershed Program Admnstrtn	-	-	-	-	-	-	-	6,852	-	6,852	(6,852)
	PRP84 TOTAL		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**902,736**	**-**	**902,736**	**(902,736)**
815	Prop50BayAreaIntegRegnlWtrMgmt	BDO Fund Transfers	-	-	-	-	-	-	-	-	-	-	-
815	Prop50BayAreaIntegRegnlWtrMgmt	Administrative Support	-	-	-	-	11,053	-	-	49,880	11,575	61,456	(61,456)
815	Prop50BayAreaIntegRegnlWtrMgmt	BDO Contract Expenses	-	-	-	-	-	-	-	14	-	14	(14)
815	Prop50BayAreaIntegRegnlWtrMgmt	Contra Costa Regional Intertie	-	-	-	114,743	-	-	-	114,743	-	114,743	(114,743)
815	Prop50BayAreaIntegRegnlWtrMgmt	EBMUD New Biz Guidebook	-	-	-	-	-	-	-	7,500	-	7,500	(7,500)
815	Prop50BayAreaIntegRegnlWtrMgmt	South Bay Advanced Regional RW	-	-	-	-	-	-	-	-	-	-	-
815	Prop50BayAreaIntegRegnlWtrMgmt	Pacifica RWP	-	-	-	-	-	-	-	-	-	-	-
815	Prop50BayAreaIntegRegnlWtrMgmt	Direct Install HET	-	-	-	-	-	-	-	-	-	-	-
815	Prop50BayAreaIntegRegnlWtrMgmt	Sonoma - Napa Marsh RWP	-	-	-	-	-	-	-	-	-	-	-
815	Prop50BayAreaIntegRegnlWtrMgmt	EBMUD Ca. Waterstar Initiative	-	-	-	-	-	-	-	525,000	-	525,000	(525,000)
	PRP50 TOTAL		**-**	**-**	**-**	**114,743**	**11,053**	**-**	**-**	**697,137**	**11,575**	**708,712**	**(708,712)**
GRAND TOTAL (PROP 84 & 50)			**-**	**-**	**-**	**114,743**	**11,053**	**-**	**-**	**1,599,873**	**11,575**	**1,611,448**	**(1,611,448)**

EXECUTIVE BOARD AUTHORIZATION REQUEST

AGENDA NO.: 3

FILE NO.: 18-19

MEETING DATE: August 18, 2017

TITLE: Request for BACWA Nutrient Management Strategy Voluntary Contribution of $200,000

☐ **RECEIPT** ☐ **DISCUSSION** ☐ **RESOLUTION** ☒ **APPROVAL**

RECOMMENDED ACTION

Authorize payment in the amount of $200,000 to SFEI for funding the Nutrient Management Strategy Science Plan contingent upon receipt of the Regional Water Board's Letter of Intent regarding the key tenets to be proposed for inclusion in the 2nd Nutrient Watershed Permit.

SUMMARY

The Watershed Permit for Nutrients from Municipal Wastewater Dischargers to San Francisco Bay, NPDES Permit No. CA 0068873 adopted April 14, 2014, requires the commitment of $880,000 per year from POTW Dischargers as a collective effort to fund needed scientific studies as part of the implementation of the Regional Water Quality Control Board's Nutrient Management Strategy (NMS). The commitment is on a fiscal year basis and began July 1, 2014. BACWA's role in meeting this commitment is to collect the needed funds from its membership and provide those funds to SFEI for undertaking scientific studies as proposed in the 10-year Science Plan.

The NMS Science Plan is significantly underfunded. In addition, there does not appear to be any near term threat of impairment to San Francisco Bay which requires immediate regulatory action to cap nutrient loads. Given this situation, the Regional Water Board prefers accelerated funding of the Science Plan so that by the end of the 2nd Nutrient Watershed Permit they will have much better scientific information on which to base any regulatory actions. Since the 2nd Watershed Permit does not take effect until 2019, BACWA has agreed to voluntarily increase its funding of the science contingent upon receiving a Letter of Intent (LOI) from the Water Board staff regarding key tenets that they would propose to be include in the 2nd Watershed Permit. This Board authorization will allow the Executive Director to pay $200,000 in FY 2018 to SFEI once the LOI is received.

FISCAL IMPACT

This payment and subsequent annual payments to fund the scientific studies will be collected from the BACWA membership through a Nutrient Surcharge that is included on the annual dues invoices to the BACWA members. With the distribution of the FY18 BACWA member invoices in July and August 2017, the needed funds will be received and a payment to SFEI will be made at that time.

ALTERNATIVES

Do not fund the voluntary contribution: This is not recommended since all of the BACWA members included in the 1st Watershed Permit have indicted their interest in increasing the funding of the science to get better data upon which to base any future regulations as opposed to implementing more conservative numeric regulations in the 2nd Watershed Permit.

Approved: _____ Date: _____

Jim Ervin, Chair,
BACWA Executive Board

BACWA BOARD AUTHORIZATION REQUEST

AGENDA NO.: 4

FILE NO.: 18-20

MEETING DATE: August 18, 2017

TITLE: Solano Community College Agreement for Fall 2017 Water Operator Training

X RECEIPT **DISCUSSION** **RESOLUTION** **APPROVAL**

RECOMMENDED ACTION

Receive an update on the contract with Solano Community College for WOT program (Bay Area Consortium for Water & Wastewater Education) for the 2017-18 school year.

SUMMARY

Since June of 2007 BACWA has provided contracting and financial management services for the Water Operator Training program, now called the Bay Area Consortium for Water & Wastewater Education. Participating agencies are billed by BACWA and their contributions fund the Solano Community College courses for the program and a $2,550 annual BACWA administration fee. This program has grown from its ten original sponsors to 22 agencies from five counties contributing funds for Spring 2016. To date, over 800 students have taken courses offered by this program. In July of 2008, the BACWA Board approved execution of the Fall 2008 agreement with Solano Community College and also granted the Chair the authority to execute future agreements for this program as long as they did not exceed $79,200 (10% increase over the Fall 2008 contract amount of $72,000). In November of 2015 the Board approved changes to the agreement that protect BACWA from financial liability in the event that adequate funds are not collected from the program contributors. In 2016 a pilot effort was initiated with Gavilan Community College to expand the program to the South Bay area. That pilot effort has been completed and the participating agencies have decided to continue the educational relationship only with Solano Community College.

The attached contact with Solano covers the 2017-18 school year. The BACWA Chair will execute the contract and pay Solano the appropriate amounts in accordance with the terms of the contract once Solano and BACWWE have agreed upon the final class schedule. BACWA pays all invoices for the BACWWE program only after the chair of the BACWWE Executive Committee has approved the invoices for payment

FISCAL IMPACT

Funds are available for this agreement in the Water Operator Training (WOT) fund. This fund is completely separate from the BACWA funds and is used solely for the BACWWE program. Based on the most recent Treasurer's Report, as of June 30, 2017 the account has a balance of $109,916.

ALTERNATIVES

No consideration of alternatives is required.

Attachments:

1. Solano Community College District Agreement for Educational Services, Fall 2017.
2. BACWWE website screenshot of Fall 2017 Classes offered.

Approved:

Date:

Jim Ervin, BACWA Chair

SOLANO COMMUNITY COLLEGE DISTRICT
AGREEMENT FOR EDUCATIONAL SERVICES FOR THE 2017-18 SCHOOL YEAR

This agreement is entered into by and between **SOLANO COMMUNITY COLLEGE DISTRICT**, hereinafter referred to as "District" and **Bay Area Clean Water Agencies,** hereinafter referred to as "BACWA."

WHEREAS, BACWA desires to engage the District to render special educational services,

THEREFORE, THE PARTIES AGREE AS FOLLOWS:

A. The District will provide for-credit classes as mutually determined, for up to 30 students per class, for BACWA member organizations and other interested parties, provided member needs are met.

B. The District will develop, coordinate, deliver, and evaluate the training. Instruction/training will be delivered at various BACWWE sites, to be determined. Classes will begin in Fall 2017, exact dates to be determined. Additional training can be scheduled as needed with an addendum to this contract.

C. The District will maintain the BACWWE (Bay Area Consortium for Water & Wastewater Education) website and database and provide marketing and marketing materials for sponsoring agencies.

D. Solano Community College and BACWWE will recruit, identify and select all trainees who will participate in training.

E. Subject to availability of funds collected from sponsoring agencies, BACWA will compensate the Solano Community College District $3,250 per 16 hours of instruction, which is equal to one credit hour. Therefore, one unit courses will be $3,250; two credit courses will be $6,500; three unit courses will be $9,750; and four credit courses will be $13,000. If courses involve a half credit an additional charge of $1,625 will be added.

F. Payments by BACWA to the District will be due upon receipt of invoice. An invoice will be generated upon completion of the first month of instruction.

G. This contract may be terminated by either party upon written notice of not less than ten (10) business days.

H. It is mutually understood that BACWA and the District shall secure and maintain in full force and effect during the full term of this Agreement, liability insurance in the amounts and written by carriers satisfactory to BACWA and the District respectively.

I. The District will indemnify, and hold harmless, in any actions of law or equity, BACWA, its officers, employees, agents and elective and appointive boards from all claims, losses, damage, including property damages, personal injury, including death, and liability of every kind, nature and description, directly or indirectly arising from the operations of the District under this Agreement or of any persons directly or indirectly employed by, or acting as agent for the District, except to the extent caused by the sole negligence or willful misconduct of BACWA. This indemnification shall extend to claims, losses, damages, injury and liability for injuries occurring after completion of the services rendered pursuant to this Agreement, as well as during the process of rendering such services. Acceptance of insurance certificates required under this Agreement does not relieve the District from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to all damages and claims for damages of every kind suffered, by reason of any of the District's operations under this Agreement regardless of whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.

J. BACWA will indemnify, and hold harmless in any actions of law or equity, the District, its officers, employees, agents and elective and appointive boards from all claims, losses, damage, including property damages, personal injury, including death, and liability of every kind, nature and description, directly or indirectly arising from the operations of BACWA under this Agreement or of any persons directly or indirectly employed by, or acting as agent for the District, except to the extent caused by the sole negligence or willful misconduct of the District. This indemnification shall extend to claims losses, damages, injury and liability for injuries occurring after completion of the services rendered pursuant to this Agreement, as well as during the process of rendering such services. Acceptance of insurance certificates required under this Agreement does not relieve BACWA from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to all damages and claims for damages of every kind suffered, by reason of any of BACWA operations under this Agreement regardless of whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.

K. BACWA agrees that it will not discriminate in the selection of any student to receive instruction pursuant to the Agreement because of sex, sexual preference, race, color, religious creed, national origin, marital status, veteran status, medical condition, age (over 40), pregnancy, disability, and political affiliation. In the

event of BACWA's non-compliance with this section, the Agreement may be canceled, terminated, or suspended in whole or in part by the District.

_____	_____
Jim Ervin BACWA Executive Board Chair PO Box 24055, MS 59 Oakland, CA 94623	Celia Esposito-Noy, Ed.D. Superintendent-President Solano Community College District Fairfield, CA
Date_____	Date_____

BACWWE
Partners Invested In Community

The Bay Area Consortium for Water and Wastewater Education (BACWWE) is a group of San Francisco Bay Area industry partners and educators who have joined forces to provide free state-of-the-art education and training for the next generation of water and wastewater professionals. Meet BACWWE agency partners and students and let them give you a guided tour of these exciting careers — and explain how you can join them in being part of this industry or taking on a new role within it.

The books we use — and that the program pays for — are on the shelf of every plant. They're still consulted as reference manuals by people working in the field, and we'll use them as we start our careers, too. Seeing those books at the plant where I did my internship made me realize that we're being given real tools — relevant tools — that are being used today."
Anna Garcia
Wastewater Treatment Plant Operator, Grade I
Dublin San Ramon Services District

Welcome to the BACCWE student page. Students will need an account to manage courses. Please register for an account by clicking the blue box below the list of classes.

Fall 2017 Classes

- **WATR 105: Wastewater Treatment II (3.0 Units)**
  Prerequisite: WATR 100. Study of the elementary engineering aspects of design, operation process control, and maintenance of wastewater treatment plants and facilities. Three hours lecture.
  Instructor: Monte Hamamoto
  Time: Wednesdays, 6:00pm-9:00pm, 8/16/17 - 12/6/17
  Location: Silicon Valley Clean Water
  1400 Radio Road
  Redwood City, CA 94065

- **WATR 107: Mathematics of Water and Wastewater Treatment (4.0 units)**
  A study of calculations - hydraulics, chemicals, solids - used in the design, operation, process control, and maintenance of treatment plants and facilities. Four hours lecture.
  Instructor: Jordan Damerel
  Time: Thursdays, 6:00pm-10:00pm, 8/24/17 - 12/14/17
  Location: Contra Costa Central Sanitary District
  5019 Imhoff Place
  Martinez, CA 94553

- **WATR 108: Water Treatment II (3.0 units)**
  Prerequisite: WATR 104 with a minimum grade of C. This course covers advanced topics in the control of ions and disinfecting chemicals in drinking water. In addition it covers the issues of safety, regulation, administration, and maintenance of a water treatment plant. This course will often be taught at an off-campus site. Three hours lecture.
  Instructor: Dan Gill
  Time: Tuesdays, 6:00pm-9:00pm, 8/22/17 - 12/12/17
  Location: Contra Costa Central Sanitary District
  5019 Imhoff Place
  Martinez, CA 94553

Prerequisite: WATR 105. This course will cover advanced topics appropriate to a wastewater treatment facility including activated sludge, residual solids management, solids removal from secondary effluents, phosphorus and nitrogen removal, enhanced biological (nutrient) control, wastewater reclamation and recycling, and odor control. This course is often taught off-site. Two hours lecture.

Instructor: Levi Fuller

Time: Thursdays, 6:00pm-8:00pm, 8/17/17 - 12/7/17

Location: Dublin San Ramon Service District

7399 Johnson Dr.

Pleasanton, CA 94588

NOTE: No Classes Thanksgiving Week - November 20 - 24, 2017

To register, please follow the instructions below to create a new account, or, if you are a returning student, login using your BACWWE password.

Current Students:

Are You a Newly Enrolled or Returning Student?

If you've already enrolled in the program - congratulations, and welcome! If you're a student returning to the BACWWE program after some time away - welcome back! Either way, whether you're newly enrolled in BACWWE or returning after a semester or more away, you'll have to apply for admission to Solano Community College in order to request to register for BACWWE classes. Click here for information on how to apply/register. (Note: The BACWWE registration process is different than the Solano Community College one.)

Looking Ahead?

To see a flow chart showing every major benchmark you'll pass on the way from enrollment to employment, click here

Create a New BACWWE Account and
Register for a Math Assessment

Current Students:

Are You a Newly Enrolled or Returning Student?

If you've already passed the Math Assessment and are now enrolled in the program — congratulations, and welcome! If you're a student returning to the BACWWE program after some time away — welcome back! Either way, whether you're newly enrolled in BACWWE or returning after a semester or more away, you'll have to apply for admission to Solano Community College in order to request to register for BACWWE classes. Click here for information on how to apply/register. (Note: The BACWWE registration process is different than the Solano Community College one.)

Looking Ahead?

To see a flow chart showing every major benchmark you'll pass on the way from enrollment to employment, click here.

Attachment A
Key Tenets of Second Nutrient Watershed Permit

1. Individual plant nutrient monitoring and reporting

The second Nutrient Watershed Permit will ~~contain~~ continue ~~requirements for~~ individual plant monitoring and reporting requirements for nutrients using the same constituents and monitoring frequency as described in the first Permit.

2. Group Annual Reporting of nutrient loadings to the Bay

~~There will be a~~The permit will continue the requirement to produce an annual report showing ~~the~~ nutrient loadings and trends to the various subembayments, ~~the same~~ as described in the first Permit and with similar reporting content as has been provided by BACWA to date. The Group Annual Report will also track any load~~ing~~ reductions due to early actions undertaken by individual agencies.

3. Funding for the Nutrient Management Strategy's scientific investigations

The increase in science funding is nominally set at 2.5 times the amount in the first Permit, or $2.2 M/year for five years. The actual annual commitment will be based on the number of POTWs~~BACWA members~~ participating as of the start of FY 2019-2020. If all POTWs~~BACWA members~~ continue participation, the funding commitment in the second Permit will be set at $2.2M/year. If one or more POTWs~~members~~ decide not to participate, the amount designated in the second Permit will be reduced by their Nutrient Surcharge as of FY 2018-19, as shown in the attached schedule of the projected Nutrient Surcharges. Thus, individual POTWs~~BACWA members~~ will have certainty as to their Nutrient Surcharge since it will be independent of what other BACWA member agencies participate in the second Permit.

Individual POTWs~~BACWA members~~ that do ~~op to~~ not participate would not be eligible for coverage under the Nutrient Watershed Permit and would be required to conduct~~t but would be subject to~~ nutrient monitoring and related studies, and provide ~~, study,~~ reports to the Water Board~~ing~~. These members ~~also, and could~~

Commented [SY1]: We changed "BACWA memebers" to "POTWs", as POTWs are the permitee

~~be subject to potential~~will individually negotiate their ~~-~~nutrient discharge ~~loading~~ requirements in their ~~individual~~ NPDES permits.

4. A regional assessment of ~~the~~ feasibility and cost for reducing nutrients through means other than treatment and discharge at the POTWs ~~and for which other benefits may be realized~~

The second Nutrient Watershed Permit will require the ~~contain the requirement to~~ completion~~e~~ a ~~regional~~ study that will look at regional opportunities for non-grey scape approaches to reduce ~~nutrients~~ nitrogen (e.g., wetland enhancement, irrigation recycling). The study approach ~~for conducting the study~~ will be similar to that utilized with the ~~-~~Optimization/Upgrade Study required by the first Permit. BACWA will issue a Request for Proposals and select a consultant, and will prepare a ~~. A~~ Scoping and Evaluation Plan for Water Board review and approval. ~~This plan will be shared will be prepared and reviewed with the Water Board to set the Scope of Work.~~ BACWA will periodically brief ~~The~~ Water Board ~~will be briefed~~ on ~~the progress of the as the~~ study progress. ~~is completed~~.

5. Establishing a baseline for POTWs that undertake early actions to reduce nutrients

The second Nutrient Watershed Permit will recognize that some POTWs may independently undertake early actions to reduce nutrients. ~~Such actions would be at anthe agency's discretion.~~ In recognition of early actions, the Permit will contain language that establishes a total nitrogen ~~and total phosphorus~~ baseline load~~ing~~ for any POTW that achieves reductions in advance of a regulatory limit. The baseline loading will be the projected total nutrient loading from the POTW at the time nutrient limits are put in place, assuming there had been no reductions through early actions. The annual difference between ~~the~~ baseline and ~~the~~ actual ~~nutrient~~ nitrogen loading ~~from the POTW~~ can be banked by the POTW. It is recognized that some POTWs may have other interests for reducing their nutrient loads and may wish to negotiate their interests separately with the Water Board.

When anticipated load caps are subsequently implemented in a future permit, agencies that have implemented early actions and accumulated a credit bank will

Commented [EJ2]: We don't know that nitrogen loads to the Bay need to be regulated in individual permits. That will be Water Board's decision.

Commented [EJ3]: This phrase permits Water Board to regulate actions for which there is no water quality driver. The Bay is either impaired by nitrogen, or it is not. If impaired, Water Board has authority to regulate the agency to reduce the load. There are lots of benefits to be achieved in the world: feeding the homeless, housing the hungry, eating healthy for long life, etc. We could reduce nitrogen emissions by biking to work! Should Water Board regulate bike-to-work programs?

Commented [EJ4]: We need to start focusing language on Nitrogen, versus "nutrients." Phosphorus loads are a fraction of historic, and everyone agrees the Bay is not likely to be impaired by P. Wetlands remove N, but not P. We must continue to actively inform and manage expectations.

Also, ironically P is more likely a threat to freshwater ecology and cooling tower management – so water recycling itself can create or exacerbate a phosphorous problem.

Commented [EJ5]: Nitrogen is the focus. We need to stop wasting our time and money discussing Phosphorous. The confusion and misdirection will only get more costly as it starts to drive capital planning.

Commented [EJ6]: Phosphorous??? Why? At this stage, with 5+ years of data, we need to drop the phosphorous expectation and language. Nitrogen removal may increase P. Modified Ludzack Ettinger (MLE) process is optimized for nitrogen removal with very little P removal. Conversely, a BNR process removes N and P, but sacrifices some N removal. (P removal scavenges some carbon that would otherwise be used for N removal. This represents energy loss is P is not an issue.) P is not impairing the Bay.

Commented [EJ7]: Is this needed? It seems redundant. More words may add to confusion here. The nebulous concept of loads baseline and reductions is easily understood. Details are explained below anyway.

Commented [SY8]: I feel this sentence is important, so we added it back

Commented [SY9]: This sentence is not clear, will this POTW still be part of the Watershed permit or not?

If not, it may be better to combine with the last paragraph of Item 3 and make it a separate bullet.

be able to use the credits to (1) provide for future growth within their service area, (2) ~~or to~~ participate in trading to allow other dischargers to meet a regulatory limit, or (3) secure relief on other permit issues (e.g. mixing zones, toxicity, other limits) as appropriate.~~.~~

Water Board will continue to recognize that improvements to achieve greater nutrient reduction requires decades of CIP planning and construction. -The working life of wastewater treatment infrastructure spans 50 years or more. ~~Depending on future nutrient load management and regulatory actions~~Long-term planning and integration of nutrient removal actions may require ~~that may be included in permits~~ regulatory accounting and recognition of agencies that take early actions that achieve significant load reductions. -Credit banking and nitrogen load trading are just two examples of possible means of incentivizing agencies to make significant investments ahead of regulatory requirements.- T~~, the Water Board recognizes the need for a nutrient trading program amongst POTWs. In addition, in future Nutrient Watershed Permits, the Water Board intends to account for any significant nutrient load reductions achieved by POTWs who undertake early actions to upgrade their facilities and, t~~o the extent possible, based on continued monitoring and modeling, those POTWs achieving early nitrogen load reductions -will not face further load reductions over the life of the plant upgrades.

6. Funding for Monitoring and Modeling at the end of the second Watershed 2nd ~~WS~~ Permit~~.~~

Given that the intent was to complete the Science Plan by 2024, it is expected that the second Watershed Permit would require the $2.2M/year level of funding (or less depending on POTW participation, see Item 3) for five years only. Monitoring and modeling beyond those five years may be carried out through the RMP program with funding support from the POTWs at an adjusted (presumably lower) level.

~~Given the intent was to complete the Science Plan in 10 years it is expected that the POTW level of funding required by the 2nd WS Permit would not continue at~~

Commented [EJ10]: I attempted to make this paragraph a little more clear. This is a requirement on Water Board to recognize we are in this for the long-haul. Agencies need regulatory certainty to make big investments.

Commented [DW11]:

Commented [SY12]: This is very vague, because "To the extent possible" is not defined

Commented [SY13]: to be consistent

Commented [SY14]: to be consistent

Commented [SY15]: We clarified it here, in case the second watershed permit is extended after 5 years

that same level (i.e. $2.2M/yr.) at the conclusion of the 2nd WS Permit or in subsequent Nutrient WS Permits. However, in recognition of on-going monitoring and modeling needed to provide trending information for possible regulatory actions in the future, some level of on-going funding would be needed. Since long term monitoring and modeling is carried out by the RMP consideration would be given to wrapping the long-term monitoring and modeling for nutrients into the RMP program.

Planning Subcommittee Meeting No. 27
August 17, 2017
1:00 pm – 4:00 pm
Water Board Offices
Chair: Ian Wren
Agenda

1. Agenda Modifications (All) 5 min 1:00
2. Review Outstanding Action items (DW) 5 min 1:05
3. Science Program update (DS) 20 min 1:10
    a. Staffing
    b. Other
4. Priority Updates
    a. Report-Outs - 20 min 1:30
        i. Other issues
        ii. xxx
    b. Current Issues – 10 min 1:50
        i. xxx
    c. NMS Calendar Review -10 min 2:00
        i. Review future SC and PS meeting schedules (DW/IW)
5. Other Updates – 20 min 2:10
    a. Treatment wetland report review (IW)
    b. Other (DS)
6. Planning the next Steering Committee meeting – 90 min 2:30
    a. Review of Action items from meeting (DW)
    b. Nutrient condition assessment discussion & proposed FY18 activities (DS/IW)
    c. Steering Committee membership and outreach (IW)
    d. Agenda planning (ALL)
    e. Next steps (ALL)
7. Adjourn or address Parking Lot items 4:00

Parking Lot of Identified PS Future Agenda Items

a. Brainstorming on future priorities for the PS (ALL)
b. EPA nutrient criteria discussion
c. Discuss concept of holding an annual forum on nutrients

Task	Deadline
	levels for a continuous 3-month period of sampling.

3. Mercury and PCBs Source Control Program

Each Discharger shall evaluate whether there are controllable sources of mercury or PCBs to its wastewater system (e.g., PCBs-containing industrial equipment for PCBs, discharges from amalgam-generating dental practices for mercury). The Discharger shall continue to implement and look for opportunities to improve existing measures to control such sources. Each Discharger shall submit the results of this evaluation, including any proposed control actions and implementation schedules, in its annual pollution prevention reports required by its individual NPDES permit.

4. Risk Reduction Programs

Each Discharger shall continue to implement and participate in programs to reduce mercury and PCBs-related risks to humans from consumption of San Francisco Bay and Sacramento-San Joaquin River Delta fish. This requirement may be satisfied by a combination of related efforts through the Regional Monitoring Program or other similar collaborative efforts. Each Discharger shall describe the progress of its efforts in its Annual Self-Monitoring Report. Alternatively, the Bay Area Clean Water Agencies (BACWA) may fulfill the annual reporting requirement by providing a summary of annual risk reduction program efforts for agencies that choose to participate through BACWA.

5. Mercury and PCBs Discharge Adjustments for Recycled Wastewater Use by Industrial Dischargers

When an Industrial Discharger named on Table 1B of this Order uses recycled wastewater from a Municipal Discharger named on Table 1A of this Order, the Industrial Discharger may, at its option, apply discharge adjustments (hereinafter Mercury or PCBs Adjustment) to its mercury or PCBs discharge concentration or mercury mass emission to be subtracted from the final discharge concentration or mass emission when determining compliance with its concentration and mass limits specified in Tables 5A and 5B of this Order. The Mercury or PCBs Adjustments shall be based on measured influent mercury and PCBs levels from the recycled wastewater in accordance with the following:

a. Monitoring Frequencies. The Industrial Discharger shall sample and analyze the influent recycled wastewater and the effluent discharge at least monthly for mercury and quarterly for PCBs. Influent sampling shall include measurement of daily flow volume for the entire duration that Mercury or PCBs Adjustments are applied. Influent sampling shall occur at an appropriate influent sampling station as identified in the Discharger's individual permit.

b. Time Intervals between Influent and Effluent Sampling. The Industrial Discharger shall determine the time interval (i.e., lag time) between sampling a given constituent of concern in the influent recycled water and sampling the same water for the constituent when it appears in the final effluent. The basis for this determination must be included in any calculation of Mercury or PCBs Adjustments.

Table E-2. Monitoring Locations

Sampling Location Type	Monitoring Location Name [1]	Monitoring Location Description
Effluent	Individual monitoring locations for discharges of treated wastewater (normally EFF-001) are specified in the MRP of Dischargers' individual NPDES permits listed in Attachment B of this Order.	Individual monitoring location descriptions are described in the MRP of Dischargers' individual NPDES permits listed in Attachment B of this Order.

Footnotes:

[1] For San Francisco International Airport, the monitoring location is EFF-001A for both its sanitary and industrial plants.
For the City of Calistoga, annual monitoring shall alternate each year between EFF-001 and EFF-002.
For C&H Sugar Company, Inc., the monitoring location is EFF-002.
For GenOn Delta, LLC, the monitoring locations are E-001B through to and including E-001I.

III. EFFLUENT MONITORING REQUIREMENTS

The Dischargers shall monitor their individual treatment plant effluent for mercury and PCBs as follows:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type [1]	Minimum Sampling Frequency [2]
Major Dischargers (see Tables 1A and 1B)			
Mercury, Total [3],[8]	µg/L	C-24 or Grab [5]	1/Month
PCBs, Total (as Aroclors) [6]	µg/L	C-24	2/Year
PCBs (as congeners) [7]	µg/L	C-24	1/Quarter (for design flow [8] > 5.0 MGD)
			2/Year (if design flow [8] ≤ 5.0 MGD)
Minor Dischargers (see Tables 1A and 1B)			
Mercury, Total [4]	µg/L	C-24 or Grab [5]	1/Quarter
PCBs, Total (as Aroclors) [6]	µg/L	C-24	1/Year
PCBs (as congeners) [7],[9]	µg/L	C-24	1/Year

Unit Abbreviations:

µg/L = micrograms per liter
MGD = million gallons per day

Sampling Types and Frequencies:

C-24 = 24-hour Composite
Grab = grab sample
1/Month = once per month
1/Quarter = once per quarter
2/Year = twice per year
1/Year = once per year

Footnotes:

[1] 24-hour composites may be made up of discrete grab samples collected over a 24-hour period, or may be collected using automatic compositing equipment. If using compositing equipment, the Discharger shall implement all feasible ultra clean techniques to reduce sample contamination (such as using ultra clean Teflon tubing).

[2] Intermittent or seasonal Dischargers shall collect samples during those months for which a discharge occurs.

[3] The Dischargers shall use ultra-clean sampling (U.S. EPA Method 1669) and ultra-clean analytical methods (U.S. EPA Method 1631) for total mercury monitoring.

mercury and PCBs that adhere to particles. Municipal wastewater treatment plants generally remove over 90 percent of the mercury and PCBs in their influent. While the removed mercury and PCBs are not directly discharged to water, some is returned to the environment through landfills, incinerators, or soil amendments. The primary sources of mercury in municipal wastewater are expected to be human waste and medical and dental facilities.

Industrial Dischargers include petroleum refineries, chemical plants, and other large industrial facilities. Their mercury and PCBs loads depend on the types of activities in which they engage. The primary sources of PCBs are expected to be human waste and wastewater generated from old industrial equipment that may contain PCBs.

B. Discharge Point and Receiving Waters

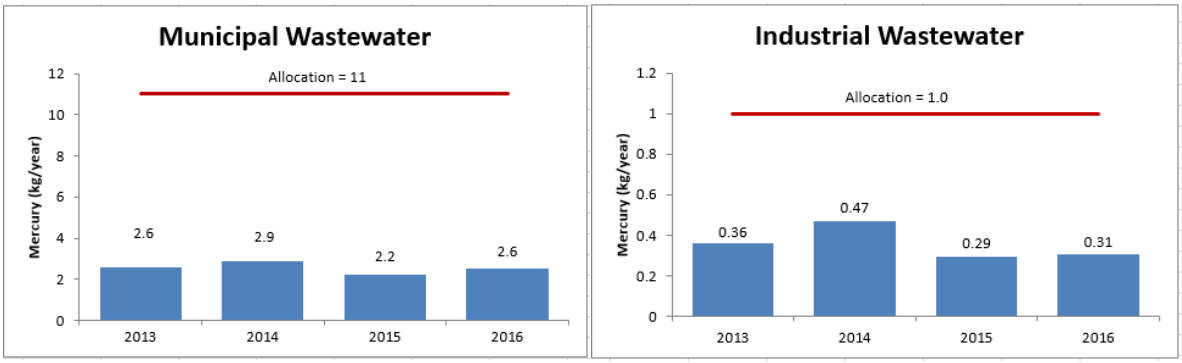
The Municipal wastewater treatment plants discharge all throughout San Francisco Bay, including Lower South Bay, South Bay, Central Bay, San Pablo Bay, Carquinez Strait, Suisun Bay, and connected tributaries. Most Industrial wastewater treatment plants discharge to San Pablo Bay, Carquinez Strait, and Suisun Bay. Tables 2A and 2B of this Order specify the discharge locations for each facility. Attachment C shows a map of these discharge locations.

C. Previous Requirements

The effluent limitations from the previous order term remain unchanged in this Order.

D. Compliance Summary

1. **Mercury.** Mercury loads for Municipal and Industrial Dischargers have been well below their mass allocations since the previous order became effective in 2013, and has been consistently low in the years prior to 2013, as shown in the charts below.



   a. **Municipal Dischargers —** In 2015, the municipal load was 2.2 kg/year, the lowest loading yet recorded. In 2016, the municipal load was 2.9 kg/year, which is comparable to the performance throughout the previous order term. The average municipal load of the previous order term was 75 percent below the mass allocation of 11 kg/year.

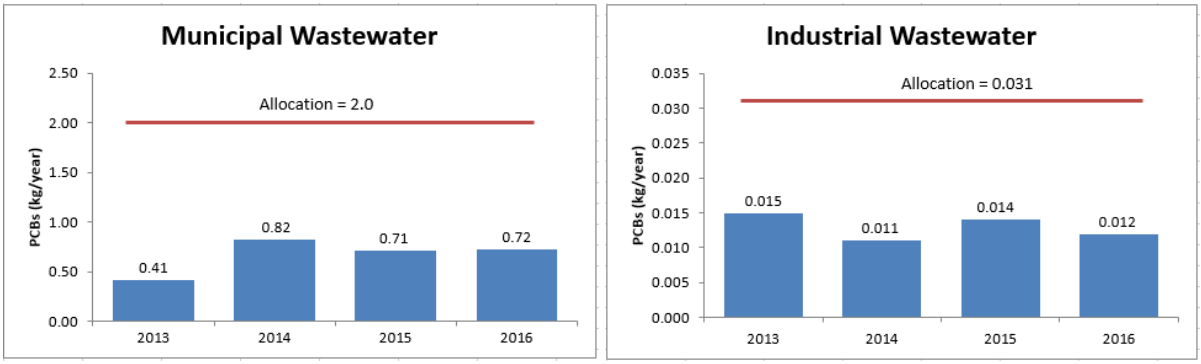
      In the last order term, the most significant exceedance of mercury effluent limitations occurred from the U.S. Department of Navy Treasure Island Wastewater Treatment Plant, which violated its average weekly effluent limitation three times and its average monthly effluent limitation twice between January and February 2013. The U.S. Department of

Navy determined that mercury-contaminated sediment may be present at its treatment plant and cleaned out sediment from the potential onsite sources (e.g., sumps, junction box). There have been no exceedances of mercury limitations or triggers since March 2013.

b. Industrial Dischargers —In 2015, the industrial load was 0.29 kg/year, the lowest loading in the previous order term. In 2016, the industrial load was 0.31 kg/year, which is comparable to most of the performance throughout the previous order term. The average industrial load of the previous order term was 59 percent below the mass allocation of 1.0 kg/year.

In the last order term, the most significant exceedance of mercury effluent limitations occurred from the Shell Martinez Refinery, which violated its maximum daily and average monthly effluent limitations twice between January and February 2017. Shell Martinez Refinery reported the high mercury concentrations were caused from heavy rains that resulted in poor solids removal. Shell Martinez Refinery reseeded its biotreater with healthier material, increased the frequency of carbon change-outs of granular activated carbon units, and increased the rate of solids removal at one of its treatment ponds.

2. PCBs. PCBs loads for Municipal and Industrial Dischargers have been well below their mass allocations since the previous order became effective in 2012, as shown in the charts below.



a. Municipal Dischargers —In 2016, the municipal PCBs load was 0.72 kg/year, which is comparable to the performance throughout the previous order term. The increase in PCBs between 2013 and the remainder of the previous order term could be due to timing of the quarterly samples, analytical variability, or mobilization of solids with legacy PCBs from the collection system during cleaning. Three of the largest municipal dischargers accounted for about 70 percent of the increase between 2013 and 2014. The average municipal load of the previous order term was 64 percent below the mass allocation of 2.0 kg/year. All Municipal Dischargers remained compliant with their PCBs effluent limitations in the previous order term.

b. Industrial Dischargers — In 2016, the industrial PCBs load was 0.012 kg/year, which is comparable to the performance throughout the previous order term. The average industrial load of the previous order term was 58 percent below the mass allocation of

BARNES & THORNBURG

Memo

To: FWQC Members

Cc: B&T Water Team

From: Fredric P. Andes

Date: August 14, 2017

Re: Draft WOTUS Comments

Attached for your review are draft FWQC comments on the proposal to rescind the final WOTUS rule. In the comments, we reference the FWQC comments on the rule when it was proposed, as well as the brief that we submitted (referenced below) on behalf of Congresspeople, objecting to the final rule in the litigation pending in the Sixth Circuit. Both of those documents are also attached for your reference.

The comments are due on Aug. 28, and our understanding is that the agencies do not intend to extend that deadline. We are getting these comments out to you now (i.e., more in advance than usual) so you can use them in developing comments for your own organizations as well. Feel free to excerpt, adapt for your own purposes, and/or refer to the points made in the FWQC comments. Please send us any comments on the draft by next Wednesday, Aug. 23. In the meantime, of course, please feel free to call or e-mail if you have any questions. Thanks.

P.S. Here is a link to this note on the FWQC web site: http://fwqc.org/members/DocumentLibrary/Draft%20WOTUS%20Comments.htm .

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From: Andes, Fredric
Sent: Friday, July 28, 2017 2:03 PM
To: Andes, Fredric
Subject: WOTUS Proposal Issued in Fed Register

Well, the WOTUS "repeal only" proposal has finally been issued in the Federal Register (copy attached). Comments are due by August 28. We know that requests for an extension are being submitted, and we'll keep track of any developments on that front, but for now, let's plan on submitting the comments by the current deadline.

As we discussed in the recent call, we plan to support EPA's proposed repeal of the current (and stayed) WOTUS rule. We will cite legal, policy and technical reasons why the rule is flawed and should be repealed while EPA works on a new rule. In drafting the comments, we plan to use as a starting point two key documents. One is our FWQC set of comments submitted in 2014 on the WOTUS proposed rule (copy attached, all 71 pages). Obviously, since those comments dealt with the proposed rule, and not the final, they don't fully reflect all of our concerns with the final rule, and need to be supplemented somewhat. In that regard, there is another document that will be useful. During the WOTUS litigation, Barnes & Thornburg was asked by Congressional staff to submit an amicus brief on behalf of a bipartisan group of Congresspeople, raising a series of legal concerns about the final rule. We have distributed that brief previously, and it's attached here. Given that the litigation over the current rule is likely to end soon (as moot), we thought that the brief would never be actually used by anyone in making a decision. But now we can repurpose it (OK, I don't like that word, but it fits), to use the arguments made there in our comments on the proposed "repeal action." (And you can feel free to use those arguments in your own comments – it's usually helpful to cite the views of Congresspeople, since that should be somewhat relevant.)

We will get you our draft "repeal" comments for review within 2 weeks, so you have plenty of time to review (and consider as you are drafting your own comments, for those who are doing that). In the meantime, of course, please feel free to call or e-mail if you have any questions. Thanks.

P.S. Here is a link to this note on the FWQC web site: http://fwqc.org/members/DocumentLibrary/WOTUS%20Proposal%20Issued%20in%20Fed%20Register.htm .

From: Andes, Fredric
Sent: Friday, July 07, 2017 3:50 PM
To: Andes, Fredric
Subject: Call on WOTUS Proposal - July 12

Based on your responses to the note below, we will have our call regarding the WOTUS proposal on Wednesday, July 12, at 4:00 pm Eastern. If you would like to participate, please dial 888/651-5908, then passcode 271 2024#. In the meantime, of course, if you have any questions, please let me know. Thanks.

P.S. Here is a link to this note on the FWQC web site: http://fwqc.org/members/DocumentLibrary/Call%20on%20WOTUS%20Proposal%20-%20July%2012.htm .

From: Andes, Fredric
Sent: Wednesday, June 28, 2017 2:14 PM
To: Andes, Fredric
Subject: EPA and Corps Issue Proposal to Rescind WOTUS Rule

We are now moving to the next step in the WOTUS "repeal and replace" process. As presaged by the Notice of Intention to Review and Rescind or Revise" referred to below, which was issued in March, EPA and the Corps have now issued a "Phase 1" proposal, which would repeal the current WOTUS rule and replace it with the WOTUS rule that existed before that rule was adopted. Here is the proposal: https://www.epa.gov/sites/production/files/2017-06/documents/wotus_prepublication_version.pdf . Comments are due 30 days after the proposal appears in the Federal Register.

In terms of what the proposal does, the agencies' summary is actually pretty accurate and complete, so let's just show it right here:

In this proposed rule, the agencies define the scope of "waters of the United States" that are protected under the Clean Water Act (CWA). In 2015, the agencies published the "Clean Water Rule: Definition of 'Waters of the United States'" (80 FR 37054, June 29, 2015), and on October 9, 2015, the U.S. Court of Appeals for the Sixth Circuit stayed the 2015 Rule nationwide pending further action of the court. The agencies propose to replace the stayed 2015 definition of "waters of the United States", and re-codify the exact same regulatory text that existed prior to the 2015 rule, which reflects the current legal regime under which the agencies are operating pursuant to the Sixth Circuit's October 9, 2015 order. The proposed regulatory text would thus replace the stayed rulemaking text, and re-codify the regulatory definitions (at 33 CFR 328 and 40 CFR Parts 110; 112; 116; 117; 122; 230; 232; 300; 302; and 401) in the Code of Federal Regulations (CFR) as they existed prior to the promulgation of the stayed 2015 definition. If this proposed rule is finalized, the agencies would continue to implement those prior regulatory definitions), informed by applicable agency guidance documents and consistent with Supreme Court decisions and longstanding agency practice.

The agencies are also being very clear about the scope of the comments that they are looking for in response to the Phase I proposal. The preamble talks about some general principles as to the WOTUS issue, such as looking to States to take more of a role in determining which waters need protection, but then makes it clear that those are issues for Phase 2 – the comments on Phase 1 should be more limited:

The agencies solicit comment as to whether it is desirable and appropriate to re-codify in regulation the status quo as an interim first step pending a substantive rulemaking to reconsider the definition of "waters of the United States" and the best way to accomplish it. Because the agencies propose to simply codify the legal status quo and because it is a temporary, interim measure pending substantive rulemaking, the agencies wish to make clear that this interim rulemaking does not undertake any substantive reconsideration of the pre-2015 "waters of the United States" definition nor are the agencies soliciting comment on the specific content of those longstanding regulations.... For the same reason, the agencies are not at this time soliciting comment on the scope of the definition of "waters of the United States" that the agencies should ultimately adopt in the second step of this two-step process, as the agencies will address all of those issues, including those related to the 2015 rule, in the second notice and comment rulemaking to adopt a revised definition of "waters of the United States" in light of the February 28, 2017, Executive Order. The agencies do not intend to engage in substantive reevaluation of the definition of "waters of the United States" until the second step of the rulemaking.

So, we need to start developing our comments on this proposal. I'd like to schedule a call on this issue for the week after July 4 – in other words, July 10 – 14. If you would like to participate, please let me know what dates and times work for you in that week. Also, if your organization is also planning to submit your own comments on the Phase 1 proposal, we'd appreciate any information that you can provide as to directions that you plan to take, so we can factor that in up-front as we develop the FWQC comments. Once we hear back as to your schedules, we will send out another note with the final call-in details. In the meantime, of course, please feel free to call or e-mail if you have any questions. Thanks.

P.S. Here is a link to this note on the FWQC web site: http://fwqc.org/members/DocumentLibrary/EPA%20and%20Corps%20Issue%20Proposal%20to%20Rescind%20WOTUS%20Rule.htm .

From: Andes, Fredric
Sent: Monday, March 6, 2017 9:03 AM
To: Andes, Fredric
Subject: EPA and Corps Issue Notice on "Waters of US" Rule

Well, that didn't take long… EPA and the Corps have now taken the next step in the process called for in the Executive Order regarding the WOTUS rule. EPA and the Corps have issued a Notice of "Intention to Review and Rescind or Revise the Clean Water Rule," which will appear in the Federal Register on Monday: https://www.federalregister.gov/documents/2017/03/06/2017-04312/intention-to-review-and-rescind-or-revise-the-clean-water-rule .

The new notice, which is less than one page, is intended to "provide advance notice of a forthcoming proposed rulemaking consistent with the Executive Order." While the notice does not say whether EPA and the Corps will replace the WOTUS rule or simply rescind it, it does state the following principle: "It is important that stakeholders and the public at large have certainty as to how the CWA applies to their activities." And, the notice states this in conclusion: "Through new rulemaking, the EPA and the Army seek to provide greater clarity and regulatory certainty concerning the definition of 'waters of the United States,' consistent with the principles outlined in the Executive Order and the agencies' legal authority. Those statements would indicate that the plan is to issue a new rule, rather than just rescinding the current rule, but we'll see…

The notice also gives us a fair idea of things to come, by laying out a principle of administrative law that will guide the Administration's review of the WOTUS rule: agencies are free to change decisions even if there has been no change of facts or circumstances, based solely on a reappraisal of costs and benefits due to 'a change in administration brought about by the people casting their votes.' Given that there was no requirement to provide us with this administrative law reminder, we can surmise that the people in EPA and the Corps who developed the notice are trying to tell us that they intend on making significant changes to the WOTUS rule, and to do so based on the new Administration's policy views, rather than on development of a new factual record. That information will be helpful as we plan our own actions with regard to the upcoming rulemaking.

Of course, there are still a number of WOTUS-related issues that are unresolved, including the fate of the pending litigation and the EPA/Corps schedule for moving forward with the new rulemaking. We will be making contacts to get answers to these questions, and will let you know what we hear. In the near future, we will convene an FWQC call, to discuss strategies and next steps. In the meantime, of course, please feel free to call or e-mail if you have any questions. Thanks.

P.S. Here is a link to this note on the FWQC web site: http://fwqc.org/members/DocumentLibrary/EPA%20and%20Corps%20Issue%20Notice%20on%20Waters%20of%20US%20Rule.htm .

From: Andes, Fredric
Sent: Wednesday, March 01, 2017 11:37 AM
To: Andes, Fredric
Subject: Executive Order Issued on "Waters of US" Rule

Well, as expected, the President has signed an Executive Order regarding the "waters of the US" rule - https://www.whitehouse.gov/the-press-office/2017/02/28/presidential-executive-order-restoring-rule-law-federalism-and-economic . From a structural perspective, it's somewhat complicated, and a bit vague, and it leaves some issues unresolved. So let's go through the key elements:

1. EPA and the Corps are required to "review" the WOTUS rule and publish a proposed rule that rescinds or revises the rule "as appropriate and consistent with law."
2. In reviewing the rule, the agencies have to assess whether it is consistent with a new policy, laid out in the order: "It is in the national interest to ensure that the Nation's navigable waters are kept free from pollution, while at the same time promoting economic growth, minimizing regulatory uncertainty, and showing due regard for the roles of the Congress and the States under the Constitution."
3. EPA, the Corps and all other Federal agencies must review all guidance, policies and other actions implementing or enforcing the current WOTUS rule, to determine if they are consistent with the new policy set forth in point 2 above, and must take actions rescinding or revising those documents to be consistent with the new rulemaking undertaken under point 1 above.
4. As to pending litigation concerning the current WOTUS rule, EPA and the Corps are required to advise the Department of Justice of the pending review laid out in point 1 above, so DOJ can inform the courts of that review and take other appropriate measures as to the litigation pending the completion of the new rulemaking.
5. In issuing the new rule, EPA and the Corps must consider interpreting the term "navigable waters" consistently with Justice Scalia's opinion in the Rapanos case (as opposed to the broader view taken by Justice Kennedy's opinion in that case).

So what we do know is that EPA and the Corps need to go back and start a new rulemaking process. We don't know yet what the timeline will be. We also don't know what process EPA and the Corps will follow in reviewing their guidance documents. And, we don't know what position the Government will take as to how the various pending cases should be addressed. We will, of course, be reaching out to the agencies and other parties to discuss these questions, and will let you know what we hear. It is likely that once we know more, we will convene a conference call to share that information and discuss possible next steps for the FWQC. In the meantime, please feel free to call or e-mail if you have any questions. (I have a feeling that there will be a few.) Thanks.

P.S. Here is a link to this note on the FWQC web site: http://fwqc.org/members/DocumentLibrary/Executive%20Order%20Issued%20on%20Waters%20of%20US%20Rule.htm .

Fredric P. Andes, Coordinator
Barnes & Thornburg LLP
One North Wacker Drive
Suite 4400
Chicago, IL 60606
(312) 214-8310

Federal Water Quality Coalition

DRAFT 8/14/17

August 28, 2017

Office of Water - Docket
U.S. Environmental Protection Agency
1200 N. Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: Comments on Proposed Rule, Definition of "Waters of the United States" – Recodification of Pre-Existing Rules, No. EPA-HQ-OW-2017-0203

Dear Sir or Madam:

The Federal Water Quality Coalition ("FWQC" or the "Coalition") appreciates the opportunity to file comments with EPA and the Army Corps of Engineers ("the Agencies") regarding the Agency's Proposed Rule, "Definition of 'Waters of the United States' – Recodification of Pre-Existing Rules" (the "Proposed Rule" or the "WOTUS Proposal"). The Proposed Rule was issued in the Federal Register on July 27, 2017 (81 Fed. Reg. 34899).

The FWQC is a group of industrial companies, municipal entities, agricultural parties, and trade associations that are directly affected, or which have members that are directly affected, by regulatory decisions made by the Agencies and States under the federal Clean Water Act (CWA). The FWQC membership includes entities in the aluminum, agricultural, automobile, chemical, coke and coal chemicals, cement, electric utility, home building, iron and steel, mining, municipal, paper, petroleum, pharmaceutical, water/wastewater, wood treatment, tire manufacturing, and other sectors. FWQC members, for purposes of these comments, include: Alcoa, Inc; American Chemistry Council; American Coke and Coal Chemicals Institute; American Forest & Paper Association; American Iron and Steel Institute; American Petroleum Institute; Association of Idaho Cities; Auto Industry Water Quality Coalition; City of Superior (WI); Edison Electric Institute; Eli Lilly and Company; Freeport-McMoRan Inc.; General Electric Company; Hecla Mining Company; Indiana Coal Council; Kennecott Utah Copper LLC; Metropolitan Water Reclamation District of Greater Chicago; Mid America CropLife Association; National Association of Home Builders; National Oilseed Processors Association; Orange County (CA) Sanitation District; Pavement Coatings Technology Council; Portland Cement Association; Shell; Treated Wood Council; Utility Water Act Group; U.S. Tire Manufacturers Association; Western Coalition of Arid States; and Western States Petroleum Association.

The most recent regulation defining "waters of the United States" (or "WOTUS") was issued by EPA and the Army Corps of Engineers in 2015, and has been referred to the "Clean Water Rule." That rule subjected to regulation many land features (such as ditches, ponds and swales) that had not previously been regulated, by defining those features in the rule as "waters." FWQC member entities or their members own and operate facilities located on or near those features. The expanded definition of WOTUS that is included in the Clean Water Rule could result in stringent restrictions on discharges to those features, could affect FWQC members' ability to use those features for water management purposes, and could affect the members' ability to properly maintain those features. The WOTUS Proposal that the Agencies have recently issued would rescind the Clean Water Rule and reinstate the definition of WOTUS that existed previously. The FWQC therefore has a direct interest in the WOTUS Proposal.

When the Clean Water Rule was issued as a proposal (in 2014), the FWQC filed extensive comments. (A copy of those comments is attached and hereby incorporated by reference). In those comments, the FWQC expressed the following strong concerns about the proposal:

- It represented a dramatic and unfounded expansion of asserted Federal authority.
- It was not supported by the text, structure or purpose of the Clean Water Act or Supreme Court precedent.
- It was not supported by the record and is not the result of reasoned decisionmaking.
- It lacked clarity.
- The expansion and ambiguity in the proposal would significantly increase litigation and the burden on the regulated community and the regulators.
- Procedural errors by the Agencies rendered the proposal invalid.

In 2015, the Agencies issued the final Clean Water Rule. While it reflected a number of changes from the proposal, the final rule still exhibited the same basic characteristics that underlay the FWQC's concerns about the proposal, and it gave rise to several additional concerns. The problems with the final rule are well illuminated in the briefs that have been filed in the numerous legal challenges to the rule that have been filed in courts throughout the country. The FWQC believes that those concerns are most succinctly laid out in an *amicus curiae* brief that was filed by a bipartisan group of Congresspeople – indicating that the rule was inconsistent with what Congress intended. In that brief, the Congressional group set forth the following flaws in the final Clean Water Rule:

- The rule encroaches on traditional State powers.
    - The Act protects navigable waters from pollution, and leaves regulation of land and non-navigable, intrastate waterways to the States.
    - The rule improperly encompasses land and water that Congress left to the purview of the States.

- The Act's text, structure, and legislative history do not support the rule.
  - The Act regulates water pollution, not flows or habitat.
  - The rule would unlawfully regulate water flows.
  - The rule would unlawfully regulate wildlife habitat.
  - The statement of goals in the Act does not prescribe the Act's jurisdictional reach.
- The Agencies' new, expansive interpretation of CWA jurisdiction is not entitled to deference.
- The theory of jurisdiction espoused in the rule is not supported by the administrative record.

It is because of all these concerns about the legal, policy and scientific flaws in the Clean Water Rule that the FWQC supports the Agencies' proposal to rescind that rule. To correct those flaws requires more than minor "tweaks" to the rule. Rather, the Agencies need to develop a new rule, which takes into account the statutory constraints imposed by Congress in the Clean Water Act while ensuring that the quality of the Nation's waters is fully protected. We believe that satisfying those two goals is possible, and we look forward to working with the Agencies as they develop a new rule.

In the meantime, the Agencies should rescind the Clean Water Rule, and operate under the regulatory structure that existed before that rule was adopted. Since the Clean Water Rule has been stayed by court order, the pre-existing rule is currently in effect, and continuing to operate under that rule would be maintaining the *status quo*. While that pre-existing regulatory structure is not without its own issues, we believe that the best course of action is for all stakeholders to function within that system while the Agencies work on a new rule that can be issued in the near future for public comment. To the extent that any issues arise while the pre-existing rule is in effect, we are more than glad to work with the Agencies on the development of any new guidance that is needed. It is well within the discretion of the Agencies to address the WOTUS issue in this way, and we recommend that they move forward expeditiously.

The FWQC appreciates the opportunity to submit these comments on the WOTUS Proposal. Please feel free to call or e-mail if you have any questions, or if you would like any additional information concerning the issues raised in these comments.

Fredric P. Andes
Coordinator

Federal Water Quality Coalition

June 8, 2017

Dave Williams
Executive Director
Bay Area Clean Water Agencies (BACWA)
PO Box 24055, MS 59
Oakland, CA 94623

Dear Dave,

At the suggestion of CASA Executive Director Bobbi Larson, I am pleased to provide this letter describing the Public Policy Institute of California's (PPIC) upcoming research project: ***Protecting Water Quality with a Changing Climate***. I hope that you will join CASA and others in the wastewater community in supporting this project, which will add to the ongoing conversation regarding preparing California for future climate variability.

Led by PPIC's Water Policy Center—with support from Jim Cloern (USGS), Jay Lund (UC Davis), Kurt Schwabe (UC Riverside), and Leon Szeptcycki (Stanford)—the research project will begin in summer 2017. Building on lessons learned from the latest California drought, including a similar study recently conducted by PPIC on urban water suppliers, the project team will survey California's wastewater agencies to learn about institutional responses to drought and how agencies are preparing for anticipated future challenges.

Small workshops held in different regions will help the team gather feedback from local managers and stakeholders to hone the assessment and further explore survey responses. A qualitative assessment of local and state policies, planning, and impacts will be complemented by various quantitative analyses, such as data on influent and effluent flow rates and concentrations from treatment plants throughout the state during the latest drought. Flow rates and concentrations will be linked to conservation actions by retail water agencies to highlight the linkages and potential impacts of water conservation programs on treatment plants and their discharges. In addition, the impacts of drought and water conservation on recycled water use and the associated financial impacts arising from operational adjustments will be analyzed.

Findings will be summarized in a short, accessible report to be released in summer 2018. An accompanying communications strategy will help maximize the publication's impact on policymakers and the broader public discourse on California's water issues. Total project costs are estimated at roughly $250,000 and we are actively seeking external funding from a range of partners to supplement support from the US EPA and demonstrate the broad appeal of this work.

Thank you for the opportunity to share this brief project description with you and for your Board's consideration of project support. Please feel free to contact me at (415) 291-4433 or hanak@ppic.org if you or your Board members have any questions.

Sincerely,

Ellen Hanak
PPIC Water Policy Center Director and Senior Fellow

August 16, 2017

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

VIA EMAIL: commentletters@waterboards.ca.gov

Subject: Comment Letter – Bacteria Provisions

Ms. Townsend,

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on the Draft Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Bacteria Provisions and a Water Quality Standards Variance Policy; and the Draft Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy (Bacteria Provisions). BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health.

BACWA supports the State Water Board reducing the health risk level to match EPA's most recent health risk level recommendations for the contact recreation beneficial use (REC-1). However, BACWA also recognizes that disinfecting wastewater effluent has ancillary environmental impacts. For agencies that use UV disinfection, higher UV doses for higher levels of disinfection require more energy. Chlorine disinfection for higher levels of bacterial indicator removal requires greater use of chemicals. This higher chlorine dosing leads to the generation of increased levels of disinfection byproducts, and requires larger doses of sodium bisulfite added to the effluent to quench the chlorine. Either UV or chlorine disinfection has a higher carbon footprint to achieve greater levels of disinfection. Because of these ancillary impacts, it raises a concern that Regional Water Boards might require agencies to disinfect beyond a level required to achieve water quality objectives. Balancing environmental and human health risks highlights the importance of using mixing zones when calculating effluent limits for municipal wastewater dischargers.

The Draft Staff Report for the Bacteria Provisions addresses mixing zones for point sources beginning on page 16. Most NPDES dischargers in the San Francisco Bay Region have

Enterococcus objectives for REC-1 applied as end-of-pipe limits, although mixing zones are allowed by the San Francisco Bay Basin Plan. The Draft Staff Report notes on page 17 that "*With no statewide policy, existing Regional Water Board policies and procedures will apply. Regional Water Boards would likely continue their current practices for allowing mixing zones where appropriate.*"

Given the impacts of excess disinfection, BACWA recommends that the State Water Board use this opportunity to encourage Regional Water Boards to use mixing zones in calculating bacterial indicator effluent limits, as allowed by their Basin Plans. BACWA suggests that the following language be added to the Bacterial Provisions, under Section IV.E.1:

Bacteria effluent limits for NPDES-permitted dischargers shall be calculated using mixing zones as allowed by their Region's Water Quality Control Plans.

BACWA appreciates the opportunity to comment on the Draft Bacterial Provisions and thanks you for considering our input.

Respectfully Submitted,

David R. Williams

David R. Williams
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Board

BACWA Toxicity Workshop

Draft Agenda

Monday September 18, 2017

Central Contra Costa Sanitary District, Martinez

Speakers: Stephen Clark, PERL
Adrienne Cibor, Nautilus
Phil Markle, LACSD
Dan Jackson, City of Benicia
Jeff Miller, Aquascience
Howard Bailey, Nautilus Canada
Lorien Fono, BACWA

1. Introductions - **10am**

2. Toxicity 101 – *Dan Jackson, Phil Markle, Stephen Clark* – **10:10**
    a. How are toxicity tests conducted?
    b. How is toxicity evaluated using the test result data?
        i. Point Estimates
        ii. TST
    c. How to conduct a TIE/TRE
    d. Species screening
    e. How to review lab reports

3. Draft State Toxicity Provisions – *Lorien Fono, Phil Markle* – **11:30**
    a. Numeric Limits – MDEL and MMEL
    b. Reasonable Potential
    c. Monitoring Frequency

4. Lunch – **12 noon**

5. Tips and Tricks for conducting toxicity testing and TIEs (Panel Discussion) –*Stephen Clark, Adrienne Cibor, Jeff Miller, Howard Bailey* – **12:20**

6. Question and Answer Session – **1:45**

7. Adjourn – **2pm**

		DRAFT AGENDA FOR PRE-PARDEE SEMINAR
		September 15, 2017
	Time	**Topic**
Morning		
	9:00 AM	Watershed Permit Status
		Review of Permit Requirements
		Optimization/Upgrade Project Update
		Group Annual Report
	10:30 PM	2nd Watershed Permit Status
		Review of Nutrient Surcharge and Annual Updates
		Establishiing a Baseline for Early Actions
		Shallow Water Discharges
		The Role of Trading
		Scope of the Regional Study on Non-Grey Scape Alternative for Nutrient Reduction
		Need for Subgroup Management of Efforts
	11:45 PM	PCB/HG Watershed Permit
		Review of Tentative Order
		Approach to Risk Reduction/Options
Lunch Break	**12:15 PM**	
Afternoon		
	12:45 PM	Chlorine Residual Basin Plan Amendment
		Desired Outcome
		Draft Scope of Work
		Cost and Schedule
		Project Review
	1:30 PM	Air Issues
		Clean Air Plan
		Proposed Rule 11-18
		Particulate Matter Regulation 6, Rule 1
		Organic Waste Diversion
	2:15 PM	Administrative Issues
		Review of Classes of Membership and Fees
		Summary of Board Policies and Staff Procedures
Adjourn	3:00 PM	

		Draft PROGRAM			
		BACWA ANNUAL TECHNICAL SEMINAR			
		October 26 - 27, 2017			
		EBMUD Pardee Facility			
Day	**Time**	**Theme**	**Attendees**	**Item**	**Topic**
Thur	8:30 AM		BACWA Members and Staff		**Breakfast**
	9:15 AM	**BACWA Operational**			**Financial**
				1	FY 18 Budget
				2	5 Year Plan
					-Assumptions for Future Dues/CBC/Nutrient Surcharges
					-5 Year Plan Scenarios
				3	Brainstorming on How To Make BACWA Better
					-Board Meetings
					-Committees
					-Outreach
					-Representation
					-Engagement
	10:30 AM	**Nutrients - 2nd Watershed Permit**			**Update and Discussion**
				4	Confirmation on Approach
					-Review of Nutrient Surcharge and Annual Updates
					-Establishiing a Baseline for Early Actions
					-Shallow Water Discharges
					-The Role of Trading
					-Scope of the Regional Study on Non-Grey Scape Alternative for Nutrient Reduction
					-Need for Subgroup Management of Efforts
	Noon				**Lunch**
	12:45 PM	**Nutrients - 2nd Watershed Permit (con't)**			
	1:45 PM	**Other Regulatory Issues**	Board/ED/Staff/Associates		**Update and Discussion**
				5	Toxicity
					-Debrief on the BACWA Toxicity Workshop
					-Update on Toxicity Provisions

					-Options being discussed by Summit Partners
				6	Other Regulatory Hot Topics
					-Biosolids Survey
					-BACWA's Role in TNI Implementation
					-Private Sewer Lateral Provisions in Permits
	3:00 PM				**Break**
	3:15 PM			7	Regulatory Update
					-CEC Voluntrary Participation
					-SFEI's Microplastics Strategy
					-Regulatory Issue Matrix
				8	Engaging the Water Board
					-2nd WS Permit
					-Chlorine Residual
					-Toxcity
					-PCB/Hg WS Permit
	4:45 PM		WB/D. Senn Arrives		**Break for Day**
	6:30 PM		Board/ED/Staff/Associates/ WB/D. Senn		**Dinner**
Fri	8:00 AM	**Coordination with WB**	BACWA Members/Staff/WB/David S./HDR		**Breakfast**
					Update and Discussion
	8:30 AM			9	Watershed Permit Compliance
					-Optimization/Updgrade Update on Findings
					-Cost of No Net Loading Increase
					-Group Annual Report
					-Capital Projects
					-Recycling
					-Sea Level Rise
	10:15 AM			10	Concise Summary on State of the Science
					-Update on Science Plan with Projected Incresed Funding
					-Next Steps on the Assessment Framework
	10:30 AM				**Break**

	10:45 AM			11	2nd WS Permit
					-Status on Funding
					-Establishing a Baseline
					-How Shallow Water Discharges Fit in 2nd WS Permit
					-Role of Trading
					-Scope of Work for Regional Study on Non-Grey Scape Alternatives
	12:00 PM				**Lunch**
	11:00 AM			12	PCB/Hg Watershed Permit
				13	Chlorine Residual Basin Plan Amendment
	1:30 PM			14	**Other Technical/Regulatory Issues**
					-Impact of BAAQMD Regulations
					-Toxicity Plan
					-DWR Survey on Recycling
					-Recycled Water Permitting
					-Update on CEC's Management Strategy
					-Status of work on near shore discharges
					-Other Issues
	2:45 PM				**Adjourn**

DRAFT

Executive Board Special Meeting Agenda

SF Bay Regional Water Board / BACWA Executive Board Joint Meeting

Aug 30, 2017 10:00 AM -12:00 PM

SF Bay Water Board, 1515 Clay Street, St. 1400 Oakland, CA

ROLL CALL AND INTRODUCTIONS – 10:00

PUBLIC COMMENT – 10:05

DISCUSSION/OTHER BUSINESS- 10:10

Topic	Goal	Time
1. Nutrients a. Optimization and Upgrade Studies b. 2017 Group Annual Report c. 2nd Watershed Permit d. Oro Loma Permit	• Update on progress of optimization/upgrade studies • Update on progress of Group Annual Report • Review of tenets of second watershed permit • Discuss nutrient limits in Oro Lomo permit	10:15
2. Hg/PCB Watershed Permit Reissuance	• Discuss monitoring frequency and risk reduction	10:45
3. State Toxicity Provisions	• Update on State Water Board Toxicity Provisions	10:55
4. ELAP Preliminary Draft Regulations	• How to mitigate impacts of increased workload	11:05
6. Chlorine Residual Basin Plan Amendment	• Update on progress	11:30
7. Private Sewer Lateral Ordinance Requirements – Vallejo TO	• Discuss Regional Water Board's intentions on requirements in permits	11:40
8. BAAQMD Rule 11-18	• Update on BACWA progress working with BAAQMD Staff	11:50
9. Bacteria Provisions	• BACWA Comment Letter	11:55

ADJOURNMENT

August 21, 2017

John H. Madigan
1515 Clay Street, Suite 1400
Oakland, CA 94612
(510) 622-2451

VIA EMAIL: JMadigan@waterboards.ca.gov

Subject: Comments on the Tentative Order R2-2017-XXXX, NPDES No. CA0037699, for the Vallejo Flood & Wastewater District

Dear Mr. Madigan:

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on Tentative Order R2-2017-XXXX, NPDES No. CA0037699, for the Vallejo Flood & Wastewater District (the District). BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay (SF Bay) Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health.

BACWA supports the efforts of agencies to both quantify and reduce infiltration & inflow (I&I) from collection systems. For example, BACWA hosts a collection systems committee where agencies can share information about collection systems operations, including I&I from private sewer laterals. At the same time, BACWA recognizes that there are many different approaches to reducing I&I, and a mandatory sewer lateral inspection & repair program is just one. The District has an existing ongoing effort to fund private sewer lateral replacement through the Upper Lateral Program, as it is a locally appropriate solution to reducing I&I.

The District's approach allows for funding sewer lateral replacement for low-income customers, and is in the spirit of the State Water Resources Control Board's approach of targeting funding for water and wastewater projects to disadvantaged communities. Much of the District's service area is classified as a disadvantaged community per maps made available by the California Department of Water Resources.

BACWA recognizes that the Tentative Order only requires the District to "*Develop a lateral inspection ordinance appropriate for the service area and present it to the Discharger's governing board for consideration,*" and does not require its adoption. Given that the District has

an existing sewer lateral program that is tailored for the community's needs, BACWA is concerned that fulfilling the permit requirement will be an effort that will divert the District's resources away from its existing program without reducing I&I.

BACWA appreciates the opportunity to comment on Vallejo's Tentative Order and thanks you for considering our input.

Respectfully Submitted,

David R. Williams

David R. Williams
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Executive Board
Jennifer Harrington, Vallejo Flood & Wastewater District
Mary Cousins, Woodard & Curran

BACWA EXECUTIVE BOARD MEETINGS

VENUES FOR REMAINDER OF 2017 AND ALL OF 2018

At the July 21, 2017 BACWA Executive Board Meeting, the question of where to hold future BACWA Executive Board meetings was suggested as a future agenda item. There appeared to be a consensus that the most convenient venue is EBMUD HQ in downtown Oakland due to traffic patterns and BART accessibility. BACWA Staff has worked with EBMUD to reserve the 2nd Floor Large Training Room for future BACWA Executive Board meeting dates. Below are the options available.

2017: See BACWA BOARD MEETING CALENDAR 2017

September 15, 2017:

- This meeting is scheduled for EBMUD, Lab Library in Oakland.
- EBMUD HQ is **NOT** available for this meeting.

October, 2017: Pardee

November 17, 2017:

- This meeting is scheduled for SFPUC, Hetch Hetchy Room in San Francisco.
- EBMUD HQ is also RESERVED for this meeting.

December 15, 2017:

- This meeting is scheduled for EBMUD, Lab Library in Oakland.
- EBMUD HQ is also RESERVED for this meeting.

2018: See BACWA BOARD MEETING CALENDAR 2018

- EBMUD HQ is RESERVED for all meeting dates except January and October, 2018.

OPTIONS:

1. Continue with the remainder of calendar year 2017 and 2018 as currently planned, i.e. alternating between the Lab Library and SFPUC
2. Change 2018 to all EBMUD HQ location
3. Change 2018 and the remainder of 2017 to EBMUD HQ location beginning with November 2017 meeting.

2017 BACWA EXECUTIVE BOARD
REGULAR MONTHLY MEETING SCHEDULE

DATE	TIME	LOCATION
January 27, 2016 *(Annual Member Meeting – no regular Board meeting in January)*	8:30 – 3:30	Metropolitan Golf Course Oakland, CA
February 17, 2017	9:00 – 12:30	SFPUC, Hetch Hetchy Room
March 17, 2017	9:00 – 12:30	EBMUD Lab Library
April 21, 2017	9:00 – 12:30	SFPUC, Hetch Hetchy Room
May 19, 2017	9:00 – 12:30	EBMUD Lab Library
June 16, 2017	9:00 – 12:30	SFPUC, Hetch Hetchy Room
July 21, 2017	9:00 – 12:30	EBMUD Lab Library
August 18, 2017	9:00 – 12:30	SFPUC, Hetch Hetchy Room
September 15, 2017 *(Pre-Pardee Tech Seminar)*	8:30 – 8:45 9:00 – 4:30	EBMUD Lab Library
October 12-13, 2017 *(Pardee Tech Seminar)*	TBD	EBMUD Pardee Facility
November 17, 2017	9:00 – 12:30	SFPUC, Hetch Hetchy Room
December 15, 2017 *(Holiday Lunch)*	9:00 – 2:00	EBMUD Lab Library

Special Board Meetings to be scheduled in 2017:

Joint BACWA/San Francisco Bay Regional Water Board meetings will be scheduled for March, May, July, October (Pardee), and December

2018 BACWA EXECUTIVE BOARD
REGULAR MONTHLY MEETING SCHEDULE

DATE	TIME	LOCATION
January 19, 2018 (Tentative) *(Annual Member Meeting – no regular Board meeting in January)*	8:30 – 3:30	Scottish Rite Center
February 16, 2018	9:00 – 12:30	SFPUC, Hetch Hetchy Room
March 16, 2018	9:00 – 12:30	EBMUD Lab Library
April 20, 2018	9:00 – 12:30	SFPUC, Hetch Hetchy Room
May 18, 2018	9:00 – 12:30	EBMUD Lab Library
June 15, 2018	9:00 – 12:30	SFPUC, Hetch Hetchy Room
July 20, 2018	9:00 – 12:30	EBMUD Lab Library
August 17, 2018	9:00 – 12:30	SFPUC, Hetch Hetchy Room
September 14, 2018 *(Pre-Pardee Tech Seminar)*	8:30 – 8:45 9:00 – 4:30	EBMUD Lab Library
October 18-19, 2018 (Tentative) *(Pardee Tech Seminar)*	TBD	EBMUD Pardee Facility
November 16, 2018	9:00 – 12:30	SFPUC, Hetch Hetchy Room
December 21, 2018 *(Holiday Lunch)*	9:00 – 2:00	EBMUD Lab Library

Special Board Meetings to be scheduled in 2018:

Joint BACWA/San Francisco Bay Regional Water Board meetings will be scheduled for March, May, July, October (Pardee), and December

BAY AREA CLEAN WATER AGENCIES
Fiscal Year 2018

Other BACWA Representation

Agency	Representative	Notes
RMP Technical Committee	Rod Miller, SFPUC	
RMP Steering Committee	Karin North, Palo Alto; Leah Walker, Petaluma; Jim Ervin, City of San Jose	ASC Board Alternate, NACWA Emerging Contaminants, ReNUWIt Co-Chair, Recycled Water Comm. BACWA, Chair
Summit Partners	Dave Williams; Laura Pagano, SFPUC	BACWA Executive Director BACWA Board Representative
Joint SFEI/ASC Board	Laura Pagano, SFPUC; Dave Williams	BACWA Board Representative BACWA Executive Director
	Jim Ervin, City of San Jose, ASC Board Alternate Karin North, Palo Alto, ASC Board Alternate	One seat on loan from BACWA to Regional San Prabhakar Somaverapu
Nutrient Governance Steering Committee	Jim Ervin, City of San Jose; Mike Connor, EBDA	BACWA Chair BACWA Board Representative
SWRCB Nutrient SAG	Dave Williams	BACWA Executive Director
SWRCB Focus Group – Bacterial Objectives	Lorien Fono, BACWA; Amy Chastain, SFPUC	BACWA Regulatory Program Manager BACWA Board Alternate
SWRCB Focus Group – Mercury Amendments to the State Plan	Tim Potter, CCCSD; Dave Williams, BACWA; Laura Pagano, SFPUC	Co-Chair, Pretreatment Committee BACWA Executive Director BACWA Board Representative
Nutrient Technical Workgroup	Eric Dunlavey, City of San Jose	
NACWA Taskforce on Dental Amalgam	Tim Potter, CCCSD	Co-Chair, Pretreatment Committee
BAIRWMP	Cheryl Munoz, SFPUC; Linda Hu, EBMUD; Dave Williams, BACWA	WateReuse Working Group BACWA Executive Director
NACWA Emerging Contaminants	Karin North, Palo Alto; Melody LaBella, CCCSD	RMP Steering Committee, ASC Board Alternate, ReNUWIt
CASA State Legislative Committee	Lori Schectel, CCCSD	BACWA Vice-Chair Nutrient Strategy Team Alternate
CASA Regulatory Workgroup	Lorien Fono, BACWA	BACWA Regulatory Program Manager
ReNUWIt	Mike Connor, EBDA; Karin North, Palo Alto	BACWA Board Representative ASC Board Alternate, RMP Steering Committee
RMP Microplastics Liaison	Nirmela Arsem, EBMUD	

AWT Certification Committee	Maura Bonnarens, EBMUD	BACWA Board Alternate
Bay Area Regional Reliability Project	Roger Bailey, CCCSD; Mike Connor, EBDA	BACWA Board Rep to BARR, BACWA Board Alternate BARR Alternate, BACWA Board Representative
WateReuse Working Group	Cheryl Munoz, SFPUC	BAIRWMP
SF Estuary Partnership	Eileen White, EBMUD Dave Williams, BACWA Lorien Fono, BACWA	BACWA Board Representative BACWA Executive Director BACWA Regulatory Program Manger

July 24, 2017

Bonnie Adler
Office of Pesticide Programs (OPP)
Regulatory Public Docket Center (28221T)
U.S. Environmental Protection Agency (EPA)
1200 Pennsylvania Ave., NW.
Washington, DC 20460–0001

Subject: Diquat Dibromide – Proposed Registration Review Decision (EPA–HQ–OPP–2009–0846)

Dear Ms. Adler:

On behalf of the Bay Area Clean Water Agencies (BACWA), we thank you for the opportunity to comment on the proposed registration review decision for the herbicide and root control chemical diquat dibromide. BACWA's members include 55 publicly owned wastewater treatment facilities ("POTWs") and collection system agencies serving 7.1 million San Francisco Bay Area residents. We take our responsibilities for safeguarding receiving waters seriously.

As you are well aware, BACWA is especially interested in the registration review for diquat dibromide as it is an effective chemical commonly used to control root invasion in wastewater collection systems. Controlling roots prevent collection system blockages, which can cause untreated wastewater to spill out of the collection system. However, if too much is applied in a short time period, diquat dibromide (as well as other root control chemicals) may interfere with facilities' biological wastewater treatment processes. Wastewater treatment plant personnel, particularly those in the EPA Clean Water Act mandated pretreatment program, regularly enter collection system lines to conduct discharger compliance testing. To protect worker safety by ensuring that they do not enter lines undergoing root control treatment. Wastewater collection systems are often managed by agencies other than the agency that operates the downstream publicly owned wastewater treatment plant. Consequently, wastewater treatment facilities are not always able to control the upstream use and subsequent discharge of root control chemicals.

BACWA appreciates that the proposed decision for diquat dibromide's registration review includes substantially more clear and more complete language regarding notification of downstream POTWs about impending diquat dibromide applications. We also appreciate new clarification that diquat dibromide-containing water can only be discharged after treatment or in accordance with an NPDES permit. We thank your staff and the registrant for their joint efforts to address our requests for label improvements.

We have two concerns about the proposed label language:

(1) Practical enforceability, as written records are not required
(2) Adequacy of worker safety protections

We detail these concerns below and provide suggested minor modifications to the proposed label language addressing both comments.

POTW Notification Requirement Must Be Enforceable and Mention POTW Worker Safety

As drafted, the proposed POTW notification label language explicitly excuses applicators from keeping written records of the required notification ("While documentation of the notification is not required by law"). How can this requirement be enforced without written documentation?

While our agencies are not experts in pesticides enforcement, we have substantial experience in enforcing sewer discharge requirements. Documentation is crucial proof for enforceable requirements, like notification requirements, that cannot be readily observed during an on-site inspection. We fear that if the POTW notification requirement is unenforceable, proper notification to downstream wastewater treatment facilities may not occur.

Due to the health risks associated with direct exposure to diquat dibromide treatment solutions, it is imperative that workers do not open and enter manholes in areas undergoing treatment. Treatment zones are so long that the root control chemical applicator is unable to view all manholes affected by the treatment, so it is not possible to guarantee worker safety through visual measures alone. Due to the paramount importance to us of the safety of our workers, we urge EPA to ensure that the label mentions the need to ensure that workers are restricted from entering manholes in treatment areas. We believe that this can be accomplished through POTW notification, as long as that notification requirement is fully enforceable. Notification is more practical than other alternatives for preventing worker entry, e.g., labeling every manhole in a treatment area.

Requested Revisions to EPA's Proposed Label Language

BACWA requests that EPA modify the proposed POTW-related label language as shown in the box on the next page. Our suggested revisions were developed toward meeting our goals of enforceability and worker safety protection while minimize the burden on applicators and using clear, brief wording that will fit on the product container.

We encourage EPA to consult with state and local agencies charged with pesticides enforcement, such as California Department of Pesticide Regulation, to ensure that the final POTW notification requirement is fully enforceable without onerous efforts by either inspectors or applicators.

Recommended Modifications to Label Instructions
(Based on Proposed Diquat Dibromide Label)

This product must be used only where wastewater treated for root control will be processed through a wastewater treatment facility. This product may be used in storm or other drainage lines only if the treated water is then either processed through a wastewater treatment facility or discharge in accordance with an applicable NPDES permit.

Applicators must notify appropriate personnel at the downstream wastewater treatment facility at least 24 hours prior to the start of a proposed diquat dibromide application within an area which is served by the wastewater treatment facility. In addition to the proposed date of application, applicators must provide additional information as requested by the wastewater treatment facility, including information on the proposed amount of diquat dibromide that is anticipated to be applied.

This notification serves to inform wastewater treatment facility personnel of proposed application dates so that they may monitor or adjust the diquat dibromide treatment and any other operations ~~with the system~~ that may be affected by the diquat dibromide treatment and restrict staff from entering the downstream lines. ~~can be monitored or adjusted as needed. While documentation of the notification is not required by law,~~ Applicators must maintain a written record of the notification date and POTW contact name. It ~~it~~ is in the applicators' interest to confirm that the notification is received and understood by the appropriate personnel.

Our goal in submitting this letter is to ensure that diquat dibromide product label instructions provide instructions that are effective in protecting our treatment processes and our worker safety. If there is anything that our member agencies or our national association, the National Association of Clean Water Agencies (NACWA) can do to support to clarify our request or to discuss alternative language to meet our goals, please do not hesitate contact us.

Thank you for your consideration of our comments. If you have any questions, please contact BACWA's Project Managers:

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Respectfully Submitted,

David R. Williams

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Executive Director
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July 24, 2017

Mr. Ricardo Jones
Office of Pesticide Programs
Regulatory Public Docket Center (28221T)
U.S. Environmental Protection Agency (EPA)
1200 Pennsylvania Ave., NW.
Washington, DC 20460–0001

Subject: Imidacloprid – Preliminary Aquatic Risk Assessment (EPA-HQ-OPP-2008-0844)

Dear Mr. Jones:

On behalf of the Bay Area Clean Water Agencies (BACWA), we thank you for the opportunity to comment on the Preliminary Aquatic Risk Assessment (PARA) for imidacloprid. BACWA's members include 55 publicly owned wastewater treatment facilities ("POTWs") and collection system agencies serving 7.1 million San Francisco Bay Area residents. We take our responsibilities for safeguarding receiving waters seriously. BACWA is especially interested in pesticides that are used in manners that have transport pathways to the sanitary sewer, as even the most sophisticated wastewater treatment plants cannot fully remove complex chemicals like pesticides.

Every day, BACWA members treat millions of gallons of wastewater that is then discharged to fresh or salt water bodies, including local creeks and rivers, bays, and the Pacific Ocean. These waterways provide crucial habitat to a wide array of aquatic species and waterfowl. In some cases, waters receiving POTW discharges ("receiving waters") may be effluent-dominated in that there is little to no dilution, either because the receiving water is small or there is a lack of mixing at certain times due to thermal or saline stratification.

BACWA has a strong interest in imidacloprid due to its high aquatic toxicity and proven ability to pass through POTWs and appear in our effluent. The primary purpose of this letter is to request that the ecological risk assessment be expanded to include an evaluation of sewer discharges from pet flea control products and other indoor imidacloprid uses. A recent study involving several of our member agencies suggests that pet flea control products are the primary source of imidacloprid discharges to municipal wastewater treatment plants.

BACWA appreciates that OPP has started to conduct evaluation of risks associated with pesticide discharges to the sewer system ("down the drain" risk assessments). OPP's imidacloprid risk assessment did not include a down-the-drain assessment. Omitting evaluation of the sewer discharge environmental exposure pathway can prove costly for POTWs, as detailed below.

In almost every US state – including California – state law precludes any local regulation of pesticide sales or use. As we have no local option to control use of pesticides consumer products, it is essential to us that OPP's Registration Review adequately evaluates potential impacts to wastewater quality, and results in mitigation measures ensuring that impacts to the beneficial uses of the receiving water are *prevented*.

For these reasons, it is of utmost importance to BACWA that pet flea control products and all other imidacloprid-containing products with pathways to the sewer be carefully and thoroughly evaluated.

In addition to commenting on the preliminary aquatic risk assessment, we are also taking this opportunity to provide input on mitigation strategies for U.S. EPA to discuss with imidacloprid registrants. We are providing this input at this time because mitigation measures are essential and we understand that the next opportunity for public comment will be after such discussions and after U.S. EPA has prepared its proposed decision.

Thank you for this opportunity to present our input on each of these topics.

Background – Pesticide Discharges to the Sewer Can Be Costly

Pesticide discharges to the sewer system can prove costly for POTWs, due to the potential for pesticides to cause or contribute to wastewater treatment process interference, NPDES Permit compliance issues, impacts to receiving waters, recycled water quality and/or biosolids reuse, in addition to exposing POTWs to the potential for third party lawsuits under the Clean Water Act (CWA).

Of particular concern is the ability of a specific pesticide to exceed effluent toxicity limits. One universal water quality standard in the U.S., which stems directly from the Federal Clean Water Act (CWA), is that surface waters cannot be toxic to aquatic life. NPDES permits require POTWs to demonstrate that they meet this standard by evaluating toxicity using U.S. EPA standard methods (set forth in 40 CFR Part 136). To evaluate toxicity, every POTW must (1) conduct toxicity screening tests with a range of species, (2) select the most sensitive species, and (3) perform routine monitoring (typically monthly or quarterly). These monitoring data are used to determine whether the discharger has a *reasonable potential* to cause or contribute to toxicity in the receiving water. If it does, the CWA requires that numeric effluent limits be imposed, otherwise POTWs may be given numeric effluent triggers for further action. In the event that routine monitoring *does exceed* a toxicity limit or trigger, the POTW must perform accelerated monitoring (e.g., monthly); and if there is still evidence of consistent toxicity, the discharger must do a Toxicity Reduction Evaluation (TRE) to get back into compliance. The TRE requires dischargers to evaluate options to optimize their treatment plants and conduct a Toxicity Identification Evaluation (TIE), the cost of which can vary from $10,000 to well over $100,000 depending on complexity and persistence of the toxicant. The goal of the TIE is to identify the substance or combination of substances causing the observed toxicity. If a POTW's effluent is toxic because of a pesticide, it may not have any practical means to comply with CWA-mandated toxicity permit limits.

Once identified, the cost to treat or remove the toxicity causing compound(s) can vary dramatically. Often, there are few ways for a discharger to mitigate the problem other than extremely costly treatment plant upgrades. Upgrading treatment plants is often ineffective for

organic chemicals like pesticides that appear at sub microgram per liter concentrations, largely because sewage is a complex mixture of natural organic compounds. Regardless of this, the discharger must comply with its CWA permit limits. If a discharger violates a toxicity limit, it can be subject to significant penalties (in California up to $10/gallon or $10,000 per day).

In addition, when surface water bodies become impaired by pesticides, wastewater facilities may be subject to additional requirements established as part of Total Maximum Daily Loads (TMDLs) set for the water bodies by U.S. EPA and state water quality regulatory agencies. A number of pesticide-related TMDLs have been adopted or are in preparation in California. The cost to wastewater facilities and other dischargers to comply with TMDLs can be up to millions of dollars per water body per pollutant. This process will continue as long as pesticides are approved for uses that result in water quality impacts; it is therefore imperative that U.S. EPA conducts a Registration Review focusing on water quality impacts and for U.S. EPA to take action to ensure that any impacts are prevented or fully mitigated.

Background - Imidacloprid in POTW Influent and Effluent

As summarized below and detailed in attached scientific papers, imidacloprid is frequently detected in POTW influent and effluent. Available data suggest that typical municipal wastewater treatment processes do not reduce imidacloprid concentrations, i.e., that imidacloprid passes through POTWs. Concentrations reported in undiluted POTW effluents exceed the aquatic invertebrates chronic toxicity endpoints used in the PARA, as illustrated in Figure 1.

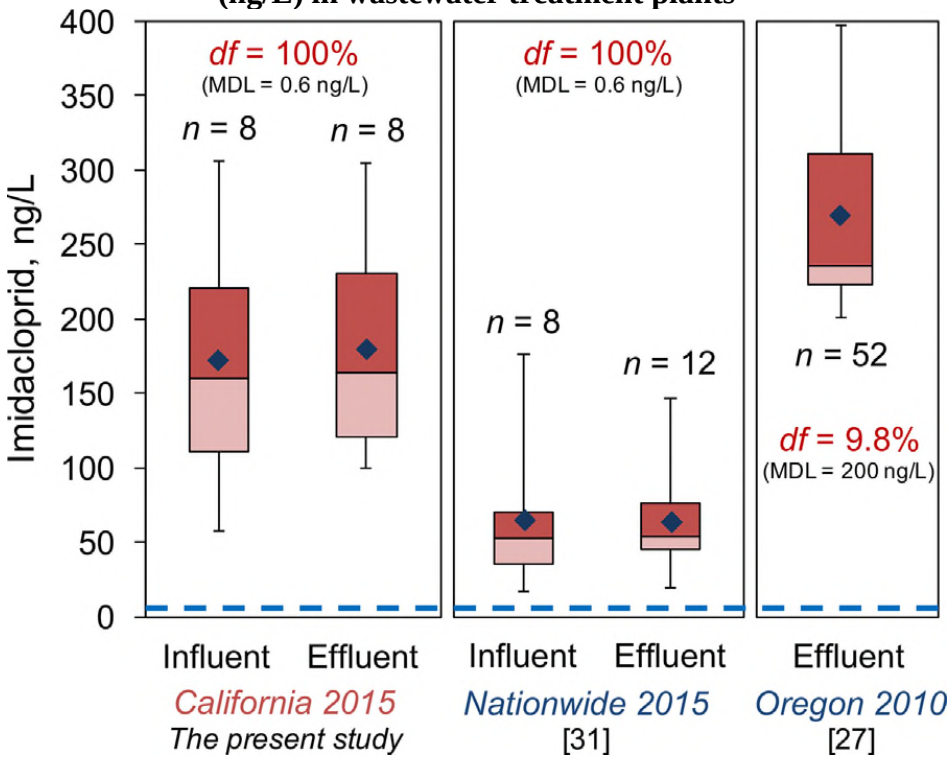
Recent scientific studies have measured imidacloprid in POTW influent and effluent, and have examined sources, per-capita loadings, and the reasons that it appears to pass through POTW treatment processes. We enclose three key papers:

- A recent study conducted by the San Francisco Bay Regional Monitoring Program in collaboration with California Department of Pesticide Regulation and Arizona State University (Sadaria et al. 2017; enclosed) measured imidacloprid and fipronil, as well as its degradates, in the influent and effluent of eight urban California POTWs. The results indicated that fipronil, its degradates, and imidacloprid were ubiquitous in the influent sewage and final treated effluent of all eight participating POTWs, and suggested that pet flea control products may be the primary source of both chemicals in wastewater. Pet washing is likely a major discharge pathway for pet flea control products (Teerlink et al. 2017; enclosed). Based on data from Bigelow Dyk et al (2012; enclosed) characterizing topical flea control active ingredient transfer to owners' hands and per capita pet population data, study authors found that owner hand washing could potentially explain the entire influent load of POTWs sampled in their study, suggesting that indirect transfer is also likely to be a discharge pathway.

- Elsewhere in the US, Sadaria et al (2016; enclosed) reported that imidacloprid was detected in 100% of influent and effluent samples from 12 US POTWs. POTWs had similar influent and effluent concentrations (ranging from 18.5 ng/L to 146.4 ng/L). This study included wintertime samples in cold climates, when pet flea pressure is minimal – such samples likely had minimal contributions from pet flea control products (source: personal communication with author).

- In 2010, Hope et al. measured imidacloprid in effluents from 52 Oregon WWTPs. This study (which is enclosed) found a lower detection frequency (9.8%), perhaps due to its relatively high quantification limit (200 ng/L) as compared to the more recent studies above, which had reporting limits <1 ng/L. In this study, effluents with detectable imidacloprid had levels in the range of 202 ng/L to 387 ng/L.

Figure 1. (from Sadaria et. al. 2017) Summary of detected concentrations of imidacloprid (ng/L) in wastewater treatment plants



Note: Dashed blue horizontal line indicates European Union freshwater predicted no-effect concentration value (close to the chronic aquatic invertebrate toxicity endpoint value used in the PARA). df = detection frequency; MDL = method detection limit. "Nationwide 2015" data from Sadaria et al. 2016; "Oregon 2010" data from Hope et al. 2010.

The higher concentrations reported in northern California POTWs likely reflect real differences between these communities and those monitored in the nationwide study. The northern California study was conducted during a severe drought that triggered water use restrictions throughout the study area and significant reductions in POTW influent flows. Its September timing coincides with what may be the peak pet flea control season in the study area. According to Sadaria et al 2017:

> "Higher overall concentrations and detection frequencies in effluent from northern California may reflect regional, seasonal, and/or climate-related differences from other sampled facilities, such as lower dilution caused by drought-related water use reductions, presence of pests during all seasons because of the mild coastal climate, and pesticide use responding to regional pest pressures (e.g., high flea populations in California coastal areas)."

BACWA requests that U.S. EPA imidacloprid modeling and mitigation approaches account for these factors. Please see BACWA's comments on the Preliminary Ecological Risk Assessment

for the Pyrethroid Insecticides (enclosed), where we detailed potential approaches for addressing these factors within U.S. EPA's current POTW model.

California Department of Pesticide Regulation (CDPR) is in the process of completing a collection system ("sewershed") study with the City of Palo Alto's Regional Water Quality Control Plant. Preliminary results from the pet-grooming site provide evidence that pet washing is a pathway for imidacloprid discharges to sewer systems (See http://www.cdpr.ca.gov/docs/emon/surfwtr/presentations/presentation_130_targeted.pdf). We encourage OPP to obtain the final results of this study, which should be available in 2017.

1) BACWA requests that the PARA be expanded to include an evaluation of sewer discharges from pet flea control treatments and other indoor imidacloprid uses

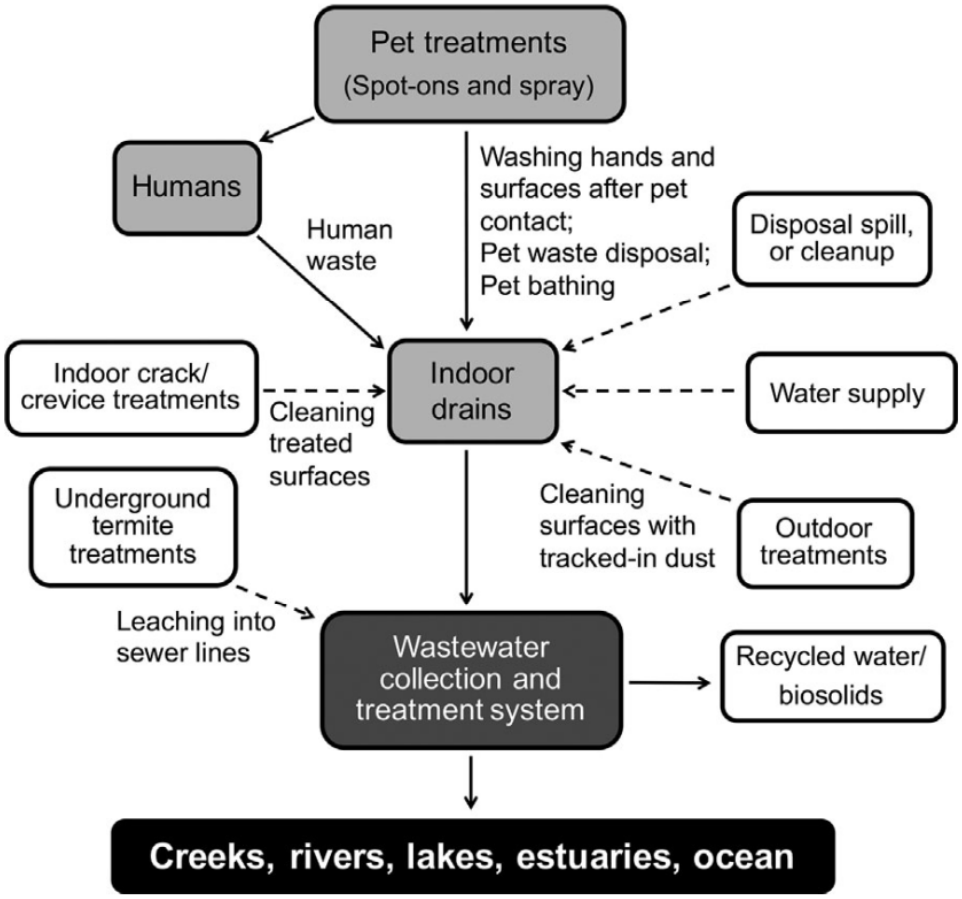
BACWA is concerned that risks associated with indoor imidacloprid use were not examined in the PARA and respectfully asks the U.S. EPA to include this analysis (a "down the drain" risk assessment) in the revised assessment. U.S. EPA has POTW predictive modeling tools to suitable for conducting this assessment and has conducted similar assessments for many other pesticides.

We request that U.S. EPA specifically analyze sewer discharge sources such as:

- Pet flea control products (including spot-ons and collars)
- Indoor treatments (such as crack/crevice, sprays for ant and roaches, bedbug treatments, houseplant treatments, etc.)
- Direct use of imidacloprid inside sewers and manholes

Based on product labels and information in the literature, Sadaria et al 2017 developed a detailed conceptual model linking imidacloprid use patterns (such as the sources listed above) and the transport pathways by which imidacloprid reaches the wastewater collection system. Due to its myriad of uses, imidacloprid has many pathways by which it can be transported, as shown in Figure 2.

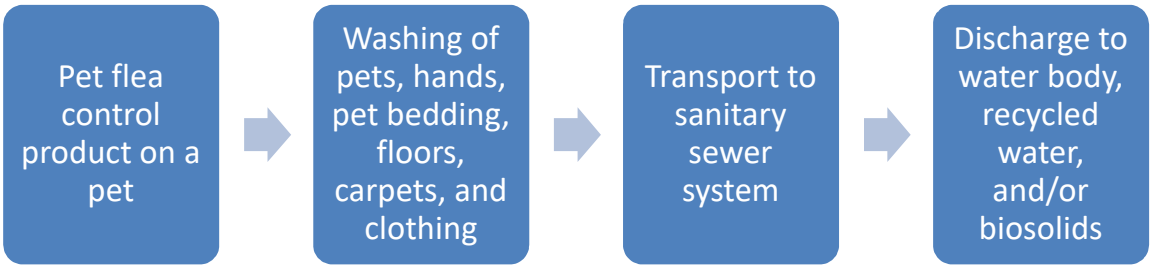
Figure 2. (from Sadaria et. al. 2017)
Conceptual Model of Sources of Imidacloprid in Municipal Wastewater



Note: Dashed lines denote pathways believed to be relatively small in the present study. Uses without a clear pathway (e.g., containerized baits) and with unlikely pathways (e.g., air transport and deposition) are excluded from the figure.

As explained in Appendix 1, pet flea control products contribute to POTW influent pesticides loads. Pet flea control chemicals are transported within a home to an indoor drain that flows to a POTW via the pathways illustrated in Figure 3.

Figure 3. Imidacloprid Pathway: From Pet to Wastewater Discharge



Scientific studies described above and those detailed in Appendix 1 examined the pathways that transport active ingredients from pet flea control products to the sewer system, both directly (through dog washing) and indirectly (such as after transfer onto human hands or socks that are

subsequently washed). Based on the data from these studies and pet population data, it is clear that pet flea control products are significant sources of pesticides to POTWs that should be accounted for in the PARA.

2) BACWA Requests that U.S. EPA Pursue Risk Mitigation for Imidacloprid

Because imidacloprid concentrations reported in undiluted POTW effluents exceed the aquatic invertebrates chronic toxicity endpoints used in the PARA, we expect that the "down-the-drain" risk assessment will likely conclude that risk mitigation is warranted to reduce POTW imidacloprid discharges. Because 100% of POTWs must comply with the Federal Clean Water Act 100% of the time, whenever U.S. EPA identifies significant risks from pesticides discharged to POTWs, BACWA believes that a robust exploration of risk mitigation is imperative.

In response to the finding that pet flea control products are major sources of pesticides to POTWs, BACWA completed an assessment of pet flea control alternatives. This assessment, which is summarized in Appendix 2, identified multiple practical, effective, non-pesticide alternatives.

In light of these findings, BACWA requests that OPP conduct its risk-benefit evaluation for pet flea control products as a group (i.e. considering pyrethroids and fipronil, which are also undergoing Registration Review) and in the context of the broad range of available non-pesticide alternatives, including FDA-approved oral medications and mechanical controls (e.g., vacuuming, washing of pet bedding).

While we agree that pet flea and tick control has societal benefits, our review of control options detailed in Appendix 2 identified plentiful alternatives that are far less environmentally problematic than imidacloprid. For example, the new generation of FDA-approved orals seems to be more convenient, equally or more effective, and well accepted by pet owners and veterinarians. Mechanical controls (vacuuming, washing of pet bedding) offer lower cost and greater long-term control as these are the sole option that addresses all life cycle stages of fleas. Finally, we emphasize that we do <u>not</u> believe that fipronil or pyrethroids are good alternatives to imidacloprid.

BACWA suggests that U.S. EPA consider the following additional risk mitigation strategies for indoor imidacloprid products:

- Determine the minimum application rate necessary to achieve pest control. This would eliminate unnecessary overuse and minimize POTW discharge quantities.
- Consider adding wastewater-protective use restrictions to product labels—such as forbidding use of imidacloprid directly in sewers and dissuading pet owners from washing their pets for two weeks after applying treatments. (See Appendix 3 for details)

Thank you for the opportunity to provide this feedback regarding both the risk assessment and subsequent mitigation strategies. We ask that OPP evaluate imidacloprid discharges to POTWs and fully explore mitigation options, particularly for pet flea control products. BACWA requests that U.S. EPA coordinate with CDPR (which has extensive relevant information and expertise), veterinarians, and registrants; bring in the latest scientific information – including CDPR scientific studies and modeling that are currently underway; and develop mitigation strategies for

imidacloprid. If you have any questions, please contact BACWA's Project Managers:

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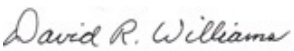
Respectfully Submitted,



David R. Williams
Executive Director
Bay Area Clean Water Agencies

Enclosures:

1. Sadaria, A.M. et al. 2017. Passage of Fiproles and Imidacloprid from Urban Pest Control Uses Through Wastewater Treatment Plants in Northern California. *Environmental Toxicology and Chemistry*. 36 (6), 1473-1482.
2. Sadaria A.M., Supowit SD, Halden RU. 2016. Mass balance assessment for six neonicotinoid insecticides during conventional wastewater and wetland treatment: Nationwide reconnaissance in United States wastewater. Environ Sci Technol 50:6199–6206.
3. Hope BK, Pillsbury L, Boling B. 2012. A statewide survey in Oregon (USA) of trace metals and organic chemicals in municipal effluent. Sci Total Environ 417–418:263–272.
4. Bigelow Dyk, M. et al. (2012). Fate and distribution of fipronil on companion animals and in their indoor residences following spot-on flea treatments, *Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes*, 47(10): 913-924
5. Halos, L. et al. 2014. Flea Control Failure? Myths and Realities. *Trends in Parasitology*, 30:5 228-233.
6. Blagburn, B., and Dryden, M., Biology, Treatment, and Control of Flea and Tick Infestations, *Vet Clin Small Anim*, 2009, Vol 39, pp 1173-1200.
7. Litchfield et al., Safety Evaluation of Permethrin and Indoxacarb in Dogs Topically Exposed to Activyl® Tick Plus, *J Veterinar Sci Technology* 2015, 6:2.
8. Teerlink, J., J Hernandez, R Budd. 2017. Fipronil washoff to municipal wastewater from dogs treated with spot-on products. Sci Total Environ 599-600: 960-966.
9. Craig, M.S., Gupta, R.C., Candery, T.D., Britton, D.A. Human Exposure to Imidacloprid with Dogs Treated with Advantage ™. 2005. Toxicology Mechanisms and Methods, 15: 287–291.
10. Bay Area Clean Water Agencies (BACWA). July 7, 2017.Comment Letter on U.S. EPA Preliminary Ecological Risk Assessment for the Pyrethroid Insecticides.

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Appendix 1

On-Pet Flea Treatments: Evidence for the Pathway to the Sewer

Part I – Evidence for the Pathway to the Sewer

There is mounting evidence that pesticides from pet flea control products (spot-ons and collars) have exposure pathways to the sewer. The research summary below is organized first by the consumer use, followed by specific studies throughout a sewage collection system and at POTWs.

Pet Flea Control Products - Background

The pesticidal mode of action for imidacloprid collars and spot-ons is topical in nature, not systemic.[1] These topical treatments are designed to impact one or more stages of the flea cycle through direct contact with the pesticide (rather than an adult flea biting the pet and obtaining the pesticide systemically with the consumed blood). Imidacloprid is an adulticide—it targets adult fleas; but it has been shown to have a larvicidal effect.[2] Therefore, pesticides in topicals and collars are not meant to enter the pet's bloodstream but rather are meant to stay on the pet's fur in order to be effective.

Pet Flea Control Products – Sewer Discharge Pathways

Several scientific studies have examined the transport of active ingredients from pet flea control products onto surfaces, such as human hands, that are subsequently washed, completing a transfer pathway to the sewer system.

- *Spot-on-treatment to glove (hands) and dogs' blood pathway:* A 2005 study by Craig et al. demonstrated that a transferable residue of imidacloprid—from application of a spot-on treatment on the dogs' neck and back—can be detected for up to four weeks.[3] Residues were evident in the dogs' blood for up to 72 hours after application, which indicate that imidacloprid can have a systemic mode after topical application, but that is not the primary mode of action. This study reinforces the knowledge that imidacloprid affects fleas by persisting in the environment, rather than being continually emitted by the dogs' bodies. It also documented the levels of imidacloprid that persist on the dog after application: 254.16±25.49 ppm at the 24-hour mark to 0.08±0.02 ppm at the four week mark.

- *Spot-on treatment product to glove (hands) pathway:* A 2012 study by Bigelow Dyk et al. presents additional evidence of transport of pet flea control products onto human hands and through homes.[4] In the study, researchers monitored transfer of fipronil (from a

[1] McTier, T., et al., Comparison of the activity of selamectin, fipronil, and imidacloprid against flea larvae (Ctenocephalides felis felis) in vitro, Veterinary Parasitology, Vol. 116, pp 45-50, 2003.
[2] Biology, Treatment, and Control of Flea and Tick Infestations, Blagburn, B., and Dryden, M., Vet Clin Small Anim, 2009, Vol 39, pp 1173-1200. (enclosed)
[3] Craig, M.S., Gupta, R.C., Candery, T.D., Britton, D.A. Human Exposure to Imidacloprid with Dogs Treated with Advantage ™. 2005. Toxicology Mechanisms and Methods, 15: 287–291. (enclosed)
[4] Bigelow Dyk, M., et al. (2012) Fate and distribution of fipronil on companion animals and in their indoor residences following spot-on flea treatments, Journal of Environmental Science and Health, Part B: Pesticides, Food

commercially available spot-on product) onto pet owners' hands and within their homes over a four-week period following spot treatment application. Participants used cotton gloves to pet their dog or cat for 2 minutes at a time at specific intervals after the application (24 hours, 1 week, 2 weeks, 3 weeks, and 4 weeks). Participants also wore cotton socks for 2 hours a night for 7 nights in a row, for four consecutive weeks following application. The gloves, socks, and brushed pet hair were subsequently analyzed for fipronil and its degradates. Bigelow Dyk and colleagues also incorporated a fluorescent dye into the spot treatment to provide photographic evidence of spot-on pesticide transfer. The photographic results shown in the paper illustrate the transfer from the application location to other areas of the pet's fur and onto the pet owners' hands.

- *Spot-on treatment product to glove (hands) pathway*: A 2015 study by Litchfield et al. evaluated the transfer of permethrin and indoxacarb from a topical pet flea control treatment to people's hands.[5] In the study, the topical treatment was applied to dogs that had not received a topical treatment for at least two months. To simulate human exposure to the pesticides, "Glove sampling included the wipe sampling technique, which consisted of petting the dog forward and back along its back and sides, while avoiding the application site, for five minutes while wearing a 100% cotton glove." The cotton glove samples were collected at days 0, 1, 2, 3, 7, 14, 21, 28, and 35. While the results showed that the largest mass of permethrin was transported within the first week, there continued to be measurable transfer to the gloves, even at day 35.

- *Pet collar to glove (hands) pathway*: One such study by Davis et al. quantified glove transfer of tetrachlorvinphos from pet collars.[6] We understand that the U.S. EPA team reviewing tetrachlorvinphos (EPA-HQ-OPP-2008-0316) has examined this paper and is planning to use the glove residue data following feedback from the U.S. EPA's Human Subjects Review Board.[7]

- *Human contact to human urine pathway*: A 2015 study of human urine from 295 human participants in China detected imidacloprid in 100% of rural participants and 95% of urban participants.[8] Urine from rural participants had an average level of 0.18 ng/mL while urine from urban participants had an average of 0.15 ng/mL. Although this study did not look specifically at pet flea control treatments, it did show that imidacloprid is commonly found in human urine, establishing another pathway to the sewer. In non-rural areas, based on the human exposures to pet flea control treatments documented in the papers summarized above, it is likely that one of the key sources of imidacloprid in human urine is from pet flea control products.

Contaminants, and Agricultural Wastes, **47**(10): 913-924

[5] Litchfield et al., "Safety Evaluation of Permethrin and Indoxacarb in Dogs Topically Exposed to Activyl® Tick Plus," J Veterinar Sci Technology 2015, 6:2 http://dx.doi.org/10.4172/2157-7579.1000218. (enclosed)

[6] Davis, M., et al. (2008). "Assessing Intermittent Pesticide Exposure From Flea Control Collars Containing the Organophosphorus Insecticide Tetrachlorvinphos," *J. of Exposure Science and Environ. Epidemiology* **18:**564-570.

[7] https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0316-0040

[8] Wang, L., Liu, T., Liu, F., Zhang, J., Wu, Y., and Sun, H. 2015. Occurrence and Profile Characteristics of the Pesticide Imidacloprid, Preservative Parabens, and Their Metabolites in Human Urine from Rural and Urban China. Environ. Sci. Technol. 2015, 49, 14633−14640.

Based on the data from these studies characterizing topical flea control active ingredient transfer to owners' hands[9] and per capita pet population data, owner hand washing as well as washing of clothing and mopping of floors could be a significant source of pesticides to POTWs.[10]

Evidence from Collection Systems

CDPR is in the process of completing a collection system ("sewershed") study within the City of Palo Alto's Regional Water Quality Control Plant.[11] The study involved twenty-four hour time weighted composite samples (influent, effluent, and ten sites in the collection system). Samples were collected from several discharge-specific sites with potential for relatively large mass flux of pesticides (i.e., discharges from pet grooming operation, pest control operator, and a laundromat). The samples were analyzed for a suite of pesticides, including imidacloprid. Preliminary results from the pet-grooming site provide evidence that pet washing is a pathway for imidacloprid discharges to sewer systems

We encourage OPP to obtain the final results of this study, which should be available within the timeframe of OPP's exploration of mitigation strategies for imidacloprid.

POTW Influent and Effluent

Lastly, further insights regarding transport of indoor flea control products to POTWs comes from a study of fipronil and imidacloprid at eight POTWs that was recently conducted by the San Francisco Bay Regional Monitoring Program in collaboration with BACWA, CDPR and Arizona State University.[12] The study monitored imidacloprid and fipronil, as well as its degradates, in the influent and effluent of eight urban California POTWs. The results indicated that fipronil, its degradates, and imidacloprid were ubiquitous in the influent sewage and final treated effluent of all eight participating POTWs, and – based on a detailed analysis of the sewer discharge sources of these two chemicals, which have relatively little indoor use other than pet flea control – provide compelling evidence that pet flea control products may be the primary source of both chemicals in wastewater. A copy of this paper is enclosed.

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[9] Bigelow Dyk, M., et al. (2012) Fate and distribution of fipronil on companion animals and in their indoor residences following spot-on flea treatments, Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes, **47**(10): 913-924

[10] Sadaria, A.M., Sutton, R., Moran, K.D., Teerlink, J., Brown, J.V., Halden, R.U., 2017. Passage of fiproles and imidacloprid from urban pest control uses through wastewater treatment plants in northern California, USA. Environ. Toxicol. Chem. 36:6 1473-1482.

[11] See http://www.cdpr.ca.gov/docs/emon/surfwtr/presentations/presentation_130_targeted.pdf

[12] Sadaria, A.M., Sutton, R., Moran, K.D., Teerlink, J., Brown, J.V., Halden, R.U., 2017. Passage of fiproles and imidacloprid from urban pest control uses through wastewater treatment plants in northern California, USA. Environ. Toxicol. Chem. 36:6 1473-1482.

Appendix 2

Pet Flea Control Products: Alternatives Analysis

Alternatives and Mitigation

BACWA requests that U.S. EPA, in coordination with CDPR (which has extensive relevant information and expertise), veterinarians, and registrants, develop mitigation strategies for pet flea control products, including spot-ons and collars. Two specific topics are discussed below, as an effort to provide insight regarding mitigation options for flea control:

- Alternatives: oral medications and integrated pest management appear effective
- Optimization of application rates of pet flea control products

Alternatives: Integrated Pest Management and Oral Medications
Mechanical controls (e.g., vacuuming) appear to be key to avoiding a flea infestation in a home. Further, since the previous registration, there is now an opportunity provided by non-imidacloprid/non-pyrethroid oral treatments that have come on the market in recent years (available for both dogs and cats) that could avoid the on-pet use of not only imidacloprid, but also alternatives that are problematic from the water quality perspective (e.g., fipronil, pyrethroids, and indoxacarb).

The fleas found on a pet are estimated to represent only 1-5% of the flea cycle in a home; the other 95% are found as eggs, larvae, pupae, and adult fleas throughout the home and surrounding environment.[13] It takes about 18 days for a flea egg to grow into an adult flea, but in cool weather immature fleas can lay dormant in a pupal cocoon for up to 1 year. Adult fleas can live on a pet for 30 to 40 days. Fleas lay 20 to 50 eggs each day; consequently flea problems in residential settings can get out of control quickly.

Therefore, to avoid repeat infestations, one must address all stages of this flea cycle including flea eggs, larvae and pupae.[14] One way to do so is via non-pesticide mechanical controls, including frequent indoor vacuuming, washing of pet bedding, and use of a pet flea comb.[15] In particular, vacuuming needs to be both thorough and frequent. It should include the pet sleeping area, floors, furniture and all upholstered or carpeted surfaces, including under cushions, furniture and in other hard to reach places. Regarding frequency, it turns out that during the pupal stage, the flea is encased in a shell that is not penetrated by pesticides. The act of vacuuming can speed up the process. Specific guidance from one study notes the following:

> *"The vibration also stimulates adult fleas to emerge from their cocoons so that they can be collected in the vacuum machine. Therefore, frequent vacuuming, during a flea infestation, can reduce the overall flea burden in the home. It should be ensured that vacuum bags are disposed of properly, to prevent recolonization of the home with flea stages previously removed by vacuuming."* [16]

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[13] Halos, L., et al. (2014). Flea Control Failure? Myths and Realities. Trends in Parasitology, 30:5 228-233.
[14] Ibid, 228-233.(enclosed)
[15] American Veterinary Medical Association (2009). External Parasites.
[16] "Biology, Treatment, and Control of Flea and Tick Infestations," Blagburn, B., and Dryden, M., Vet Clin Small Anim, 2009, Vol 39, pp 1173-1200. (enclosed)

Although spot-on pet flea control products currently dominate the pet flea control market, new oral medications have recently become available. The table on the following page summarizes the current state of available oral medications for pets. The new pills, which are registered by U.S. FDA rather than U.S. EPA, appear to eliminate aquatic (and human) exposure pathways and should be equally or more convenient for pet owners, once they have obtained a prescription from a veterinarian. The involvement of the veterinarian has the added benefit of providing pet-specific guidance on flea control approach and safe dosage. Some studies indicate that oral medications may be more effective than topical spot treatments possibly because there is less reliance on proper application by the owner.[17]

[17] "Flea blood feeding patterns in cats treated with oral nitenpyram and the topical insecticides imidacloprid, fipronil and selamectin," McCoy, c., et al., Veterinary Parasitology, Vol. 156, pp 293-301, 2008.

List of Currently Available Oral Pet Treatments for Fleas (Alphabetical)

Active Ingredient	Example Product Names and Manufacturers	Dogs, Cats or Both?	Flea, Tick, Both	Dose Schedule	Adulticide?	Insect Growth Regulator?	Chemical Family	Year Registered
Afoxolaner	Nexgard (Merial)	Dogs only	Both	1 month	X	No	Isoxazoline[18]	2013
Fluralaner	Bravecto (Merck)	Dogs only	Both	2-3 months	X	No	Isoxazoline	2014
Lufenuron	Program (Novartis) and Sentinel (that also includes a heartworm pharma)	Both	Flea eggs, as well as hookworms, roundworms	1 month	No	X	Benzoylurea	1995 (for dogs)
Nitenpyram	Capstar (Novartis), Capguard (Sentry)	Both	Flea	A few hours only (meant for immediate infestation control)	X	No	Neonicotinoid	2000
Sarolaner	Simparica (Zoetis, a subsidiary of Pfizer)	Dogs only	Both	1 month	X	No	Isoxazoline	2016
Spinosad	Comfortis and Trifexis (Elanco)	Both	Flea	1 month	X	No	Spinosyn, macrocyclic lactone	2007 (approx)

[18] Flea products from the isoxazoline chemical family are new to the marketplace; therefore pet health insights are largely limited to the studies conducted by the manufacturers and the packaging text required by the FDA. There appears to be no published information about health and safety beyond the manufacturer guidance in the MSDS. Due to the application method (pill), human exposure is likely small, though no data are available to verify this assumption.

Optimization of Application Rates of Pet Flea Control Products

Another consideration for pet flea control products is that of application rate. Given that these household and pet flea control products have a transport pathway to the sewer, it would be of great interest to understand whether manufacturers have optimized the amounts applied. While spot-ons and collars do come in different sizes based on pet weight, it is unclear whether that optimization was based solely on pet health or whether that is also the minimum dosage for effective insecticidal activity.

Appendix 3

Suggested Imidacloprid Product Label Improvements

In this attachment, BACWA respectfully submits suggested concepts and goals for upgrades to the existing imidacloprid labels. Our suggestions come from our expertise as environmental scientists and engineers. As we are not pest control experts, we are not intending to provide specific label language, and recognize that these suggestions should be vetted by pesticide regulators and users.

To clarify some of our suggestions, we have included sections of current labels in boxes below.

1. Pet treatments: (U.S. EPA Registration Numbers 11556-117, -122, -118, -119, -120, -116, 11556-132, -134, -133, -135, etc.)

Examples of Current Label Language (excerpts)

> Advantage is waterproof and remains effective following a shampoo treatment, swimming or after exposure to rain or sunlight.

> K9 Advantix® is waterproof and remains effective following a shampoo treatment, swimming or after exposure to rain or sunlight.

Suggested change: Remove all label language that encourages washing and water exposure of treated pets. Label statements such as “waterproof” should be removed. All labels should dissuade owners from washing their pets for at least 2 weeks after treatment.

2. Sewer and manhole treatments: (U.S. EPA Registration Numbers 72155-70, 73079-10, 73079-14)

Example of Current Label Language (excerpt)

WHERE TO USE	• Kitchens - Cupboards, Dishwashers*, Garbage Cans, Refrigerators*, Stoves*. • Bathrooms - Bathtubs*, Garbage Cans • Laundry Rooms - Drains, Laundry Tubs*, Washing Machines* • Basements, Garages, Outdoor Areas - Drains, Garbage Cans, Laundry Tubs*, Manholes, Pipe Collars, Sewers, Washing Machines*, Water Pipes* • General - Cabinets, Closets, Counters, Cracks, Crevices, Shelving, Sinks * Do not apply bait inside these items. Locate behind or under item.

Suggested change: disallow all usage inside sewers, storm drains, or inside manholes.

3. Houseplant treatments: (U.S. EPA Registration Number 53883- 217)

Example of Current Label Language (excerpt)

FOR RESIDENTIAL USE ONLY

- Kills birch leaf miner
- Highly effective, Lasting protection
- No spraying…no mess
- Promotes strong roots and beautiful blooms
- For use in potted plants
- Long lasting, effective protection
- Protects plants from damage by Aphids, Scale, Whiteflies and other listed insects
- Even new growth is protected against insects for up to 8 weeks.
- For containerized plants
- Protects plants from damaging insects for up to 2 months

APPLICATION INSTRUCTIONS

For best results, apply IMI 0.22 G Plant Granules evenly, cultivate lightly, and water thoroughly. For containerized plants, apply the appropriate amount of granules evenly to the top of the soil. Mix the granules thoroughly into the top layer of the soil making sure not to damage the upper roots. Water in thoroughly. To help assure that the roots can absorb the insecticide, do not water too heavily for the first 10 days. Work granules into top 1 to 2 inches of soil. For flower beds, sprinkle granules evenly over the bed.

Suggested changes: add statement discouraging over-watering and forbidding discharge of water from treated houseplants in indoor sinks or baths, or anywhere that would allow water to runoff from the houseplant into the drain.

July 24, 2017

Sandra O'Neill
Pesticide Re-evaluation Division
Office of Pesticide Programs (OPP)
Regulatory Public Docket Center (28221T)
U.S. Environmental Protection Agency (U.S. EPA)
1200 Pennsylvania Ave., NW.
Washington, DC 20460–0001

Subject: Boric Acid/Sodium Salts Registration Review - Proposed Interim Decision (EPA–HQ–OPP–2009–0306)

Dear Ms. O'Neill:

On behalf of the Bay Area Clean Water Agencies (BACWA), we thank you for the opportunity to comment on the Proposed Interim Decision for boric acid/sodium salts, which is used in swimming pools, spas, and hot tubs. BACWA's members include 55 publicly owned wastewater treatment facilities and collection system agencies serving 7.1 million San Francisco Bay Area residents. We take our responsibilities for safeguarding receiving waters seriously.

BACWA is not concerned about boric acid/sodium salts discharges to sanitary sewers. Our comments focus on the proposed language about draining pools, space, and hot tubs containing sodium borate salts. We are writing to request that the boric acid/sodium salts decision follow the precedent for improved labels for swimming pool, spa, and hot tub products that was established by the decision for another pool, spa, and fountain chemical (lithium hypochlorite). In that registration review decision, EPA worked carefully through the various issues to develop practical label language to mitigate possible aquatic impacts from treated pool, spa, and hot tub water. We appreciate that the lithium hypochlorite language is designed to help prevent excess flows in sewer collection systems.

The current proposal for boric acid/sodium salts pool, spa, and hot tub products omits the second sentence of the two-sentence requirement that is on the lithium hypochlorite products:

> "Before draining a treated pool, spa, or hot tub, contact your local sanitary sewer and storm drain authorities and follow their discharge instructions. Do not discharge treated pool or spa water to any location that flows to a gutter or storm drain or natural water body unless discharge is allowed by state and local authorities."

We encourage EPA to include the full two sentences on labels for boric acid/sodium salts and all other pesticide chemicals used in pools, hot tubs, spas, and fountains.

We have attached our comment letter on the proposed registration review decision for lithium hypochlorite, which details the importance of the discharge control label language – including the discharge prohibition in the second sentence. Although the final lithium hypochlorite language is not exactly as we proposed in our letter, we fully support the final language.

For all swimming pool, spa, and hot tub products including those containing boric acid/sodium salts, we also recommend that the "Environmental Hazards" label statements be applied on the basis of product end use rather than product size. This would mimic EPA's decision for lithium hypochlorite products. As explained in our attached lithium hypochlorite comments, this approach avoids potential conflicting language on product labels.

In summary, thank you for a thoughtful analysis of possible acute impacts to aquatic life, for considering the implications of sewer discharges, and for including water quality protection language on the labels for this antimicrobial product. We request minor modifications to EPA's decision for boric acid/sodium salts swimming pool, spa, and hot tub product to mimic its decision on similar lithium hypochlorite products. We hope this is just the beginning of a potential larger effort to incorporate such language on all labels for antimicrobials and conventional pesticides used in pools, spas, hot tubs, and fountains.

Thank you for your consideration of our comments. If you have any questions, please contact BACWA's Project Managers:

Karin North
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(650) 329-2104
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Melody La Bella
Central Contra Costa Sanitary District
(925) 229-7370
mlabella@centralsan.org.

Respectfully Submitted,

David R. Williams

David R. Williams
Executive Director
Bay Area Clean Water Agencies

Enclosure: BACWA's September 9, 2016 Letter to Lithium Hypochlorite Registration Review, Proposed Interim Decision, Case # 3084 (EPA–HQ–OPP–2013–0606).

cc: Rick P. Keigwin, Jr., Acting Director, EPA Office of Pesticide Programs
Tracy Perry, EPA OPP Pesticide Re-Evaluation Division
Steve Knizner, Director, Antimicrobials Division, EPA OPP
Rose Kyprianou, Antimicrobials Division, EPA OPP
Andrew Sawyers, Director, EPA Office of Water, Office of Wastewater Management
Tomas Torres, Director, Water Division, EPA Region 9
Debra Denton, EPA Region 9
Patti TenBrook, EPA Region 9
Karen Larsen, Deputy Director, California State Water Resources Control Board

Philip Crader, Assistant Deputy Director, California State Water Resources Control Board
Paul Hann, California State Water Resources Control Board
Dawit Tadesse, California State Water Resources Control Board
Matthew Freese, California State Water Resources Control Board
Tom Mumley, California Regional Water Quality Control Board, San Francisco Bay Region
Janet O'Hara, California Regional Water Quality Control Board, San Francisco Bay Region
James Parrish, California Regional Water Quality Control Board, San Francisco Bay Region
Jennifer Teerlink, California Department of Pesticide Regulation
Nan Singhasemanon, California Department of Pesticide Regulation
Kelly D. Moran, Urban Pesticides Pollution Prevention Partnership
Chris Hornback, Chief Technical Officer, National Association of Clean Water Agencies
Cynthia Finley, Director, Regulatory Affairs, National Association of Clean Water Agencies
BACWA Pesticides Workgroup
BACWA Executive Board

Regional Sidestream Nutrient Removal Study

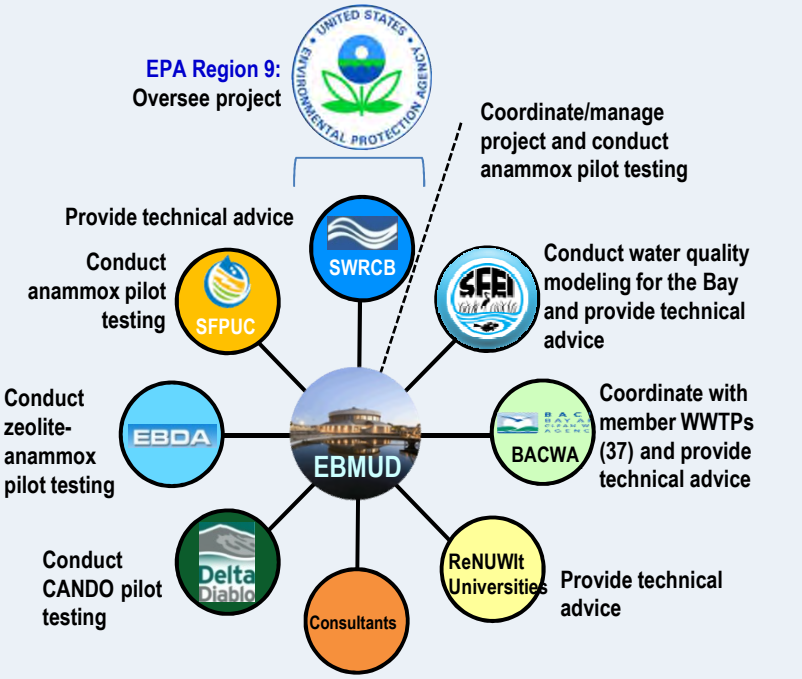
Reducing Nutrients In The San Francisco Bay Through Supplemental Sidestream Treatment at Wastewater Treatment Plants (WWTPs)

SUMMARY

A growing body of evidence suggests that the historic resilience of the San Francisco Bay (Bay) to nutrient enrichment could be weakening. This recently completed study evaluated nutrient load reduction strategies via "sidestream" treatment at WWTPs which contribute ~65% of the nutrient load to the Bay. Pilot testing of four innovative nutrient removal technologies was conducted by multiple agencies and potential nutrient load reductions, costs, and water quality impacts were quantified.

Implementing Organization

The East Bay Municipal Utility District (EBMUD), U.S. EPA, the San Francisco Bay Regional Water Quality Control Board (RWQCB), and other project partners shown below.



Sidestreams are internal waste streams cycled within the plant) typically account for 15 to 20 percent of the nutrient load in the WWTP discharge, but less than 1 percent of plant flow. The concentrated nature of this flow can make nutrient removal or recovery from sidestreams a cost-effective option.

Location

Bay-wide scope and application. Findings inform Bay Area regulators, scientists, and 37 WWTPs.

Nutrient removal pilot studies conducted at six Bay Area WWTPs (shown as stars)

Nominated by

David Williams
Executive Director
Bay Area Clean Water Agencies (BACWA)
(415) 404-8303, dwilliams@bacwa.org

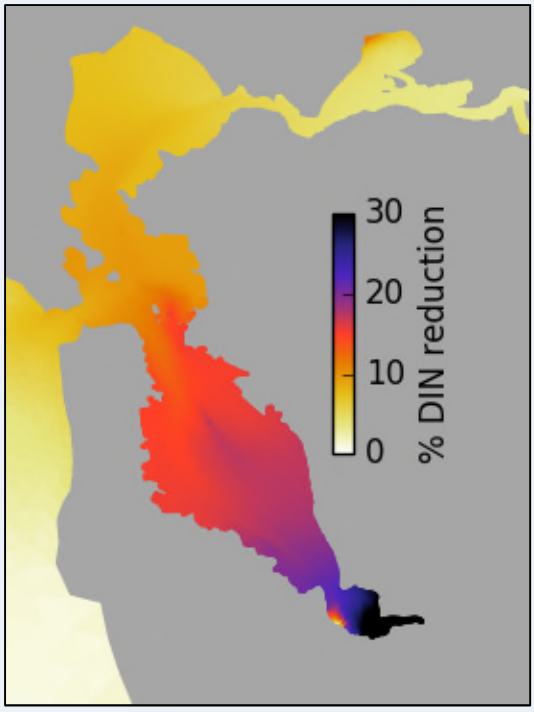
Project Representative: Dr. Yun Shang, Senior Engineer, (510) 287-1160, yshang@ebmud.com
East Bay Municipal Utility District, 375 11th St., MS702, Oakland, CA 94501

Project Description

Over seven million people live in the Bay area, generating a significant amount of nutrient loading to the Bay through wastewater discharges. Excess nutrients affect water quality in many estuaries around the world. Nutrient discharges to the Bay have become an increasing concern for regulators, scientists, environmental organizations, and the wastewater community in the Bay Area. The Regional Sidestream Nutrient Removal Study was a proactive effort (not required by regulatory mandate) to examine the potential benefits and possible challenges of implementing new nutrient removal technologies at Bay Area WWTPs.

Findings of the study include:

- The pilot studies showed that new cost-effective nitrogen removal technologies (anammox) can be used to treat nutrient-rich sidestreams
- 25 of the 37 WWTPs discharging to the Bay are potential candidates for sidestream treatment
- Sidestream treatment at the 25 candidate plants would result in an up to 20% decrease in total wastewater nitrogen loading to the Bay
- Capital and operations & maintenance costs for sidestream treatment (~$600+M) are significantly lower than for whole plant upgrades (~ $5–10B)
- The high-level challenges and opportunities for developing and implementing a watershed-based nutrient trading program were identified, compared to a "command-and-control" approach



Predicted percent reduction in Dissolved Inorganic Nitrogen (DIN) from Sidestream Treatment Implementation by WWTPs

ESTUARY BLUEPRINT CCMP GOALS

- ✓ **Sustain and improve the Estuary's habitats and living resources**
- ✓ **Bolster the resilience of Estuary ecosystems, shorelines, and communities to climate change**
- ✓ **Improve water quality and increase the quantity of fresh water available to the Estuary**
- ✓ **Champion the Estuary**
  - OBJECTIVES
  - j. Build public support for the protection and restoration of the Estuary
  - k. Strengthen regional leadership in support of Estuary health
  - ★ **l. Promote efficient and coordinated regional governance**

Estuary Blueprint Goal or Objective Met

This study meets many of the goals and objectives of the Estuary Blueprint in that is part of a holistic effort to understand nutrient impacts in the Bay. Although it is not yet known whether the Bay is nutrient impaired or if additional regulatory limits will be created for nutrients, projects like the Regional Sidestream Nutrient Removal Study are essential for helping regulators and wastewater agencies prepare for the future, especially in light of uncertain impacts of climate change on the Bay's ability to assimilate nutrients.

Because of the high degree of interagency collaboration, this study meets the goal of "Champion the Estuary" and particularly the objective "Promote efficient and coordinated regional governance". The Study enjoyed strong and essential participation from regulators, scientists, wastewater agencies, and non-profit environmental organizations. This coordinated effort sets a precedent for joint fact-finding of best solutions on Bay nutrients and other water quality issues. It will help ensure that future nutrient management efforts are protective of Bay ecosystems while also being implemented in a cost-effective and environmentally sustainable manner.

Meeting Date: August 2, 2017
Executive Board Meeting Date: August 18, 2017
Prepared By: Lorien Fono, BACWA RPM
BAPPG Chair: Doug Dattawalker

Committee Notes are available online.

Regional Water Board Update
The Water Board reorganized its staff. Debbie Phan will participate in BAPPG meetings as the Water Board representative and Committee Co-chair.

Steering Committee Update
Karin North and Melody LaBella will receive this year's P2 award on September 13. CASQA will hold its annual conference in Sacramento September 25-27

Outreach Update
Agencies split into groups based on their agencies' average dry weather flow. Groups listed all potential pollutants of concern on the whiteboard. Meeting attendees discussed and refined the priorities, and individual members voted on their most important pollution prevention priorities. The pollutants and campaigns identified for outreach and advocacy funding in the next fiscal year were:

- FOG
- Toilets Aren't Trashcans
- Pesticides
- Pharmaceuticals
- Wipes

There was a discussion that the committee should fund translation of existing materials. Additionally, some level of funding needs to continue copper-related outreach, since it is a requirement of the copper action plan that is implemented via permits.

Next BAPPG Meeting

BAPPG General Meeting
October 4, 2017: 10:00am-12:00pm
1515 Clay Street, Second Floor, Room 12
Oakland, CA

Biosolids Committee – Report to BACWA Board

Biosolids Committee meeting on: July 20, 2017
Executive Board Meeting Date: August 18, 2017
Committee Chair: Alicia Chakrabarti and Ravi Krishnaiah

Committee Request for Board Action: None.

Agenda Item : Pelletizer Facility Tour

- Synagro gave brief introduction to their pelletizer facility that has been in operation since September 2004. This facility accepts approximately 25% of the Sacramento Regional County Sanitation District's (SRCSD's) digested sludge and, per the handout provided, has a rated capacity of 10,000 dry TPY. Currently the facility is producing 7,300 TPY. Synagro is under contract with SRCSD until 2024.
- Synagro gave us a tour of their facility and walked us through the pelletizer process. The process is as follows:
  - Digested sludge from SRCSD is pumped to the Pelletizer Facility at 1.5 percent to 2 percent solids where it is stored in a mixed sludge storage tank.
  - From there, the sludge is pumped to dewatering centrifuges where it is dewatered to 20 to 25 percent solids and then mixed with undersized seed pellets to increase the solids content.
  - This mixture is sent to a triple pass dryer drum and then to the pelletizer.
  - Pellets are then screened for size, coated in mineral oil to minimize dust, and cooled with secondary effluent from a temperature of 200 degrees Fahrenheit to a maximum temperature of 110 degrees Fahrenheit.
  - Finished pellets have a solids content of 95 percent and are stored onsite before they are trucked to the facility's year-round customer to be land applied as a fertilizer. While up to 400 tons can be stored, there are concerns about overheating and fire, so storage is kept to a minimum, and if necessary under a nitrogen blanket.
- The pellets produced allow for a slow release of nutrients, so they are particularly good for orchards. Since the pellets are classified as a fertilizer, there are fewer restrictions on their application and can be applied year-round.
- The facility is run 24/7 and requires 2 operators. Lab tests for TSS and percent solids are conducted every two hours and bi-monthly lab testing is done to certify the pelletized product as a fertilizer.

Agenda Item : EchoWater Project Tour and Presentation

- Construction site tour of plant process upgrade including nutrient removal, filtration and additional disinfection facilities. The upgrade will approximately cost $2 Billion including 12 main projects.
- Lunch provided during EchoWater Presentation
- Brief site overview of BNR project under EchoWater by Vick Kyotani, Director of SRCSD ECHOWater Program.
- Examples of design infrastructure conflicts that were resolved before construction using IBM and virtual reality tools.
- Team is expecting to finalize all construction by early 2022

Agenda Item : Upcoming Activities

-

Next BACWA Biosolids Committee Meeting:

Attendees:

Name/Title	Agency
Ravi Krishnaiah	SFPUC
Marta Mendoza	
Ryan Batjiaka	
Shrushti Rawat	
Mark Lauer	

Name/Title	Agency
Manon Fisher	SFPUC
Elizabeth Charborne	Corollo
Jennie Pang	RMC
Justin Obrien	Brown and Caldwell

Permits Committee – Report to BACWA Board

Permits Committee Meetings on: 8/8/17
Executive Board Meeting Date: 8/18/17
Committee Chair: Chris Dembiczak

Committee Request for Board Action: None

Regional Water Board Staff in attendance
17 Participants representing 10 member agencies

Upcoming Permits
September – *Rodeo Sanitary District* – Rodeo has experienced a few toxicity hits of greater than 40 TUC using *Ceriodaphnia*. They suspect the cause may be pesticides. They updated their dilution model and were given 75:1 dilution, so their limits are a MDEL of 140 TUc, and an AMEL of 51 TUc. BACWA did not submit a comment letter on their Tentative Order.
Vallejo Flood and Sanitary District – The TO includes a requirement to develop a Private Sewer Lateral Ordinance to the Board for consideration. Vallejo already funds a voluntary Upper Lateral Replacement Program, and doesn't want the Regional Water Board to divert resources from that program to a new effort. It is likely that similar language will end up in the permits of all blending agencies. Vallejo has requested that BACWA submit a comment letter but several committee members suggested that Vallejo explain their current strategy and the unique financial situation in Vallejo to the Regional Board and ask for an individual postponement or waiver.
November – *Sewer Authority Midcoastside* – They may want BACWA to resubmit comments from last permit on dilution credit.

Mercury/PCB Watershed Permit
An administrative draft is expected imminently (and was released after the meeting on 8/15). BACWA will request that PCB congener monitoring frequency be reduced to once per year for major dischargers, and once per permit term for minor dischargers.

Chlorine Residual Basin Plan Amendment
BACWA has contracted with Tom Hall at EOA to support the development of a Basin Plan Amendment work plan. They are looking at a chlorine water quality objective that would be implemented using dilution credit and the SIP procedure. This strategy would only help deep water dischargers. At the same time, they are looking to establish an RL/ML for chlorine via continuous online analyzers, and are soliciting participation in a study that will generate data for this effort. Establishing an RL/ML would help all dischargers.

ELAP Update
Preliminary draft regulations have been released for comments. Agencies are concerned that they are not written clearly, and that even though implementation is supposed to be phased through 2022, labs that are not in compliance by 2019 must submit quarterly progress updates.

Toxicity
a. *State Toxicity Provisions* – No updates since last month, where it was posted that a draft is expected in November.
b. *Toxicity Workshop* - BACWA will hold a toxicity workshop at CCCSD September 18. See **draft agenda.** The workshop will be aimed at agency staff with a wide range of expertise in toxicity testing. The committee agreed that Regional Water Board staff should be invited.

Bacterial Objectives
The committee discussed the pros and cons of asking the State Water Board to require dilution in the implementation of bacterial objectives. The committee consensus was to request soft language urging Regional Water Boards use mixing zones in calculating limits in permits, as allowed by their Basin Plans.

Nutrients
a. *Group Annual Report* – Thirty of thirty-five agencies have reported their data to HDR.
b. *Optimization and Upgrade Studies* – HDR has received comments from all but five agencies. They plan to have the Report finalized by the end of the year.
c. *Second Watershed Permit* – The committee reviewed the tenets of the next permit, which are 1) Individual plant nutrient monitoring and reporting; 2) Group Annual Reporting of nutrient loadings to the Bay; 3) Funding for the Nutrient Management Strategy's scientific investigations; 4) A regional assessment of feasibility and cost for reducing nutrients through means other than treatment and discharge at the POTW; 5). Establishing a baseline for POTWs that undertake early actions to reduce nutrients; 6) Funding for

Monitoring and Modeling at the end of the 2nd WS Permit. The committee requested that the Letter of Intent that BACWA has been working on with the Regional Water Board be circulated via the email list.

d. *Wetlands Report* – Ian Wren, working with SFEI, developed a **wetlands screening report** to look at the potential for nutrient removal through treatment wetlands in the Region. The committee will invite Ian to present his finding at a future meeting.
e. *Oro Loma Permit* – Oro Loma is working with the Regional Water Board on its Tentative Order, where they will likely to trade performance-based nutrient limits for permitting a near-shore discharge during peak wet weather, which reduce their reliance on EBDA's outfall capacity.

BAAQMD Rule 11-18

a. BACWA members to provide nearest distance from source to offsite worker and resident receptors to **Sarah Deslauriers**. See **data request**.
b. Meeting on 8/17 with BAAQMD staff to discuss TBARCT alternatives

Announcements

a. **State of the Estuary Meeting** October 10-11. The RMP Annual meeting will be October 6.

Next BACWA Permits Committee Meeting: Tuesday September 12 1-3pm, EBMUD. The October meeting date is changed to October 17 to avoid conflict with the State of the Estuary Meeting.

Executive Director's July 2017 Report

NUTRIENTS:

Completed a variety of tasks and activities associated with BACWA's interests on nutrients and collaborating with the Water Board including:
-Coordinated with the OP/Upgrade consulting team on administrative issues.
-Provided updates to the WB staff on the progress on reaching consensus on an approach to the 2nd Watershed Permit.
-Coordinated with the NMS Science Manager on presentations, meetings, and key issues on nutrients.
-Met with the City of San Mateo staff to discuss their participation in the 2nd Nutrient Watershed permit.
-Chaired the monthly CMG conference call to discuss key issues associated with finalizing the Optimization and Upgrade Study Report.

BACWA BOARD MEETING AND CONFERENCES:

-Worked with staff in preparing for the July BACWA Board meeting including reviewing the agenda with the Board Chair.
-Continuing to track all action items to completion.
-Planned for and attended the July monthly Board Meeting.

ASC/SFEI:

-As the Chair of the Governance Committee coordinated with the SFEI Executive Director on committee activities.

FINANCE:

-Reviewed the monthly BACWA financial reports with the AED.
-Continued coordinating with the AED in tracking the revenues coming in from the BACWA FY 17 member invoices.
-Reviewed and approved the FY 18 invoices for distribution to the BACWA membership.

PERMIT COMMITTEE:

-Coordinated with the RPM for items to agendize for the Permit Committee review.
-Attended the July monthly Permit Committee meeting.

MANAGER'S ROUNDTABLE:

-Worked with the AED to prepare a master contact list for the BACWA member agency general managers and directors.

COLLABORATIONS:

-Coordinated with CASA Regulatory Program Manager on regulator issues of mutual concern.

-Attended the NACWA Annual meeting and participated in committee discussion on regulatory and legislative issues impacting the POTW community.

AIR COMMITTEE:

-Coordinated with the AIR Committee leadership on responding to proposed regulations on health risk assessments.

WOT

-Participated in conference calls to help the BACWWE group reorganize after the departure of the chair of WOT and to coordinate with Solano College on preparing for the Fall semester.
-Discussed the future of the program with the BACCWE Executive Committee.

ADMINISTRATION:

-Held the monthly BACWA staff meeting to coordinate and prioritize activities.
-Signed off on invoices, reviewed correspondence, prepared for upcoming Board meeting, responded to inquiries on BACWA efforts, oversaw updating of web page and provided general direction to BACWA staff.
-Worked with the RPM in the preparation of the monthly BACWA bulletin.
-Coordinated with the AED to plan activities and review duties, schedules, and priorities.
-Developed and responded to numerous emails and phone calls as part of the conduct of BACWA business on a day-to-day basis.
-Toured the Scottish Rites Center in Oakland to preview as a possible venue for the 2018 Annual Membership meeting.
-Participated in a conference call with the AED and the BACWA insurance broker to verify and update coverages needed for BACWA and required by the JPA.
-Coordinated with Andy Gunther on a Climate Change presentation to be scheduled for a future BACWA Board meeting.

MISCELLANEOUS MEETINGS/CALLS:

-Paul Gilbert Snyder on Prop 84 and the close-out of :Prop 50.
-BACWA Chair and Committee Chairs on items that arose during the month
-Water Board staff on coordinating the nutrient activities
-other misc calls and inquiries regarding BACWA activities
-participated in coordination calls with the HDR project manager
-responded to Board members requests for information

BACWA ACTION ITEMS

Number	Subject	Task	Deadline	Status
	Action Items from July 21, 2017 BACWA Executive Board Meeting			
2017.7-14	WIFIA	Provide listing of 12 projects that rec'd funding (Amy)	8/1/2017	Completed
2017.7-13	AIR Monitoring Data	Check with Sarah Deslauriers on data and fenceline	8/30/2017	Pending
2017.7-12	AIR Transport Model	Check assumptions and follow up with Sarah Deslauriers (RPM)	8/15/2017	Pending
2017.7-11	PPIC Request	Ask Steve & Alex if useful (Amy Chastain/Eileen White)	8/15/2017	Pending
2017.7-10	Pardee Agenda	add shallow discharge permitting (ED)	9/30/2017	Completed
2017.7-09	Pre-Pardee Agenda	add AIR issues in lieu of toxicity (ED)	8/31/2017	Completed
2017.7-08	Annual Meeting	Send Hold the Date to Members (AED)	7/31/2017	Completed
2017.7-07	A Navarret Award	Send to CWEA - need contact, change BACWA to wastewater in the qualifications to make the applicability broader (AED)	10/9/2017	Completed
2017.7-06	2017 State of the Estuary Conference Passes	Provide passes to Mike Connor & CCCSD when registration opens in late August (AED)	8/31/2017	Pending
2017.7-05	Proposition 50 Closure	Send thank you letter to Brian Campbell & Paul Gilbert-Snyder (ED/AED)From Chair (AED)	7/31/2017	Pending
2017.7-04	Jt Meeting with Water Board	Add Mercury/PCB WS Permit to Agenda - amend Attachments G & H (RPM)	8/15/2017	Completed
2017.7-03	Bacterial Objectives	Add dilution to the comments (RPM)	7/31/2017	Completed
2017.7-02	"How to make BACWA better" brainstorming	Survey of Members for Pardee (ED/RPM/AED)	9/30/2017	Pending
2017.7-01	Steering Committee Meetings	Add San Mateo to email list (ask David Senn-not BACWA rep but would llike to attend) AED	7/31/2017	Completed
	Action Items Remaining from Previous BACWA Executive Board Meetings			
2016.3-61	Membership Policy	Develop policy for out of region agency membership (ED)	6/30/2017	Pending

FY18 *8 of 14 Action Items completed*
FY17: *90 of 90 Action Items completed.*
FY 16: *96 of 97 Action Items completed.*

BACWA BOARD CALENDAR
September 2017 to August 2018

DATE	AGENDA
8/30/2017	
Joint Meeting - Water Board	**Other Business: Discussions**
Items due:	
Pagano; Ervin; Connor; White; Schectel	
Williams; Fono	
9/15/2017	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 9/8	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**
Williams; Fono; Hull	Approval:
	Other Business - POLICY/STRATEGIC
	Discussion: Draft Agenda Pardee Technical Seminar
	Discussion: Annual Meeting Planning
	Other Business - OPERATIONAL
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)
	Other BACWA Representative Reports
9/15/2017	
Pre-Pardee Mtg	
Pagano; Ervin; Connor; White; Schectel	
Williams; Fono; Hull	
10/26-27/2017	
Pardee Technical Seminar	
Pagano; Ervin; Connor; White; Schectel	
Williams; Fono; Hull	
11/17/2017	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 11/10	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**
Williams; Fono; Hull	Approval: Adoption of FY16 Annual Reports
	Approval: Review next Calendar Year meeting dates
	Other Business - POLICY/STRATEGIC

	Discussion: Pardee Debrief & Survey
	Discussion: Climate Change (Andy Gunther)
	Discussion: WTA Fact Finding Invitation
	Other Business - OPERATIONAL
	Discussion: Annual Meeting Planning
	Discussion: Biannual Update on CASA Climate Change Prog (SDeslauriers)
	Discussion: BAPPG RFP for Cummuncations
	Discussion: BACWA Rep for CPSC Policy Education Advisory Committee
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)
	Other BACWA Representative Reports

12/15/2017	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 12/8	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**
Williams; Fono; Hull	**Other Business - POLICY/STRATEGIC**
HOLIDAY LUNCH	Discussion: Draft Agenda Joint Meeting with WB
	Presentation: Pesticides Update (Kelly Moran)
	Presentation: POTW Sampling Efforts (Dr. Jennifer Teerlink)
	Other Business - OPERATIONAL
	Discussion: Annual Meeting Agenda
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)
	Other BACWA Representative Reports

12/?/2017	
Joint Meeting - Water Board	**Other Business: Discussions**
Items due:	SNMP
Pagano; Ervin; Connor; White; Schectel	
Williams; Fono	

1/?/2018	
Annual Members Mtg	
Pagano; Ervin; Connor; White; Schectel	RMP & NMS Update (Phil Trowbridge/David Senn)
Williams; Fono; Hull	

2/16/2018	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 2/9	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**

Williams; Fono; Hull	Approval:
	Other Business - POLICY/STRATEGIC
	Discussion: WB Joint Meeting Debrief
	Discussion: Draft Agenda Joint Meeting with WB
	Other Business - OPERATIONAL
	Discussion: FY2019 Budget Planning - 1st Draft of FY19 Budget
	Discussion: Annual Meeting Debrief
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)
	Other BACWA Representative Reports

3/?/2017	
Joint Meeting	**Other Business: Discussions**
Items due: 3/?	
Pagano; Ervin; Connor; White; Schectel	
Williams; Fono	

3/16/2017	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 3/9	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**
Williams; Fono; Hull	**Other Business - POLICY/STRATEGIC**
	Discussion: WB Joint Meeting Debrief
	Presentation: CPSC Update (Heidi Sanborn)
	Other Business - OPERATIONAL
	Discussion: Second Draft of FY19 Budget
	Discussion: Update on BARR Taskforce
	Discussion: Update on regional and statewide biosolids issues
	Discussion: Biannual Update on CWCCG (SDeslauriers)
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)
	Other BACWA Representative Reports

4/20/2017	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 4/13	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**
Williams; Fono; Hull	Approval: FY19 Budget
	Other Business - POLICY/STRATEGIC
	Discussion: Draft Agenda Joint Meeting with WB
	Other Business - OPERATIONAL

	Discussion: Update on BAAQMD Regulations
	Discussion: Update on regional and statewide biosolids issues
	Discussion: CASA Climate Change Program
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)
	Other BACWA Representative Reports

5/?/2018	
Joint Meeting - Water Board	**Other Business: Discussions**
Items due: 5/?	
Pagano; Ervin; Connor; White; Schectel	
Williams; Fono	

5/18/2018	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 5/11	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**
Williams; Fono; Hull	Approval: FY18 Consulting Amendments/Agreements
	Approval: Officers: Chair & Vice-Chair
	Approval: BACWA Reps to ASC/SFEI Governing Board
	Authorization: Legal Support Amendments
	Other Business - POLICY/STRATEGIC
	Discussion: Water Board Jt Mtg Debrief
	Other Business - OPERATIONAL
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)
	Other BACWA Representative Reports

6/?/2018	
Nutrient Optimization/Upgrade Workshop #3	
Pagano; Ervin; Connor; White; Schectel	Optimization/Upgrade Studies
Williams; Fono	Water Board

6/15/2018	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 6/8	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**
Williams; Fono; Hull	Approval: FY19 Agreements
	Approval: Appt BACWA Rep to ASC/SFEI Jt Board
	Other Business - POLICY/STRATEGIC
	Discussion: Opt/Upgrade Workshop Debrief

	Discussion: Draft Agenda WB Joint Meeting
	Other Business - OPERATIONAL
	Discussion: CPSC Update
	Discussion: BAAWMD Annual Meeting Draft Agenda
	Discussion: 2019 BACWA Executive Board Calendar
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)
	Other BACWA Representative Reports

7/20/2018	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 7/13	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**
Williams; Fono; Hull	Approval: Annual Nutrient WS Payment
	Approval: FY18 Agreements
	Other Business - POLICY/STRATEGIC
	Discussion: Draft Agenda Pre-Pardee Technical Seminar
	Discussion: Risk Reduction Update?
	Discussion:
	Other Business - OPERATIONAL
	Discussion:
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)
	Other BACWA Representative Reports

8/17/2018	**Consent**
Monthly Board Mtg	Previous Board Meeting Minutes (AED)
Items due: 8/10	Monthly Financial Report
Pagano; Ervin; Connor; White; Schectel	**Authorizations & Approvals**
Williams; Fono; Hull	
	Other Business - POLICY/STRATEGIC
	Discussion: HDR Quarterly Update on Optimization/ Upgrade studies
	Discussion: Draft Agenda & Schedule Pre & Pardee Technical Seminar
	Discussion: RMP & NMS Update (Phil Trowbridge/David Senn)
	Other Business - OPERATIONAL
	Discussion:
	Reports
	Committee Reports (Committee Chairs)
	Board Reports (Executive Board)
	ED Report (ED)
	RPM Report (RPM)

CURRENTLY

UNSCHEDULED & SIGNIFICANT

* Suggestions for Monthly Meeting Guest Speakers/Presenters: i.e. Jim McGrath, State Water Board

Regulatory Program Manager's Report to the Board

July 2017

NUTRIENT SUPPORT: Updated Nutrients webpage. Discussed recycled water survey with Regional Water Board staff. Reviewed calculations for Nutrient Surcharge.

BACWA BULLETIN: Completed and distributed July Bulletin. Drafted August Bulletin.

TOXICITY: Revised draft agenda for Toxicity Workshop and contacted speakers.

COLLABORATIONS: Participated in CASA Regulatory Workgroup conference call.

MERCURY/PCBs: Discussed permit reissuance with Regional Water Board staff.

BACTERIAL OBJECTIVES: Watched State Water Board hearing webcast. Spoke to State Water Board and Regional Water Board staff about implementation via NPDES permit.

COMMITTEE SUPPORT:
AIR – Reviewed consultants' progress reports and invoices and discussed scope of work. Reviewed summary and action items from recent meetings with BAAQMD.
BAPPG –Worked with Computer Courage to relaunch baywise,org and made some changes to website as requested. Reviewed and submitted three pesticides comment letters to EPA.
Biosolids – Completed draft biosolids survey report. Distributed to committee and survey respondents for review.
Collection Systems – Forwarded member request for information to committee list.
O&M Infoshare – Discussed next meeting with committee chair.
Permits – Attended meeting, drafted agenda and board report.
Recycled Water – Attended meeting, Drafted meeting notes and board report.
Executive Board – Assisted in preparing agenda and packet, and attended Executive Board meeting. Edited meeting minutes for Executive Board meeting.
Staff Meeting – Discussed BACWA administration and planned Executive Board meeting.

MEETINGS ATTENDED: Recycled Water Committee (7/11), Permits Committee (7/11), Staff meeting (7/12), CASA Regulatory Workgroup Conference Call (7/13), Executive Board meeting (7/21).