



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

NOTICE OF REGULAR MEETING OF BOARD OF DIRECTORS

DATE: Wednesday, March 18, 2015
TIME: 7:00 p.m.
LOCATION: Zone 7 Administration Building
100 North Canyons Parkway, Livermore, California

Any member of the public desiring to address the Board on an item under discussion may do so upon receiving recognition from the President. After receiving recognition, please step to the podium and state your name and address.

In compliance with the Americans with Disabilities Act, the meeting room is wheelchair accessible and disabled parking is available at the Zone 7 Administrative Building lot. If you are a person with a disability and you need disability-related modifications or accommodations to participate in this meeting, please contact the Zone 7 Board Secretary, Judy Rector, at (925) 454-5053 or fax (925) 454-5724. Notification 48 hours prior to the meeting will enable Zone 7 to make reasonable arrangements to ensure accessibility to this meeting. {28 CFR 35.102-35, 104 ADA Title II}

A G E N D A

1. Call Meeting to Order
2. Pledge of Allegiance
3. Citizens Forum

This is an opportunity for members of the public to speak on an item not listed on the agenda. The Board cannot deliberate or take action on a non-agenda item unless it is an emergency as defined under Government Code Section 54954.2.

4. Minutes of the Regular Meeting of February 18, 2015
5. Consent Calendar
 - a. Updating Board Policy on Conducting Business
 - b. Agreement with Oliver DeSilva, Inc., for Mitigation at the Arroyo Mocho Stanley Reach Riparian Restoration and Channel Enhancement Pilot Project
 - c. Authorization for Commercial Septic System Use, Mitchell Katz Winery
 - d. Authorization for Commercial Septic System Use, Darcie Kent Vineyards
 - e. Personnel Action: Junior /Assistant Engineer/Geologist Position
6. Staffing Update:
 - a. January Employee of the Month Recognition
7. Committees - Retailers/Wholesaler Liaison Committee Meeting – February 5, 2015 – notes pending
8. Reports - Directors
 - a. Verbal comments by President
 - b. Written report by Director Quigley
 - c. Verbal reports
9. Items for Future Agenda – Directors

March 18, 2015

10. Staff Reports (Information items. No action will be taken.)

- a. General Manager's Report
- b. Monthly Budget Report
- c. Legislative Update
- d. Outreach Activities
- e. Drought Update
- f. Update on Zone 7 Vehicle Fleet
- g. Verbal Reports

11. CLOSED SESSION

- (a) Conference with Legal Counsel - Significant exposure to litigation pursuant to Gov't Code Section 54956.9(d) (2): 3 cases
- (b) Conference with Legal Counsel - Potential litigation pursuant to Gov't Code section 54956.9(d) (3): 2 cases
- (c) Conference with Legal Counsel - Existing litigation pursuant to Gov't Code Section 54956.9(d) (1):
Alameda County Flood Control and Water Conservation District, Zone 7 v. Pleasanton Gravel Co., Alameda County case no. HG14724177
- (d) Conference with Labor Negotiators:
Agency Negotiator: G.F. Duerig
Employee Organizations: Alameda County Management Employees Association; Alameda County Building and Construction Trades Council, Local 342, AFL-CIO; International Federation of Professional and Technical Engineers, Local 21, AFL-CIO; Local 1021 of the Service Employees International Union, CTW; Unrepresented Management.

12. Open Session and Report Out of Closed Session

13. Adjournment

14. Upcoming Board Schedule: (All meeting locations are in the Boardroom at 100 North Canyons Parkway, Livermore, California, unless otherwise noted)

- a) Water Resources Committee: March 25, 2015, 4 p.m. at Zone 7
- b) Special Board Meeting (if needed): April 1, 2015
- c) Regular Board Meeting: April 15, 2015, 7:00 p.m.
- d) Tri-Valley Water Policy Roundtable #4: April 22, 2015, 5:00 p.m., Dublin San Ramon Services District, 7051 Dublin Blvd., Dublin, CA
- e) Finance Committee Meeting: April 23, 2015, 4:00 p.m.

Materials related to an item on this agenda that have been provided to the Board less than 72 hours prior to the meeting are available for public inspection at the Zone 7 office at the time of, and prior to, the meeting and at www.zone7water.com. All other material otherwise provided to the Board will be available at the public meeting.

MINUTES OF THE BOARD OF DIRECTORS
ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

REGULAR MEETING

February 18, 2015

The following were present:

DIRECTORS: SANDY FIGUERS
JOHN GRECI
JIM MCGRAIL
SARAH PALMER
DICK QUIGLEY
ANGELA RAMIREZ HOLMES
BILL STEVENS

DIRECTORS ABSENT: NONE

ZONE 7 STAFF: JILL DUERIG, GENERAL MANAGER
KURT ARENDS, ASSISTANT GENERAL MANAGER, ENGINEERING
RHETT ALZONA, FACILITIES ENGINEERING MANAGER
MATT KATEN, PRINCIPAL GEOLOGIST, GROUNDWATER
JUDY RECTOR, BOARD SECRETARY

COUNSEL: DAVID ALADJEM, DOWNEY BRAND

Item 1 - Call Meeting to Order

President Greci called the meeting to order at 7:00 p.m.

Item 2 - Pledge of Allegiance

Item 3 - Citizens Forum

Alfred Exner, Pleasanton, spoke to the Board requesting clearer budget information.

Dave Lunn, Livermore, thanked the Board for the existing Del Valle property lease that includes language permitting possible future regional trails by others.

Item 4 - Minutes of the Regular Meeting of January 21, 2015 and Special Meeting/Board Workshop of February 4, 2015

Director Ramirez Holmes suggested that the votes on the minutes be separated by meeting. Director Palmer moved to approve the minutes of January 21, 2015 and Director Quigley seconded the motion. The minutes were approved by a voice vote of 7-0.

Director Palmer moved to approve the minutes of February 4, 2015 and Director Quigley seconded the motion. The minutes were approved by a voice vote of 5-0-2 with Directors Figuero and Ramirez Holmes abstaining because they were not at the meeting.

Item 5 - Consent Calendar

Director Quigley asked that Item 5(a) be pulled for discussion.

Director Ramirez Holmes asked that Items 5(c) be pulled for discussion.

Director Palmer moved that Item 5(b) be approved.

Item 5(a) License Agreement Renewal for Seasonal Diversion Dam in Arroyo Las Positas with the City of Livermore

Director Figuers spoke about the seasonal dam in two places in the 60's and 70's. Randy Werner from City of Livermore said the original dam was part of the arroyo and an unnamed tributary but not back in its original location.

Director Quigley moved to approve Item 5(a) and Director Stevens seconded the motion. The item passed by a 7-0 roll call vote.

Resolution No. 15-43	Authorized Amendment No. 2 for renewal of the License Agreement. (Item 5a)
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Item 5(b) Document Management Software for Records Retention/Management

Director Palmer moved to approve Item 5(b) and Director Ramirez Holmes seconded the motion. The item passed by a 7-0 voice vote.

Resolution No. 15-44	Authorized a contract with Peelle Technologies for the installation and purchase of Laserfiche software for records management. (Item 5c)
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Item 5(c) Accept Easement from City of Livermore for an Underground Electric Line

Director Ramirez Holmes pulled this item to confirm Zone 7's participation in the pool as buyer only. Staff confirmed. Director Ramirez Holmes also requested that staff provide updates.

Director Ramirez Holmes moved to approve Item 5(c) and Director Quigley seconded the motion. The item passed by a 7-0 roll call vote.

Resolution No. 15-45	Authorized execution of the DWR Multi-Year Water Pool Demonstration Program Agreement with California Department of Water Resources. (Item 5c)
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Item 5(d) Amending Guiding Principles for Board Members

Director Figuers pulled Item 5(d) and questioned two bullets on the Guiding Principles for Board Members: Functions as a team and respects and supports each other. He felt these are dangerous and challenge the ideas of conflict. The directors discussed the item until Director Stevens moved to adopt the changes as redlined in the document and Director Palmer seconded the motion. The voice vote was 5-1-1 with Director Ramirez Holmes voting no and Director Figuers abstaining.

Item 6 - Staffing Update

New Employee Introduction – Ashley Lyons

The new Office Assistant in Employee Services, Ashley Lyons, was introduced to the Board. She was present to receive the Board’s welcome.

December Employee of the Month Recognition – Ralph Rodriquez

Water Plant Operator III Ralph Rodriquez was recognized by the Board for the second time as Employee of the Month. He was present and the Board applauded him.

Item 7 – Proposed Well Ordinance and Well Permitting Fee Schedule

The proposed Well Ordinance was continued until April to allow continuing meetings with County Public Works’ staff to proceed. Director McGrail asked for an update prior to the April meeting. Director Stevens encouraged making a decision at the April 15 board meeting. President Greci said the County asked for the continuation and Director Figuers noted there had already been a six-month delay.

Item 8 – Contract for Phase 1 of the Busch Valley Well No. 1 Project

Rhett Alzona, Facilities Engineering Manager, presented Item 8 to the Board. Mr. Alzona said staff recommends proceeding with Phase 1 of the Busch Valley Well No. 1 (BV1) project by completing the pipeline connection from the BV1 site to the existing Zone 7 transmission system and associated site and electrical work for PG&E service. This would allow for a temporary (rental) booster pump station hookup if needed. An additional \$752,000 is recommended, increasing the total authorized amount from \$1.4 million to \$2,152,000. After discussion by the directors, Director McGrail moved for approval and Director Quigley second the motion. The motion was approved by a voice vote of 7-0.

Item 9 – Contract for Stoneridge Cross-Valley Isolation Valve Project

Mr. Alzona also presented Item 9 and explained to the directors that the hexavalent chromium (Cr6) levels at Stoneridge are near the maximum contaminant level (MCL) so a new line valve on the Cross Valley Pipeline is recommended to direct Stoneridge Well water west to blend with lower chromium water sources. Installation of a new line valve, vault and ancillary facilities are estimated to cost approximately \$566,000. Staff recommended authorizing the General Manager to forego the formal bid process and negotiate the project scope, cost and scheduling with Conco West, Inc., due to the urgency related to assuring compliance with the new standard.

Director Ramirez Holmes asked questions about foregoing the bid process, the Notice of Exemption and CEQA regulations. General Counsel David Aladjem said the urgency to get the new valving on line would qualify it for a CEQA exemption. The Directors asked questions and discussed the item.

Director Stevens moved for approval and Director Quigley seconded the motion which passed by a 7-0 roll call vote.

Resolution No. 15-48 Authorized a design-build contract with Conco West, Inc., for the Stoneridge Cross-Valley Isolation Valve project.

Item 10 – MOU with Alameda County Resources Conservation District to Support Stonybrook Creek Fish Passage Improvement Project

Kurt Arends, Assistant General Manager, Engineering, explained to the Board that this is a collaborative project for Stonybrook Creek, a tributary to Alameda Creek. Stonybrook Creek is a viable spawning and rearing habitat for juvenile steelhead and is the first major tributary to Alameda Creek upstream of the existing fish passage barriers. The project includes removal of two road barriers and channel improvements to improve fish passage and aquatic habitat for a total project cost of \$1.9 million. Staff recommends authorizing the General Manager to negotiate and execute an MOU with the Alameda County Resource Conservation District for up to \$225,000 to provide funding for the habitat work and to help avoid the risk that federal appropriation and grant funding may expire at the end of the year and be lost entirely. The funding from the MOU, federal appropriations, grants, and Alameda County Public Works Agency through the Board of Supervisors would support the majority of the Stonybrook Creek Fish Passage Improvement Project.

Director Figuers said his concern is that other agencies are going to “glom” on to the water supply to feed the fish. There is no direct benefit and perhaps a detriment to the citizens of the valley if the State comes after that water supply in the future. He feels there should be a paragraph that states that “if we do this, we are not obligated to provide water supplies in the future for native fish down the road.”

Director Quigley said we should use this project as a bargaining chip with Alameda County Water District for future projects we need such as rubber dams. He also feels that the Alameda Creek Resource Conservation District should be encouraged to stock steelhead in Stonybrook Creek.

The directors discussed the project at length about Zone 7 being required to release water from a different part of the watershed to meet downstream requirements. Director Palmer moved to approve the motion and Director Ramirez Holmes seconded the motion. The motion was approved by a roll call vote of 6-0-1 with Director Figuers abstaining.

Resolution No. 15-49 Authorized the Memorandum of Understanding with the Alameda County Resource Conservation District to provide funding to support the Stonybrook Creek Fish Passage Improvement Project.

Item 11 – Nutrient Management Plan

Matt Katen, Principal Geologist in the Groundwater Section, presented the Nutrient Management Plan (NMP) to the board. In the interest of improving its groundwater management program, Staff has been working on an NMP for the Livermore Valley Groundwater Basin that together with the existing Salt Management Plan (SMP) better addresses nutrients. Nitrate is the nutrient of concern.

Mr. Katen discussed nitrate-nitrogen concentrations in the valley and displayed a groundwater basin map showing ten areas of concern in which five still have septic tanks. The existing “best management practices” for fertilizer application, recycled water irrigation, livestock manure management and winery

wastewater disposal are recommended as adequate protective measures that should continue. The methodology is to inventory sources and quantify them with loading, removal and determining if positive or negative flux. The implementation plan is to improve managing nitrates in areas of concern by the addition of nitrogen-removing treatment modules for new septic tanks. All new and replacement onsite wastewater treatment systems within the Areas of Concern will be required to be equipped with the treatment modules.

There will be special septic tank requirements for both residential and commercial within the Areas of Concern. If a system fails through no fault of the homeowners, and no increase of load is proposed, the system could be replaced and the homeowner would be encouraged to upgrade to one that provides nitrogen removal or treatment and a rebate program may be available.

Randy Werner of the City of Livermore advised that nitrates have already degraded quality in some Cal Water wells so it is important to take action to control and mitigate existing nitrate contamination.

Director McGrail feels there are more questions to be asked and limited information so he moved that the item be tabled for 90 days. Director Ramirez Holmes seconded the motion. Director Palmer said she is not in favor of putting it off because nitrate is a health concern and it is important to protect the groundwater basin. A voice vote was taken for deferral of the item for 90 days and passed by 6-1 with Director Palmer voting no.

Item 12 - Committees – Retailers/Wholesaler Liaison Committee Meeting – February 5, 2015 – notes pending

Item 13 - Reports - Directors

- a. Verbal comments by President

President Greci said he taught a class at Alden Lane.

- b. Written report by Director Quigley
- c. Verbal Reports

Director Ramirez Holmes said she attended the Pleasanton State of the City.

Item 14 - Items for Future Agendas – Directors

Item 15 - Staff Reports (Information items. No action will be taken.)

- a. General Manager's Report
- b. Monthly Budget Report
- c. Legislative Update
- d. Outreach Activities
- e. Drought Update
- f. Capital Projects Status Report
- g. Verbal Reports

Director McGrail commented on the Ad Hoc Patterson Ranch meeting he attended. He said the Request for Proposals (RFPs) has been posted on the website and there is a site visit scheduled for February 25. RFPs will be due March 13.

The Board went into closed session at 10:20 p.m.

Item 16 - Closed Session

- (a) Conference with Legal Counsel - Significant exposure to litigation pursuant to Gov't Code Section 54956.9(d) (2): 3 cases
- (b) Conference with Legal Counsel - Potential litigation pursuant to Gov't Code section 54956.9(d) (3): 1 case
- (c) Conference with Legal Counsel - Existing litigation pursuant to Gov't Code Section 54956.9(d) (1):
Alameda County Flood Control and Water Conservation District, Zone 7 v. Pleasanton Gravel Co.,
Alameda County Case No. HG14724177
- (d) Conference with Labor Negotiators:
Agency Negotiator: G.F. Duerig
Employee Organizations: Alameda County Management Employees Association; Alameda County Building and Construction Trades Council, Local 342, AFL-CIO; International Federation of Professional and Technical Engineers, Local 21, AFL-CIO; Local 1021 of the Service Employees International Union, CTW; Unrepresented Management.

Item 17 - Open Session and Report Out of Closed Session

The Board came out of Closed Session at 10:42 p.m. and President Greci reported there were no reportable actions taken in closed session.

Item 18 - Adjournment

The meeting was adjourned at 10:43 p.m.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: Administration

CONTACT: Jill Duerig

AGENDA DATE: March 18, 2015

ITEM NO. 5a

SUBJECT: Updating Board Policy on Conducting Business

SUMMARY:

- The Board adopted “Zone 7 Water Agency's Board Policy on Conducting Business” on December 17, 2008 and amended it on February 15, 2012 and on September 19, 2012.
- On August 19, 2013, the Board had one of its annual retreats and developed a summary set of Guiding Principles that highlighted key portions of "Zone 7 Water Agency's Board Policy on Conducting Business" and the previously-established "Gentleperson's Agreement."
- The result of that retreat discussion was that, on September 28, 2013, the board adopted the "Guiding Principles for Board Members" consistent with those discussed at the August 2013 retreat.
- Subsequent to that adoption, President Stevens asked the Administrative Committee of the Board to consider additional bullet items to be added to the Guiding Principles. The Administrative Committee discussed the additions proposed by President Stevens.
- The resulting amended Guiding Principles were adopted by the Zone 7 Board on October 16, 2013.
- At the retreat on February 4, 2015, the board discussed adding a new section to the Guiding Principles outlining the Board President's role to better reflect the spirit of the Gentleperson's Agreement.
- On February 18, 2015, the Zone 7 Board adopted the amended Guiding Principles for Board Members as discussed at the February 2015 retreat, with Director Ramirez Holmes opposing because of inconsistencies she noted between the “Board Policy on Conducting Business” and the proposed amendments to the Guiding Principles.
- At this time, staff recommends amending Section 19 of the Board Policy on Conducting Business to improve consistency between the two documents.

FUNDING:

No funding requested at this time.

RECOMMENDED ACTION:

Adopt attached resolution amending the Board Policy on Conducting Business.

ATTACHMENTS:

Resolution and redline showing proposed changes to Section 19.

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY
SECONDED BY

Updating Board Policy on Conducting Business

WHEREAS, the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District adopted the Board Policy on Conducting Business on December 17, 2008; and

WHEREAS, the Board of Directors amended this Policy on February 15, 2012 and on September 19, 2012; and

WHEREAS, the Board of Directors adopted Guiding Principles for Board Members to summarize and highlight important parts of that Policy and has since amended that Policy to clarify the Board President's role; and

WHEREAS, amending Section 19 of Zone 7 Water Agency's Board Policy on Conducting Business would improve consistency with the newly-amended Guiding Principles for Board Members;

NOW THEREFORE BE IT RESOLVED by the Board of Directors of Zone 7 of the Alameda Flood Control and Water Conservation District Section 19 of "Zone 7 Water Agency's Board Policy on Conducting Business" is amended consistent with the attached red-line document.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on March 18, 2015.

By: _____
President, Board of Directors

SECTION 19. BOARD DECORUM

Board members shall at all times conduct themselves with the utmost decorum. Members shall afford due respect to one another, Agency staff and the public. Members shall be courteous and shall not engage in personal attacks or make malicious or offensive statements or comments during the conduct of Agency business. In carrying out their duties, Board members shall bear in mind the Board's role, the Agency's mission and the interests of the constituency the Board serves. Director participation shall be relevant to the subject matter at hand and should be expressed in a thoughtful, clear, succinct and articulate manner.

In other words, the role of the Board is to:

- Promote the best interest of the public by establishing policies that support the mission, vision and core values of the organization and by ensuring the implementation of those policies.
- Assure the fiscal health of the organization and provide the resources necessary to meet the agency's goals.
- Provide policy direction to the General Manager, who will, in turn, manage the day-to-day operations of the organization.
- Understand your role and relationship to other board members, the staff the General Manager and the public.
- Recognize and respect the distinction between the policy-setting role and the day-to-day implementation of policy by staff.

Acting in an orderly manner with utmost decorum shall mean that the following specific principles apply to the board:

- Functions as a team.
- Respects and supports each other.
- Values open and honest communication.
- Is prepared for meetings.
- Practices continued professional development in their role as directors.
- Are respectful and considerate of staff.
- Acts with decorum at and outside board meetings so as to reflect well on Zone 7.
- Cannot represent a position of the full board or commit Zone 7 without action by the full board.
- Contacts the General Manager or the Clerk of the Board with requests rather than going directly to staff.

If the Board President determines that a director has violated this Section, the President can take action up to and including discussion with an Ad Hoc Committee and, if appropriate, introduction of a board action for censure of that director.

During the section of the agenda of "Director Reports", directors reporting at the Board meeting shall limit verbal reports to topics related to Zone 7's mission and limited to five minutes per director. If the Director has additional information to share with the Board, such information shall be provided in advance to the General Manager as a written report that can be included in the agenda package.

When communicating with members of the public or other public agency representatives, individual board members shall refrain from making personal commitments or promises for the Agency. In addition, when expressing *personal views and opinions* to third parties concerning matters within the jurisdiction of or affecting the Agency, Directors shall duly qualify them as such to avoid misinterpretation of those views and opinions as those of the Board of Directors. Conversely, when authorized by the Board of Directors to speak for the Agency at other public agencies' meetings, clearly state that what is said has been approved by the Board or that the Board has no position on an issue.

Directors are encouraged to support District policy and avoid personal statements that conflict with Board-adopted policy and decisions. Members shall afford due respect for other Member's differing opinions and viewpoints. When expressing a dissenting view to members of the public, other public agencies, other public officials and/or to the media, to avoid stimulating or inflaming controversy, Directors are encouraged to support adopted Board policy.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: Integrated Planning

CONTACT: Carol Mahoney/Elke Rank

AGENDA DATE: March 18, 2015

ITEM NO. 5b

SUBJECT: Agreement with Oliver DeSilva, Inc., for Mitigation at the Arroyo Mocho Stanley Reach Riparian Restoration and Channel Enhancement Pilot Project

SUMMARY:

- The 2006 Stream Management Master Plan (SMMP) identified Project R.3-5 (Arroyo Mocho - Stanley Reach) for stream channel enhancements, increased riparian vegetation and fish passage improvements.
- Zone 7 completed the construction of this project in 2013-2014, with certain portions of the riparian planting still ongoing (delayed due to drought). This project yielded 13.5 acres of enhanced channel and riparian area, which are now available to potential partners as mitigation credits.
- The Regional Water Quality Control Board (RWQCB) is supportive of allowing Zone 7 to seek reimbursement for up to 13.5 acres of improvements made at the Arroyo Mocho - Stanley Reach in exchange for allocating mitigation credits to other parties.
- To date, we have allocated two acres to Alameda County Surplus Property Authority (Resolution 13-4260 on March 20, 2013) in exchange for reimbursement of \$268,000 towards Stanley Reach project costs.
- Oliver DeSilva, Inc. seeks mitigation credits to fulfill their environmental permit requirements for impacts related to mining activities in the Sunol Valley.
- RWQCB has given Zone 7 approval to negotiate an agreement with Oliver DeSilva, Inc., for reimbursement of 675 linear feet of the Stanley Reach project (approximately 1.9 acres). The California Department of Fish and Wildlife (CDFW) has also authorized reimbursement for 0.53 acres of the project; the CDFW area can be contained within the area required by RWQCB.

FUNDING:

If the resolution is adopted, this will result in an additional revenue of \$391,500 as reimbursement for the project costs associated with 675 linear feet of the project.

RECOMMENDED ACTION:

Adopt the attached resolution authorizing the General Manager to negotiate and execute an agreement with Oliver de Silva, Inc., for Zone 7 to provide 675 linear feet of mitigation credit for \$391,500.

ATTACHMENTS:

- Internal Memorandum
- Resolution

Internal Memorandum

Date: March 6, 2015
To: Jill Duerig
From: Elke Rank, Integrated Planning
Subject: Agreement with Oliver DeSilva, Inc. for Mitigation on Arroyo Mocho - Stanley Reach

BACKGROUND:

Since 2010, Zone 7 Water Agency (Zone 7) has been approached by various outside entities including the City of Livermore, Caltrans, Alameda County Surplus Property Authority, Alameda County Transportation Authority (now Alameda County Transportation Commission), the California Department of Water Resources (DWR) and various private developers inquiring about the availability of mitigation credits within Zone 7-owned channels. These entities are required to find suitable mitigation within the watershed impacted (as approved by regulatory agencies) for their projects that cause such environmental impacts.

Staff began exploring the possibility of allowing such mitigation as a way to fund some of the habitat enhancement projects of the 2006 Stream Management Master Plan (SMMP) without increasing the financial burden to Zone 7. This also has the advantage of partnering to accomplish non-flood protection aspects of the SMMP. Project R.3-5 (Arroyo Mocho - Stanley Reach) in the SMMP was identified as a potential pilot site for such increased vegetation and added roughness provided that certain structural modifications were completed that had been identified as desirable for fish passage by regulatory agencies. This project, known today as the "Arroyo Mocho - Stanley Reach Riparian Restoration and Channel Enhancement Pilot Project" was constructed by Zone 7 in 2013, with the majority of the planned riparian plantings installed in 2014. A small portion of the plantings are still underway, as is the continuing habitat maintenance and monitoring. The project construction cost in 2013, exclusive of staff time, design costs, and riparian plantings, was about \$1.4 million.

Staff first presented this project concept to the Board in April 2011 and has since been working to secure either (1) mitigation partners to help fund the project in the form of reimbursement payment, or (2) mitigation credit for other Zone 7 projects. To date, Alameda County Surplus Property Authority has been successful in fulfilling their environmental mitigation requirements with a financial contribution of \$268,000 towards the Stanley Reach project. In September 2014, Zone 7 received the final payment for Surplus Property Authority's mitigation contribution towards two acres of the project. Other agencies, including Caltrans, the Alameda County Transportation Commission and the Alameda County Water District, have inquired recently about the possibility of a similar arrangement – as well as private entities like land developers. It was confirmed in recent months that private entities are eligible to meet their mitigation needs with contributions towards projects like the Arroyo Mocho - Stanley Reach.

In seeking additional partners, an analysis of project costs was made. The total recoverable project cost is \$2,014,651, plus fees in the amount of \$55,000 per acre or \$156 per linear foot for long-term maintenance. Recoverable costs include construction, softscape installation, design, environmental monitoring, and staff time. Reimbursement may be done by acre or by linear foot of channel, depending on the regulatory agency's requirements and authorization on the partners' project. Note that the total amount paid by the Alameda County Surplus Property Authority was calculated before the actual project costs were known; the amounts shown below will represent

the basis for reimbursement moving forward (there may be adjustments for inflation in future agreements).

ZONE 7 PROJECT COSTS	
Construction	\$1,385,394
Softscape installation and maintenance (Living Arroyos program) – shared*	\$123,524
Design	\$271,202
Environmental monitoring	\$51,381
Subtotal (Construction+Design+Environmental)	\$1,831,501
Staff Time – shared*	\$183,150
Total Recoverable Project Costs:	\$2,014,651
REIMBURSEMENT SCHEDULE (includes long term maintenance fee)	
Linear foot/channel length	\$580
Acre	\$204,233

* The “shared” items represent costs that Staff identified as more appropriately shared by the agency rather than passing on in full.

DISCUSSION:

The Regional Water Quality Control Board (RWQCB) has long been supportive of Zone 7 being reimbursed for project costs at Stanley Reach by other entities needing to fulfill mitigation requirements – with the goal of potentially encouraging Zone 7 to develop more projects like Stanley Reach. Staff is learning that it is difficult for others to find suitable mitigation sites in the Livermore-Amador Valley for riparian impacts. This project site offers a locally significant total of 13.5 acres or 4,750 linear feet of channel and riparian enhancements; perhaps for this reason, other agencies like the California Department of Fish and Wildlife (CDFW) have also begun considering this as an option for mitigation.

The RWQCB and the CDFW have authorized Oliver DeSilva, Inc., to enter into an agreement with Zone 7 for mitigation to be performed at Stanley Reach to fulfill their environmental permit requirements from mining activities within a small ditch within their mining area in Sunol Valley. The mitigation is required to be reported and reimbursed in linear feet.

Under the proposed Agreement:

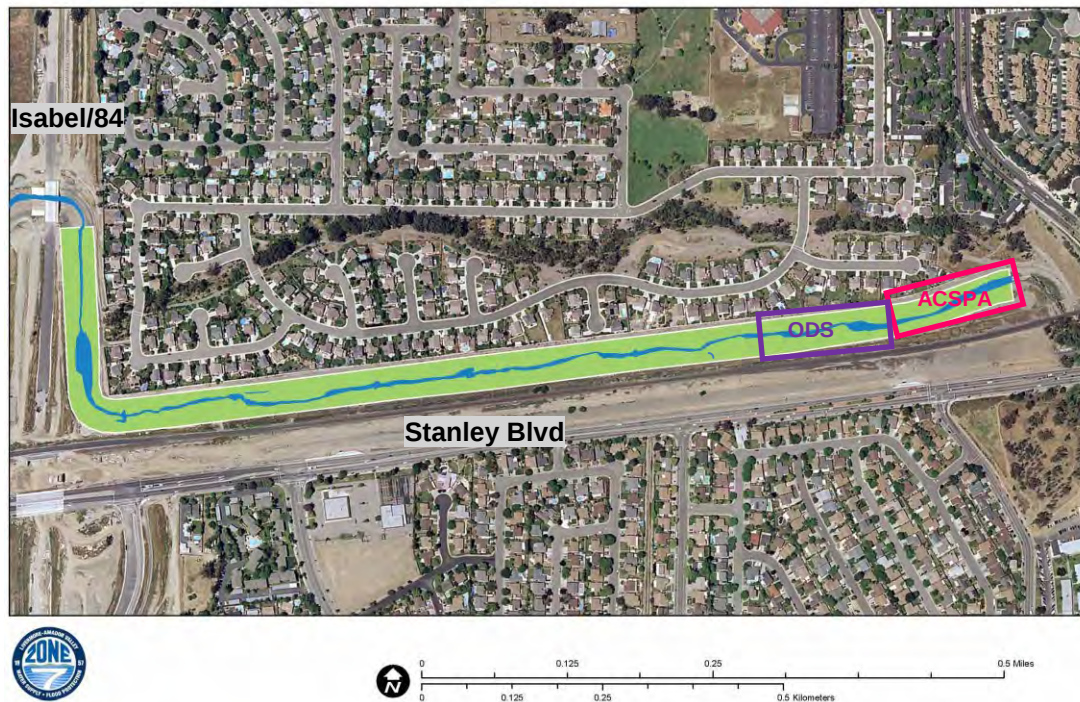
1. Zone 7 will identify 675 linear feet of the Stanley Reach project for Oliver de Silva, Inc. to fulfill their mitigation needs in Sunol Valley.
2. Oliver de Silva, Inc. will reimburse Zone 7 for an amount of three hundred and ninety one thousand and five hundred dollars (\$391,500) to cover their fair share cost of project management, construction, plantings, monitoring, and maintenance for the first 10 years, as well as long-term maintenance in lieu of an endowment. On payment, they will have no further obligation to Zone 7.
3. Zone 7 will, if required by the regulatory agency(ies), place a deed restriction over the site.

The proposed Agreement has been crafted as a standard for this and future agreements with any organization that may be interested in mitigation at the Arroyo Mocho Stanley Reach. The agreement has also been reviewed by Oliver DeSilva, Inc. and their counsel.

RECOMMENDATION:

Adopt the attached resolution authorizing the General Manager to negotiate and execute an agreement with Oliver de Silva, Inc., for Zone 7 to provide 675 linear feet of mitigation credit for \$391,500.

Figure 1. Project Location – Arroyo Mocho - Stanley Reach, in Livermore, CA



LEGEND

ACSPA = 2 acres (695 Linear Feet) sold to Alameda County Surplus Property Authority

ODS = Proposed 675 Linear Feet (1.9 acres) for sale to Oliver de Silva, Inc.

Mitigation areas shown on map are approximate

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY
SECONDED BY

Agreement with Oliver DeSilva, Inc., for Mitigation in the Arroyo Mocho - Stanley Reach

WHEREAS, Zone 7 is, and will remain, the owner in fee title of the Arroyo Mocho Stanley Reach Riparian Restoration and Channel Enhancement Pilot Project; and

WHEREAS, Zone 7 has constructed the Arroyo Mocho Stanley Reach Riparian Restoration and Channel Enhancement Pilot Project in 2013-2014 in accordance with approved designs, permits, and CEQA; and

WHEREAS, Zone 7 and Oliver DeSilva, Inc. staff have been in initial negotiations regarding mitigation on Zone 7 property to fulfill needs by Oliver DeSilva, Inc for channel impacts resulting from their gravel mining activities in Sunol Valley;

WHEREAS, the Regional Water Quality Control Board and the California Department of Fish and Wildlife have approved the allocation of mitigation credits by Zone 7 to offset certain environmental impacts incurred by Oliver DeSilva, Inc.;

WHEREAS, Oliver DeSilva, Inc. agrees to provide payment to Zone 7 in return for mitigation credits in the form of linear feet of channel improvements at the Arroyo Mocho Stanley Reach Riparian Restoration and Channel Enhancement Pilot Project to meet the requirements of their regulatory permits associated with gravel mining activities in Sunol Valley; and

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby authorize the General Manager to negotiate and execute an agreement with Oliver de Silva, Inc., for Zone 7 to provide 675 linear feet of mitigation credit in the Arroyo Mocho – Stanley Reach for \$391,500.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on March 18, 2015.

By _____
President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: Groundwater Section

CONTACT: Matt Katen

AGENDA DATE: March 18, 2015

ITEM NO. 5c

SUBJECT: Authorization for Commercial Septic System Use, Mitchell Katz Winery

SUMMARY:

- Mitchell Katz Winery (MKW) has requested Zone 7 authorization for addition of a septic tank system for a commercial wine tasting facility on a 9.9 acre parcel located at 2481 Buena Vista Avenue, near Livermore (APN 099-1200-014-01).
- In addition to the wine tasting facility, the parcel contains a primary residence with a detached one-bedroom secondary unit and a wholesale potted plant nursery.
- Currently, it is not feasible for the facility to connect to the municipal sewer because of its distance from the nearest sewer main and city restrictions for connecting facilities located outside of Livermore's Urban Growth Boundary.
- Zone 7 Resolution 1165 prohibits the use of septic tanks for new commercial developments unless an exception is granted by the Board of Directors.
- Another Zone 7 policy restricts onsite wastewater loading from any new development to a maximum density of one rural residential equivalent (1 RRE) per 5 acres; however, since the site is in a high nitrate Area of Concern, staff recommends a goal of 0.7 RRE per lot of 5 acres
- MKW proposes installing an alternative septic system with a built-in treatment process that should remove at least 70% of the nitrogen from the influent resulting in a wastewater loading of 0.4 RRE from the tasting room.
- Including the winery's contribution, the loading for the entire 9.9 acre parcel will be approximately 1.4 RRE, or about 0.7 RRE per 5 acres, meeting the proposed goal.
- Following the Board-approved septic system decision tree process (Exhibit B of the attached memorandum), staff recommends approval of this commercial septic system use and for the finding that the use is in compliance with Resolution 1165 and sufficiently protective of the groundwater basin.

FUNDING:

There is no funding impact associated with this item.

RECOMMENDED ACTION:

Adopt attached resolution approving the commercial use of a septic system for the Mitchell Katz Winery in accordance with Resolution 1165.

ATTACHMENTS:

- Memo Providing Additional Background and Discussion on Agenda Item
- Draft Resolution
- Resolutions 1037 and 1165

Interoffice Memo

Date: March 18, 2015
To: Jill Duerig, General Manager
From: Matt Katen, Groundwater Section Manager
Subject: Authorization for Commercial Septic System Use, Mitchell Katz Winery

The following provides additional background and discussion on the above-referenced Agenda Item.

BACKGROUND:

Mitchell Katz Winery has requested Zone 7 authorization for a new septic tank system for an existing commercial wine tasting facility located at 2481 Buena Vista Avenue, near Livermore (Exhibit A). The facility operates on a 9.9 acre parcel (APN 099-1200-014-01) that is owned by George and Denise Mueller, who live onsite in one of the two existing residential dwellings that share a single septic tank system for their sewage disposal. The winery currently uses self-contained portable toilets for its patrons and employees. In addition, a small wholesale nursery raises plants in pots on the parcel, but has no onsite office or wastewater disposal facilities associated with it.

The site is situated over a southeastern portion of the Mocho II sub-basin of the Livermore Valley Groundwater Basin in an area of historical nitrate contamination, within one of the Areas of Concern identified in Zone 7's draft Nutrient Management Plan (Figure 1). The winery is currently located outside of Livermore's Urban Growth Boundary (UGB) and over 0.5 miles from the closest municipal sewer line, making it unfeasible at the present time for the winery to connect to the sewer.

In the 1980's, Zone 7 adopted Wastewater Management Policies to minimize the potential for impacts to groundwater from over use and misuse of septic tanks over the "Central Groundwater Basin and its fringe areas." One such existing policy prohibits the use of septic tanks for any new commercial development unless the Zone 7 Board authorizes it. A second existing policy limits all new developments proposing to use septic tank systems to a maximum density of one rural residential equivalent per five acres (1 RRE/5 Ac.). However, in Zone 7's draft Nutrient Management Plan (NMP, February 2015), staff proposes stricter wastewater loading requirements for parcels within certain high nitrate Areas of Concern when they are undergoing development involving new or modified septic systems. The draft NMP does not propose any new wastewater loading requirements for parcels outside the high nitrate Areas of Concern.

The Board has adopted criteria for approving commercial systems and a process for evaluating whether projects meet the criteria for approval. This process is summarized in the Zone 7 Septic Tank Approval Decision Tree, which is provided as an attachment. For the purpose of evaluating onsite wastewater loading, staff assumes 1 RRE is equivalent to an onsite nitrogen loading of approximately 34 pounds of nitrogen per year, which is based on an average daily residential sewage discharge of 320 gallons per day (gpd) with an average total nitrogen concentration of 35 mg/L.

DISCUSSION:

In accordance with procedures adopted by the Zone 7 Board in 1986, Zone 7 Staff reviewed the application and additional information provided by SJB Consulting Group on behalf of Mitchell Katz Winery using Zone 7's Septic Tank Permit Review Decision Tree (Exhibit B). The decision path is as follows:

- The project would result in a change in wastewater classification from rural residential to a combination of residential and commercial uses. With the project fully implemented, the average onsite sewage flow would increase from an estimated 320 gallons per day to an estimated 697 gallons per day, but the total onsite nitrogen loading would only increase from 34 lbs-N/yr to 46 lbs-N/yr because of the use of a nitrogen-removing treatment process that is planned for the winery's septic system. See attached Project Wastewater Loading Worksheet.
- The proposed use easily conforms to the Zone 7 Wastewater Management Policy (WMP) that permits a maximum wastewater loading of 1 RRE/5 acres when no community sewage system is available. The estimated 46 lbs-N/yr for the entire site is comparable to a wastewater loading of slightly less than 0.7 RRE/5 acres.
- Although the sewage generated by the tasting room would be the same type and strength as rural residential wastewater, since it comes from a commercial winery operation, the proposed use is considered commercial (non-residential).
- The proposed septic tank use conforms to Zone 7's Resolution 1165, which prohibits the use of septic tanks for new commercial developments overlying the groundwater basin unless it can be satisfactorily demonstrated that the wastewater loading will be no more than that from "an equivalent rural residential unit." In this case, however, because the site is situated within an area of historical nitrate contamination, staff recommends that a more strict maximum allowable loading limit be employed. The proposed system achieves this objective (i.e.: reducing nitrate loading). This parcel is three to four times larger than the typical parcel in the Buena Vista Avenue Area of Concern, thus potentially providing three to four times the volume of rainfall recharge to dilute the percolated wastewater. Staff believes it to be sufficiently protective of groundwater quality to simply restrict the resulting onsite loading to be 30% less than the loading typically allowed for a 9.9 acre parcel in an area without nitrate contamination. In this case, a total loading of 1.4 RRE is equivalent to 0.7 RRE/5 acres. As shown in Exhibit C, the estimated post-project loading is slightly less than the staff-recommended maximum.
- With a potted plant nursery operating adjacent to the winery, there is a chance that hazardous materials such as herbicides and chemical fertilizers are used and stored on the same parcel as the winery. However, the new septic system is only for the winery's use which does not involve any such hazardous chemicals. Periodic inspections of both facilities by County Environmental Health personnel will ensure that hazardous materials, if any are onsite, are not threatening to spill to the leachfield.

Based on staff's assessment of the information provided by the applicant, staff recommends that the proposed septic tank use be approved and the project be deemed to be in compliance with Zone 7's Resolution 1165 by the Zone 7 Board. In addition, it is recommended that the approval be conditioned on the following:

1. That Alameda County Environmental Health Department also approves the use and design and provides oversight during the construction, operation and maintenance of the septic systems.
2. No wastewater disposal, other than that specifically approved herewith, is allowed without prior approval by the Zone 7 Water Agency.
3. When a public sewer is extended to within 200 feet of any onsite dwelling connected to the onsite wastewater treatment system (OWTS), the OWTS shall be abandoned, and all building sewers shall be connected to the public sewer.

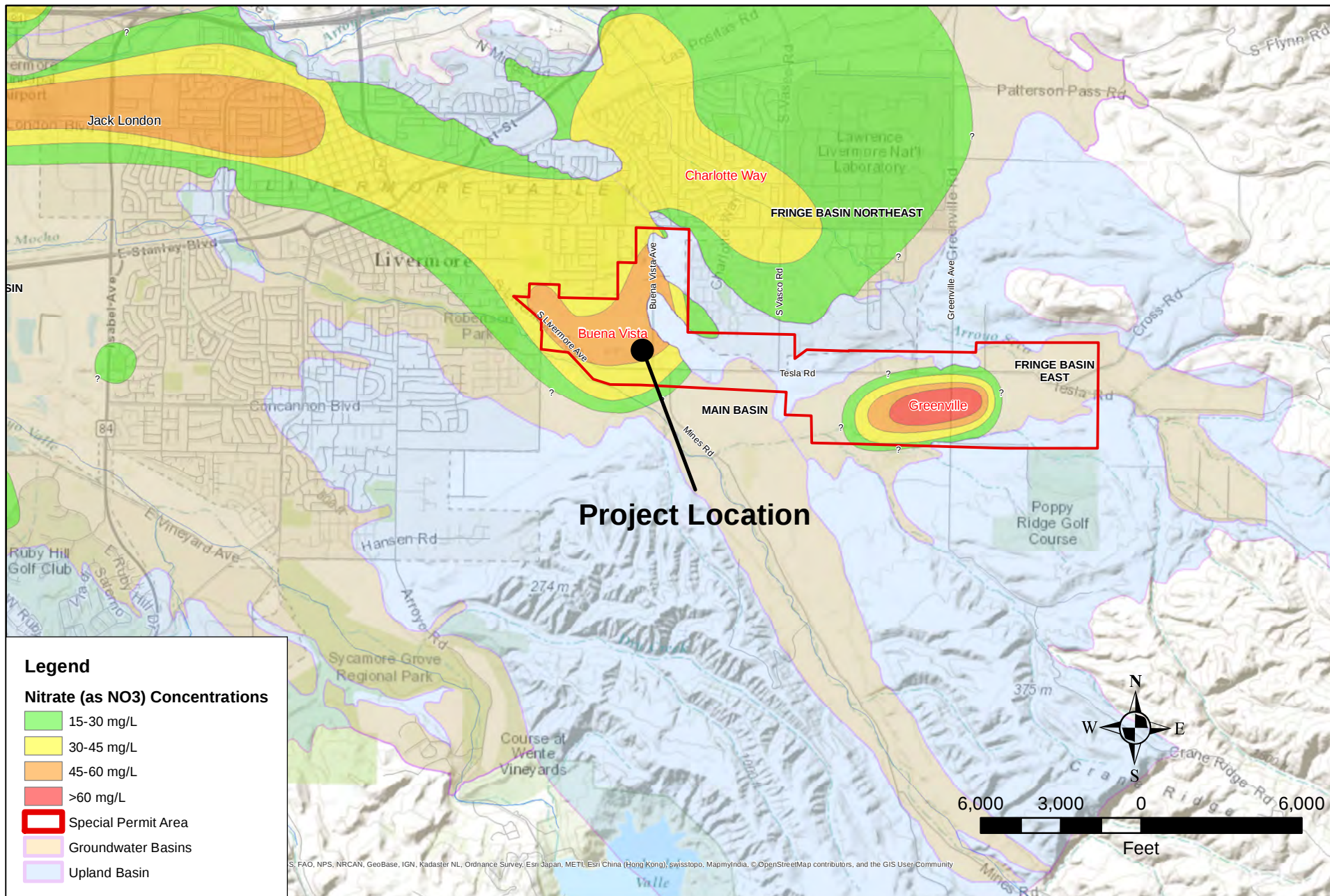
FIGURES & EXHIBITS:

Figure 1: Project Location Map

Exhibit A: Septic Tank Application for Non-Residential Use

Exhibit B: Zone 7 Septic Tank Approval Decision Tree

Exhibit C: Project Wastewater Loading Worksheet



ZONE 7 WATER AGENCY
100 North Canyons Parkway, Livermore, CA

DRAWN: TR

REVIEWED: MK

File:
E:\Septic\Agenda Items\Mitchel Katz Winery\MitchelKatzMap.mxd

PROJECT LOCATION
Mitchell Katz Winery
2481 Buena Vista Avenue
Livermore, CA

Scale: 1" = 6,000'

Date: 3/12/15

FIGURE 1



Alameda County Flood Control & Water Conservation District, Zone 7

100 No. Canyons Parkway • Livermore, California 94551 • Phone (925) 454-5000 • Fax (925) 454-5728

Septic Tank Application for Non-Residential Use

For Applicant to Complete

- 1) Name of Business: Katz Winery
- 2) Septic Tank Site:
 - a) Address: 2481 Buena Vista Road
Livermore, CA 94550
 - b) Assessors Parcel No.: 099-1200-014-01
- 3) Contact Person:
 - Name: Mitch Katz
 - Title: Owner
 - Telephone: 925.980.1927
 - Fax No: _____
 - Mailing Address: _____
- 4) Statement of existing use of the property:
Combined use as residential and winery tasting room
- 5) Statement of proposed use of the property: same as existing
- 6) Attach site map showing locations of septic tank/treatment/leachfield system, facilities and buildings to be connected to the system, and any wells.
- 7) Attach description of septic tank/treatment system to be used, and include estimates of the total wastewater loading for the site, and of the nitrogen removal potential of the treatment system, if any.
- 8) Attach Hazardous Materials Management Plan, or statement of onsite hazardous materials use.
- 9) Applicant's signature: Stephen J. Buckley
Digitally signed by Stephen J. Buckley
DN: cn=Stephen J. Buckley, o=SZ Consulting Group, ou=Environmental, email=sjb@szconsulting.net, c=US
[www.sjb@szconsulting.net]
Date: (for Mitch Katz) 02/11/15

For Office Use Only (Shaded Areas)

- Septic Tank Permit No.: 15-069
- Taken by: M. Katz Date: 2/11/15
- (Check Appropriate Action)
- Approved:
- | | |
|------------------------------------|-------------|
| ___ 1) Complies w/Res. No. 1165 | Date: _____ |
| ___ 2) Exception, Special Review 2 | Date: _____ |
| ___ 3) Exception, Special Review 1 | Date: _____ |
- Disapproved:
- | | |
|-----------------------|-------------|
| ___ 4) Non-compliance | Date: _____ |
|-----------------------|-------------|

Permit Conditions

This permit is issued subject to the following General Conditions and to the circled Special Conditions:

A. General Conditions:

1. Limit the number of full-time employees to _____ persons.
2. Comply with policies of Wastewater Management Plan.
3. Comply with all other requirements of federal, state and local jurisdictions.
4. Subject to unscheduled inspections.
5. Connect to community sewerage system when within 200 feet of any property line.

B. Special Conditions:

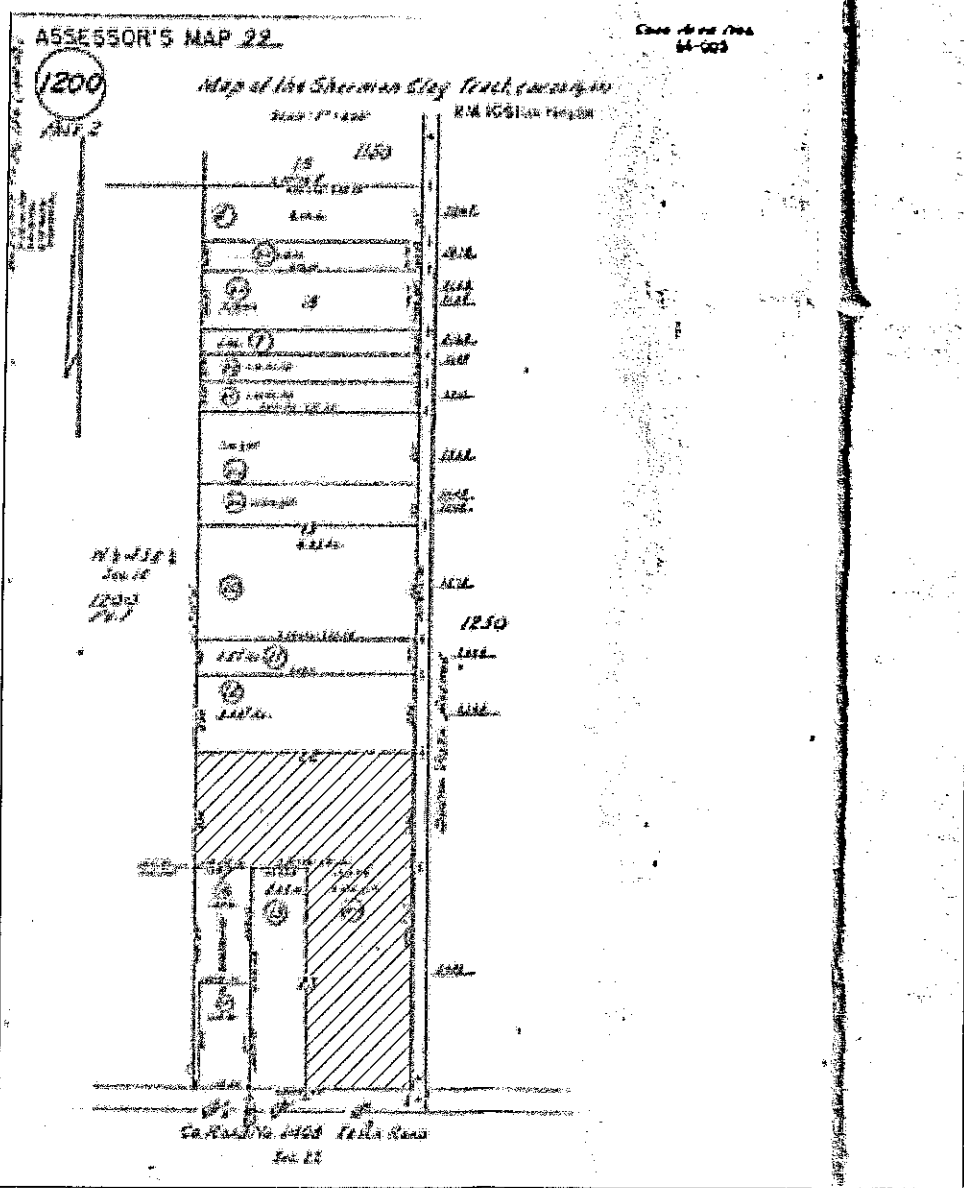
1. Develop and maintain a Hazardous Materials Management Program as approved by Alameda County Environmental Health Division, Hazardous Materials Management Unit.
2. Provide sampling stations for analysis of suspected contaminants at applicant's expense as follows:

3. See attached special permit conditions

ICON KEY

- TREE, GENERAL
- OAK
- CEDAR
- PINE
- BUSH
- POWER POLE
- PERC HOLE
- PROFILE
- OLD PROFILE
- ROCK
- GUIDE WIRE
- WATER BOX
- WATER VALVE

SITE MAP NO SCALE



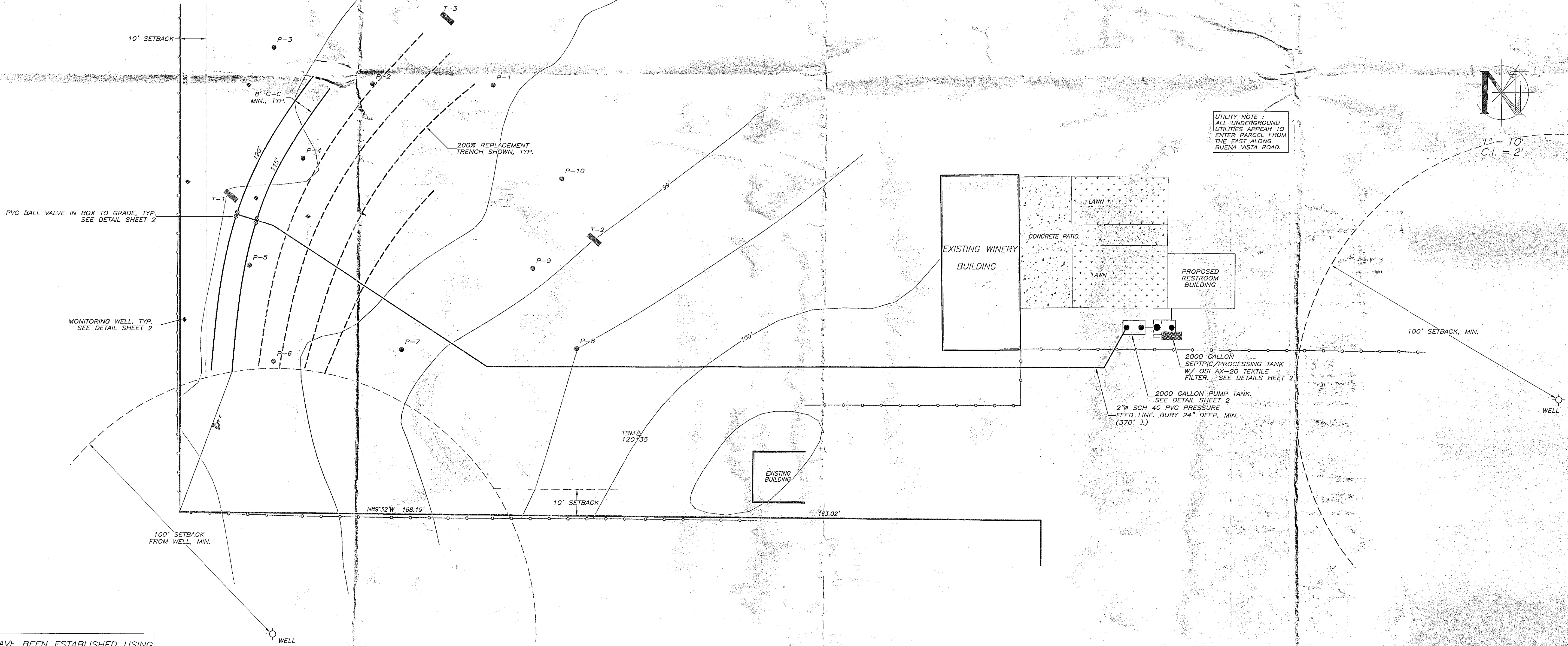
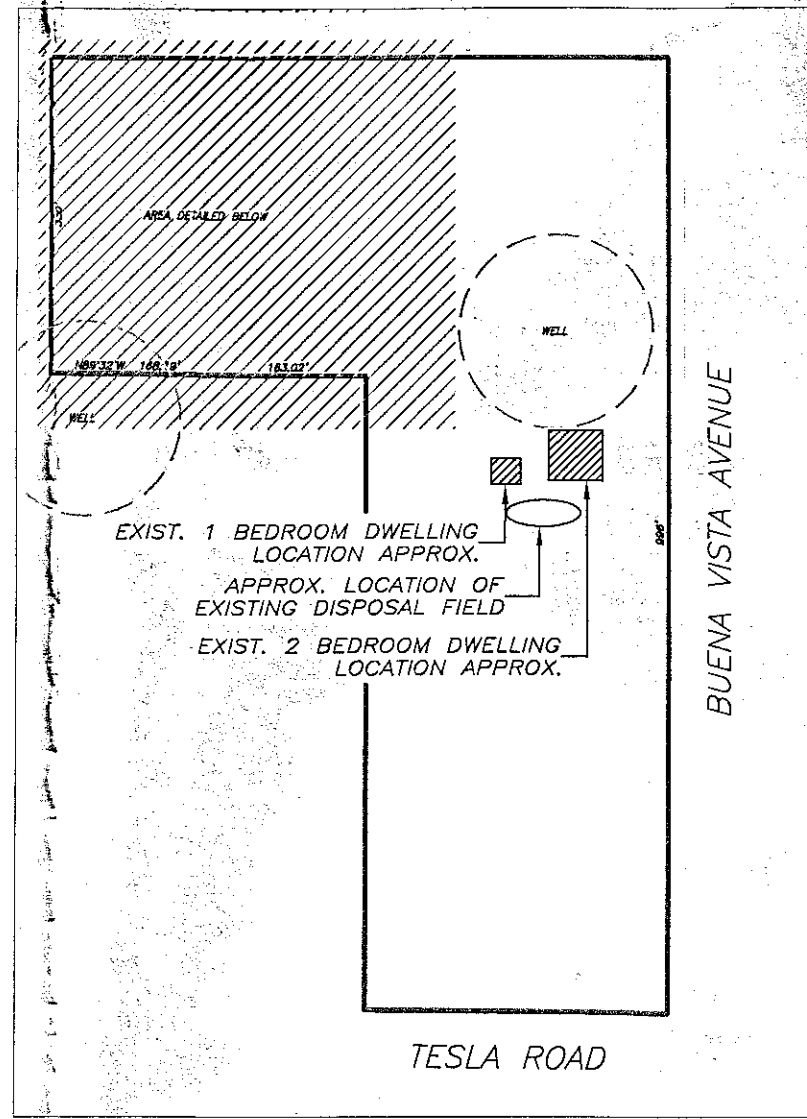
GENERAL DESIGN DATA:

Application: Winery + Tasting Room
 Water supply: Community water supply
 Soil Depth: 7' (1-2)
 Percolation Rate: 7 MP
 Depth to groundwater: 11'± (Zone 7 2013 Report)
 System type: Pre-treatment
 Slope (disposal field): <2%
 Maximum daily design flow: 377 gpd
 Wastewater application rate: 0.7 gpd/s.f.
 Wastewater application area: 3.0 s.f./i.f.
 Disposal trench length required: 233 l.f.
 Call for: 235 l.f.

DEVIATION REQUEST FROM OWT'S TIER 1 STANDARDS
 NONE

PLUMBING FIXTURES, EXISTING STRUCTURES		
FIXTURE	EXISTING	REQUIRED
2 TOILET	FULL FLOW	1.28 GPF
2 SHOWERHEAD	LOW FLOW	2.0 GPM

AS BUILT NOTES		
OBSERVATION	NOTES	INITIAL

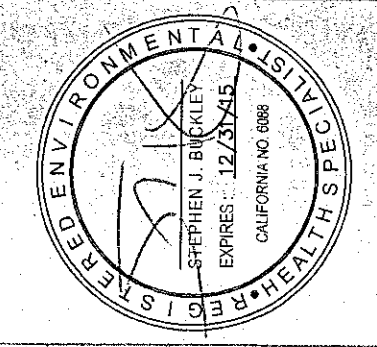


ELEVATIONS HAVE BEEN ESTABLISHED USING AN ARTIFICIAL DATUM.

ON-SITE WASTEWATER DISPOSAL
 SYSTEM DESIGN
 ALAMEDA COUNTY APN: 099-1200-014-01
 2481 BUENA VISTA
 LIVERMORE, CA

JOB # : 120135
 DATE : 12/19/12
 DRAWN : JF
 DESIGNED : SJB
 REV 1 : 05/05/14 update
 REV 2 : 0

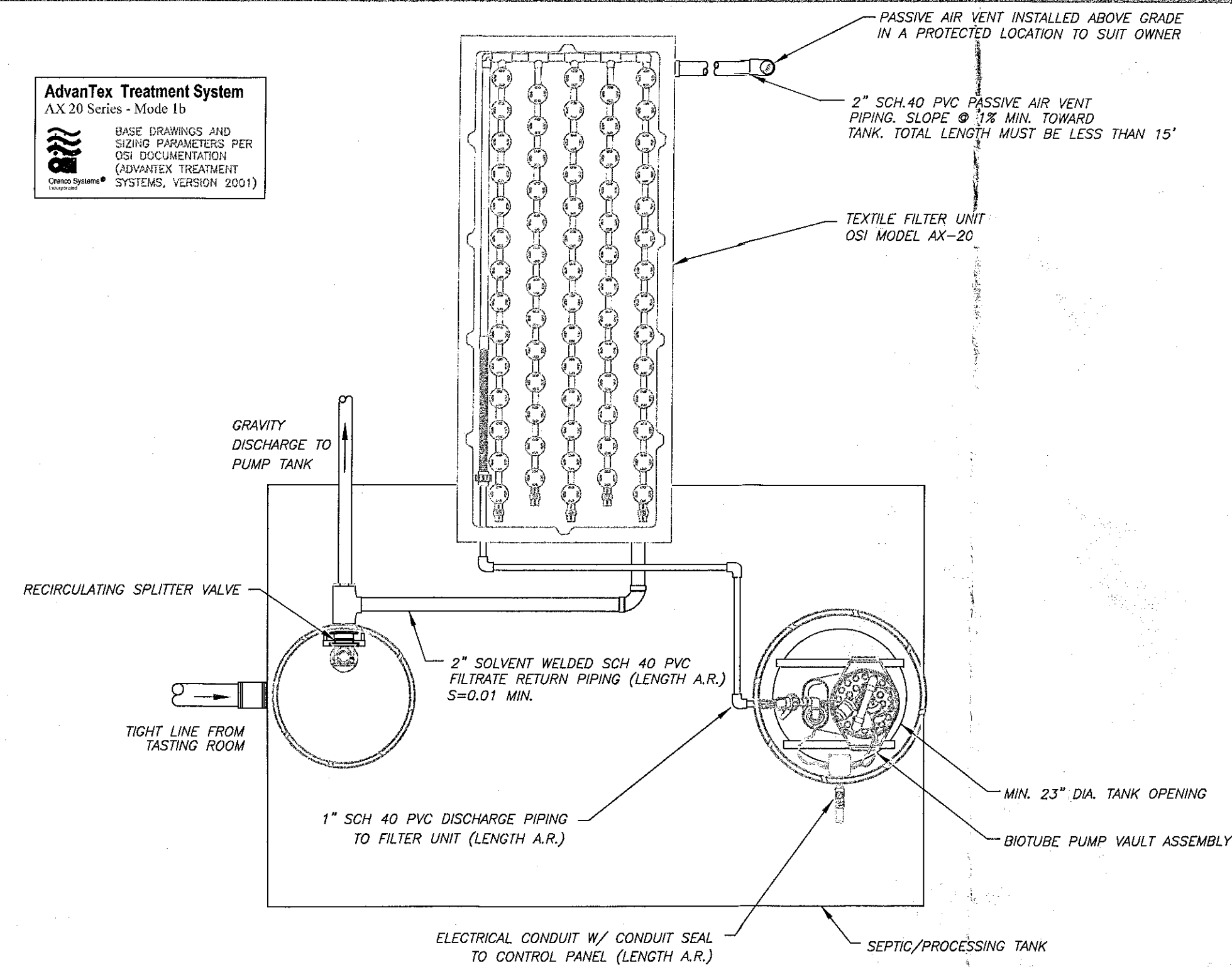
PREPARED FOR:
 Mitchell Katz
 Post Office Box 2550
 Livermore, CA 94551-2550



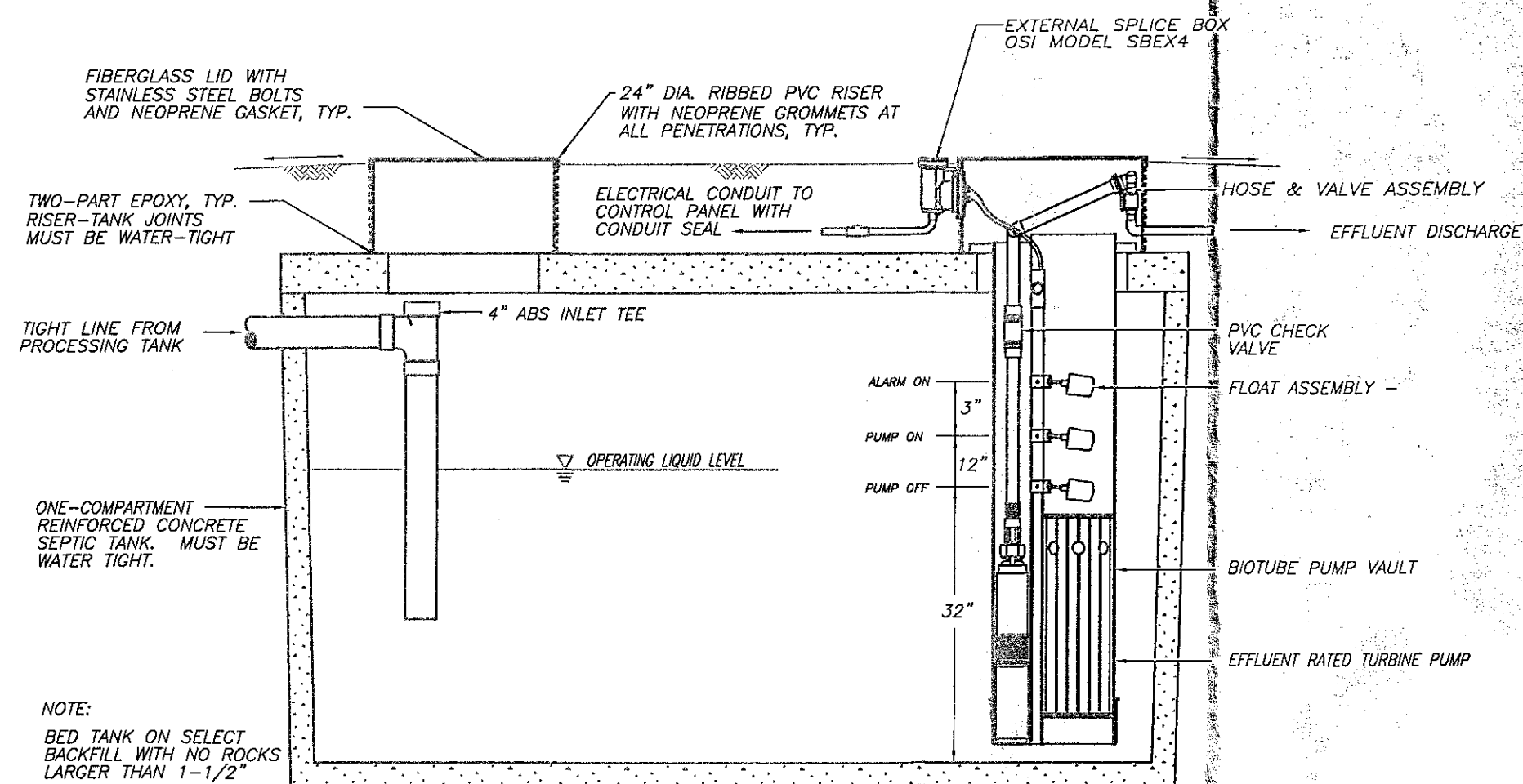
SJB CONSULTING GROUP
 APPLIED WASTEWATER SOLUTIONS, INC.
 SEPTIC SYSTEM DESIGN
 ENVIRONMENTAL CONSULTING
 WASTEWATER COMPLIANCE
 LAND DEVELOPMENT
 POST OFFICE BOX 1137
 JACKSON, CA 95642
 209.223.0201
 209.223.4151 (FAX)

3

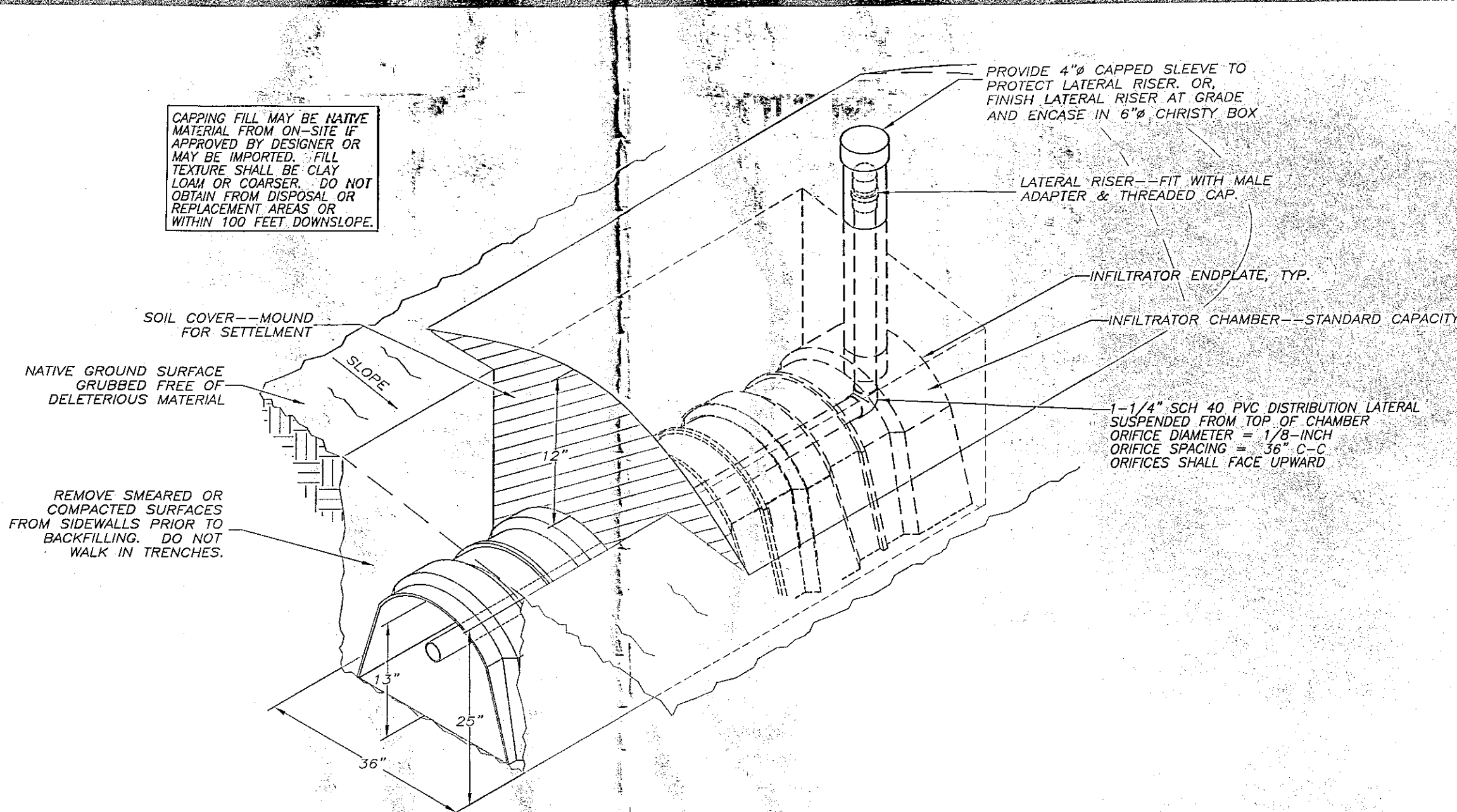
AdvanTex Treatment System
AX-20 Series - Model 1b
BASE DRAWINGS AND
SIZING PARAMETERS PER
OSI DOCUMENTATION
(ADVANTEX TREATMENT
SYSTEMS, VERSION 2001)



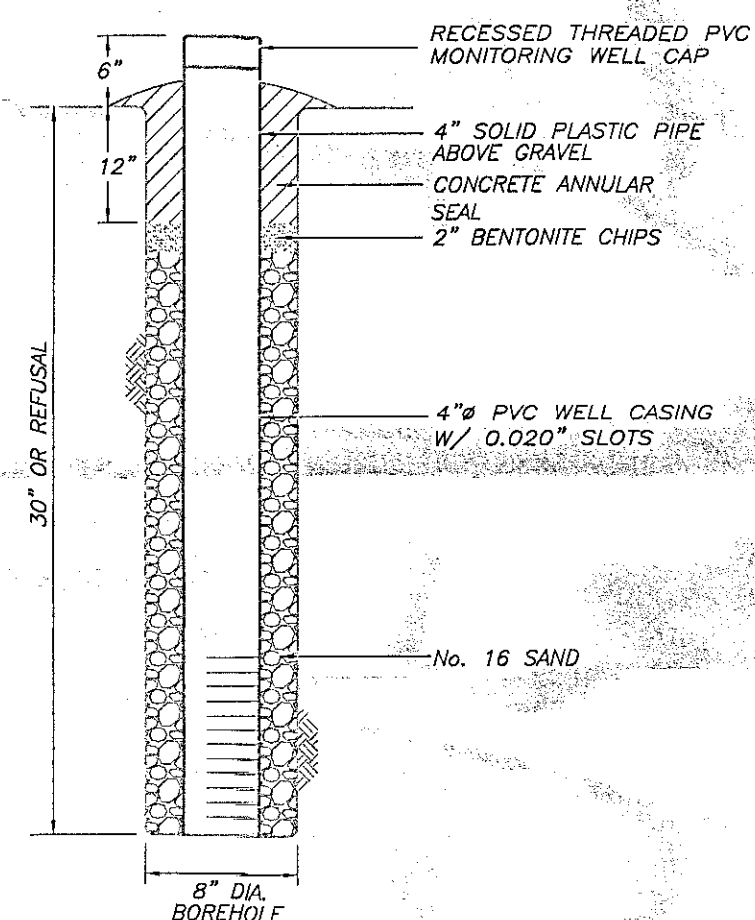
1 PROCESSING TANK & TEXTILE FILTER DETAILS
NOT TO SCALE



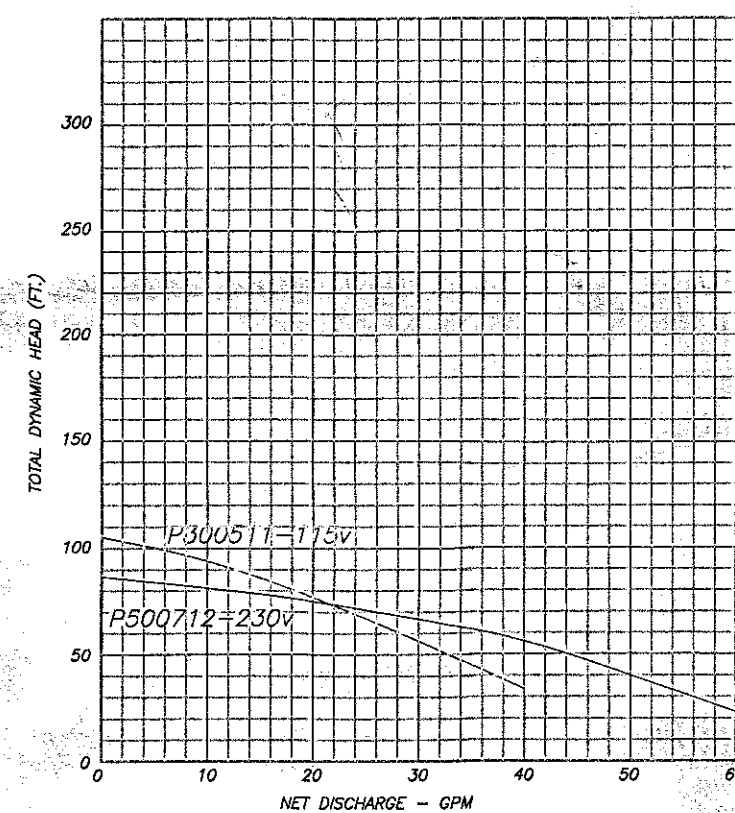
3 PUMP TANK
NOT TO SCALE



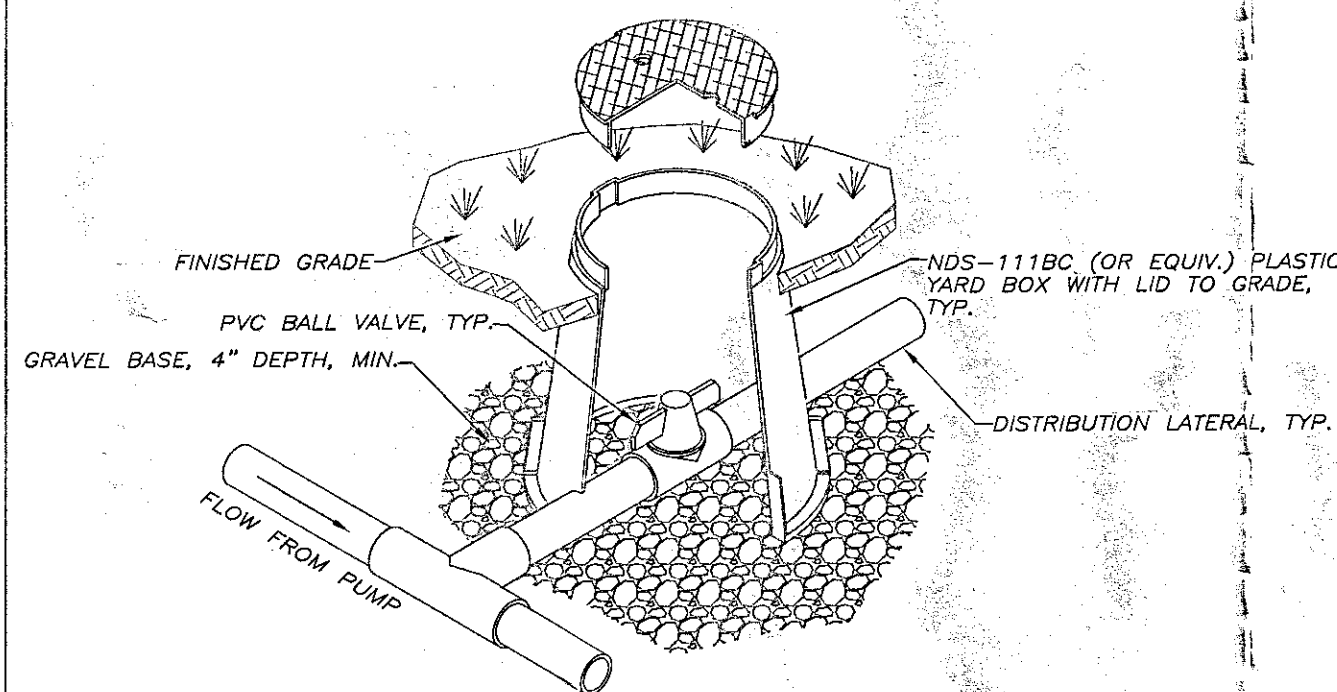
2 DISPOSAL TRENCH DETAIL
NOT TO SCALE



4 MONITORING WELL
NOT TO SCALE



6 PUMP CURVE
NOT TO SCALE



5 BALL TRIMMER VALVE
NOT TO SCALE

DESIGN DATA

TEXTILE FILTER DISTRIBUTION SYSTEM:

Number of orifices in textile filter: 68
Lateral orifice diameter: 1/8 in.
Residual lateral pressure: 5 ft.
Orifice discharge rate: 0.43 gpm
Total textile filter discharge rate: 29 gpm

PROCESSING TANK PUMPING SYSTEM:

Net lift (max.): 5 ft.
Residual pressure in textile filter: 5 ft.
Feed line friction: 8 ft.
Misc. losses: 5 ft.
Total system head: 28 ft.
Processing tank pump required: P300511

SEPTIC TANK PUMPING SYSTEM:

Net lift (max.): 5 ft.
Residual pressure : 5 ft.
Feed line friction: 15.5 ft.
Misc. losses: 7 ft.
Total system head: 32.5 ft.
Septic tank pump required: P300511

DISPOSAL FIELD DISTRIBUTION SYSTEM:

Disposal field lateral length (total): 235 l.f.
Lateral orifice diameter: 1/8 in.
Lateral orifice spacing: 36 in. c-c
Residual lateral pressure: 5 ft.
Orifice discharge rate: 0.43 gpm
Total number of orifices: 78
Total discharge rate: 33.5 gpm

MAJOR COMPONENT SCHEDULE

Septic/Processing tank: 2000 gallons
Septic/Processing tank inlet riser: RR2438 with tank adapter & lid
Processing tank outlet riser: RR3036 (grommets) with adapter & lid
Processing tank pump vault: PVU57-2419-L
Processing tank pump: P300511
Processing tank float assembly: MF-3V
Processing tank hose & valve ass'y: HV100BCX
Recirculating splitter valve: OSI MODEL RSV20-DB
Textile filter model: OSI Advantex AX-20
Pump tank : 2000 gal single compartment
Pump tank pump vault: PVU57-2419-L
Pump tank pump: P300511
Pump tank float assembly: MF-3V
Pump tank hose & valve ass'y: HV125BCX
Pump control & alarm panel: AX-VCON-BI

CONTROL PANEL:
INSTALL CONTROL PANEL (WITH PUMP ACTIVATION SWITCHES
AND ALARM) WITHIN 25' OF PUMP TANK. INSTALL REMOTE
ALARM WITHIN 25' OF THE MAIN DWELLING.

EMERGENCY STORAGE CALCULATION:

SEPTIC TANK:
HEIGHT: 64"
VOLUME: 2000 GALLONS
VOL/VERT. INCH: 31 GAL
AVAILABLE HEIGHT FOR E-STORAGE: 14"
AVAILABLE VOLUME FOR E-STORAGE: 434 GALLONS
PUMP TANK:
HEIGHT: 64"
VOLUME: 2000 GALLONS
VOL/VERT. INCH: 31 GAL
AVAILABLE HEIGHT FOR E-STORAGE: 24"
AVAILABLE VOLUME FOR E-STORAGE: 744 GALLONS
TOTAL VOLUME AVAILABLE FOR EMERGENCY STORAGE: 1178 GALLONS
* BASED ON P&L STANDARD TANK CONFIGURATION

Proprietary components are manufactured by Orenco Systems, Inc.
(OSI), 814 Airway Avenue, Sutherlin Oregon. OSI components are
distributed by Sander's Hardware in Mountain Ranch, Colavere County,
Tel: (209) 754-1074.

PROJECT SPECIFIC CONSTRUCTION NOTES

CONTRACTOR SHALL TAKE ALL MEASURES
NECESSARY TO LOCATE AND AVOID
UNDERGROUND UTILITIES.

DO NOT CUT OR DISTURB NATIVE
SOILS WITHIN 50 FEET OF DISPOSAL
OR REPLACEMENT AREAS, TYP.

NOTE: ALL COMPONENTS OF THIS SEPTIC SYSTEM
MUST BE A MINIMUM OF 100 FEET FROM ALL WELLS

NOTE: SEPTIC/DOSING TANK AND
THIS PRE-TREATMENT UNIT MAY BE
RELOCATED IF APPROVED IN
ADVANCE BY DESIGNER

ALL TANKS SHALL BE MONOLITHIC,
I.A.P.M.O. APPROVED AND
WATER-TIGHT PER COUNTY
REGULATIONS.

EROSION CONTROL MEASURES

All disturbed areas (tanks, disposal area, borrow areas), shall
be graded to insure positive runoff of surface water. These
areas should also be seeded, fertilized and mulched with the
following (or equivalent) to control erosion:

Seed mixture: Blando Brome (5 lbs./1000 sq.ft.) or equiv.
Fertilizer: 16-20-0 (20 lbs./1000 sq.ft.)
Mulch: 2-4 inches of oat hay or straw

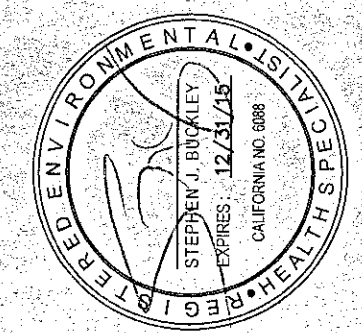
For best results, erosion control operations should be
completed between September 15th and October 15th.

NOTE: EXISTING DWELLINGS AND
WINERY PLUMBING MUST BE
RETROFITTED (AS REQUIRED)
WITH 1.28 GALLON PER FLUSH
TOILETS & 2.0 GPM MAX. SHOWER
HEADS.

ON-SITE WASTEWATER DISPOSAL
SYSTEM DESIGN
ALAMEDA COUNTY APN: 099-1200-014-01
2481 BUENA VISTA
LIVERMORE, CA

JOB # : 120135
DATE : 12/19/12
DRAWN : JF
DESIGNED : SJB
REV 1 : 05/05/14 update
REV 2 : 0

PREPARED FOR:
Michael Katz
Post Office Box 2550
Livermore, CA 94551-2550



SJB CONSULTING
SJB GROUP
APPLIED WASTEWATER SOLUTIONS, INC.
SEPTIC SYSTEM DESIGN
LAND DEVELOPMENT
WASTEWATER
ENVIRONMENTAL
POST OFFICE BOX 1137
JACKSON CA 95642
209.223.0201
209.223.4151 (FAX)

2
3

SERVATIONS BY THE DESIGNER :

- Lay-out – The location and lay-out of the disposal trenches must be approved by the designer prior to construction. Contractor is responsible for laying out the disposal trenches and tank location prior to this inspection.
- 2) Open Trench – After the disposal trenches (and curtain drain if required) have been excavated and prior to the placement of the drainrock (or chamber units). The septic tank must be set and the textile filter unit properly placed. Do not backfill around the top of the tank or textile filter. All materials (drainrock, etc.) must be on site.
- 3) Final – All final grading around the tank and the disposal field must be complete. The control panel must be properly mounted and a power supply available. Lateral risers shall be configured so that the disposal field may be hydraulically tested and balanced. Sufficient water must be placed in the tank to adequately check the functioning of the floats and splitter valve and dose the disposal field.
- 4) Prior to issuance of a final letter for the project it will be necessary for the service provider to conduct an inspection of the system to determine that the system has been properly constructed and is in proper working order. Written verification of this inspection is required.

These limited site observations by the designer do not allow for the detailed examination of all of the system components and workmanship and is intended only to view certain discrete aspects of the installation process. The installer is responsible for all workmanship and materials utilized in the project and for the means and methods of construction. Re-inspection required due to installer error will be billed to the owners on a time and materials basis.

CONSTRUCTION NOTES—TIGHTENES AND PRESSURE MAINS

Trench Construction: For pressure applications, the Standard Practice for Underground Installation of Thermoplastic Pressure Piping (ASTM D2774) shall be followed in conjunction with this information.

The trench should be of adequate width to allow convenient installation, while at the same time be as narrow as possible. Minimum trench widths may be utilized by joining pipe outside the trench and lowering it into the trench after adequate joint strength has been achieved. Trench widths will have to be wider where pipe is joined in the trench or where thermal expansion and contraction is a factor.

Refer to manufacturer's instructions for recommended set and cure times for solvent cemented joints—do not lower into trench until adequate joint strength is achieved.

Trench depth is determined by intended service and local conditions. Pipe for conveying liquids susceptible to freezing should be buried no less than 12" below the maximum frost level. Permanent lines subjected to heavy traffic should have a minimum cover of 24". For light traffic 12" to 18" is normally sufficient for small diameter pipe (typically <3" diameter).

The trench bottom should be continuous, relatively smooth and free of rocks. Where ledge rock, hardpan or boulders are encountered, it is necessary to pad the trench bottom using a minimum of four (4) inches of compacted earth or sand beneath the pipe as a cushion and for protection of the pipe from damage. Sufficient cover must be maintained to keep external stress levels below acceptable design stress. Reliability and safety of service is of major importance in determining minimum cover.

Snaking of Pipe: For small diameter piping systems (typically <3" diameter), snaking of pipe is particularly important for thermal expansion and contraction of the piping when installing pipe in hot weather. This may also apply to larger diameter piping under specific applications and site conditions. After the pipe has been solvent welded and allowed to set properly, it is advisable to snake the pipe according to the following recommendations beside the trench during its required drying time (cure time). BE ESPECIALLY CAREFUL NOT TO APPLY ANY STRESS THAT WILL DISTURB THE UNDRID JOINT. This snaking is necessary in order to allow for any anticipated thermal contraction that will take place in the newly joined pipeline. Refer to the section on Thermal Expansion & Contraction for additional information.

Snaking is particularly necessary on the lengths that have been solvent welded during the late afternoon or a hot summer day, because their drying time will extend through the cool of the night when thermal contraction of the pipe could stress the joints to the point of pull out. This snaking is also especially necessary with pipe that is laid in its trench (necessitating wider trenches than recommended) and is backfilled with cool earth before the joints are thoroughly dry.

Bedding and Haunching: The pipe must be uniformly and continuously supported over its entire length on firm, stable material. Proper bedding and haunching materials are dependent on local soil conditions and type. Follow classes of embankment in Table 1—Pipe Stiffness Values for PVC Pipe—ASTM D2321. The trench bottom should be continuous, relatively smooth and free of rocks. Where ledge rock, hardpan or boulders are encountered, it is necessary to pad the trench bottom with proper bedding using a minimum of two (2) inches of suitable bedding beneath the pipe as a cushion and for protection of the pipe from damage. Install and compact bedding materials in 6-inch maximum layers within the pipe zone. Refer to the diagrams on the following page for clarification. Compaction techniques and equipment used must not contact or damage the pipe.

Backfilling: Where possible underground pipe should be thoroughly inspected and tested for leaks prior to backfilling.

The pipe should be uniformly and continuously supported over its entire length on firm, stable material. Blocking should not be used to support pipe grade to intermittently support pipe across excavated sections. Pipe is installed in a wide range of subsols. These soils should not only be stable, but applied in such a manner so as to physically shield the pipe from damage. Attention should be given to local pipe laying experience that may indicate particular pipe bedding problems. Initial backfill materials free of rocks with particle sizes 1/2" or less should be used to surround the pipe, and should be placed and compacted in layers. Each layer should be sufficiently compacted to uniformly develop lateral passive soil forces during the backfill operations. It may be advisable to have the pipe under water pressure (15 to 25 psi) during backfilling. Final backfill should be placed and spread in uniform layers in such a manner to fill the trench completely so that there will be no unfilled spaces under, or about, rocks or lumps of earth in the backfill.

Sufficient cover must be maintained to keep external stress levels below acceptable design stress. Reliability and safety of service is of major importance in determining minimum cover. Rolling equipment or heavy tampers should only be used to consolidate the final backfill. Attention should be given to local pipe laying experience that may indicate particular pipe bedding problems. Local, state and national codes may also govern.

DISPOSAL TRENCH CONSTRUCTION NOTES

Disposal trenches must be installed on contour, to a constant depth such that the bottoms are level. Disposal trenches spacing shall be as shown on this plan.

Trenches must be at such depth that will utilize the best soil as determined by the Soil Profile and Percolation tests.

Compaction of the disposal trench bottom shall be avoided. Actions that lead to compaction are footprints, stacking of materials in the trench. Any compacted areas shall be raked to remove compaction prior to placement of the drainrock.

Leachfield trenches must contain double-washed rock 3/4 to 2 1/4 inch diameter, Sch 40 PVC pipe, Geotextile filter fabric, and back-filled (covered) with a minimum of 12 inches of suitable soil. Infiltrator type chambers may also be used at the discretion of the designer.

Soil backfill and/or capping fill may be native material from on-site or may be imported. Fill texture shall be clay loam or coarser. Do not obtain soil from disposal area, replacement area or within 100 feet downslope of disposal field. Do not compact soil backfill or capping fill.

See erosion control note this sheet.

EROSION CONTROL MEASURES

All disturbed areas (tanks, disposal area, borrow areas), shall be graded to insure positive runoff of surface water. These areas should also be seeded, fertilized and mulched with the following (or equivalent) to control erosion:

Seed mixture: Blando Brome (5 lbs/1000 sq.ft.) or equiv.
Fertilizer: 16-20-0 (20 lbs/1000 sq.ft.)
Mulch: 2-4 inches of cut hay or straw

For best results, erosion control operations should be completed between September 15th and October 15th.

OWNER'S RESPONSIBILITIES

- All septic systems, regardless of type, have finite life spans and as such will not operate indefinitely. In accepting this plan, the owner understands and accepts that repair and/or replacement of all or portions of this system will likely be required at some time in the future.
- Proper and diligent monitoring and maintenance will maximize the life of this system and is required. Monitoring & Maintenance Guidelines were prepared for this system and are shown on these plans; these guidelines must be understood and implemented for the system to function reliably. All subsequent owners must understand and implement the monitoring and maintenance guidelines or this design will be considered voided.
- This system is designed to accommodate a finite quantity of domestic wastewater generated by a single-family dwelling. Non-residential wastewaterers should be treated properly by this system and will damage its components. Wastewater generation exceeding the daily design flow rate listed elsewhere on these plans is likely to damage the system or cause failure and is strictly prohibited.
- All toilets and shower heads connected to this system must meet the following specifications: toilets shall have a maximum flush rate of 1.28 gallons per flush; shower heads shall have a maximum flow rate of 2.0 gallons per minute.
- Garbage disposal units will increase the need for septic tank pumping, will increase the liquid load on the system, and will likely reduce the system's functional life. These units, therefore, are strongly discouraged.
- Recreational vehicle holding tank chemicals can damage this system's microbiology and must not be discharged into the system.
- The creation of cut banks below the disposal or replacement areas increases the possibility of interception and surfacing of migrating effluent and should always be avoided. Cut banks below the disposal or replacement areas are created solely at the risk of the owner.
- The disturbance of native soils within or below the disposal or replacement areas increases the possibility of soil structure damage and may lead to disposal field failure. Disturbance of native soils within or below the disposal or replacement areas by any means including vehicular traffic, grading, livestock, etc. is prohibited and will invalidate this design.

INSTALLER'S RESPONSIBILITIES

- Construction of this septic may be undertaken only after obtaining a permit from the regulatory authority(ies). Do not begin construction prior to approval of this design and issuance of a permit by the regulatory authority(ies). The owner and/or installer of this system is/are solely responsible for identifying and obtaining any other permits which may be required for construction of this system.
- Inspections during construction by the designer are required. The installer and/or owner are solely responsible for contacting the designer at least 24 hours in advance of each required inspection.
- Every effort will be made to respond within 24 hours, however additional notice may sometimes be required.
- The permit and an approved set of design documents must be on the job site at all times.
- The installer and/or owner are solely responsible for ensuring that all property boundaries are accurately marked, that all appropriate setbacks are observed, and that underground and/or overhead utilities and/or utility easements are identified prior to construction. These design documents may not show all present utilities.
- Under no circumstances shall the disposal or replacement areas, or the relative positions of the other system components, be modified without the prior consent of the designer and the regulatory authority(ies).
- If the soil in the disposal area can be formed into a ribbon it is too wet to excavate. Do not remove vegetation, operate equipment, or otherwise manipulate soils in the disposal area until receiving approval from the designer.
- Disturbance of native soils in the disposal and/or replacement areas and for a distance of 50 feet below the disposal or replacement areas may damage the permeability of the soil column and cause premature system failure. Do not allow vehicular traffic, construction equipment, or livestock in the area within or below the disposal or replacement areas.
- Do not direct concentrated surface water runoff onto adjacent properties.
- The OSI Simplex control panel utilizes magnetic motor contactors that can cause noise and/or vibration in the dwelling if mounted on the dwelling's exterior wall. Coordinate panel location with the owner prior to mounting to avoid conflicts.

ON-SITE SEPTIC SYSTEM GENERAL OPERATIONS AND MAINTENANCE DOCUMENT

ORENCO SYSTEMS, INC. TEXTILE FILTER WITH SHALLOW SUBSURFACE DISPOSAL TRENCHES

Prepared by: SJB Consulting Group in association with OSI

General

Wastewater exiting the facility is directed into the primary compartment of the septic/recirculation tank for primary treatment and clarification of solids. Effluent leaving the primary compartment enters the secondary compartment, or recirculation chamber, of the septic/recirculation tank, which contains a screened pumping assembly. Effluent is pumped from the recirculation chamber to a textile filter for secondary treatment. After passing through the filter, the treated wastewater is either returned to the recirculation chamber or diverted to a pump basin for delivery to the disposal field.

Dosing System

To insure uniform distribution of effluent to the disposal field, an effluent pump is employed to transfer effluent to the disposal field. The pump is usually mounted in a screened vault suspended in the outlet compartment of the septic/recirculation tank. Discharge of effluent is controlled by the pump's float valve to the disposal field. The dosing assembly is usually fitted with an integral non-resettable dose counter, which allows for the calculation of the volume of effluent pumped to the disposal field. A high level alarm is usually present on the pump chamber with the alarm panel attached to the outside of the house or in the garage. This alarm will sound if the effluent in the tank reaches elevated levels and may indicate that the pump is not functioning properly. The tank's access manholes are fitted with water-tight, gas-tight risers and lids which extend above finished grade to allow access for periodic maintenance.

Pump Assemblies

Two pump assemblies are incorporated into the system to transport the wastewater. One system re-circulates the wastewater through the textile filter, while the other transports the wastewater to the disposal field for final dispersal into the soil. The pumps are controlled by a programmable timer located in the control panel and will operate to treat the wastewater. A high level alarm will sound if the effluent in the tank reaches elevated levels and may indicate that an excessive amount of water is being introduced into the system and/or the pump is not functioning properly.

The tank's access manholes are fitted with water-tight, gas-tight risers and lids which extend above finished grade to allow access for periodic maintenance.

Textile Filter

The textile filter incorporated into the design is manufactured by Orenco Systems, Inc. (OSI). The filter is considered a packed bed filter and is designed to utilize bacteria to treat the wastewater. OSI requires routine maintenance of the filter. Please visit our web site for the OSI operation manual/guidelines which are an integral part of the system maintenance requirements.

Disposal Trench Configuration

The disposal trenches are constructed on contour, parallel to the slope, and are usually set about ten feet apart. The trenches are constructed by excavation with a backhoe and filling to a predetermined depth with clean, washed 3/4" crushed rock. Within the gravel is placed a distribution lateral through which the effluent is pumped from the second pumping assembly. Small diameter (6 1/8") holes are drilled into the distribution laterals to allow for the dispersal of effluent at the ends of the laterals and rising through the soil cover over the trenches, is a cleanout assembly which consists of a short section of pipe attached by an elbow to the distribution lateral. This section of pipe terminates with a threaded adapter that may be unscrewed for periodic cleaning.

Inspection Ports

A number of inspection ports are installed into the system to allow for observation of water levels. Inspection ports are located in the ends of the disposal trenches and down-slope of the disposal field.

On-Site Septic System Inspection

Septic/Recirculation Tank

The septic/recirculation tank should be inspected by the homeowner or a professional septic tank pumping contractor approximately once per year for sludge accumulation and should be pumped as necessary to prevent sludge from entering the disposal trenches. The tank should be pumped when the sludge accumulates to within 12-18" of the bottom of the inlet structure (TEC). The septic tank will require less frequent pumping if the amount of solid material introduced into the septic tank is minimized.

Solid materials such as food scraps and vegetable trimmings should be disposed in the garbage or a compost pile. Grease should not be poured down the drain, but rather collected and disposed in the garbage. Paper products such as disposable diapers, Kleenex, sanitary napkins and paper towels are also harmful and should be disposed in the garbage. Garbage disposal units are strongly discouraged.

For more information concerning septic tanks and pumping procedures, contact the designer or a qualified septic tank pumping contractor. Failure to pump the tank when necessary may result in clogging and/or premature failure of the disposal trenches.

The dosing chamber has been fitted with a screened pump vault which requires periodic rinsing to function properly. It is recommended that, at a minimum, the screened siphon valve be removed (simply lift it out of its protective enclosure), rinse clean and replace every time the tank is inspected for sludge accumulation.

Distribution Laterals

The distribution laterals, located in the textile filter bed and disposal trenches, should be flushed once every two years to remove accumulated debris. This task may be accomplished simply by removing the cap from one of the risers, located at the end of the grade bed, and cycling the pump for a short period of time. This procedure will allow debris to flow out of the end of the lateral. By removing each of the riser caps in turn, all of the laterals can be cleaned. The effluent being purged from the system should be collected in an appropriate manner and deposited into the primary side of the septic tank.

Mechanical Components

This septic system includes a variety of mechanical and electrical components such as pumps, valves, float switches and alarms. The alarms, which should be mounted in the living/user quarters of the dwelling (garage is acceptable), are installed for the protection of the homeowner. In the event of power or pump failure the alarm will sound, indicating that the liquid level in the dosing chamber or sand filter has risen above its normal level. If this should occur and it can be determined that electrical power to the pump(s) has not been interrupted, the homeowner should contact a local contractor which specializes in pump system repair and/or replacement. The designer may be contacted or a recommended contractor if necessary.

Inspection Pipe and Monitoring Well Observations

The system's monitoring wells (two wells, located down-slope from the disposal field) and inspection pipes (located within each of the disposal trenches) should be inspected at least twice per year by the homeowner, once during February or March and once during August or September. During each inspection the date and depth of water should be noted.

Signs of septic system failure include discharge of sewage to the ground surface and saturated upper soil horizons during periods of dry weather. If the system is clearly failing, the designer and the local building department should be notified immediately.

Water levels in the inspection pipes or monitoring wells which are very near the ground surface may indicate potential problems. Do not allow concrete failure. In such cases, the system should be monitored more frequently for clear signs of failure, perhaps once per week, until a clear pattern is developed.

Site Improvement Restrictions

The following are some common site improvements which may have a potentially negative impact on the proper operation of the septic system (tank and disposal field):

Any grading within the area containing the septic system, or the area down-slope of the disposal field

Operating or parking vehicles and/or heavy equipment on any portion of the septic system

Livestock (cattle, horses, swine, llamas, etc.) on the disposal field or the area immediately down-slope from the disposal field

Diversions of surface runoff (including house downspouts) onto the disposal field

Construction of any structures (including above-ground pools) or storage facilities on the disposal area

Paving with concrete or asphalt

Controls & Monitoring Products Catalog | Orenco®

VeriComm® AXB Control Panels

A product code diagram and a complete list that describes standard options available for VeriComm AXB Control Panels are provided below. When selecting options for the products listed, please use the marking order provided in the diagram and in the options list.

Product Code Diagram

VOXM-AX20B

VOXM-AX20B

VOXM-AX20B

VOXM-AX20B

VOXM-AX20B

VOXM-AX20B

VOXM-AX20B

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Orenco® Technical Data Sheet

AdvanTex® AX20 Textile Filter

Applications

Orenco's AdvanTex AX20 Treatment System™ is an innovative technology for onsite treatment of residential wastewater. The heart of the system is the AdvanTex Filter, a sturdy, watertight Baghouse-type filter with an engineered textile media. The lightweight, highly absorbent textile material treats a tremendous amount of wastewater in a small space. AX20 Treatment Systems are ideal for:

- Small sites
- System upgrades and repairs
- New construction
- Poor soils
- Non-permeable soils
- Price-sensitive markets
- Pre-engineered

For sizing, see "AdvanTex" Design Criteria, NDA-AX-2.

Features/Specifications

- To specify this product, require the following:
- Wastewater treatment to better than secondary treatment standards
- Consistent treatment, even during peak flows
- Easy operation for flow monitoring, flow modulation, and surge control
- Fixed film textile media (a polyester plastic), operated in an unstirred condition
- Consistent media quality
- Low maintenance beyond annual servicing
- Low energy consumption (under \$145-\$165/month power cost at national average electric rate of \$0.14/kWh)
- Complete pre-manufactured package, ready-to-install
- Watertight construction, corrosion-proof materials, tamper-proof lid bolts
- Anti-filtration/largers
- Four-core 16-point insulation value of R-4 (BSI-1.1)
- Quiet operation

Standard Models

AX20, AX20M

Nomenclature

AX 20 | Series |

AX 20 | Series |

AX 20 | Series |

AX 20 | Series |

AX 20 | Series |

AX 20 | Series |

AX 20 | Series |

AX 20 | Series |

AX 20 | Series |

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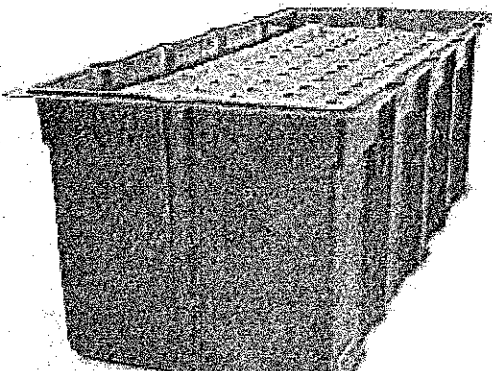
AX 20 | Series |

AX 20 | Series |

AX 20 | Series |

AX 20 | Series |

AX 20 | Series |



The heart of the AdvanTex® AX20 Treatment System® this sturdy, watertight Baghouse-type filter is installed with an engineered textile media.

AdvanTex® Treatment System (AX) Model shown for reference only. All models are the same size.

AdvanTex® Treatment System (AX) Model shown for reference only. All models are the same size.

AdvanTex® Treatment System (AX) Model shown for reference only. All models are the same size.

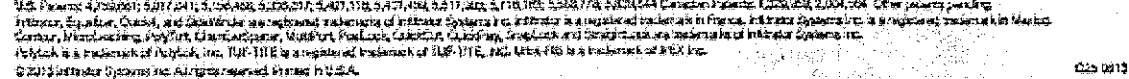
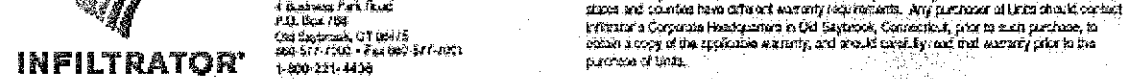
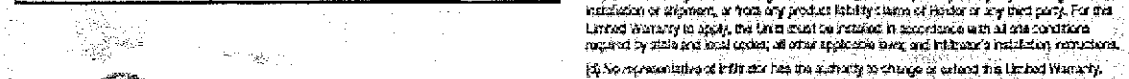
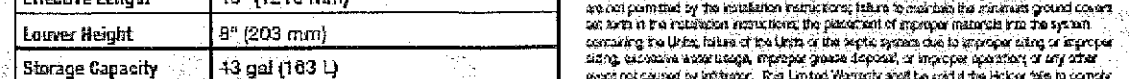
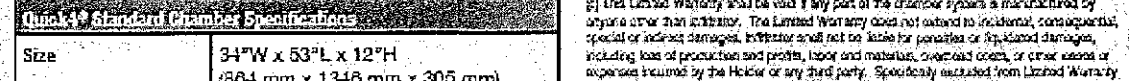
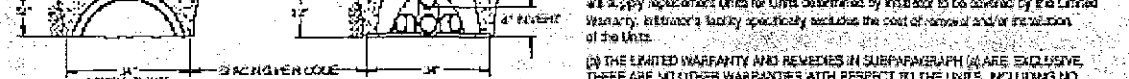
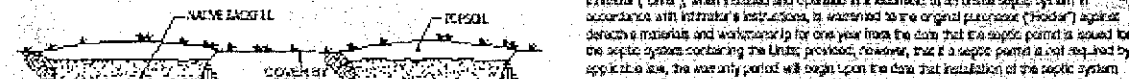
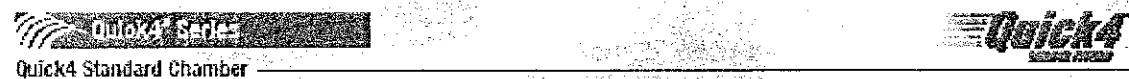
AdvanTex® Treatment System (AX) Model shown for reference only. All models are the same size.

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AdvanTex® Treatment System (AX) Model shown for reference only. All models are the same size.



Katen, Matt

From: Stephen J Buckley <steve@sjbconsulting.net>
Sent: Wednesday, February 11, 2015 4:43 PM
To: Katen, Matt
Subject: Katz Winery
Attachments: aho-atx-perf-tn-1.pdf; Zone 7 Nitrogen Analysis_2015.pdf; ZONE 7 Non-Residential 6-05__FORM pdf.pdf

Matt,

Thank you for speaking with me today about the Katz Winery project on Buena Vista. As we discussed, I have revised our August, 2014 submittal to clarify the information your agency has requested. The revised calculations are attached for your review. Also included is a completed application and the OSI test results for the pretreatment unit.

Of the 13 test cases presented in the attached material, only 7 pertain to the OSI Textile filter in Mode 3 with a wastewater volume in the range of our project. Of these 7 cases, only 3 offer enough information to calculate nitrogen reduction:

- 1) Rotorua District Council Approval testing (82% reduction)
- 2) New Zealand On-site Effluent Treatment National Testing Program (80% reduction)
- 3) North Carolina Approval Testing Program (77% reduction)

The NSF/ANSI testing did not look at Mode 3, but Mode 1 achieved a 64% reduction in nitrate.

For the purposes of the calculations for this project, we have used a value of 70% reduction.

Please review this information at your earliest opportunity. Be sure to contact me with any comments and/or questions.

Thanks,

STEPHEN J. BUCKLEY, R.E.H.S.
PRESIDENT

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Applied Wastewater Solutions, Inc.

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Job No. :	120135
Date :	2/11/2015 Rev.
Calculated by :	sjb
Checked by :	SJB
Sheet	1 of 2

Katz Winery Tasting Room
2481 Buena Vista Road
APN : 099 -1200-014-01

Nitrogen Loading Analysis

1. Development Scenario

A General

The site is comprised of approximately 9.9 acres of generally open agricultural land. Existing uses consist of two houses, with a total of 3 bedrooms; a barn that has been converted to a tasting room for the Katz Winery; and a small nursery of potted plants.

B Wastewater Generation and Disposal (Domestic)

Reportedly, the two houses share a common septic system. The location, condition and configuration of this septic system is unknown. It is estimated that this system is equal to one Rural Residential Equivalent (RRE) of approximately 320 gallons of wastewater per day.

The winery tasting room is currently equipped with a portable toilet. A septic system has been designed to serve the facility. Design wastewater volumes equal approximately 377 gallons per day. This system is designed to reduce nitrogen concentrations via a pre-treatment unit.

C Wastewater Generation and Disposal (Winery)

No winery wastewater will be generated or disposed at this site.

D Industrial Stormwater Generation

No industrial stormwater will be generated or disposed at this site.

2. Nitrogen Loading Calculations

A Existing Septic System

Wastewater Loading Rate : 320 gpd
Wastewater Nitrogen Loading Rate* : 35 mg/L

Resultant Nitrogen Loading to Soil : 42392 mg/d
Annual Nitrogen Loading to Soil : 15473080 mg
34 lbs

B Proposed Septic System for Tasting Room

Wastewater Loading Rate : 377 gpd
Wastewater Nitrogen Loading Rate : 35 mg/L
Nitrogen Reduct. from Pre-treatment : 0.70
Resultant Nitrogen Loading to Soil : 14983 mg/d
Annual Nitrogen Loading to Soil : 5468767 mg
12.1 lbs

C Other Sources

NA

D Total Nitrogen Loading 46.2 lbs/year

3. Sources of Groundwater Recharge

A Precipitation

Annual Rate of Precipitation **: 14 in/yr
Area of Project Site : 431244 sq. ft.
Rate of Recharge : 0.18
Total Volume of Precipitation : 90561.24 cu ft
677398 gallons/yr

B Wastewater

Total Volume of Wastewater : 254405 gallons/yr

C Total Groundwater Recharge Volume : 931803 gallons/yr

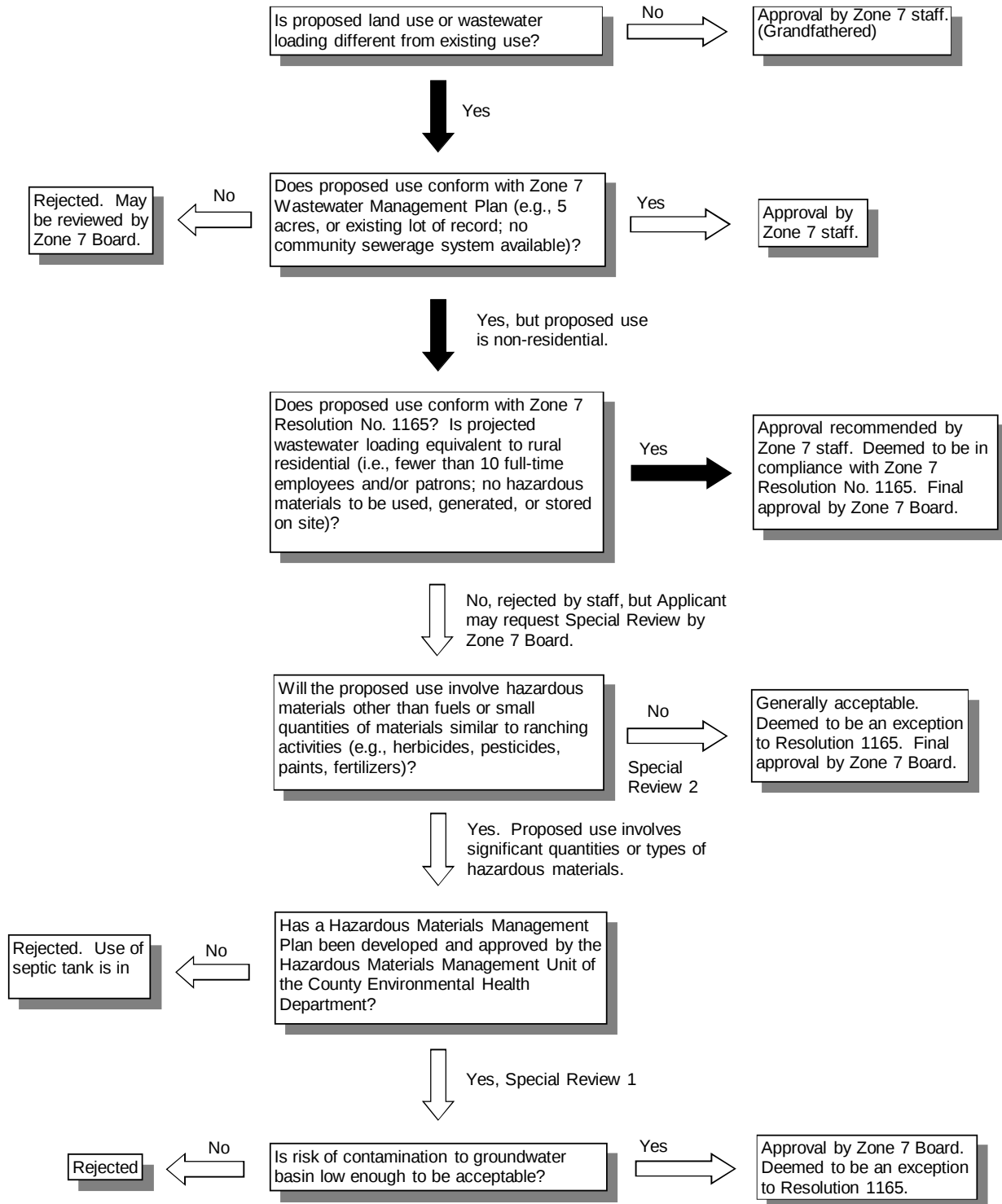
* Table 4-14, *Small and Decentralized Wastewater Management Systems*, Crites, 1998

** *Alameda County Hydrology and Hydraulics Manual*, June 2003

Zone 7 Septic Tank Approval Decision Tree

Applicant:	Mitchel Katz Winery Tasting Room	Case No.:	15-069
Site Address:	2481 Buena Vista Ave., Livermore		
Date:	March 18, 2015		

(Most septic tank reviews are made when the property owner request the Planning Department for a land use change, rezoning, or parcel split.)



Project Wastewater Loading Worksheet
for
George & Denise Mueller Parcel (APN 099-1200-014-01)
(including Mitchell Katz Winery Tasting Room)
2481 Buena Vista Ave., Livermore
(Zone 7 Case # 15-069)

Current Wastewater Loading: (9.9 Acres)

<u>Facility</u>	<u>Loading Description</u>	<u>Sewage Flow Rate per unit ⁽¹⁾</u>	<u>Percent Nitrogen Removal⁽²⁾</u>	<u>Annual Nitrogen Loading⁽³⁾</u>	<u>Total Rural Residential Equivalences⁽⁴⁾</u>	<u>Total RRE Pro-rated per 5 Ac⁽⁵⁾</u>
Main House + Secondary Unit	residential	320 gpd	0%	34.0 lbs N/yr	1.0 RRE	
TOTALS		320 gpd		34 lbs N/yr	1.0 RRE	0.51 RRE/5 acres

Proposed Wastewater Loading: (9.9 Acres)

<u>Facility</u>	<u>Loading Description</u>	<u>Sewage Flow Rate per unit ⁽¹⁾</u>	<u>Percent Nitrogen Removal⁽²⁾</u>	<u>Annual Nitrogen Loading⁽³⁾</u>	<u>Total Rural Residential Equivalences⁽⁴⁾</u>	<u>Total RRE Pro-rated per 5 Ac⁽⁵⁾</u>
Main House + Secondary Unit	residential	320 gpd	0%	34.0 lbs N/yr	1.0 RRE	
Wine Tasting Facility	commercial	377	70%	12.1	0.36	
TOTALS		697 gpd		46 lbs N/yr	1.4 RRE	0.68 RRE/5 acres

Notes:

- (1) Estimated sewage flow from SJB Consulting Group, Feb 11, 2015.
- (2) Projected nitrogen removal by treatment system from SJB Consulting Group, Feb 11, 2015
- (3) Assumes average effluent concentration = 35 mg/L Total Nitrogen
- (4) Based on 1 RRE = 34 lbs N/yr
- (5) 5 Ac proration based on 9.9 Ac actual parcel size (i.e., 5/9.9 x Total RRE)

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY
SECONDED BY

***Authorization for a Commercial Use of a Septic System for Mitchell Katz Winery
located at 2481 Buena Vista Ave., in South Livermore (APN 099-1200-014-01)***

WHEREAS, the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District adopted the Wastewater Management Plan for the Unsewered, Unincorporated Area of Alameda Creek Watershed above Niles (Resolution No. 1037, May 19, 1982) to protect the surface and ground water resources within the Zone; and

WHEREAS, said Wastewater Management Plan provides for strict controls on the use of septic tank/leach field systems which may affect groundwater quality within the Zone 7 area; and

WHEREAS, the Board of Directors adopted a policy prohibiting the use of septic tank/leach field systems for new development zoned for commercial or industrial uses which overlies the central groundwater basin unless it can be satisfactorily demonstrated that the wastewater loading be no more than the loading from an equivalent rural residential unit (Resolution No. 1165, August 28, 1986); and

WHEREAS, on October 15, 1986, the Board of Directors approved a Zone 7 Septic Tank Review Procedure for commercial/industrial development, and said Procedure provides for Special Review by the Board of Directors of Septic Tank Permit Applications for Non-residential Use; and

WHEREAS, by application dated February 11, 2015, Mr. Mitchell Katz seeks approval for use of a septic tank system for a commercial wine tasting room on a 9.9 acre parcel at 2481 Buena Vista Avenue, in South Livermore (APN 099-1200-014-01) where two residential dwellings and a potted plant nursery already exists; and

WHEREAS, the parcel is located within an area of historical nitrate contamination; and

WHEREAS, the total proposed wastewater loading per five acres generated onsite by all uses, residential and commercial, will be no greater than seven tenths (0.7) of an equivalent rural residential unit; and

WHEREAS, the nature of the commercially-generated wastewater to be disposed to the septic system is similar to rural residential wastewater.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors hereby makes the following findings regarding said application:

1. It is not feasible at this time for the onsite facilities to connect to a municipal sewer;
2. The proposed use conforms to the Zone 7 Wastewater Management Policy (WMP) that allows a maximum wastewater loading of one rural residential equivalence per five acres (1 RRE/5 Ac) when no community sewage system is available;
3. There is very little risk of further contamination to the groundwater basin from the proposed use of the onsite wastewater treatment systems.

BE IT FURTHER RESOLVED that said septic tank use is deemed to be in compliance with Zone 7 Resolution No. 1165, but subject to the following conditions:

1. Zone 7's approval is contingent upon County Environmental Health Department's approval of the use and design and provides oversight during the operation and maintenance of the system.
2. No wastewater disposal, other than that specifically approved herewith, is allowed without prior approval by the Zone 7 Water Agency.
3. When a public sewer is extended to within 200 feet of any onsite dwelling connected to the septic systems, the septic system shall be abandoned, and all building sewers shall be connected to the public sewer.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on March 18, 2015.

By _____
President, Board of Directors

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

ZONE NO. 7

RESOLUTION NO. 103Z

Introduced by DIRECTOR WENTE

Seconded by DIRECTOR PHILCOX

WHEREAS, Zone 7 of Alameda County Flood Control and Water Conservation District has declared its intent with regard to protection of the surface and ground water resources within the Zone; and

WHEREAS, this declaration is expressed in Zone 7 Board Resolution No. 728 adopted on October 30, 1974, a copy of which is attached hereto and made a part hereof; and

WHEREAS, Zone 7 has an interim policy on wastewater reclamation expressed in Zone 7 Board Resolution No. 823 adopted on June 15, 1977, a copy of which is attached hereto and made a part hereof; and

WHEREAS, Zone 7 has expressed its intent to serve as the overall water quality management planning agency for the Alameda Creek Watershed above Niles, as expressed in Zone 7 Board Resolution No. 768 adopted on September 17, 1975, a copy of which is attached hereto and made a part hereof; and

WHEREAS, the California Regional Water Quality Control Board, San Francisco Bay Region, in their Resolution 75-16, and the Alameda County Board of Supervisors, by their Resolution No. 11265 of May 13, 1975, have expressed concurrence for having Zone 7 as the overall water quality management planning agency for the Alameda Creek Watershed above Niles; and

WHEREAS, on March 2, 1981, Zone 7 executed an agreement with the consulting engineering firm of Camp Dresser & McKee, Inc. (CDM), of Walnut Creek, California, to develop the Wastewater Management Plan for the Unsewered, Unincorporated Area of Alameda Creek Watershed Above Niles (WMP), and

WHEREAS, CDM completed the Draft WMP on March 3, 1982, with the results presented at the final public hearing on April 15, 1982, and comments have been received; and

WHEREAS, the public hearing process is now concluded;

NOW, THEREFORE, BE IT RESOLVED, that consistent with the information presented above, the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District does hereby adopt the final Wastewater Management Plan for the Unsewered, Unincorporated Area of Alameda Creek Watershed Above Niles (WMP) consisting of the Draft WMP and the modifications to the Draft WMP of May 12 and May 19;

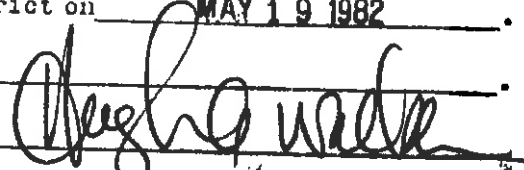
BE IT FURTHER RESOLVED that the final WMP supersedes Zone 7 Board Resolution No. 823 where there is a conflict; and

† BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District does hereby direct CDM to incorporate said modifications with the Draft WMP to produce the final WMP, and to thence make and present to Zone 7, 100 copies of said final WMP, at which time their work under Agreement No. A4-7.674 will thereby be completed.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS DZAKOWIC, HAGEMANN, PHILCOX, TRACY, WALKER, WENTE, WILLIAMS
NOES: NONE
ABSENT: NONE
ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone No. 7 of the Alameda County Flood Control and Water Conservation District on MAY 19 1982.

ATTEST: _____
BY : 

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

ZONE NO. 7

BOARD OF DIRECTORS

Resolution No. 1165

Introduced by: Director Schock
Seconded by: Director Tracy

WHEREAS, it is well established that although domestic septic tanks represent a source of degradation of the groundwater within Zone 7 some are permitted under strict conditions; and

WHEREAS, it may reasonably be anticipated that commercial and industrial facilities may generate sewage of higher toxicity and in larger volumes than domestic septic tank users; and

WHEREAS, the Zone has a policy of groundwater protection as expressed in the Wastewater Management Plan for the Unsewered, Unincorporated Area of Alameda Creek Watershed Above Niles, dated May 19, 1982, with strict controls on the disposal of treated sewage which may affect the quality of the groundwater; and

WHEREAS, such plan focused on the use of septic tanks for rural residential units and did not consider their use on new developments zoned for industrial or commercial use;

NOW, THEREFORE, BE IT RESOLVED that the Zone 7 Board of Directors of Alameda County Flood Control and Water Conservation District hereby finds that the use of septic tanks for new development zoned for commercial or industrial uses generally produces unacceptable risk to the quality of the groundwater resources; and

BE IT FURTHER RESOLVED that this Board hereby establishes a policy of prohibition to the use of septic tanks for new development zoned for commercial or industrial uses which overlies the central groundwater basin, any of its fringe areas or subbasins, or any body of groundwater hydrologically connected with the central basin unless it can be satisfactorily demonstrated to the Board that the wastewater loading will be no more than the loading from an equivalent rural residential unit and said septic tanks will be in compliance with all other conditions and provisions.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS BUDDEMEIER, CONCANNON, SCHNEIDER, SCHOCK, TRACY, WALKER

NOES: NONE

ABSENT: DIRECTOR WENTE

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone No. 7 of the Alameda County Flood Control and Water Conservation District on AUG 28 1982 1983

ATTEST:

BY: [Signature]



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: Groundwater Section

CONTACT: Matt Katen

AGENDA DATE: March 18, 2015

ITEM NO. 5d

SUBJECT: Authorization for Commercial Septic System Use, Darcie Kent Vineyards

SUMMARY:

- Darcie Kent Vineyards, LLC has requested Zone 7 authorization for non-residential use of two onsite wastewater treatment systems (OWTS) for an existing winery facility.
- The facility is situated on a 19-acre parcel located at 7000 Tesla Road, in South Livermore (APN 099A-1601-006-07) within an area of historical nitrate contamination.
- Only domestic type wastewater from the winery and a caretaker's residence is disposed through the OWTS. Winemaking and bottling process wastes are captured separately, temporarily contained onsite then hauled offsite for proper disposal.
- Currently, it is not feasible for the facility to connect to the municipal sewer because of the cost and difficulties involved with extending municipal sewer service such a long distance beyond Livermore's Urban Growth Boundary.
- Zone 7 Resolution 1165 prohibits the use of septic tanks for new commercial developments unless an exception is granted by the Board of Directors.
- Resolution 1165's standard acceptance criterion is 1.0 RRE/5 acres or less; however, since this site is over an area of historical nitrate contamination, staff recommends that a stricter criteria of 0.5 RRE per lot of 5 acres be used.
- Including the residential component, the loading for the entire 19-acre parcel is approximately 1.6 rural residential equivalents (RRE), or about 0.43 RRE/5 acres meeting the proposed goal.
- Following the Board-approved septic system decision tree process (Exhibit B of the attached memorandum), staff recommends approval of this commercial septic system use including a finding that the use is in compliance with Resolution 1165 and sufficiently protective of the groundwater basin.

FUNDING:

There is no funding impact associated with this item.

RECOMMENDED ACTION:

Adopt attached resolution approving the commercial use of a septic system for Darcie Kent Vineyards, LLC, in accordance with Resolution 1165.

ATTACHMENTS:

- Memo Providing Additional Background and Discussion on Agenda Item
- Draft Resolution
- Resolutions 1037 and 1165

Interoffice Memo

Date: March 18, 2015
To: Jill Duerig, General Manager
From: Matt Katen, Groundwater Section Manager
Subject: Authorization for Commercial Septic System Use, Darcie Kent Vineyards

The following provides additional background and discussion on the above-referenced Agenda Item.

BACKGROUND:

Darcie Kent Vineyards, LLC has requested Zone 7 authorization for continued non-residential use of two onsite wastewater treatment systems (OWTS) for an existing winery facility. The initial OWTS was installed in 1977 to serve the original four-bedroom home located on the site. The second system was installed in 2004 by the previous owner to support a new and expanding winery operation. Permits were issued by Alameda County Health for both OWTS, but no application for Zone 7's authorization for a non-residential use was made at the time. The new owner would like to receive Zone 7's authorization retroactively.

The facility is situated on a 19-acre parcel located at 7000 Tesla Road, in South Livermore (APN 099A-1601-006-07) within an area of historical nitrate contamination. The site is located outside of the City of Livermore's Urban Growth Boundary (UGB), and the closest sewer main is in Vasco Road, about 1 mile from the site as measured along roadways.

The original house was converted to accommodate the winery's tasting room, office, bottling facility and caretaker's residence. Another existing building, which is connected to the second OWTS, functions as the winemaking and storage facility. Only domestic sewage from these structures flows to the OWTS. Wastewater from winemaking and bottling processes is contained onsite and periodically hauled off for proper disposal.

DISCUSSION:

The winery currently has plans to relocate its wine bottling operation to a new building which would be built near the winemaking and storage building. The new building will include employee restrooms and also be connected to the second OWTS. The new building will not result in an increase to the total wastewater loading on the parcel because it will use the same number of workers, and its bottle wash and rinse waters will continue to be captured and subsequently disposed offsite.

In the 1980's, Zone 7 adopted Wastewater Management Policies to minimize the potential for impacts to groundwater from over use and misuse of septic tanks over the "Central Groundwater Basin and its fringe areas." One such existing policy prohibits the use of OWTS for any new commercial or industrial development unless an exception is approved by the Zone 7 Board. The Board has adopted a process and criteria for approval of these non-residential systems. The

process is summarized in the Zone 7 Septic Tank Approval Decision Tree, which is provided as an attachment.

The standard criteria for Zone 7 approval of non-residential OWTS includes a maximum allowable loading of one rural residential equivalent per five acres (1 RRE/5 Ac). For the purpose of evaluating onsite wastewater loading, staff assumes 1 RRE to be equivalent to an average daily residential sewage discharge of 320 gallons per day (gpd) or 34 pounds of nitrogen per year, which is the amount of nitrogen calculated for the volume produced by a flow of 320 gpd with an average nitrogen concentration of 35 mg/L. However, staff proposes stricter wastewater loading requirements for areas with existing nitrate contamination.

Although the winery has been using its two OWTS for more than ten years, and neither OWTS is being replaced nor will there be additional loading as a result of the new bottling room addition, staff considered the proposal as if it were new.

DECISION TREE:

Zone 7 staff reviewed the application and additional information provided by SJB Consulting Group on behalf of the Darcie Kent Winery, LLC, using Zone 7's Septic Tank Permit Review Decision Tree (Exhibit B) in accordance with procedures adopted by the Zone 7 Board in 1986 and modified for use in unsewered Areas of Concern. The decision path is as follows:

- The project would result in a change in wastewater classification from rural residential to a combination of residential and commercial uses. With the project fully implemented, the average onsite sewage flow increased from an estimated 320 gpd to an estimated 521 gpd. See attached Project Wastewater Loading Worksheet.
- The proposed use conforms to the Zone 7 Wastewater Management Policy (WMP) that permits a maximum wastewater loading of 1 RRE/5 acres when no community sewage system is available. The estimated 521 gpd and 55 lbs-N/yr for the entire site are comparable to a wastewater loading of less than 0.5 RRE/5 acres.
- Although the sewage generated by the winery would be the same type and strength as rural residential wastewater, since it comes from a commercial winery operation, the proposed use is considered commercial (non-residential).
- The proposed septic tank use conforms to Zone 7's Resolution 1165, which prohibits the use of septic tanks for new commercial and industrial developments overlying the groundwater basin unless it can be satisfactorily demonstrated that the wastewater loading will be no more than that from "an equivalent rural residential unit." In this case, however, because the site is situated within an area of historical nitrate contamination, staff recommends a stricter maximum allowable loading limit. The systems as installed achieve this objective by limiting the estimated total loading for this site to 0.43 RRE/5 acres.
- Therefore, based on the information provided by the applicant, and the decision path summarized above, staff recommends that the proposed septic tank use be approved and the project be deemed to be in compliance with Zone 7's Resolution 1165 by the Zone 7 Board.

In addition, it is recommended that the approval be conditioned on the following:

1. That Alameda County Environmental Health Department also approves the use and provides oversight during the operation and maintenance of the septic systems.
2. No wastewater disposal, other than that specifically approved herewith, be allowed without prior approval by the Zone 7 Water Agency.
3. When a public sewer is extended to within 200 feet of any onsite dwelling connected to the onsite wastewater treatment system (OWTS), the OWTS shall be abandoned, and all building sewers shall be connected to the public sewer.

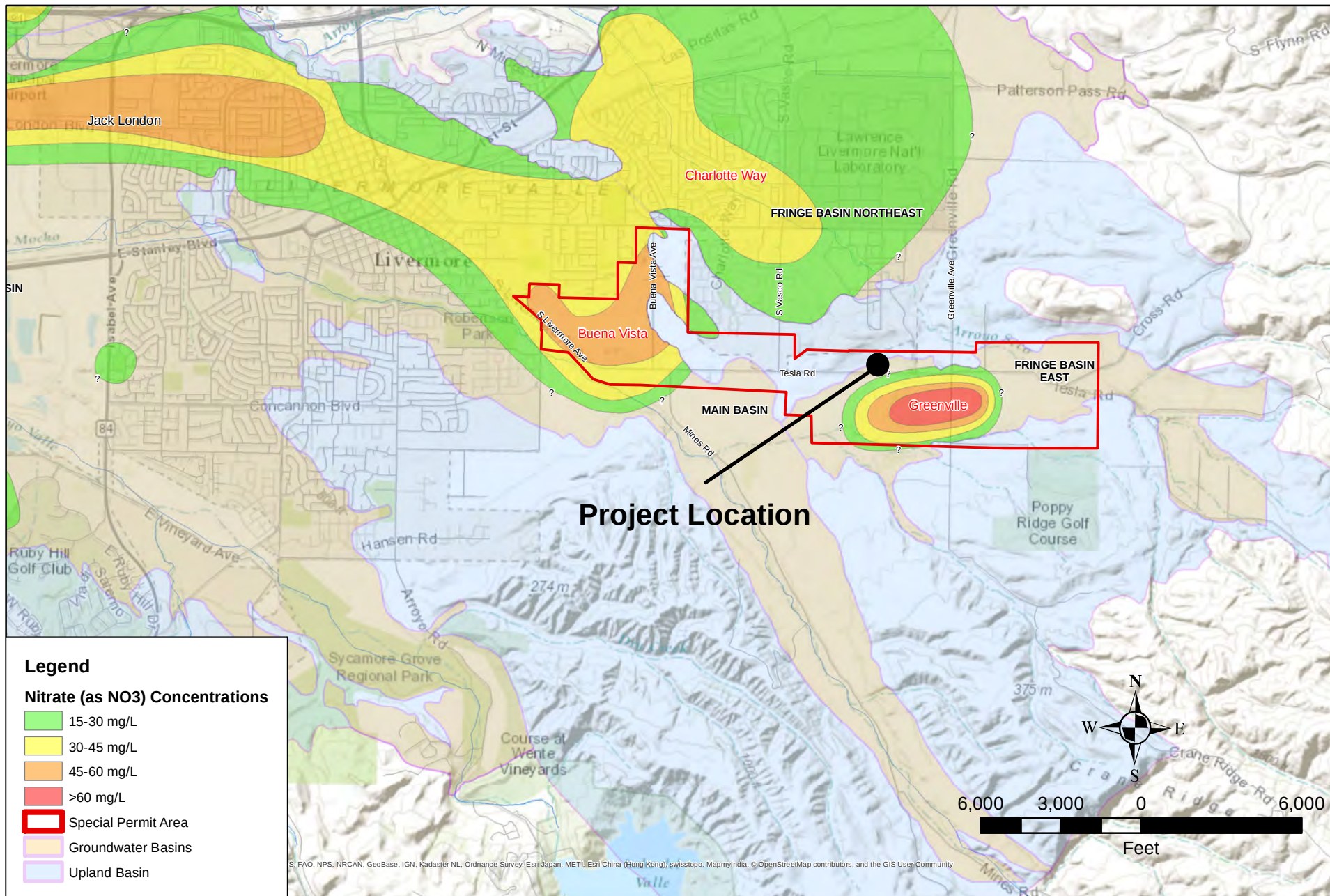
FIGURES & EXHIBITS:

Figure 1: Project Location Map

Exhibit A: Septic Tank Application for Non-Residential Use

Exhibit B: Zone 7 Septic Tank Approval Decision Tree

Exhibit C: Project Wastewater Loading Worksheet



ZONE 7 WATER AGENCY
100 North Canyons Parkway, Livermore, CA

DRAWN: TR

REVIEWED: MK

File:

E:\Septic\Agenda Items\Darcie Kent Vineyards\DarcieKentMap.mxd

PROJECT LOCATION
Darcie Kent Vineyards
7000 Tesla Road
Livermore, CA



Alameda County Flood Control & Water Conservation District, Zone 7

100 No. Canyons Parkway • Livermore, California 94551 • Phone (925) 454-5000 • Fax (925) 454-5728

Septic Tank Application for Non-Residential Use

For Applicant to Complete

- 1) Name of Business: Darcie Kent Vineyards, LLC
- 2) Septic Tank Site:
 - a) Address: 7000 Tesla Road
Livermore, CA
 - b) Assessors Parcel No.: 099a-1601-006-07
- 3) Contact Person:
 - Name: Julian Halasz
 - Title: Winemaker/General Manager
 - Telephone: 925.243.9039, ex. 115
 - Fax No: 925.294.4004
 - Mailing Address: 7000 Tesla Road
Livermore, CA 94550
- 4) Statement of existing use of the property:
Vineyard, Winery, tasting room (see attached detailed
description)
- 5) Statement of proposed use of the property: _____
Same. Property owner is adding a new building to
better accommodate existing facility.
- 6) Attach site map showing locations of septic tank/
treatment/leachfield system, facilities and buildings to
be connected to the system, and any wells.
- 7) Attach description of septic tank/treatment system to
be used, and include estimates of the total wastewater
loading for the site, and of the nitrogen removal
potential of the treatment system, if any.
- 8) Attach Hazardous Materials Management Plan, or
statement of onsite hazardous materials use.
- 9) Applicant's
signature: [Signature]
Date: 2-13-15

For Office Use Only (Shaded Areas)

- Septic Tank Permit No : 15-070
- Taken by: M Kuter Date: 2-25-15
- (Check Appropriate Action)
- Approved:
- | | |
|------------------------------------|-------------|
| ___ 1) Complies w/Res. No. 1165 | Date: _____ |
| ___ 2) Exception, Special Review 2 | Date: _____ |
| ___ 3) Exception, Special Review 1 | Date: _____ |
- Disapproved:
- | | |
|-----------------------|-------------|
| ___ 4) Non-compliance | Date: _____ |
|-----------------------|-------------|

Permit Conditions

This permit is issued subject to the following General Conditions and to the circled Special Conditions:

A. General Conditions:

1. Limit the number of full-time employees to _____ persons.
2. Comply with policies of Wastewater Management Plan.
3. Comply with all other requirements of federal, state and local jurisdictions.
4. Subject to unscheduled inspections.
5. Connect to community sewerage system when within 200 feet of any property line.

B. Special Conditions:

1. Develop and maintain a Hazardous Materials Management Program as approved by Alameda County Environmental Health Division, Hazardous Materials Management Unit.
2. Provide sampling stations for analysis of suspected contaminants at applicant's expense as follows:

3. See attached special permit conditions

SJB CONSULTING GROUP

Applied Wastewater Solutions, Inc.

- SEPTIC SYSTEM DESIGN
- ENVIRONMENTAL CONSULTING
- WASTEWATER COMPLIANCE
- LAND DEVELOPMENT

January 12, 2015
SJB 140179

Darcie Kent Vineyards, LLC
7639 Cedar Mountain Road
Livermore, CA 94550-7349

RE: Darcie Kent Vineyards Septic System Analysis
7000 Tesla Road, Livermore
Alameda County APN: 099a-1601-006-07

Gentlemen,

At your request, the SJB Consulting Group has conducted an evaluation of the existing onsite septic systems to determine, to the extent possible, the ability of these systems to meet the county requirements related to the relocation of the existing bottling and restroom facilities to a new bottling building planned to be constructed on the site (an 'addition to an existing commercial facility'). In conducting this evaluation, we have relied upon existing site plans, county documents, personal interviews and a limited site inspection.

It is our current understanding that the Darcie Kent Winery Facility consists of three buildings: a Caretaker unit/office/tasting room, a Winery building, and a barn. We also understand that a new building is planned to relocate the bottling facility and that this new building will include the relocation and expansion of employee restrooms. We understand that no new employees are planned for the facility; existing employees will be transferred from the winery building to the bottling building. Currently, the equivalent of ten full time employees is used in the winemaking processes on site.

Domestic wastewater is collected from two buildings (Winery and Caretaker) and disposed into two permitted septic systems on the site (see attached site plan for locations). The only wastewater entering the septic systems is traditional domestic waste from employees, the Caretakers unit, the office and the tasting room. We understand that all winery wastewater is collected and held in appropriate containers for periodic off-site disposal.

The first septic system (System 1) constructed on the property was first permitted in 1977 for a four bedroom dwelling. Based on our understanding of the county requirements at that time, this system sizing equates to a permitted wastewater disposal volume of 600 gallons per day (150 gal/bdrm/day). The system is currently composed of a 1600 gallon septic tank and 3-100 foot long conventional disposal trenches. System 1 was upgraded in 2004 to reflect the dwelling's current use as a Caretaker unit/office/tasting room with a new septic tank and the ability to switch between the drainfields for regeneration purposes.

The second system (System 2), permitted in 2003 and installed in 2004 is comprised of a 1200 gallon septic tank and 5-100 foot long conventional disposal trenches. The intended use of this system was reportedly to support the current

and planned winery operations on the site. The wastewater disposal capacity of the system is not known; however, we understand that the same sizing criterion was in effect in 2004 as when the original system was installed. By extrapolation from the initial system, with a calculated linear loading rate of 2.0 gallons/lineal foot/day, we can determine that the wastewater disposal capacity of System 2 is 1000 gallons per day (see attached calc sheets).

The Alameda County Onsite Treatment System Regulations were consulted for direction with regard to ascertaining the regulatory compliance of the existing septic systems. The section entitled "Commercial System Additions and Remodels" (Section 7.c.) provided the closest fit to the circumstances of this project. This section states that :

An evaluation of the integrity and performance of the existing System, the flow and strength of the wastewater and the proposed wastewater flow and strength conducted by a Registered Professional must be submitted to the Department for approval of change of use, additions and remodels of commercial buildings.

1. The existing System may be approved for a change of use, addition or remodel if the Department finds that the System is functioning properly and the required replacement area exists pursuant to the approved System design and there is not an increase in the flow and/or the strength of the wastewater.

2. Change of use, additions and remodels that result in an increase in the flow and/or the strength of the wastewater will require that the System be upgraded to handle the proposed wastewater flow and strength and meet the current Standards for Onsite Wastewater Treatment Systems.

In short, we are required to demonstrate the following:

- 1) The existing septic systems are functional and are performing in a satisfactory manner.
- 2) Replacement area exists
- 3) There is not an increase in the volume or strength of the wastewater.

1) System Function

Each septic system was inspected by Williams Sanitary Service (WSS), a properly licensed and experienced wastewater professional. The septic tanks were inspected, to the extent possible, for structural integrity, water tightness and conformance with current functional and safety requirements. The condition of the tanks was found to be satisfactory.

The disposal fields were evaluated by WSS to verify length of trenches, integrity of pipes and distribution boxes, and for the ability of the disposal field to accept water during a standardized hydraulic flow test. The location and extent of each disposal field was determined by hand probe, exploratory excavation and in-pipe camera techniques. The location of these disposal fields are shown in the attached site plan. Hydraulic testing was conducted by a method compliant with common industry practices. Reportedly, the disposal fields are in satisfactory condition with the exception of the distribution box in System 1. It is the recommendation of WSS to replace this component. Additionally, WSS recommends the retrofitting of risers and lids to the septic tank on this system. At the time of this investigation it was determined that the two drainfields were connected via a 'Bull Run' type manual diversion valve.

2) Replacement area

System 1, designed in 1977, shows a 'reserve leaching' area located to the east of the initial system. This area was utilized during the construction of System 2 in 2004. The 2004 site plan does not appear to show a designated replacement area. However, the parcel is approximately 19 acres in size, with most of the area as open agricultural land; it is evident that ample replacement area exists.

3) Wastewater volume/strength

The pre-project and post-project wastewater strength is expected to be nearly identical, with a mix of residential and commercial use. The pre and post-project wastewater volume is expected to be nearly identical as no new employees are to be added, nor is it expected that the tasting room activity will increase.

To further evaluate the adequacy of the existing septic systems, we have compared the permitted wastewater disposal volume with the design wastewater volume. This information, presented in the attached calc sheets, is summarized below:

Table 1-Wastewater Flow Rate

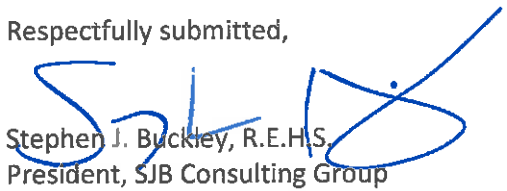
System	Permitted volume	Design volume for the entire facility
System 1	600 gpd	501 gpd
System 2	1000 gpd	

Clearly, the permitted wastewater volume of each existing system is greater than the design wastewater volume of the whole facility. This fact, coupled with the good condition of the septic tanks and disposal field as determined by WSS, indicates that the existing systems are adequate for continued use.

In conclusion, we find that the existing septic systems are functioning in an adequate manner, replacement area is available over a wide area of the parcel, and the post-project wastewater strength and volume are expected to be nearly identical to the pre-project use. As such, the existing septic systems meet the intent of Section 7 of the Alameda County Onsite Regulations and permission should be granted to allow the continued use of these systems.

It has been our pleasure to assist you with this project. Be sure to contact us with any comments and/or questions regarding any aspect of this project.

Respectfully submitted,



Stephen J. Buckley, R.E.H.S.
President, SJB Consulting Group

Job No. : 140179
 Date : 1/9/2015
 Calculated by : sjb
 Checked by : SJB
 Sheet 1 of 2

Wastewater Flow Rate Calculation

The existing winery is planning to relocate the current bottling facility and employee restroom into a new building. No new employees will be hired to run this facility. The relocated and expanded restroom will be simply 'bathroom of convenience' so that male and female employees will not have to walk to distant buildings to use adequate facilities. Currently, two separately permitted septic systems exist on the property. One system consists of 300 feet of conventional disposal trench and was originally permitted to served a four bedroom dwelling. This building had been converted to a caretakers unit, office and tasting room. The second system serves the existing winery building and consists of 500 feet of conventional disposal trench. The two systems are connected via a 'Bull Run' type distribution valve.

These calculations demonstrate that the existing two disposal fields are capable of serving as the required disposal fields for the project and should provide adequate sewage treatment and disposal for the currently planned uses.

System 1- Caretaker, tasting room, bottling building, office

Configuration

1600 gallon septic tank and 300 lineal feet of conventional disposal field.

Permitted use

Residential : 4 bedrooms @ 150 gpd = 600 gpd (total volume)

Linear loading rate : 600 gpd / 300 ln. ft. = 2 gal/ln. ft.

System 2- Winery

Configuration

1200 gallon septic tank and 500 lineal feet of conventional disposal field.

Permitted use

Unknown. Extrapolation from System 1

Indicates the following:

500 lineal feet of trench x 2 gal/ln. ft. = 1000 gpd (total volume)

Job No. : 140179
 Date : 1/9/2015
 Calculated by : sjb
 Checked by : SJB
 Sheet 2 of 2

Pre-construction (existing) use

Residence :	2 bedrooms	@	150 gpd	=	300 gpd
Tasting Room :	100 vis/week	@	2.5 gpvis	=	36 gpd
Office:	1 employee (daily)	@	15 gpd	=	15 gpd
Employees :	10 employees (daily)	@	15 gpd/emp	=	150 gpd

Total Design Wastewater Volume of Current Facility : 501 gpd

Post-construction planned use

Residence :	2 bedrooms	@	150 gpd	=	300 gpd
Tasting Room :	100 vis/week	@	2.5 gpvis	=	36 gpd
Office:	1 employee (daily)	@	15 gpd	=	15 gpd
Employees :	10 employees (daily)	@	15 gpd/emp	=	150 gpd

Total Design Wastewater Volume of Post-construction Facility : 501 gpd

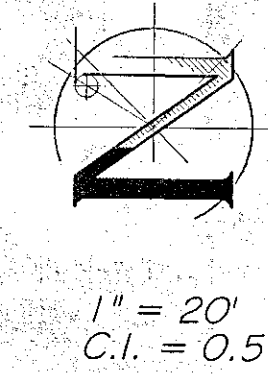
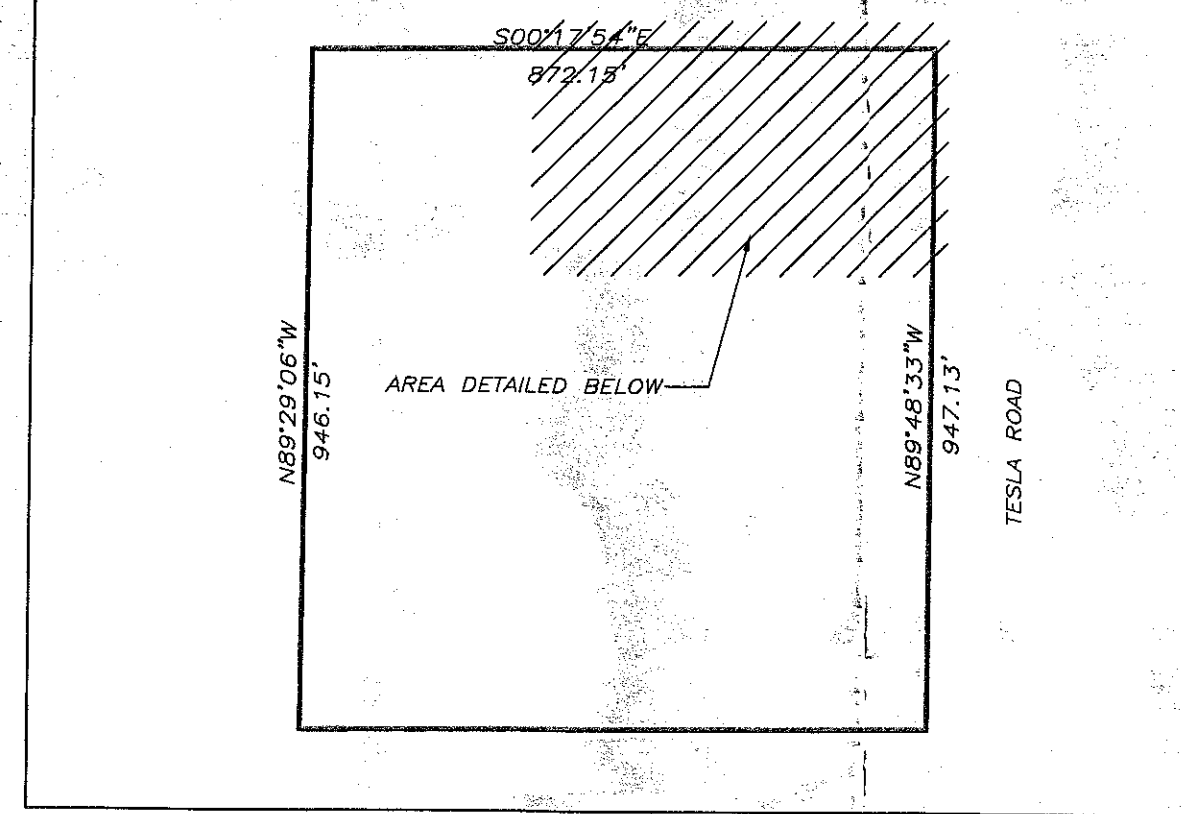
ICON KEY

- TREE, GENERAL
- OAK
- CEDAR
- PINE
- FIR
- FRUIT TREE
- BUSH
- POWER POLE
- PERC HOLE
- PROFILE
- OLD PROFILE
- ROCK
- GUIDE WIRE
- WATER BOX
- WATER VALVE
- E.O.P.

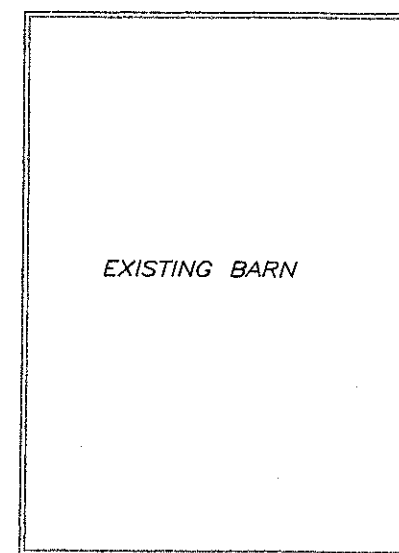
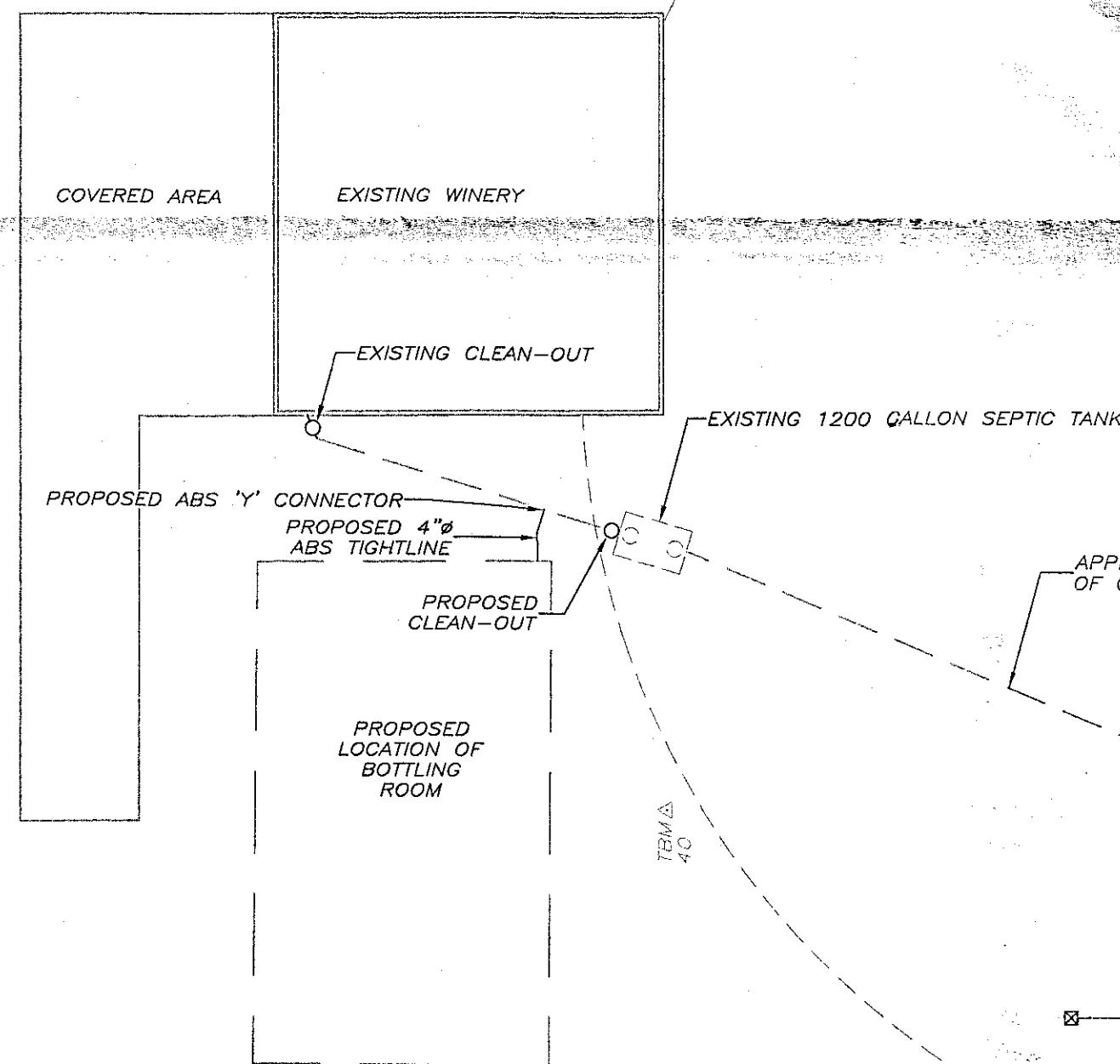
Notes

- THIS SITE PLAN DOES NOT CONSTITUTE A SURVEY. IT IS PROVIDED FOR SEPTIC SYSTEM AND SITE LAY-OUT ONLY AND REFLECTS HAND MEASUREMENTS TAKEN IN THE FIELD.
- ALL INFORMATION SHOWN ON THE DRAWING RELATIVE TO EXISTING CONDITIONS IS SHOWN BASED ON THE MOST RELIABLE INFORMATION AVAILABLE. ANY AND ALL DISCREPANCIES SHALL BE IMMEDIATELY REVIEWED WITH SJB CONSULTING.
- BASE MAP FROM RICHARD DART ARCHITECT, INC., 2014.

SITE MAP
NO SCALE



1" = 20'
C.I. = 0.5'



SITE PLAN

ALAMEDA COUNTY APN: 099A-1601-006-07
7000 TESLA ROAD
LIVERMORE, CA

JOB # : 140179
DATE : 12/02/14
DRAWN : JF
DESIGNED : SJB
REV 1 : 0
REV 2 : 0

PREPARED FOR:
DARGIE KEVIN VINEYARDS LLC
7639 CEDAR MOUNTAIN ROAD
LIVERMORE, CA 94550-7349

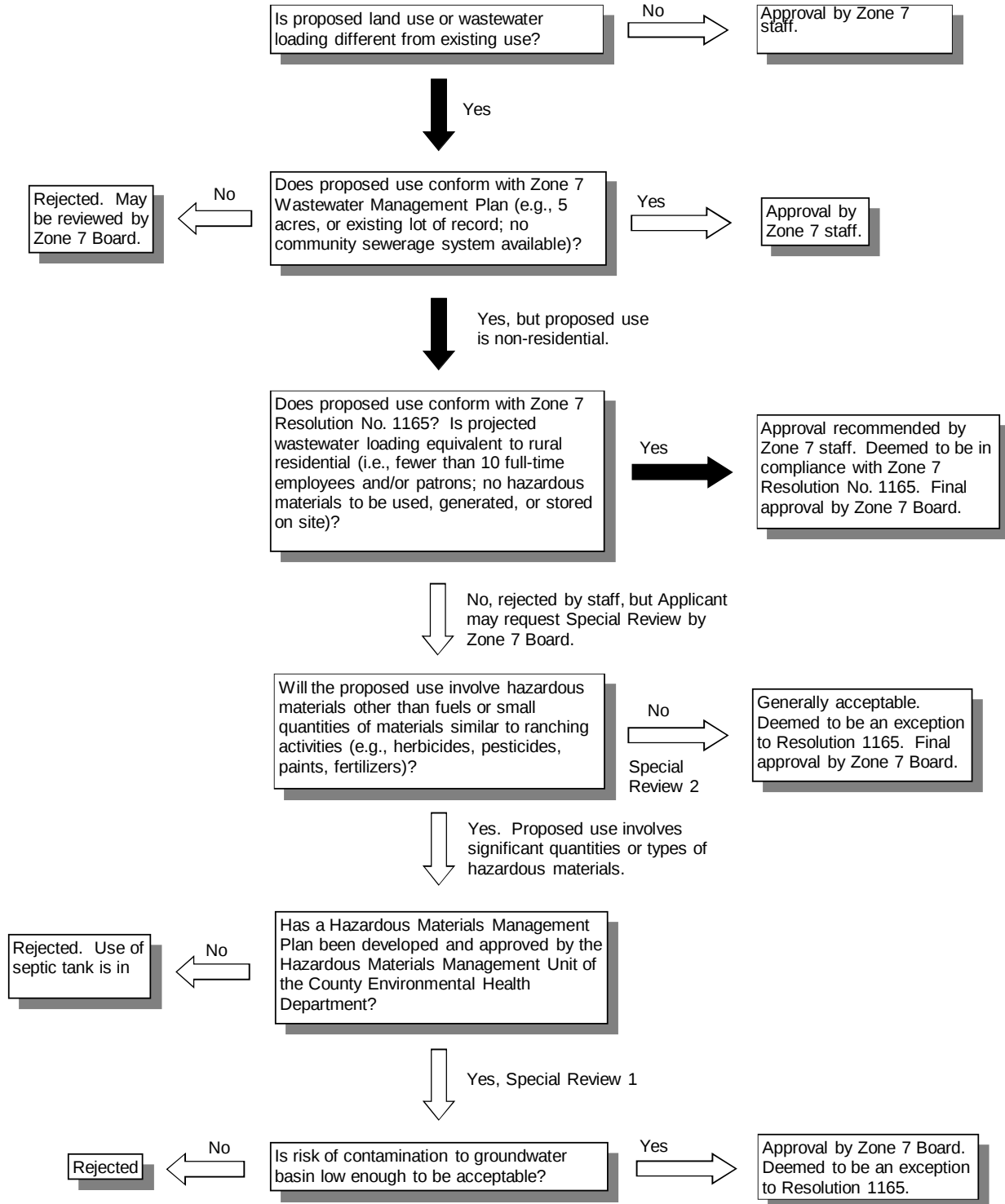
SJB CONSULTING
GROUP
APPLIED WASTEWATER SOLUTIONS, INC.

SEPTIC SYSTEM DESIGN
ENVIRONMENTAL CONSULTING
WASTEWATER COMPLIANCE
LAND DEVELOPMENT
POST OFFICE BOX 1137
JACKSON, CA 95642
209.223.0201
209.223.4151 (FAX)

Zone 7 Septic Tank Approval Decision Tree

Applicant:	Darcie Kent Vineyards, LLC	Case No.:	15-070
Site Address:	7000 Tesla Road, Livermore		
Date:	March 18, 2015		

(Most septic tank reviews are made when the property owner request the Planning Department for a land use change, rezoning, or parcel split.)



Project Wastewater Loading Worksheet
for
Darcie Kent Vineyards, LLC)
7000 Tesla Road, Livermore
(APN 099A-1601-006-07)
(Zone 7 Case # 15-070)

Current Wastewater Loading: (19 Acres)

<u>Facility</u>	<u>Loading Description</u>	<u>Sewage Flow Rate per unit</u> ⁽¹⁾	<u>Percent Nitrogen Removal</u> ⁽²⁾	<u>Annual Nitrogen Loading</u> ⁽³⁾	<u>Total Rural Residential Equivalences</u> ⁽⁴⁾	<u>Total RRE Pro-rated per 5 Ac</u> ⁽⁵⁾
Single Family Dwelling	residential	320 gpd	0%	34.0 lbs N/yr	1.0 RRE	
TOTALS		320 gpd		34 lbs N/yr	1.0 RRE	0.26 RRE/5 acres

Proposed Wastewater Loading: (19 Acres)

<u>Facility</u>	<u>Loading Description</u>	<u>Sewage Flow Rate per unit</u> ⁽¹⁾	<u>Percent Nitrogen Removal</u> ⁽²⁾	<u>Annual Nitrogen Loading</u> ⁽³⁾	<u>Total Rural Residential Equivalences</u> ⁽⁴⁾	<u>Total RRE Pro-rated per 5 Ac</u> ⁽⁵⁾
Caretaker's Residence	residential	320 gpd	0%	34.0 lbs N/yr	1.0 RRE	
Tasting Room (Patrons)	commercial	36	0%	3.8	0.11	
Office	commercial	15	0%	1.6	0.05	
Winery (10 Employees)	commercial	150	0%	15.9	0.47	
TOTALS		521 gpd		55 lbs N/yr	1.6 RRE	0.43 RRE/5 acres

Notes:

- (1) Estimated sewage flow from SJB Consulting Group, Jan 9, 2015.
- (2) Nitrogen removal by conventional system
- (3) Assumes average effluent concentration = 35 mg/L Total Nitrogen
- (4) Based on 1 RRE = 34 lbs N/yr
- (5) 5 Ac proration based on 19 Ac actual parcel size (i.e., 5/19 x Total RRE)

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY
SECONDED BY

***Authorization for Commercial Use of a Septic System for Darcie Kent Vineyards, LLC
located at 7000 Tesla Road, in South Livermore (APN 099A-1601-006-07)***

WHEREAS, the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District adopted the Wastewater Management Plan for the Unsewered, Unincorporated Area of Alameda Creek Watershed above Niles (Resolution No. 1037, May 19, 1982) to protect the surface and ground water resources within the Zone; and

WHEREAS, said Wastewater Management Plan provides for strict controls on the use of septic tank/leach field systems which may affect groundwater quality within the Zone 7 area; and

WHEREAS, the Board of Directors adopted a policy prohibiting the use of septic tank/leach field systems for new development zoned for commercial or industrial uses which overlies the central groundwater basin or any of its fringe basins unless it can be satisfactorily demonstrated that the wastewater loading be no more than the loading from an equivalent rural residential unit (Resolution No. 1165, August 28, 1986); and

WHEREAS, on October 15, 1986, the Board of Directors approved a Zone 7 Septic Tank Review Procedure for commercial/industrial development, and said Procedure provides for Special Review by the Board of Directors of Septic Tank Permit Applications for Non-residential Use; and

WHEREAS, by application dated February 25, 2015, Darcie Kent Vineyards, LLC, seeks approval for use of an onsite wastewater treatment system for a commercial winery on a 19 acre parcel at 7000 Tesla Road, in South Livermore (APN 099A-1601-006-07); and

WHEREAS, the parcel is located within an area of historic nitrate contamination; and

WHEREAS, the total wastewater loading per five acres from all uses, residential and commercial, will be no greater than one half (0.5) of an equivalent rural residential unit; and

WHEREAS, the nature of the non-residential generated wastewater to be disposed to the septic system is similar to rural residential wastewater; and

WHEREAS, the wastewater generated during winemaking and bottling is captured and contained separately from the domestic wastewater and subsequently properly disposed of offsite.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors hereby makes the following findings regarding said application:

1. It is not feasible at this time for the onsite facilities to connect to a municipal sewer;
2. The proposed use conforms to the Zone 7 Wastewater Management Policy (WMP) that allows a maximum wastewater loading of one rural residential equivalence per five acres (1 RRE/5 Ac) when no community sewage system is available;
3. There is very little risk of further contamination to the groundwater basin from the proposed use of the onsite wastewater treatment systems.

BE IT FURTHER RESOLVED that said septic tank use is deemed to be in compliance with Zone 7 Resolution No. 1165, but subject to the following conditions:

1. Zone 7's approval is contingent upon County Environmental Health Department's approval of the use and design and provides oversight during the operation and maintenance of the system.
2. No wastewater disposal, other than that specifically approved herewith, is allowed without prior approval by the Zone 7 Water Agency.
3. When a public sewer is extended to within 200 feet of any onsite dwelling connected to the septic systems, the septic system shall be abandoned, and all building sewers shall be connected to the public sewer.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on March 18, 2015.

By _____
President, Board of Directors

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

ZONE NO. 7

RESOLUTION NO. 103Z

Introduced by DIRECTOR WENTE

Seconded by DIRECTOR PHILCOX

WHEREAS, Zone 7 of Alameda County Flood Control and Water Conservation District has declared its intent with regard to protection of the surface and ground water resources within the Zone; and

WHEREAS, this declaration is expressed in Zone 7 Board Resolution No. 728 adopted on October 30, 1974, a copy of which is attached hereto and made a part hereof; and

WHEREAS, Zone 7 has an interim policy on wastewater reclamation expressed in Zone 7 Board Resolution No. 823 adopted on June 15, 1977, a copy of which is attached hereto and made a part hereof; and

WHEREAS, Zone 7 has expressed its intent to serve as the overall water quality management planning agency for the Alameda Creek Watershed above Niles, as expressed in Zone 7 Board Resolution No. 768 adopted on September 17, 1975, a copy of which is attached hereto and made a part hereof; and

WHEREAS, the California Regional Water Quality Control Board, San Francisco Bay Region, in their Resolution 75-16, and the Alameda County Board of Supervisors, by their Resolution No. 11265 of May 13, 1975, have expressed concurrence for having Zone 7 as the overall water quality management planning agency for the Alameda Creek Watershed above Niles; and

WHEREAS, on March 2, 1981, Zone 7 executed an agreement with the consulting engineering firm of Camp Dresser & McKee, Inc. (CDM), of Walnut Creek, California, to develop the Wastewater Management Plan for the Unsewered, Unincorporated Area of Alameda Creek Watershed Above Niles (WMP), and

WHEREAS, CDM completed the Draft WMP on March 3, 1982, with the results presented at the final public hearing on April 15, 1982, and comments have been received; and

WHEREAS, the public hearing process is now concluded;

NOW, THEREFORE, BE IT RESOLVED, that consistent with the information presented above, the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District does hereby adopt the final Wastewater Management Plan for the Unsewered, Unincorporated Area of Alameda Creek Watershed Above Niles (WMP) consisting of the Draft WMP and the modifications to the Draft WMP of May 12 and May 19;

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

ZONE NO. 7

BOARD OF DIRECTORS

Resolution No. 1165

Introduced by: Director Schock
Seconded by: Director Tracy

WHEREAS, it is well established that although domestic septic tanks represent a source of degradation of the groundwater within Zone 7 some are permitted under strict conditions; and

WHEREAS, it may reasonably be anticipated that commercial and industrial facilities may generate sewage of higher toxicity and in larger volumes than domestic septic tank users; and

WHEREAS, the Zone has a policy of groundwater protection as expressed in the Wastewater Management Plan for the Unsewered, Unincorporated Area of Alameda Creek Watershed Above Niles, dated May 19, 1982, with strict controls on the disposal of treated sewage which may affect the quality of the groundwater; and

WHEREAS, such plan focused on the use of septic tanks for rural residential units and did not consider their use on new developments zoned for industrial or commercial use;

NOW, THEREFORE, BE IT RESOLVED that the Zone 7 Board of Directors of Alameda County Flood Control and Water Conservation District hereby finds that the use of septic tanks for new development zoned for commercial or industrial uses generally produces unacceptable risk to the quality of the groundwater resources; and

BE IT FURTHER RESOLVED that this Board hereby establishes a policy of prohibition to the use of septic tanks for new development zoned for commercial or industrial uses which overlies the central groundwater basin, any of its fringe areas or subbasins, or any body of groundwater hydrologically connected with the central basin unless it can be satisfactorily demonstrated to the Board that the wastewater loading will be no more than the loading from an equivalent rural residential unit and said septic tanks will be in compliance with all other conditions and provisions.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS BUDDEMEIER, CONCANNON, SCHNEIDER, SCHOCK, TRACY, WALKER

NOES: NONE

ABSENT: DIRECTOR WENTE

ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone No. 7 of the Alameda County Flood Control and Water Conservation District on AUG 28 1982 1983

ATTEST:

BY: [Signature]

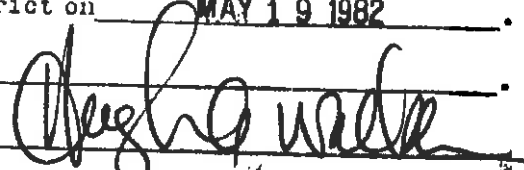
BE IT FURTHER RESOLVED that the final WMP supersedes Zone 7 Board Resolution No. 823 where there is a conflict; and

† BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 of Alameda County Flood Control and Water Conservation District does hereby direct CDM to incorporate said modifications with the Draft WMP to produce the final WMP, and to thence make and present to Zone 7, 100 copies of said final WMP, at which time their work under Agreement No. A4-7.674 will thereby be completed.

ADOPTED BY THE FOLLOWING VOTE:

AYES: DIRECTORS DZAKOWIC, HAGEMANN, PHILCOX, TRACY, WALKER, WENTE, WILLIAMS
NOES: NONE
ABSENT: NONE
ABSTAIN: NONE

I certify that the foregoing is a correct copy of a resolution adopted by the Board of Directors of Zone No. 7 of the Alameda County Flood Control and Water Conservation District on MAY 19 1982.

ATTEST: _____
BY : 



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: ADMINISTRATIVE SERVICES
CONTACT PERSON: TOM PICO

AGENDA DATE: March 18, 2015

ITEM NO. 5e

SUBJECT: Personnel Action: Junior/Assistant Engineer/Geologist Position

SUMMARY:

- Zone 7 continues to assess the staffing needs of the Agency as we maintain a lean, cost-effective organizational model aligned with our goals.
- Recent retirement notification of an Associate Engineer/Geologist in our Flood Control Section has been received which will create a vacancy.
- The agency would benefit by adding one Junior/Assistant Engineer/Geologist position to existing staff, to allow recruiting at the entry level.
- This position will allow the General Manager flexibility in cross-training, optimizing efficiency and succession planning within the Engineering series.
- There is no change to the existing salary schedule for Junior/Assistant Engineer/Geologist.
- Funding is not required as money could be transferred from a vacant position.

FUNDING:

We are requesting the authorization for one unfunded position. There is no additional cost.

RECOMMENDED ACTION:

Staff recommends that the Board adopt the attached Resolution to approve the addition of one unfunded classification at the existing salary schedule.

ATTACHMENT:

Zone 7 Board Resolution

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

BOARD OF DIRECTORS

RESOLUTION NO.

INTRODUCED BY
SECONDED BY

BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District does hereby approve the following personnel action:

Approve one unfunded position of Junior/Assistant Engineer/Geologist, Zone 7.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on March 18, 2015.

By _____
President, Board of Directors



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: ADMINISTRATIVE SERVICES

CONTACT: GINGER STATON

AGENDA DATE: March 18, 2015

ITEM NO. 6a

SUBJECT: January Employee of the Month Recognition

SUMMARY:

The Employee Recognition Program Nomination Committee met in February and selected the Employee of the Month for January 2015 according to the established Program Guidelines. The individual chosen out of the submitted nominations is then recommended to Management for approval and there is a subsequent announcement of the selection to all Agency employees.

Joe Cerro, Plant Mechanic, has been chosen from among those nominated as the January 2015 Employee of the Month. Joe joined Zone 7 in April 2002 and works as a Plant Mechanic based out of the Del Valle Water Treatment Plant. Before joining Zone 7, Joe worked as a Plant Mechanic in the County's Public Works Department so he has over 15 years of service time.

As a Plant Mechanic, Joe works to troubleshoot and perform repair work on a wide variety of pumps, motors, valves, compressors and piping systems at Zone 7 facilities. Membrane plants can be temperamental and subject to equipment and process breakdowns. Because of this, Joe spends a lot of time troubleshooting and repairing equipment at the Mocho Groundwater Demineralization Plant (MGDP). He displays both diligence and skill in shortening the duration of equipment and process breakdowns. Due in part to his efforts, the MGDP is a more reliable facility.

As described in his nomination, some of the processes which break down from time to time do not have an easy solution. Joe does not show frustration when repeatedly repairing the same processes and often takes time to help Operations staff monitor those processes in order to mitigate future issues. An example of this is his work on the maintenance of the salt load for the water softening system ensuring that calcium and magnesium deposits do not clog up the chemical feed lines when they precipitate in contact with sodium hypochlorite and ammonia. Joe's responsiveness and his ability to work with the Operations team in addressing issues as they arise are greatly appreciated.

The committee seconded the recommendation and recognized Joe as a valuable employee and asset to Zone 7, with management approving the selection.

RECOMMENDED ACTION:

It is recommended that the Zone 7 Board of Directors recognize and congratulate Joe Cerro as January 2015 Employee of the Month.

3/18/15 Board written/narrative comments by Dick Quigley

Feb 24-27 Attended ACWA annual Washington, DC conference

Tuesday evening attended a Congressional Reception in conjunction with the California Association of Sanitation Agencies. DSRSD Board Chair Duarte and a staff rep were in attendance and visiting.

Wednesday led off with a congressional staff panel moderated by ACWA consisting of professional staff members from Senate Energy and Water Appropriations Subcommittee, House Water and Power, and House Natural Resources. This was followed by a presentation by the Senior Policy advisor of the EPA and the new EPA Commissioner Estevan Lopez.

An insider's panel gave us some insight on what to expect in a dysfunctional Congress in light of recent changes.

I took the opportunity often to pass out the following Zone 7 prepared handouts to California Legislators and their staff:

Improving Bay Area Water Supply Reliability — A Regional Approach

PURPOSE

The Bay Area's largest water agencies are working together to develop a regional solution to improve the water supply reliability for over 6 million area residents and the thousands of businesses and industries located therein. The Contra Costa Water District, the East Bay Municipal Utility District, Marin Municipal Water District, the San Francisco Public Utilities Commission (with the Bay Area Water Supply and Conservation Agency), the Santa Clara Valley Water District, Zone 7 Water Agency, and the Alameda County Water District have joined forces to leverage existing facilities and, if needed, build new ones to bolster regional water supply reliability.

REGIONAL BENEFITS

The benefits of a regional approach include:

- Enhancing water supply reliability
- Bolstering emergency preparedness
- Addressing climate resiliency needs
- Leveraging existing infrastructure investments
- Facilitating the transfer of water supplies during critical periods of drought or following natural disasters

DESCRIPTION

Each of the Bay Area water agencies have recently completed several multi-million infrastructure projects that, when pooled together as shared resources in times of need, may significantly enhance the regional water supply reliability. These projects include, but are not limited to:

- \$920M 185 MGD Freeport Intake by EBMUD to deliver water from the Sacramento River to the Bay Area
- \$110M Los Vaqueros expansion project by CCWD providing local storage of 160 TAF
- \$100M Middle River Intake project by CCWD to deliver water from the Victoria Canal in the Central Delta
- \$20M 30 MGD Hayward Interline that connects the service area of EBMUD and SFPUC
- \$120M investment in Semitropic Groundwater Bank in Kern County providing 565 TAF of storage for SCVWD, Zone 7 and ACWD
- \$3M Interline in Brentwood that connects CCWD to EBMUD
- \$1M investment in Cawelo Groundwater Bank in Kern County providing 120 TAF of additional storage for Zone 7
- \$25M in Chain of Lakes area to enhance recharge and use of local groundwater storage for Zone 7
- \$35M investment in groundwater demineralization to help manage salt in the Livermore Valley Groundwater Basin and facilitate use of recycled water in the Zone 7 service area
- \$70M Silicon Valley Advanced Water Purification Center to provide 8 MGD of SCVWD drought-proof supply
- \$11M 35 MGD Interline that connects SFPUC to SCVWD

Potential New Investments:

- ACWD-SFPUC Interline connecting ACWD's Newark Desalination Facility with SFPUC's Bay Division Pipeline to provide emergency supplies and water transfer opportunities
- EBMUD-Zone 7 Interline (\$25M, EBMUD & Zone 7) that would connect EBMUD's water delivery system to Zone 7's, providing potential water sharing and transfer opportunities
- Pre-treatment facility at the Walnut Creek Water Treatment Plant (\$100M, EBMUD) that would allow EBMUD to treat water from the Sacramento River, Los Vaqueros Reservoir, and other sources, enabling EBMUD to deliver supplies to neighboring water agencies
- West Side SFPUC/SCVWD Interline that would provide a second connection between SFPUC and SCVWD water delivery systems and enable use of additional local/imported sources for water exchanges and transfers
- SFPUC-Zone 7 Interline enabling the exchange of surface water, groundwater or recycled water supplies
- Transfer Bethany pipeline (\$200M, CCWD and regional partners) that would connect the Los Vaqueros Reservoir and CCWD's and EBMUD's intakes to the Bethany Reservoir enabling the conveyance of water to the southern aqueduct
- Regional Desalination Plant (\$175M) to supply water to CCWD, EBMUD, SCVWD, SFPUC, and Zone 7
- Expansion of the Silicon Valley Advanced Water Purification Center and additional development of SCVWD potable reuse system for regional drought-proof supply
- Construction of several new well fields in the Livermore Valley Groundwater Basin to increase total production capacity to 34 TAF in one year or 108 TAF over a six-year period for Zone 7, while also increase exchange opportunities with other agencies
- EBMUD-MMWD Interline (\$45M, EBMUD & MMWD) that would connect EBMUD's water delivery system to MMWD's, providing potential water sharing and transfer opportunities

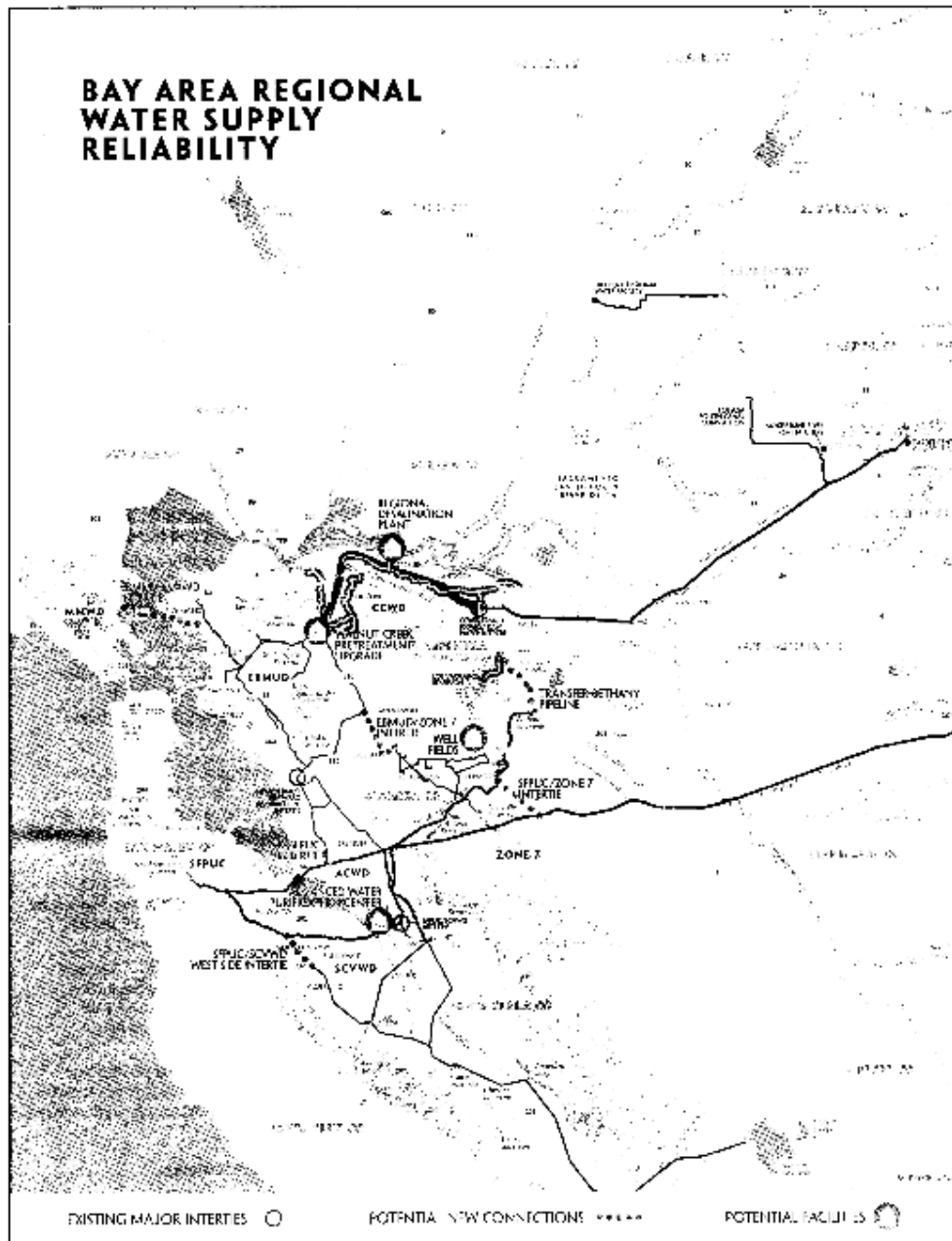
COSTS

A Feasibility Study could be performed using a portion of the \$4M authorized for regional desalination.



Key Federal Issues for Zone 7

1. **Zone 7:** Zone 7 is a flood protection agency, an agricultural water supplier and an urban water supplier. Over 80% of the water Zone 7 delivers is conveyed through the Delta as part of the State Water Project. Zone 7's Strategic Plan directs staff to actively participate in statewide water issues and as a result staff: served on the Steering Committee of the Bay Delta Conservation Plan (see <http://baydeltaconservationplan.org/who.php>), serve on the Executive Committee of the Delta Habitat Conservation and Conveyance Program (to assess environmental impacts of improved conveyance through the Delta), serve on the board of the California Urban Water Agencies (CUWA; <http://www.cuwa.org>) and serve on the board of the State and Federal Water Contractors Agency (together, SFCWA members serve over 25 million Californians and provide water to irrigate more than 3 million acres of the nation's most productive agricultural lands).
2. **Delta:** The Sacramento-San Joaquin Bay Delta drains 40 percent of the state's surface area and is the largest estuary on the West Coast. The Delta is home to almost 600 different species of fish, animals, birds and plants, plus more than 130 invasive, nonnative species of concern. Unfortunately, the Delta is broken and it is absolutely critical to Zone 7's future water supply to fix it, applying the coequal goals of assuring ecosystem restoration along with assuring water supply reliability. One of the keys will be to make future decisions based on good scientific data, avoiding arbitrary anecdotal standards from the past. With this in mind, Zone 7 actively supports SFCWA's independent science program and open/shared access to Delta data (see, for example, <http://www.baydeltainfo.org>). Zone 7 also supports federal salmon funding for California. Zone 7 staff recommend continued federal financial support for the proposed project to improve conveyance infrastructure for both the federal and state projects.
3. **Limiting Future Reliance on the Delta:** The urban water agencies, including Zone 7, are also doing their part to limit future reliance on the Delta and to achieve the state's target of a 20% reduction in per capita water use by the year 2020. See the CUWA white paper on conservation, <http://www.cuwa.org/conservation/whitepaper.pdf>. During 2014, CUWA agencies were active in pursuing additional conservation (see <http://www.cuwa.org/conservation>). Zone 7 also actively supports water recycling and is a member of the Bay Area Recycled Water Coalition, <http://www.barcw.org>. With this in mind, continuing funding for Title XVI projects is critical.
4. **Assuring Reliability in the Face of Climate Change:** Estimates of climate change impacts on the State Water Project's reliability have been included in DWR's most recent analysis. But, as one of the state's urban water agencies, Zone 7 also participated in the development of the CUWA white paper on climate change, <http://www.cuwa.org/conservation/whitepaper/ClimateChangeReport2014.pdf>. Climate change issues increase the level of urgency for addressing Delta issues and improving aging infrastructure to make it more resilient to anticipated impacts from climate change. Some improvements to regional reliability can be achieved through the addition of interties throughout the Bay Area. Zone 7 is an active member of the Bay Area Regional Reliability Program and strongly endorses additional federal funding to advance BARR projects, especially interties and the Regional Desalination Project (see attached fact sheet).



We heard presentations and visited with Rep. Valadao, Huffman, LaMalfa, Denham, Garamendi, Knight, Calvert, Costa and Swalwell.

Thursday we heard from Army Corps and Forest Service and then went hall walking, spreading the California Water message and needs.

Let me know if you have any questions or suggestions.

Thanks,
DQ



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: ADMINISTRATION

CONTACT: Jill Duerig

AGENDA DATE: March 18, 2015

ITEM NO. 10a

SUBJECT: GENERAL MANAGER'S REPORT

SUMMARY: The following highlights a few of the key activities which occurred last month. Also attached is a list of the General Manager (GM) contract(s) executed during February.

Engineering and Flood Control:

- The SuperPulsator Rehabilitation Project is nearing completion. Testing of SuperPulsators 3 & 4 was completed with flying colors. Miscellaneous items remain to be completed.
- As a result of the rains in early February, six downed trees were found along the west and north sides of Lake I. One of them fell across a fence; staff are working to remove the tree and make repairs.
- Staff completed the first round of technical meetings with retailer staff to discuss updating the Water Supply Evaluation (WSE), while continuing to update existing models and water demand projections. The WSE update will also set the stage for developing the 2015 Urban Water Management and Drought Contingency Plan.

Environmental & External Affairs:

- In order to improve data sharing and advance the ability of scientists to interpret causes of the Delta's decline, the Bay-Delta Live website has been launched. Now that CDEC is also part of the data being uploaded, its popularity is increasing. There are currently 17 partner agencies providing data. See <http://www.BayDeltaLive.com>.
- The Upper Altamont Creek Planting Project's February 28th planting event, which was conducted in collaboration with the US Natural Resources Conservation Service (NRCS) and the Alameda County Resource Conservation District (ACRCD), was a big success with 40 volunteers helping and getting all 650 plants in the ground by the end of the day.
- The Living Arroyos Program allowed about 25 volunteers to seed native grasses in a portion of Arroyo Mocho - Stanley Reach. Living Arroyos staff also planted over 20 oak seedlings as part of the CalTrans oak replacement project.

Administration:

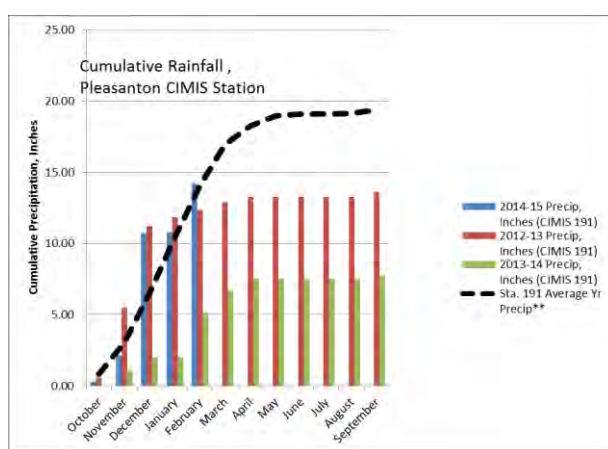
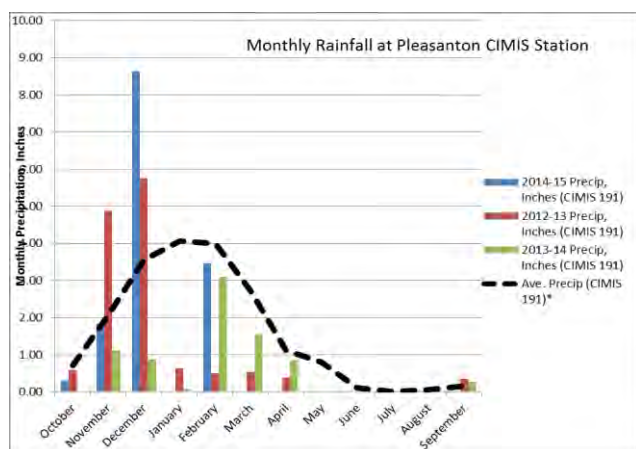
- On August 20, 2014, the Zone 7 Board approved participating in the Bacon Island Levee Rehabilitation Project. Matching funds had to be established to seek grant funding. On February 25th, staff received notification of a \$10,211,190 grant award for the design and construction of almost five miles of levee improvements and landside habitat

enhancements along Old River. This represents a state contribution of 97% with Zone 7 contributing about \$30,000.

- In February, Stanford released a study on funding water-related public purpose projects in California. The report, called “Funding Water in Times of Financial Uncertainty: The Case for a Public Goods Charge in California,” is consistent with previous political interest at the state level in applying an across-the-board water charge (not unlike a state gas tax) to pay for projects like Delta habitat improvements. The Stanford report is available on the website, https://woods.stanford.edu/sites/default/files/files/CA-Public-Goods-Charge-Ajami-2015.pdf?utm_source=PGC-Mailer&utm_medium=email&utm_term=WitW-Ajami-PGC&utm_campaign=WitW-Ajami-PGC.
- Staff have begun discussions with Cawelo staff to see if there might be opportunities for refinancing a portion of the debt incurred on Zone 7’s behalf for infrastructure improvements to facilitate groundwater banking, which could reduce Zone 7’s fixed charges.
- Under a Tri-Valley Utility Coordination Agreement Task Order, DSRSD will be repaving the access road to the Dougherty Tank, with Zone 7 reimbursing them for half the cost (Zone 7’s share will be under \$20,000). Work should be completed in May.

Operations and Maintenance:

- With the completion of annual training and maintenance projects, the Del Valle Water Treatment Plant came back online February 4th. Once it was fully operational, the two Patterson Pass (PP) Water Treatment Plants (Conventional and Ultra-Filtration/UF) were taken offline to complete respective annual training and maintenance and remained offline for the remainder of February.
- Staff have been working on a project to replace the flow meter and regulator in CalWater Turnout No. 7 and install a Supervisory Control And Data Acquisition (SCADA) radio using a solar panel for power. The equipment was installed and testing took place in February.
- The total local precipitation in February was close to average (locally, CIMIS Station 191 recorded 3.47 inches compared to an average at that station of 3.65 for the month), with cumulative local precipitation remaining slightly above average for the water year and already well above the total cumulative amount received during either of the last two years:



Monthly List of GM Contracts

February 2015

Contracts:

Water Quality & Treatment Solutions	\$34,800	South Bay Aqueduct Algal Toxin Treatment Study
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Total February 2015	\$34,800	
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ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY • LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING DIVISION: ADMINISTRATIVE SERVICES
CONTACT PERSON: TAMARA BAPTISTA/MIKE WALLACE

AGENDA DATE: March 18, 2015

ITEM NO. **10b**

SUBJECT: Monthly Budget Report

SUMMARY:

This report provides a summary of FY 14/15 budget performance and explanations of any major variances for the period July 1, 2014 through February 28, 2015.

The following provides explanations and additional details concerning this report:

The period of July 1, 2014 through February 28, 2015 is approximately eight months or 67% of the fiscal year. However, Zone 7's revenue and expense cycles do not follow this pattern because of the nature of our business, which is seasonal and as-needed. For example, the first installment of property tax revenue is not received until December and capital project expenses vary based on construction schedules. By February, we typically expect somewhere between 55-65% of the budget to have been used. This is because services rendered/goods purchased in February would typically be billed and paid for in March.

The FY 14/15 Budget shown is the amended budget which includes any additional Board-approved appropriations, prior-year encumbrance carryovers and unspent capital project balances carried forward to this fiscal year.

The attached Fund Balance Changes Report details year-to-date changes in fund balance by fund type and category. Note the overall fund balance of the Proprietary Fund Category (Water Enterprise Funds), decreased by \$14.5M and the Governmental Fund Category (Flood Control Funds), increased by \$2.8M. The decrease for the Water Enterprise Funds is partially due to the timing differences between the receipt of property tax/connection fee revenue and DWR payments for fixed costs, which are the bulk of Fund 110 and 130 expenses and partially due to Board approved planned use of reserves.

The information in the following tables summarizes, by fund, the attached Annual Budget by Account Classification Report:

Water Enterprise Fund – Fund 100 (formerly **Fund 52**):

<i>Category</i>	<i>FY 14/15 Amended Budget</i>	<i>FY 14/15 YTD Actual</i>	<i>FY 14/15 % Used/Received</i>
Revenue	\$ 34,461,062	\$ 16,231,080	47%
Expenses	\$ 50,157,219	\$ 24,629,532	49%

This fund provides financing for the acquisition and conveyance of raw water, treatment and delivery to the Zone 7 service area. The main source of revenue for this fund is water sales. FY 14/15 YTD revenue is primarily from the sale of 15,306 acre-feet of treated water through January 2015. The month of January 2015 treated water sales of \$1.7M are approximately 90% of the January 2014 amount of \$1.9M. February water sales revenue is not reported because the meter reading data that generates the monthly water billing was not available at the time of this report. Other revenue is from grant proceeds and DWR refunds; both are greater than the budget estimates.

YTD expenses include the first and second quarter transfers to Fund 120, water production costs, maintenance, miscellaneous services/supplies and memberships and dues. While imported water purchases were low due to the low allocation and minimal access to transfers, they have since increased due to the purchase of Semitropic water. Utility and chemical costs remain within the normal range. Rental expenses remain significantly less than budget because the potential use of portable generators for the wells during the drought has not been required to date. Organizational memberships are due and paid at the beginning of the fiscal year, resulting in the 75% as shown in the attached report.

State Water Facilities Fund – Fund 110 (formerly **Fund 51**):

<i>Category</i>	<i>FY 14/15 Amended Budget</i>	<i>FY 14/15 YTD Actual</i>	<i>FY 14/15 % Used/Received</i>
Revenue	\$ 14,060,937	\$ 6,897,067	49%
Expenses	\$ 14,227,251	\$ 13,041,989	92%

This is a pass-through fund for fixed charges associated with the State Water Project, assessed as a property tax override. YTD revenue is from DWR refunds and the first installment of property tax payments, which should represent about half of the projected revenue. YTD expenses reflect payments to DWR for fixed costs through January 2015. DWR charges are both monthly and semi-annual - Transportation Capital charges are paid in January/July and the SBA Improvement and Enlargement debt service payments are paid in March/September. In June 2014, DWR announced that they were experiencing cash flow issues and presented the State Water Contractors (SWC) with a 2015 Statement of Charges (SOC) proposing to cover the majority of the shortfall. Zone 7's share of this is approximately \$3M. DWR stated that the primary reason for the cash flow issue was a large salary increase for DWR employees as well as an increase in the number of full time employees. The

other factor affecting this fund is a reimbursement/credit of approximately \$1.2M that we expected to receive in 2015 for the SBA Enlargement/Improvement project, but wasn't in the 2015 SOC. Zone 7 prepaid the initial costs of the project around \$6M to launch it and DWR had stated that we would in turn be reimbursed via the 2015 SOC. This project is split 20% in this fund (110) and 80% in Fund 130. We have, as of yet, not received the credit. Staff has been following up with DWR and has just heard from DWR that the reimbursement/credit is now planned to be included in the 2016 SOC. However, a partial credit will be given to us in July 2015. There currently exists enough cash in the fund to cover this fiscal year's unexpected increase; however at the end of this fiscal year, the fund's balance will drop below the Board approved minimum reserve level. We plan to discuss this situation further during the FY 15/16 budget process.

Water Renewal/Replacement & System-Wide Improvements – Fund 120 (formerly Fund 72):

<i>Category</i>	<i>FY 14/15 Amended Budget</i>	<i>FY 14/15 YTD Actual</i>	<i>FY 14/15 % Used/Received</i>
Revenue	\$ 13,129,324	\$ 6,850,452	52%
Expenses	\$ 12,294,048	\$ 5,171,771	42%

This fund pays for capital projects including the replacement and improvement of the current water treatment and delivery system. The primary source of funding is a quarterly transfer from Fund 100 – Water Enterprise; the first and second quarter transfers have been posted. Other revenue is from the sale of plans and specifications, grant proceeds and Dougherty Valley Facility Use Fees.

FY 14/15 YTD expenses reflect capital project expenses such as a portion of the Chain of Lakes Well 5 costs, Cope Lake Slope Repair, Groundwater Model Upgrade, AV Water Right Permit Extension, Busch Valley Well #1 project, DVWTP Sludge Handling Improvements, DVWTP Superpulsator Rehabilitation, the DVWTP Caustic Soda System, Filter 1 Media Replacement projects at DVWTP, PPWTP Ferric Chloride & Caustic Improvement project, Nutrient Management Plan and this fund's share of the North Canyons Building Lease. Capital project expenses are tied to construction schedules. Projects related to the existing treatment facilities are typically done during the fall and winter when water demands are lower, and plant flows can be reduced or interrupted to facilitate construction.

Water Expansion – Fund 130 (formerly Fund 73):

<i>Category</i>	<i>FY 14/15 Amended Budget</i>	<i>FY 14/15 YTD Actual</i>	<i>FY 14/15 % Used/Received</i>
Revenue	\$ 22,042,020	\$ 11,952,098	54%
Expenses	\$ 21,976,045	\$ 13,568,313	62%

This fund is intended to provide funding for new facilities and supplies to meet the demands of new development, many of them fixed (i.e., bond payment obligations for debt incurred by others). The

primary source of revenue is connection fees. YTD revenue is primarily comprised of connection fee revenue from 449 connections. Since July 1, 2014, a total of 148 connection fee credits have been used totaling \$3.6M, while 301 credits remain outstanding, valued at \$7.5M at the 2015 connection fee level (see Chart 1 attached).

FY 14/15 YTD expenses reflect this fund's portion of capital project expenses such as Chain of Lakes Well 5 costs, Nutrient Management Plan Update, Busch Valley Well #1 project, Cope Lake Slope Repair and the SBA Improvement and Enlargement debt service payment (\$9.8M). The SBA payment is made twice a year (March and September), with September always being the higher payment per the DWR debt service schedule. DWR's cash flow issue mentioned above in Fund 110 also impacts this fund. Until we receive the reimbursement/credit of \$4.8M (80% of the \$6M prepay) for this fund, the SBA Enlargement/Improvement project will be over budget. Again, DWR is now projecting that this reimbursement/credit will be processed partially in July 2015 and the remaining balance in calendar year 2016.

Flood Protection Operations – Fund 200 (formerly Fund 50):

<i>Category</i>	<i>FY 14/15 Amended Budget</i>	<i>FY 14/15 YTD Actual</i>	<i>FY 14/15 % Used/Received</i>
Revenue	\$ 6,505,936	\$ 3,734,971	57%
Expenses	\$ 14,279,561	\$ 2,677,939	19%

This fund provides for general administration and the maintenance and improvement of the existing flood protection system. The primary source of revenue is property taxes. YTD revenue represents the first installment of property tax payments and other charges for services. Expenses include labor, a fraction of the North Canyons lease payment, flood protection maintenance activities and capital project expenses such as the Cope Lake Slope Repair Project, Arroyo Mocho – Stanley Reach R. 3.5, Arroyo Las Positas Reach 1-7 Improvement Project, Living Arroyos Program, Sediment Study – SFE 2010, Flood Control Hydrology Study, and the Stream Management Master Plan Update. Budgeted projects (e.g., Arroyo Las Positas Treatment Wetland and Chabot Canal Regional Stormwater Detention projects) have yet to commence. Note these projects are funded by both Fund 200 and Fund 210.

Flood Protection and Stormwater Drainage (DIF) – Fund 210 (formerly Fund 76):

<i>Category</i>	<i>FY 14/15 Amended Budget</i>	<i>FY 14/15 YTD Actual</i>	<i>FY 14/15 % Used/Received</i>
Revenue	\$ 2,646,500	\$ 2,063,540	78%
Expenses	\$ 7,022,157	\$ 338,112	5%

This fund pays for flood protection facilities required for new development. The primary source of revenue is from development impact fees. Zone 7 tends to receive most development impact fee

revenue in the spring/early summer; however, this fiscal year we have received 77% year to date. FY 14/15 YTD capital project expenses are for the Cope Lake Slope Repair, Arroyo Mocho – Stanley Reach R. 3.5, Living Arroyos Program, Sediment Study – SFE 2010, Flood Control Hydrology Study, SMMP Update and the Arroyo Las Positas Reach 1-7 Improvement Project. Budgeted projects that are split with Fund 200 (e.g., Arroyo Las Positas Treatment Wetland and Chabot Canal Regional Stormwater Detention projects) have yet to commence.

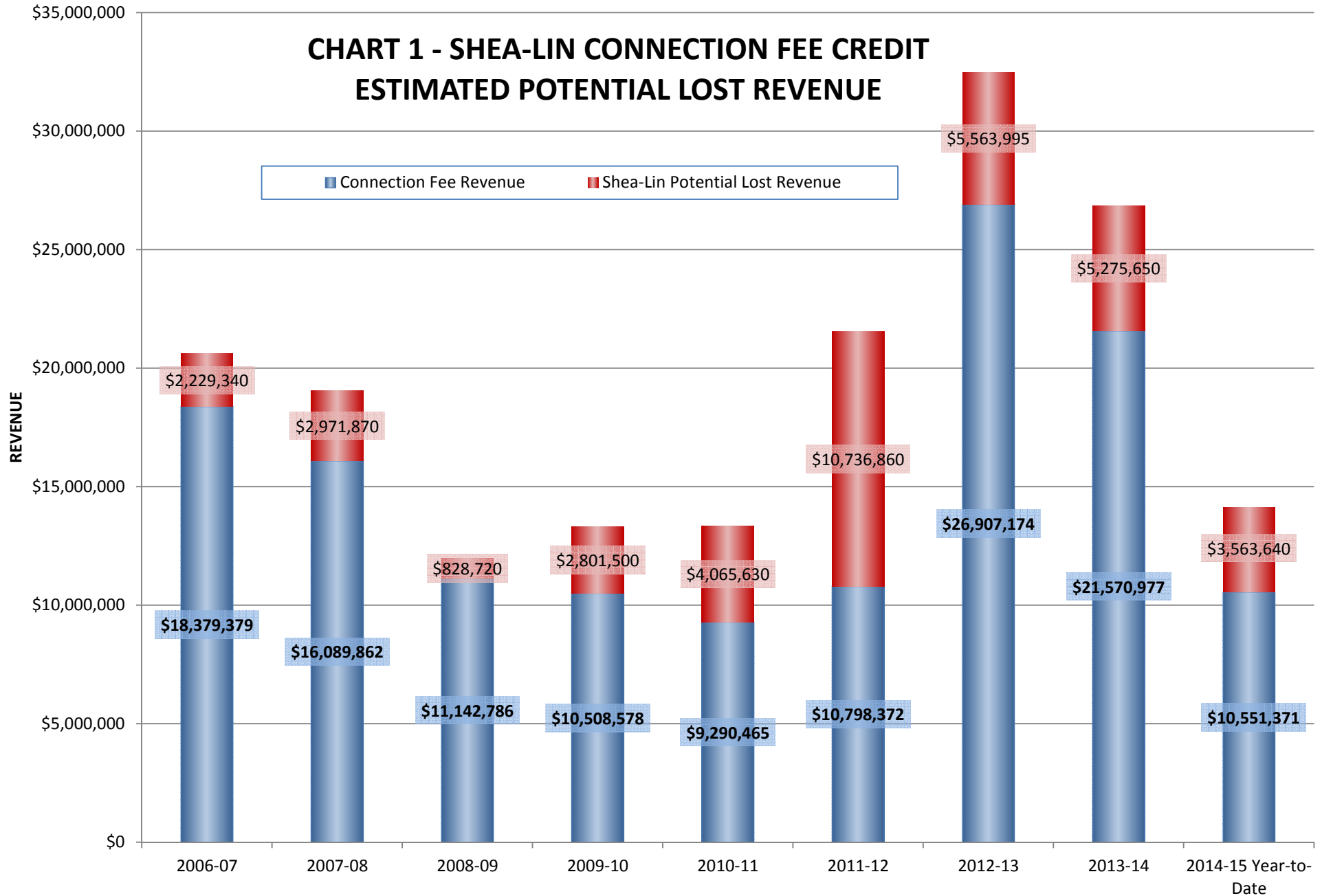
RECOMMENDED ACTION:

Information only.

ATTACHMENTS:

CHART 1 – Shea-Lin Connection Fee Credit Estimated Potential Lost Revenue
Zone 7 Water Agency Annual Budget by Account Classification Report
Zone 7 Water Agency Fund Balance Changes Report

CHART 1 - SHEA-LIN CONNECTION FEE CREDIT ESTIMATED POTENTIAL LOST REVENUE



NOTES:

Shea-Lin Credit Data as of 02-28-2015, 1734 Redeemed & 301 Remaining.
Revenue as of 09-30-2014 for Livermore, 01-31-2015 for Pleasanton and DSRSD
Initial Calendar Year 2000 Payment of \$10,000,000 for Credits is Not Reflected in This Graph

ZONE 7 WATER AGENCY
Budget vs Actual by Account Classification Report
For the period 7/1/2014 - 2/28/2015

	FY 14/15 Amended Budget	FY14/15 YTD Actual	% Used/Rec
FUND: 100 Water Enterprise Operations			
Revenue			
411 - Water Sales & Service	\$34,246,611.00	\$15,688,002.62	46%
441 - Charges for Services	\$0.00	\$1,450.00	-
452 - Aid from Governmental Agencies - State	\$0.00	\$154,019.16	-
461 - Investment Earnings	\$75,000.00	\$48,072.92	64%
462 - Rents and Royalties	\$65,263.00	\$18,398.96	28%
464 - Fines and Penalties	\$0.00	\$62.77	-
481 - Other Revenue	\$74,188.00	\$321,074.02	433%
Revenue Totals	\$34,461,062.00	\$16,231,080.45	47%
Expenditures			
511 - Personal Services - Salaries and Wages ¹	\$13,859,924.00	\$7,663,029.43	55%
512 - Personal Services - Overtime ¹	\$215,074.00	\$88,695.58	41%
513 - Personal Services - Benefits ¹	\$7,120,240.00	\$3,749,373.30	53%
600 - Labor & Overhead Distributed ²	(\$7,961,534.00)	(\$2,178,063.83)	27%
611 - Purchased Services	\$4,456,603.00	\$1,520,780.41	34%
621 - Water	\$9,014,831.00	\$3,028,460.93	34%
631 - Chemicals	\$2,250,973.00	\$1,140,554.77	51%
641 - Utilities	\$1,922,616.00	\$1,077,731.03	56%
643 - Communications	\$174,124.00	\$65,237.11	37%
651 - Cleaning Services	\$50,931.00	\$29,003.79	57%
652 - Repairs and Maintenance	\$2,833,012.00	\$853,175.30	30%
653 - Rental Services	\$792,900.00	\$45,567.53	6%
661 - General Office Services/ Supplies	\$610,897.00	\$261,630.42	43%
662 - Organizational Membership/ Participation	\$467,783.00	\$353,059.12	75%
665 - Other Services/ Supplies	\$396,228.00	\$170,695.89	43%
667 - Training and Travel	\$402,045.00	\$70,381.39	18%
669 - Special Departmental Expense	\$698,948.00	\$197,735.89	28%
671 - Equipment, Furniture and Vehicles	\$27,700.00	\$12,188.73	44%
691 - Transfers	\$12,823,924.00	\$6,480,295.34	51%
Expenditure Totals	\$50,157,219.00	\$24,629,532.13	49%
Revenue Less Expenses Fund 100 Total	(\$15,696,157.00)	(\$8,398,451.68)	
FUND: 110 State Water Facilities			
Revenue			
411 - Dougherty Valley Surcharge	\$1,311,950.00	\$0.00	0%
421 - Property Taxes	\$11,350,000.00	\$6,030,298.49	53%
452 - Aid from Governmental Agencies - State	\$45,000.00	\$0.00	0%
453 - Aid from Governmental Agencies - Local	\$610.00	\$0.00	0%
461 - Investment Earnings	\$15,000.00	\$11,999.15	80%
481 - Other Revenue	\$1,338,377.00	\$854,769.60	64%
Revenue Totals	\$14,060,937.00	\$6,897,067.24	49%
Expenditures			
621 - Water	\$14,227,251.00	\$13,041,988.54	92%
Expenditure Totals	\$14,227,251.00	\$13,041,988.54	92%
Revenue Less Expenses Fund 110 Total	(\$166,314.00)	(\$6,144,921.30)	

ZONE 7 WATER AGENCY
Budget vs Actual by Account Classification Report
For the period 7/1/2014 - 2/28/2015

	FY 14/15 Amended Budget	FY14/15 YTD Actual	% Used/Rec
FUND: 120 Water Enterprise Capital IR&R			
Revenue			
431 - Facility Use Fees	\$250,000.00	\$359,509.40	144%
441 - Charges for Services	\$2,500.00	\$150.00	6%
452 - Aid from Governmental Agencies - State	\$0.00	\$45,497.00	-
461 - Investment Earnings	\$52,900.00	\$33,334.03	63%
499 - Transfers	\$12,823,924.00	\$6,411,962.00	50%
Revenue Totals	\$13,129,324.00	\$6,850,452.43	52%
Expenditures			
600 - Labor & Overhead Distributed ¹	\$1,177,962.00	\$810,472.97	69%
611 - Purchased Services	\$2,875,329.00	\$295,952.68	10%
643 - Communications	\$0.00	\$18.03	-
653 - Rental Services	\$549,198.00	\$324,641.16	59%
661 - General Office Services/ Supplies	\$150,000.00	\$7,744.36	5%
665 - Other Services/ Supplies	\$8,595.00	\$13,909.33	162%
669 - Special Departmental Expense	\$978,698.00	\$0.00	0%
671 - Equipment, Furniture and Vehicles	\$120,000.00	\$0.00	0%
672 - Land and Facility Improvements	\$6,434,266.00	\$3,719,032.67	58%
Expenditure Totals	\$12,294,048.00	\$5,171,771.20	42%
Revenue Less Expenses Fund 120 Total	\$835,276.00	\$1,678,681.23	
FUND: 130 Water Enterprise Cap Expansion			
Revenue			
431 - Development Fees	\$19,020,120.00	\$10,502,999.17	55%
452 - Aid from Governmental Agencies - State	\$0.00	\$19,498.71	-
461 - Investment Earnings	\$81,100.00	\$54,033.70	67%
481 - Other Revenue	\$2,940,800.00	\$1,375,566.40	47%
Revenue Totals	\$22,042,020.00	\$11,952,097.98	54%
Expenditures			
600 - Labor & Overhead Distributed ¹	\$636,105.00	\$205,090.81	32%
611 - Purchased Services	\$1,808,744.00	\$147,503.37	8%
621 - Water	\$16,744,211.00	\$11,780,094.41	70%
643 - Communications	\$0.00	\$18.02	-
653 - Rental Services	\$426,376.00	\$252,498.69	59%
661 - General Office Services/ Supplies	\$0.00	\$2,114.92	-
662 - Organizational Membership/ Participation	\$694.00	\$626.70	90%
669 - Special Departmental Expense ³	\$472,643.00	\$29,177.20	6%
672 - Land and Facility Improvements	\$1,887,272.00	\$1,151,188.80	61%
Expenditure Totals	\$21,976,045.00	\$13,568,312.92	62%
Revenue Less Expenses Fund 130 Total	\$65,975.00	(\$1,616,214.94)	

ZONE 7 WATER AGENCY

Budget vs Actual by Account Classification Report

For the period 7/1/2014 - 2/28/2015

	FY 14/15 Amended Budget	FY14/15 YTD Actual	% Used/Rec
FUND: 200 Flood Protection Operations			
Revenue			
421 - Property Taxes	\$6,307,731.00	\$3,503,328.53	56%
441 - Charges for Services	\$13,000.00	\$110,864.95	853%
452 - Aid from Governmental Agencies - State	\$54,000.00	\$46,562.67	86%
453 - Aid from Governmental Agencies - Local	\$10,700.00	\$5,784.70	54%
461 - Investment Earnings	\$25,000.00	\$26,368.48	105%
462 - Rents and Royalties	\$60,505.00	\$42,062.15	70%
481 - Other Revenue	\$35,000.00	\$0.00	0%
Revenue Totals	\$6,505,936.00	\$3,734,971.48	57%
Expenditures			
600 - Labor & Overhead Distributed ¹	\$2,098,094.00	\$1,040,225.70	50%
611 - Purchased Services	\$6,178,344.00	\$262,387.39	4%
643 - Communications	\$3,000.00	\$1,895.96	63%
651 - Cleaning Services	\$10,000.00	\$2,255.85	23%
652 - Repairs and Maintenance	\$2,355,491.00	\$1,173,595.89	50%
653 - Rental Services	\$159,322.00	\$89,439.45	56%
661 - General Office Services/ Supplies	\$19,550.00	\$6,112.02	31%
662 - Organizational Membership/ Participation	\$175,584.00	\$13,032.50	7%
665 - Other Services/ Supplies	\$516,902.00	\$32,702.27	6%
667 - Training and Travel	\$31,400.00	\$2,325.00	7%
669 - Special Departmental Expense	\$13,333.00	\$0.00	0%
672 - Land and Facility Improvements	\$2,718,541.00	\$47,300.00	2%
691 - Transfers	\$0.00	\$6,666.66	-
Expenditure Totals	\$14,279,561.00	\$2,677,938.69	19%
Revenue Less Expenses Fund 200 Total	(\$7,773,625.00)	\$1,057,032.79	
FUND: 210 Flood Protection/Drainage DIF			
Revenue			
431 - Development Fees	\$2,530,000.00	\$1,943,195.35	77%
441 - Charges for Services	\$0.00	\$17,000.00	-
452 - Aid from Governmental Agencies - State	\$0.00	\$32,357.11	-
461 - Investment Earnings	\$91,500.00	\$70,987.24	78%
481 - Other Revenue	\$25,000.00	\$0.00	0%
Revenue Totals	\$2,646,500.00	\$2,063,539.70	78%
Expenditures			
600 - Labor & Overhead Distributed ¹	\$665,730.00	\$127,621.87	19%
611 - Purchased Services	\$5,166,799.00	\$77,987.71	2%
643 - Communications	\$0.00	\$5.72	-
653 - Rental Services	\$121,822.00	\$72,240.66	59%
661 - General Office Services/ Supplies	\$0.00	\$56.17	-
669 - Special Departmental Expense	\$250,000.00	\$0.00	0%
672 - Land and Facility Improvements	\$817,806.00	\$60,200.00	7%
Expenditure Totals	\$7,022,157.00	\$338,112.13	5%
FUND Total: Flood Protection/Drainage DIF	(\$4,375,657.00)	\$1,725,427.57	-39%
Revenue Grand Totals:	\$92,845,779.00	\$47,729,209.28	51%
Expenditure Grand Totals:	\$119,956,281.00	\$59,427,655.61	50%
Net Grand Totals:	(\$27,110,502.00)	(\$11,698,446.33)	

Notes:

1. Agency-wide salaries, wages, overtime and benefits are budgeted in Fund 100, then distributed to other funds based on assignments and work demands.
2. This is a credit to Fund 100 for salaries, wages, overtime and benefits charged to other funds.

Fund Balance Changes Report

Through 02/28/15

Summary Listing

FUND	FUND Description	July 1, 2014 Audited Fund Balance	YTD Revenues	YTD Expenses	February 28, 2015 Estimated Fund Balance
Fund Category Proprietary Funds					
Fund Type Enterprise Funds					
100	Water Enterprise Operations	30,450,709	16,231,080	24,629,532	22,052,257
110	State Water Facilities	8,849,889	6,897,067	13,041,989	2,704,968
120	Water Enterprise Capital IR&R	18,690,974	6,850,452	5,171,771	20,369,655
130	Water Enterprise Cap Expansion	33,346,252	11,952,098	13,568,313	31,730,037
Fund Type Enterprise Funds Totals		91,337,825	41,930,698	56,411,605	76,856,918
Fund Category Proprietary Funds Totals		91,337,825	41,930,698	56,411,605	76,856,918
Fund Category Governmental Funds					
Fund Type Special Revenue Funds					
200	Flood Protection Operations	15,260,267	3,734,971	2,677,939	16,317,300
210	Flood Protection/Drainage DIF	41,506,429	2,063,540	338,112	43,231,857
Fund Type Special Revenue Funds Totals		56,766,696	5,798,511	3,016,051	59,549,156
Fund Category Governmental Funds Totals		56,766,696	5,798,511	3,016,051	59,549,156
Grand Totals		148,104,521	47,729,209	59,427,656	136,406,074

Please note:

This report shows the total reserves or fund balance for each fund on a cash basis. Annually after making accruals for revenues and expenses and closing the books, individual reserves are calculated and reported in the audit. Individual reserves are not calculated on a monthly basis because the timing differences in the receipt of revenues and payment of expenses as well as lack of accruals are likely to produce misleading results.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: ADMINISTRATIVE SERVICES
CONTACT: TOM PICO

AGENDA DATE: March 18, 2015

ITEM NO. 10c

SUBJECT: Legislative Update

SUMMARY:

- Zone 7 staff, with the support of Agency consultants, monitors legislation that is being considered in Sacramento, as well as other political activities of interest to the Agency.
- February 27 was the deadline to introduce bills this year. A total of 1,048 bills were introduced in the final two days. The bills must be in print for 30 days before a committee can hear them.
- Senator Ben Hueso (D-San Diego) introduced SB 385, a bill sponsored by ACWA, to refine the timeline for water agencies to comply with the state's new standard for chromium-6. California is the first state to establish standards for chromium-6. The bill would authorize the State Water Resources Control Board to grant time-limited variances to public water systems that are taking steps to comply with the standards, but cannot do so within the timeline. ACWA estimates it could take up to five years to design, finance and build treatment facilities.
- Assemblyman Matthew Harper (R-Huntington Beach) introduced AB 478. This is a spot bill having to do with desalination.
- Two federal bills of interest were introduced in February. California Senators Dianne Feinstein and Barbara Boxer introduced the San Francisco Bay Restoration Act to implement wetlands and habitat restoration projects. It would double funding to \$10 million per year. Congresswoman Jackie Speier (D-Hillsborough) submitted a companion bill in the House. Congressmen Doug LaMalfa (R-Richvale) and John Garamendi (D-Fairfield) introduced HR 160 to accelerate the completion of a feasibility study on the proposed Sites Reservoir and authorize the dam if it is found feasible. The off-stream reservoir could store as much as 1.8 million acre feet.
- The Assembly Water, Parks and Wildlife Committee held what Chairman Marc Levine (D-San Rafael) described as a "hot seat" hearing on implementation plans and timelines for the water bond. A common theme for legislators, as described by Cindy Tuck of ACWA was "get the money out the door."

RECOMMENDED ACTION: Information only



EXECUTIVE SUMMARY State Legislation



**Prepared for the Zone 7 Water Agency
by The Gualco Group, Inc.
For the March 2015 Board Meeting**

Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
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Water Management

AB 149 (Chavez)	Urban water management plans	This bill, commencing January 1, 2017, would require an urban water supplier to update its plan at least once every five years, on or before December 31 in years ending in 6 and 1. The bill would also require the Department of Water Resources to submit its report to the Legislature, on or before December 31, in years ending in 7 and 2.	Watch	In Assembly Committee on Water, Parks and Wildlife
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Groundwater

AB 936 (Salas)	Groundwater monitoring	This bill would create an exception from an eligibility restriction if the entity submits to the Department of Water Resources for approval documentation demonstrating the water grant or loan project includes actions needed to comply with groundwater monitoring functions.	Watch	Introduced
AB 938 (Salas)	Groundwater: basin reprioritization: establishment of groundwater sustainability agency	This bill would impose a requirement to establish a groundwater sustainability agency or submit an alternative after reprioritization on a local agency or combination of local agencies overlying a groundwater basin.	Watch	Introduced

Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
AB 939 (Salas)	Groundwater sustainability agency: financial authority	The Sustainable Groundwater Management Act authorizes a groundwater sustainability agency to impose fees to fund the costs of a groundwater sustainability program and requires a groundwater sustainability agency to hold at least one public meeting prior to imposing or increasing a fee. This bill would require a groundwater sustainability agency to make the data upon which the proposed fee is based available 20 days prior to the public meeting to impose or increase a fee.	Watch	Introduced
AB 1242 (Gray)	Water quality: impacts on groundwater basins: mitigation measures	This bill would require the State Water Resources Control Board to evaluate impacts on groundwater basins, consider alternatives and mitigation measures to avoid or mitigate any adverse impacts on groundwater quality or supply, and avoid or mitigate those adverse impacts to the extent feasible before adopting or approving water quality objectives or a program of implementation that requires instream flows for protection of instream beneficial uses.	Watch	Introduced
AB 1243 (Gray)	Groundwater recharge: grants	This bill would establish the Groundwater Recharge Grant Fund and would provide that money in the fund is available, upon appropriation by the Legislature, to the State Water Resources Control Board to provide grants to local governments and water districts for groundwater recharge infrastructure projects.	Watch	Introduced
SB 13 (Pavley)	Groundwater	This bill would specify that the board is authorized to designate a high- or medium-priority basin as a probationary basin. This bill would provide a local agency or groundwater sustainability agency 90 or 180 days, as prescribed, to remedy certain deficiencies that caused the State Water Resources Control Board to designate the basin as a probationary basin. This bill would authorize the board to develop an interim plan for certain probationary basins one year after the designation of the basin as a probationary basin.	Watch	In Senate Committee on Natural Resources and Water
AB 173 (Nielsen)	Groundwater: de minimis extractors	This bill would define a de minimis extractor as a person who extracts, for domestic purposes, 10 acre-feet or less per year.	Watch	Introduced

Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
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Well Reports

SB 20 (Pavley)	Wells: reports: public availability	This bill would require the Department of Water Resources to, upon request, make the report of any person who digs, bores, or drills a water well, cathodic protection well, or a monitoring well, or abandons or destroys a well, or deepens or re-perforates a well, available to the public.	Watch	In Senate Committee on Natural Resources and Water
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CEQA

AB 311 (Gallagher)	Environmental quality: Water Quality, Supply, and Infrastructure Improvement Act of 2014	This bill would require the public agency, in certifying the environmental impact report and in granting approvals for specified water storage projects funded, in whole or in part, by Proposition 1, including the concurrent preparation of the record of proceedings and the certification of the record of proceeding within 5 days of the filing of a specified notice, to comply with specified procedures.	Watch	In Assembly Committee on Natural Resources
AB 455 (Bigelow)	Groundwater sustainability plans: environmental impact reports	This bill would require the Judicial Council, on or before July 1, 2016, to adopt a rule of court to establish procedures applicable to actions or proceedings brought to attack, review, set aside, void, or annul the certification of an EIR for projects covered by a groundwater sustainability plan that require the actions or proceedings be resolved within 270 days of certification of the record of proceeding.	Watch	Introduced
AB 1398 (Wilk)	Environmental quality: the Sustainable Environmental Protection Act	This bill would enact the Sustainable Environmental Protection Act and would specify the environmental review required pursuant to CEQA for projects related to specified environmental topical areas. The bill would provide that the act only applies if the lead agency or project applicant has agreed to provide to the public in a readily accessible electronic format an annual compliance report prepared pursuant to the mitigation monitoring and reporting program.	Watch	Introduced

Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
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SB 127 (Vidak)	Environmental quality: Water Quality, Supply, and Infrastructure Improvement Act of 2014	This bill would require the public agency, in certifying the environmental impact report and in granting approvals for projects funded, in whole or in part, by Proposition 1, including the concurrent preparation of the record of proceedings and the certification of the record of proceeding within 5 days of the filing of specified notice, to comply with specified procedures. The bill would require the Judicial Council, on or before July 1, 2016, to adopt a rule of court to establish procedures applicable to actions or proceedings seeking judicial review of a public agency's action in certifying the environmental impact report and in granting project approval for those projects that require the actions or proceedings, including any appeals therefrom, be resolved, to the extent feasible, within 270 days of the certification of the record of proceedings.	Watch	In Senate Committee on Environmental Quality
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Public Works

AB 251 (Levine)	Public Works: public subsidies	This bill would provide that a public subsidy is de minimis if it is both less than \$25,000 and less than 1% of the total project cost. The bill would specify that those provisions do not apply to a project that was advertised for bid, or a contract that was awarded, before January 1, 2016.	Watch	In Assembly Committee on Labor and Employment
AB 1315 (Alejo)	Public contracts: water pollution prevention plans: delegation	This bill would prohibit a public entity, charter city, or charter county from delegating to a contractor the development of a plan, as defined, used to prevent or reduce water pollution or runoff on a public works contract, except as provided. The bill would also prohibit a public entity, charter city, or charter county from requiring a contractor on a public works contract that includes compliance with a plan to assume responsibility for the completeness and accuracy of a plan developed by that entity.	Watch	Introduced

Invasive Species

AB 300 (Alejo)	Safe Water and Wildlife Protection Act of 2015	This bill would enact the Safe Water and Wildlife Protection Act of 2015, which would require the conservancy to establish and coordinate the Algal Bloom Task Force.	Watch	In Assembly Committee on Natural Resources
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Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
SB 223 (Galgiani)	Division of Boating and Waterways: oversight committee: invasive aquatic plants	This bill would require the Division of Boating and Waterways, no later than January 1, 2017, to establish an advisory and oversight committee to monitor the activities of the division relating to the management and control or eradication of invasive aquatic plants in the Sacramento-San Joaquin Delta.	Watch	In Senate Committee on Natural Resources and Water
Governance				
AB 385 (Dahle)	Tulelake Irrigation District	This bill would provide that for the Tulelake Irrigation District every owner of real property assessed by the district and located within its boundaries, but no others, is authorized to vote at district elections for directors. The bill would provide that a director of the Tulelake Irrigation District is required to be a registered voter in the state, reside within the territory of the district, and be a landowner within the division he or she represents at the time of his or her nomination or appointment and through his or her entire term.	Watch	Introduced
AB 402 (Dodd)	Local agency: services: contracts	This bill would additionally allow a commission to authorize a city or district to provide new or extended services outside its jurisdictional boundaries to support existing or planned uses involving public or private properties, subject to approval at a publicly noticed hearing where the commission makes specified determinations.	Watch	In Assembly Committee on Local Government
AB 656 (Garcia)	Joint powers agreements: mutual water companies	This bill would specifically authorize 2 or more mutual water companies, or 2 or more mutual water companies and one or more public agencies that operate a public water system, to participate in joint powers agreement for risk-pooling, technical support, and other similar services.	Watch	Introduced
SB 272 (Hertzberg)	The California Public Records Act: local agencies: inventory	This bill would require each local agency, in implementing the California Public Records Act, to conduct an inventory of data gathered by the agency that discloses what data is maintained by the agency, by whom, and with what frequency it is collected.	Watch	Introduced
SB 554 (Wolk)	California Water Commission: disqualifying financial interest; removal from office	This bill would remove a member of the California Water Commission from office if after trial a court finds that the commission member has knowingly participated in any commission decision in which the member has a disqualifying financial interest in the decision.	Watch	Introduced

Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
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[SB 704](#)
[\(Bates\)](#)

Public officers and employees:
conflict of interest

This bill would establish an additional situation in which an official is not financially interested in a contract as applied to an owner or partner of a firm serving on an advisory board or commission to the contracting agency if the owner or partner recuses himself or herself from all participation in reviewing a project that results from a contract between the firm and the contracting agency.

Watch

Introduced

Sacramento-San Joaquin Delta

[AB 501](#)
[\(Levine\)](#)

Resources: Delta research

This bill would require a person conducting Delta research, whose research is funded, in whole or in part, by the state, to take specified actions with regard to the sharing of the primary data, samples, physical collections, and other supporting materials created or gathered in the course of that research.

Watch

Introduced

[AB 1325](#)
[\(Salas\)](#)

Delta smelt

This bill would enact the Delta Smelt Preservation and Restoration Act of 2016. The act would require the Department of Fish and Wildlife to develop a Delta smelt hatchery program to preserve and restore the Delta smelt.

Watch

Introduced

Energy

[AB 568](#)
[\(Dodd\)](#)

Reclamation District No. 108:
hydroelectric power

Existing law authorizes Reclamation District No. 1004, in conjunction with the County of Colusa, to construct, maintain, and operate a plant, transmission lines, and other necessary or appropriate facilities for the generation of hydroelectric power. This bill would grant the above-described hydroelectric power authority to Reclamation District No. 108.

Watch

Introduced

[SB 471](#)
[\(Pavley\)](#)

Water, energy, and reduction
of greenhouse gas emissions:
planning

This bill would require the Strategic Growth Council to give special consideration to awarding funds to eligible projects that, in addition to existing objectives and goals, would also result in reduced energy use by a water supplier, an end user of water, or both.

Watch

Introduced

Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
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SB 758 (Block)	Atmospheric Rivers Research and Mitigation Fund	This bill would establish the Atmospheric Rivers Research and Mitigation Fund in the State Treasury for the purposes of funding research, demonstration, and development of an atmospheric rivers program to mitigate the effects of climate change associated with atmospheric rivers.	Watch	Introduced
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Water Efficiency

AB 585 (Melendez)	Outdoor Water Efficiency Act of 2015: income tax credits: outdoor water efficiency	This bill, for taxable years beginning on or after January 1, 2015, and before January 1, 2021, or an earlier specified date, would allow a credit equal to 25% of the amount paid or incurred by a qualified taxpayer for improvements made to outdoor landscapes on real property in this state, not to exceed \$2,500 per taxable year	Watch	Introduced
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SB 553 (Wolk)	Water Conservation	This bill would require the Department of General Services to identify each public property in the department's state property inventory where it is feasible for water consumption to be reduced and water efficiencies to be achieved through implementation of the relevant recommendations made in the model water efficient landscape ordinance and would require the department to implement the relevant recommendations where feasible.	Watch	Introduced
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Disadvantaged Communities

AB 615 (Rendon)	The Center for Community Water Projects	This bill would establish The Center for Community Water Projects, to be administered by the Division of Financial Assistance within the State Water Resources Control Board. The bill would declare the purpose of the center is to provide a centralized, multidisciplinary technical assistance program for disadvantaged communities and to assist those communities in designing and building clean and sustainable water projects.	Watch	Introduced
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SB 552 (Wolk)	Public water systems: disadvantaged communities: drinking water standards	This bill would require, by January 1, 2017, the State Water Resources Control Board to develop a plan, including enforcement mechanisms, to ensure that disadvantaged communities have water systems that are in compliance with state and federal drinking water standards. The bill would require the plan to identify strategies to help bring disadvantaged communities into compliance with safe drinking water standards.	Watch	Introduced
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Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
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Water Use

AB 647 (Eggman)	Beneficial use: diversion of water underground	This bill would declare that the diversion of water underground constitutes a beneficial use of water for which an appropriation may be made if the diverted water is stored and thereafter applied to beneficial use or if beneficial use of the water, including, but not limited to, protection of water quality or recovery of groundwater levels, is made while the water is underground.	Watch	Introduced
AB 1244 (Gray)	Water rights: small irrigation use	This bill would require the State Water Resources Control Board to adopt general conditions, in consultation with the Department of Food and Agriculture, the University of California Cooperative Extension, and others, including, but not limited to the Department of Fish and Wildlife, for small irrigation use, unless the board determines that sufficient funds are not available for that purpose.	Watch	Introduced
SB 555 (Wolk)	Department of Water Resources: urban retail water suppliers: water loss audits	Existing law requires each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements. This bill would require each urban retail water supplier, on or before July 1, 2017, to conduct a water loss audit as prescribed by rules adopted by the Department of Water Resources on or before July 1, 2016.	Watch	Introduced

Well Stimulation (Fracking)

AB 1490 (Rendon)	Oil and gas: well stimulation treatments: seismic activities	This bill would prohibit a well operator from conducting a well stimulation treatment following the occurrence of an earthquake of magnitude 2.0 or higher on a well that is within a radius of an unspecified distance from the epicenter of the earthquake until the division completes a certain evaluation and is satisfied that the well stimulation treatment does not create a heightened risk of seismic activity. The bill would also prohibit wastewater disposal wells and all well stimulation treatments within 10 miles of a recently active fault.	Watch	Introduced
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Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
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Drinking Water

SB 385 (Hueso)	Primary drinking water standards: variances: hexavalent chromium	This bill would authorize, until January 1, 2020, the State Water Resources Control Board, at the request of a public water system, to grant a variance from the primary drinking water standard for hexavalent chromium if the public water system prepares and submits a compliance plan, the state board approves the compliance plan, the public water system provides specified notice requirements regarding the compliance plan to its customers, and the public water system sends annual reports to the state board that updates the status of the approved compliance plan.	Watch	Introduced
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Spot Bills

AB 478 (Harper)	Desalination	Current law provides that it is the intent of the Legislature that the Department of Water Resources shall undertake to find economic and efficient methods of desalting saline water so that desalted water may be made available to help meet the growing water requirements of the state. This bill would make a nonsubstantive change in these provisions.	Watch	Introduced
AB 824 (Gatto)	Recycled water: recycling criteria	This bill would make technical, nonsubstantive changes to the definition of recycling criteria as defined by the Porter-Cologne Water Quality Control Act.	Watch	Introduced
AB 935 (Salas)	Integrated Regional Water Management Plans: conveyance projects	This bill would declare the intent of the Legislature to enact future legislation that would require the department to provide grants and expenditures, consistent with an integrated regional water management plan, for the planning, design, and construction of local and regional conveyance projects that support regional and interregional connectivity and water management and provide certain benefits.	Watch	Introduced
AB 937 (Salas)	Groundwater recharge	This bill would state the intent of the Legislature to enact legislation relating to groundwater recharge.	Watch	Introduced

Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
AB 1128 (Jones-Sawyer)	Water conservation	This bill would make nonsubstantive changes to existing law that declares the intent of the Legislature to promote urban water conservation standards.	Watch	Introduced
AB 1173 (Williams)	Water equipment: backflow protection programs	This bill would make a nonsubstantive change by updating a reference from the State Department of Public Health to the State Water Resources Control Board.	Watch	Introduced
AB 1376 (Perea)	State Water Resources Control Board: investigations	This bill would make nonsubstantive changes to water-quality-related investigation provisions.	Watch	Introduced
AB 1408 (Hadley)	Joint powers authority	This bill would make nonsubstantive changes to provisions relating to joint powers authority.	Watch	Introduced
AB 1454 (Linder)	State policy for water quality control	This bill would make technical, nonsubstantive changes to provisions relating to water quality control.	Watch	Introduced
AB 1462 (Gonzalez)	Local government	This bill would make technical, nonsubstantive changes to provisions relating governing officers of local agencies.	Watch	Introduced
AB 1473 (Salas)	California Environmental Quality Act	This bill would make technical, nonsubstantive changes to provisions relating the California Environmental Quality Act.	Watch	Introduced
AB 1499 (Gray)	Property tax: revenue allocations	This bill would make a nonsubstantive change to the provision relating to allocation of property tax revenues to local jurisdictions.	Watch	Introduced
SB 568 (Fuller)	Groundwater management	This bill would declare the intent of the Legislature to enact legislation relating to the Sustainable Groundwater Management Act.	Watch	Introduced
SB 615 (Berryhill)	Groundwater basin adjudication	This bill would state the intent of the Legislature to enact legislation to streamline the process for the adjudication of groundwater rights.	Watch	Introduced
SB 664 (Hertzberg)	Water: Department of Water Resources	This bill would make technical, nonsubstantive changes to provisions regarding the appointment of the director of the Department of Water Resources.	Watch	Introduced

Bill	Topic	Synopsis	Staff Recommendation	Status of the Bill/Comments as of 02/27/15
SB 756 (Stone)	California Environmental Quality Act	This bill would state the intent of the Legislature to enact legislation to amend CEQA.	Watch	Introduced
SB 768 (Wieckowski)	Water-conserving plumbing fixtures	This bill would make technical, nonsubstantive changes to these findings and declarations regarding the replacement of plumbing fixtures that are not water conserving	Watch	Introduced
SB 772 (Stone)	Bay Delta Conservation Plan: judicial review	This bill would state the intent of the Legislature to enact legislation establishing judicial review procedures for the Bay Delta Conservation Plan.	Watch	Introduced



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 • PHONE (925) 454-5000 • FAX (925) 454-5727

ORIGINATING SECTION: ADMINISTRATIVE SERVICES
CONTACT: BONI BREWER/TOM PICO

AGENDA DATE: March 18, 2015

ITEM NO. 10d

SUBJECT: Outreach Activities

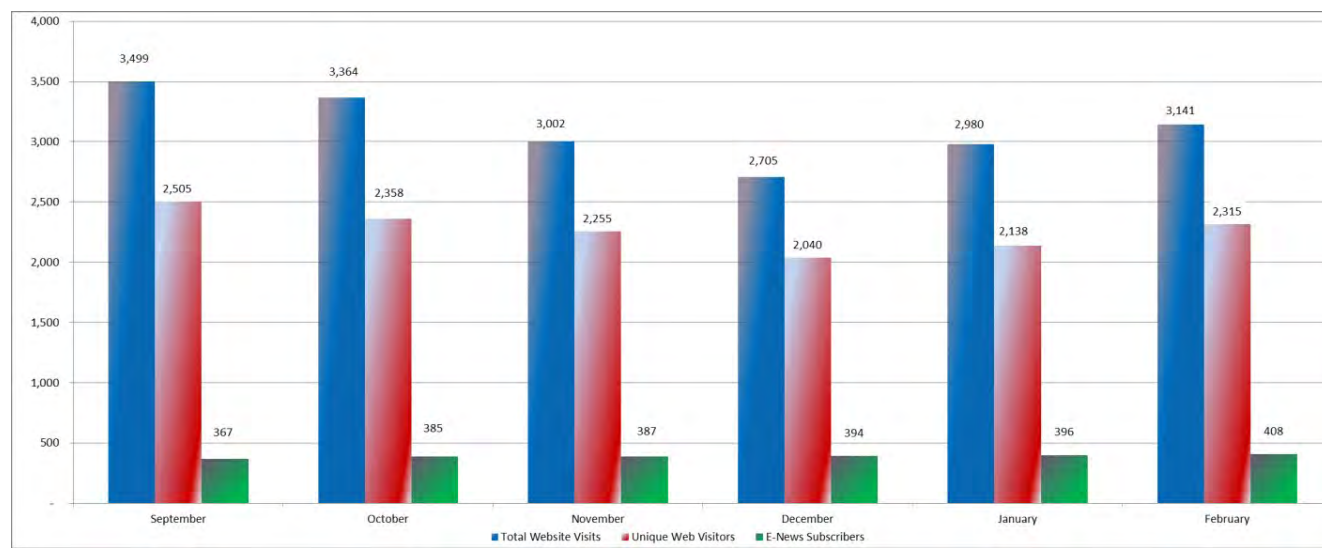
Spring Home & Garden Show, February 13th, 14th and 15th

Zone 7 helped staff a pollution prevention/water conservation booth, in conjunction with the Alameda County Flood Control & Water Conservation District's Clean Water Program, at the Alameda County Fairgrounds in Pleasanton.

Livermore Science Odyssey, February 26th

Two teachers from Zone 7's schools program provided activities on both stormwater pollution prevention and water conservation during this annual science fair, held at Livermore's Junction Avenue School. The event was open to kindergarten through 12th grade students and their families from throughout Livermore.

Website & E-news Subscription Activity





ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

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ORIGINATING SECTION: Engineering
CONTACT: Rhett Alzona

AGENDA DATE: March 18, 2015

SUBJECT: Drought Update

ITEM NO. **10e**

SUMMARY:

- Lake Del Valle's water level is holding steady, with releases to the Arroyo Valle continuing at 10 cubic feet per second (cfs) including 2.5 cfs to Shadow Cliffs. The current lake level in Del Valle is 698.0' (36,500 AF).
- Raw water TOC concentrations were observed to be around 5.5 mg/L to 6.0 mg/L at the treatment plants in February, slightly higher than last month. As a result, coagulant demand continues to be higher than normal to combat the elevated TOC levels.
- Following is the status of the ongoing emergency projects approved by the board:
 1. Chain of Lakes Well No. 5 – Substantial completion was on October 31. The well has been operational and is producing around 1,500 gpm (2.1 MGD). Final Completion was on December 24, 2014. There has been some minor warranty work in February as Zone 7 Operations has started using the well. This will be the last update on this project.
 2. Busch Valley Well No. 1, Phase 1 – Zone 7 entered into a Progressive Design-Build (D/B) contract with Conco West, Inc. (with Stantec as sub-consultant). The D/B contract was initially for the Basis of Design for the well facility. Phase 1 work from the Basis of Design provides a connection for the new well to the Zone 7 transmission system. In the near term, in case of limited to no surface water, this connection gives Zone 7 the option of using a temporary booster pump station to pump well water from the west side to the east side of the Zone 7 transmission system. A change order for Phase 1 construction work has been finalized for a total not-to-exceed amount of \$1,370,000. Conco has performed potholing to verify the connection points on Zone 7's Vineyard Pipeline. Special pipe and valves have been ordered and are expected to arrive around mid-April. Along with the Basis of Design, this will be the final work to be undertaken before the remainder of the Busch Valley Well project is deferred. The Zone 7 Board has approved up to \$2.15 million which includes Zone 7 staff time, PG&E service, right-of-way engineering, and contingencies for the remaining work.
 3. Stoneridge Cross Valley Isolation Valve – Stoneridge Well is Zone 7's highest producing well. By itself the well produces water that is just below the current hexavalent chromium (Cr6) maximum contaminant level (MCL). Moreover, by blending with surface water, water at the turnouts can be easily managed below the Cr6 MCL. This new isolation valve enables Zone 7 to direct Stoneridge Well water in the westerly direction in the event the well water exceeds the hexavalent

chromium and there is limited surface water. During times of limited to no surface water, Stoneridge Well water can stay below the MCL by blending with other wells and Mocho Groundwater Demineralization Plant on the west side of the Zone 7 transmission system. Zone 7 entered into a Progressive Design-Build contract with Conco West, Inc. (with Stantec as sub-consultant) for a not-to-exceed amount of \$452,000. Conco has ordered the isolation valve which is expected to arrive around mid-April. The Cross Valley Pipeline is approximately 14 feet below ground surface along the edge of the Arroyo Mocho access road. While waiting for the valve to arrive and designing the valve vault, Conco will be ready to start excavation in mid-March to construct the valve vault.

During the month of February, Patterson Pass Water Treatment Plant was taken offline for annual training and maintenance projects so groundwater use made up 26% of supply. Cawelo & Semitropic Water Districts continue to recover water for Zone 7. Zone 7 is making releases on Arroyo Valle to maintain a live stream and recharge the groundwater basin. The Mocho Groundwater Demineralization Plant (MGDP) operation was limited to minimum reverse osmosis (RO) feed to maintain the membranes. Minimal MGDP use avoids discharge of the concentrate and minimizes water loss (waste stream is approximately 15% of the amount of groundwater pumped).

- On March 2, 2015, DWR announced an increase in the *preliminary* Table A allocation from 15% to 20% due to the runoff from storms in December and February which DWR was able to export and store in San Luis Reservoir. The *final* allocation will be issued in April 2015. DWR may revise allocations if warranted by the year's developing hydrologic and water supply conditions.
- Lake Del Valle has increased 6,500 AF since last December. Zone 7 has a claim to about 3,000 AF. If additional rain does not fill the lake to 40 TAF, DWR will pump water in to make up the difference.
- Zone 7 continues to store any excess surface water supply (i.e., surface water from the State Water Project that could not be used directly at this time) in San Luis Reservoir.

BACKGROUND:

Calendar Year 2013 was the driest year in recorded state history. 2013 also set a new record as the driest year measured in the Livermore-Amador Valley, with total precipitation of only 4.5 inches out of the average yearly rainfall of 14.47-inches (only 31% of average at Livermore Station 15e). In early January 2014, the snowpack's statewide water content was estimated at about 20% of average for this time of year. On January 17, 2014, Governor Jerry Brown declared a State of Emergency in California due to the current drought conditions and asked all citizens to cut back water use by 20%. On January 29, 2014 at a Special Meeting of the Zone 7 Board, a Local Drought Emergency was declared and a Drought Emergency Response Plan was accepted. In addition, on January 31, 2014, the California Department of Water Resources (DWR) announced they were reducing State Water Project allocations from 5% to zero for the first time in history.

On January 29, 2014 the General Manager was authorized and directed to establish an appropriate level of conservation for the Livermore-Amador Valley, consistent with the

governor's proclamation of a drought emergency (20% or greater). The initial conservation level was set at 20%.

On April 16th, the Zone 7 Board received the annual Sustainability Report and authorized the General Manager to implement Stage Two Actions under the 2010 Urban Water Management Plan to achieve 25% demand reductions. On April 25th, Governor Jerry Brown issued a second drought proclamation.

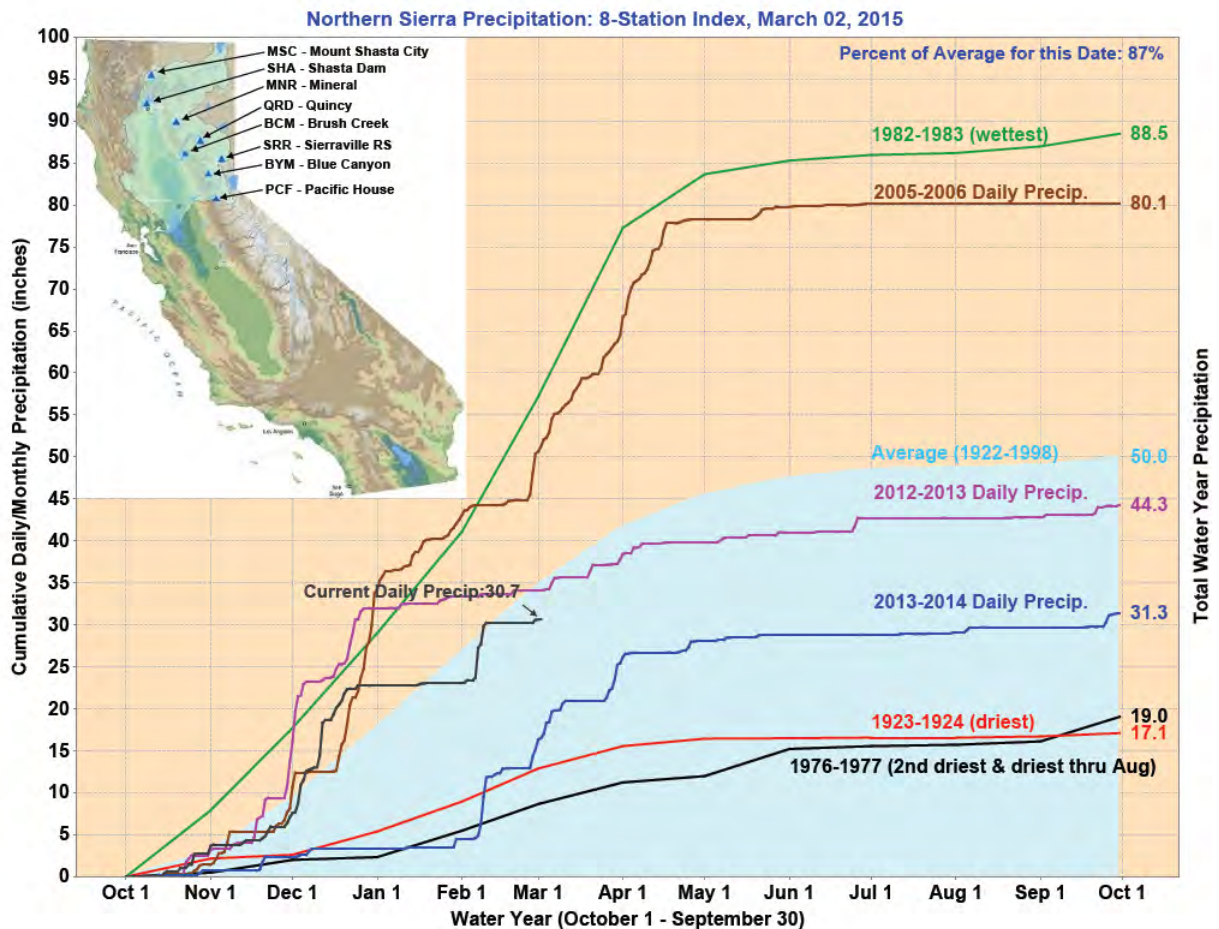
On July 29th, a State Water Resources Control Board emergency regulation to increase mandatory conservation practices for all Californians went into effect. The new conservation regulation targets outdoor urban water use and mandates conservation reporting by retail water agencies.

On August 14th, the California Public Utilities Commission ordered the water companies under its jurisdiction to provide notice to their customers of the July 29th emergency regulation.

While conditions have improved from Calendar Year 2013, the drought still continues. The fall season of 2014 was relatively dry. A wet December 2014 was followed by a record dry January 2015, the driest January in recorded history for the State and Bay Area.

DISCUSSION:

As a result of additional precipitation in February, Northern Sierra hydrology is average at 30.7 inches compared to an average of 35 inches for this time of year (see graph; or for updates see http://cdec.water.ca.gov/cgi-progs/products/PLOT_ESI.pdf). This is critical because the Northern Sierra precipitation determines DWR's ability to refill Lake Oroville, which is the primary source of water for Zone 7 (water is released from Lake Oroville into the Feather and then the Sacramento River and from there it is conveyed through the Delta by a series of levees that direct the Oroville releases to the South Delta pumps which bring water to the Livermore-Valley and to other State Water Contractors).

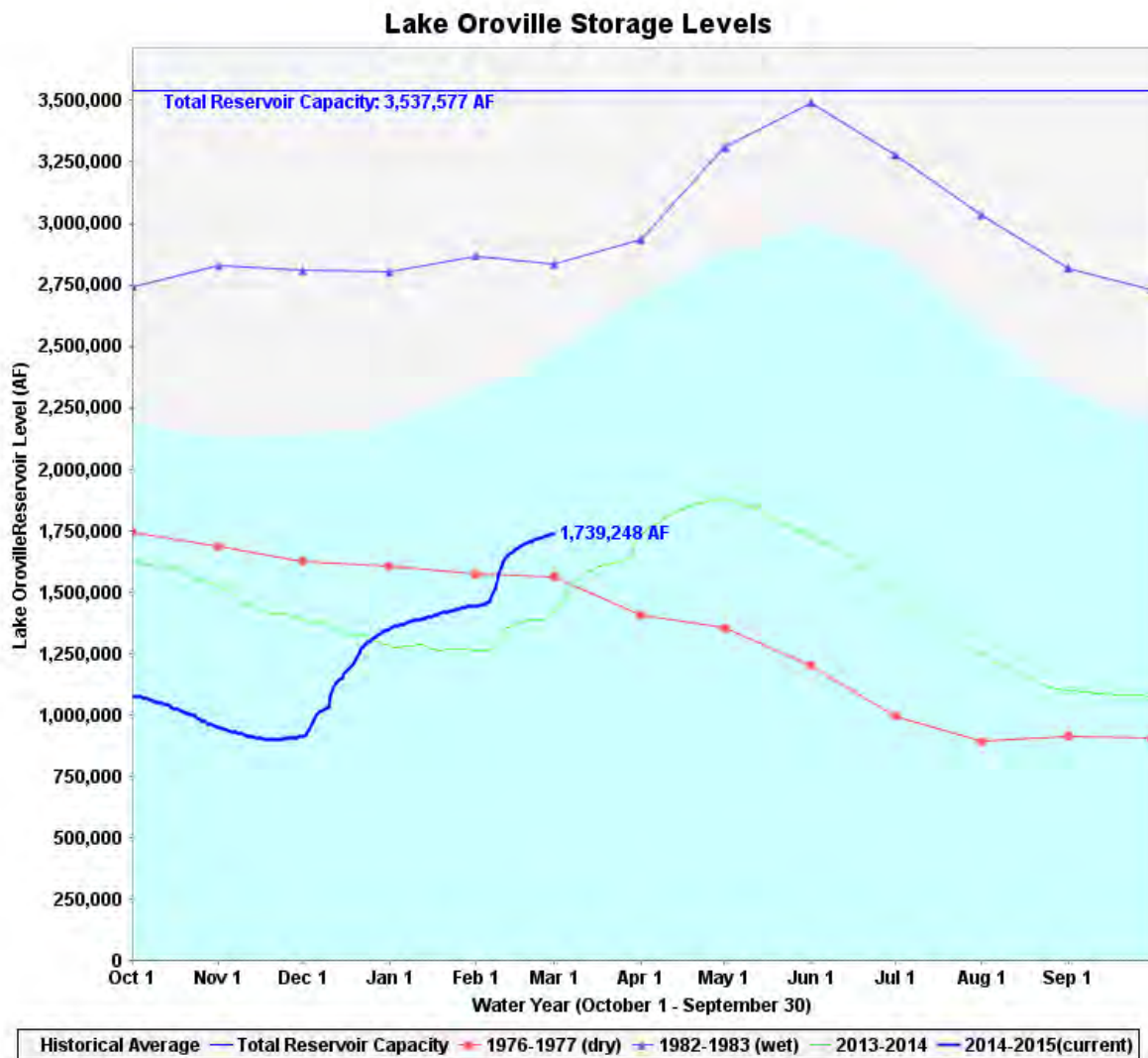


The local hydrology for the current Water Year (October 1, 2014-February 28, 2015) is currently at 108% of average conditions to-date at 11.24 inches. This is still 22% below the annual average so more rain is needed during the remainder of the wet season.

Due to precipitation in February, Lake Oroville levels continue to be higher than at this time last year and above the 1976-1977 critical dry year conditions (see Oroville graph, below). However, Lake Oroville storage levels are still low at approximately 70% of the historic average. The current 1,739,248 AF of storage represents 49% of Lake Oroville's total capacity.

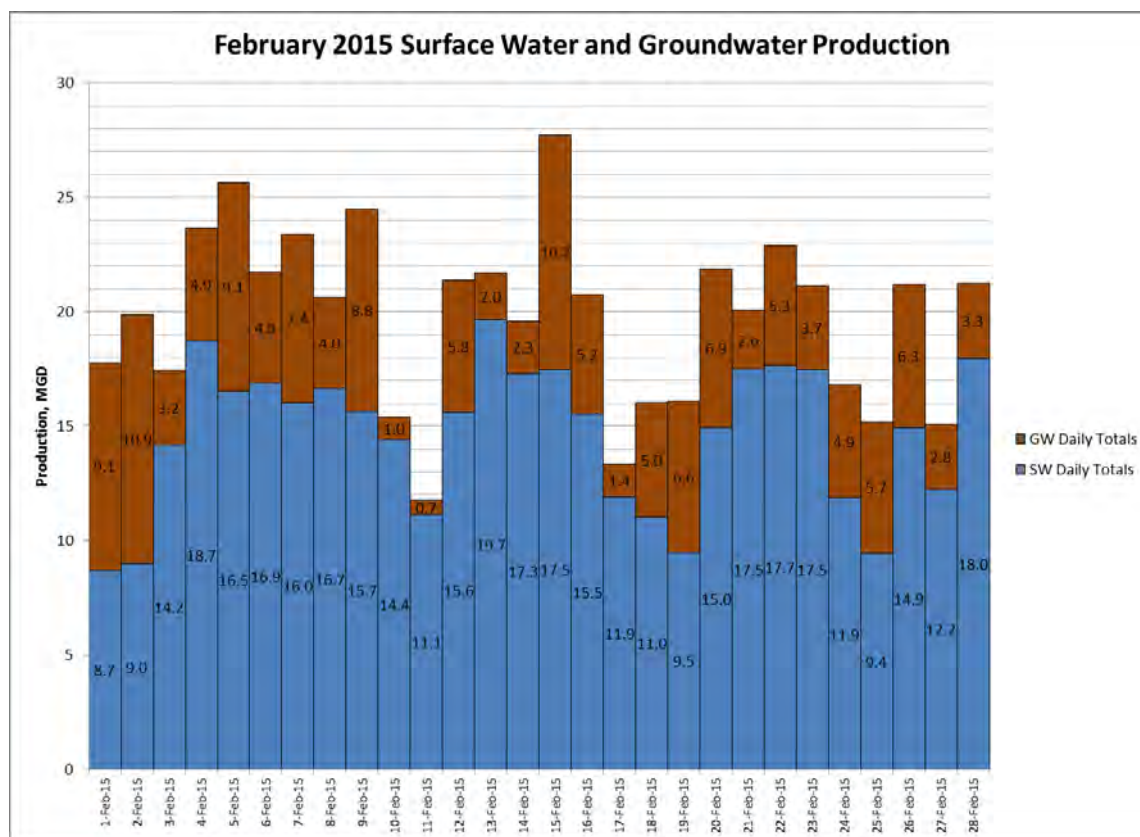
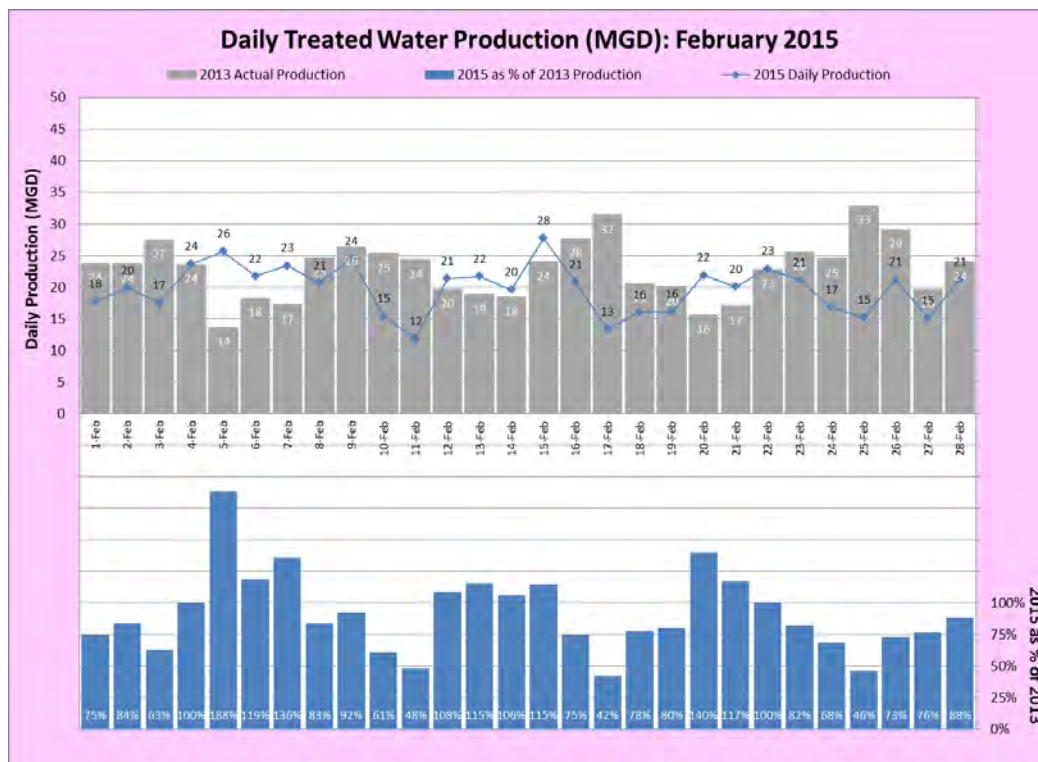
This can be tracked on the DWR data website at

<http://cdec.water.ca.gov/cdecapp/resapp/resDetailOrig.action?resid=ORO>



The California Department of Water Resources (DWR) conducted a snow survey on March 5, showing snow levels have decreased in the month of February. Statewide, 105 electronic sensors in the Sierras detected 17% of the multi-year average.

Demand in February remained similar to January at 20 MGD. Surface water made up 74% of the water supply in February, consisting primarily of banked water from Semitropic Water Storage District (Semitropic) and Cawelo Water District (Cawelo). Del Valle Water Treatment Plant and the Patterson Pass Treatment Plant produced an average of 15 million gallons per day (MGD) with wells supplying 5 MGD. There was increased groundwater production in February due to maintenance activities at the treatment plants, with Patterson Pass Plant offline the latter part of the month.

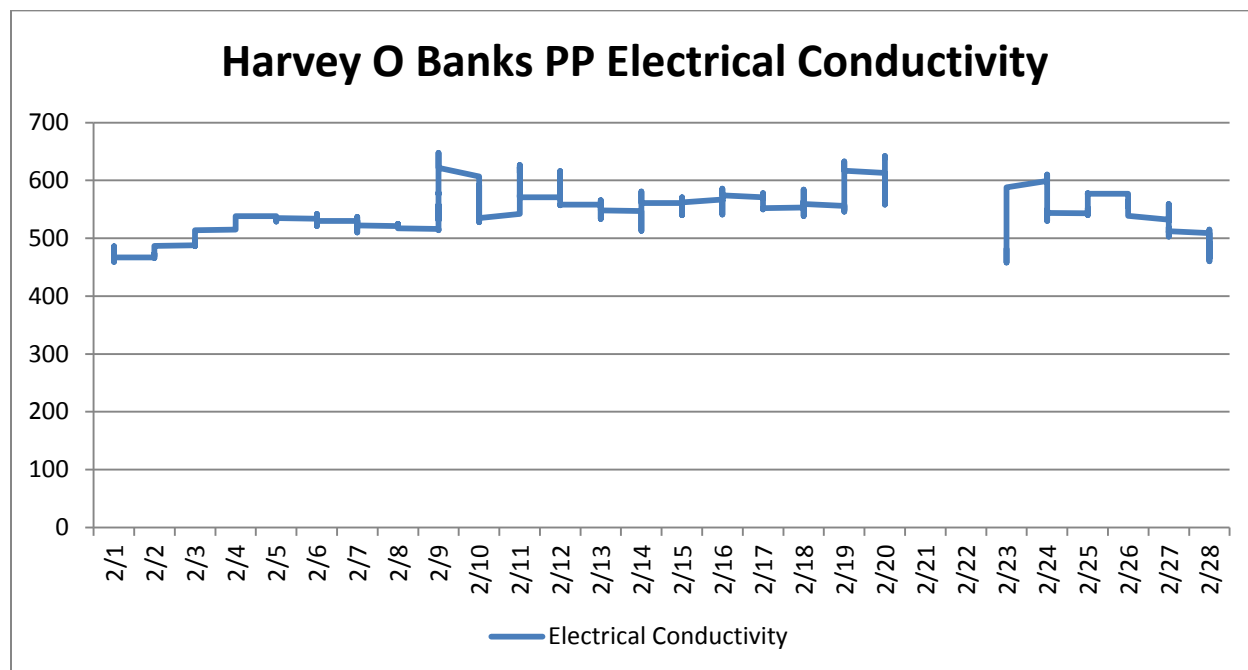


On March 2, 2015, DWR announced an increase in the *preliminary* Table A allocation from 15% to 20% due to the runoff from storms in December and February which DWR was able to export and store in San Luis Reservoir. The *final* allocation will be issued in April 2015. DWR may revise allocations if warranted by the year's developing hydrologic and water supply conditions. The higher Table A allocation facilitates the delivery of banked water supplies.

Semitropic continues recovering water for 2015 and is planning on returning almost 10 TAF by December and an additional 1 TAF in January 2016. Cawelo continues to recover banked water to fulfill Zone 7's 2014 delivery request and is expected to begin 2015 recovery in September.

To be conservative, Zone 7 has been preparing for another drought year in 2015. Zone 7 continues to store any excess surface water supply (i.e., surface water that could not be used directly at this time) in San Luis Reservoir.

Electrical conductivity ($\mu\text{S}/\text{cm}$) is measured as a surrogate for TDS (TDS is approximately equal to 0.58 times EC):



Based on the above data, in the month of February raw water to the treatment plants has total dissolved solids (TDS) ranging around 275 to 365 mg/L. Typical TDS levels around this time of year are between 250 mg/L and 300 mg/L.

Higher TOC levels continue to impact treatment at the plants requiring higher ferric chloride dosages and more pH adjustments. Ferric chloride dosages have been around 50 to 70 mg/L in February. In the past, Zone 7 treatment plants have operated with ferric chloride dosages in the neighborhood of 25 mg/L.



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

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ORIGINATING SECTION: MAINTENANCE
CONTACT: GERALD DEWITT/KURT ARENDS

AGENDA DATE: March 18, 2015

ITEM NO. 10f

SUBJECT: Update on Zone 7 Vehicle Fleet

BACKGROUND:

In January 2014, staff presented an informational report to the Board which discussed the agency's fleet management policies, energy guidelines, vehicle acquisition and replacement process, and provided an inventory of existing Class C vehicles. The following update provides a brief review and update related to the agency's fleet management practices.

In December of 2007, a draft Energy Policy was presented to the Board which identified goals of reducing greenhouse gas emissions, reducing energy use and considering the purchase of energy efficient and/or low emission vehicles. The policy was not adopted by the Board but instead included in the development of energy guidelines as one of the Agency's strategic planning priorities for staff. These staff guidelines were completed and subsequently implemented. The guidelines include those pertaining to the selection of new vehicles and ensure that consideration is given to the relative costs, budget, energy efficiency and emission levels of available alternatives.

A Fleet Oversight Group (FOG) was formed to oversee all fleet-related activities including implementation of the energy guidelines as related to vehicle purchases. This group is comprised of the AGM of Engineering, the Maintenance Manager, and the Transportation and Supply Coordinator. The FOG is charged with reviewing and making recommendations related to the fleet to the General Manager, and annually reviewing the vehicle replacement charge for fleet vehicles and adjusting the rate as necessary to maintain a reasonable and adequate replacement fund balance.

DISCUSSION:

Vehicles are purchased for one of two reasons – either as a new, additional vehicle or as a replacement vehicle for one already in the fleet. In the first case, the agency begins considering the need to add a vehicle to its fleet when the requesting Section proposes the purchase cost as part of the annual budget and justifies the need through the budget review process. The annual budget is then presented to the Board for consideration and approval. If the budget is approved by the Board, the new vehicle may be purchased and funded from that annual budget.

When a vehicle is added to the fleet, a replacement fund is created which accumulates funds over the expected life of the vehicle so that adequate funds are available to replace the vehicle once it

comes to the end of its useful life. For Class C vehicles, funds are accumulated over a ten-year period. Vehicles are not automatically replaced at 10 years. Maintaining the replacement fund allows for replacement earlier than scheduled if a vehicle is damaged or becomes too costly to maintain. The decision of when to actually replace a specific vehicle is made by staff based on a consideration of age, mileage, maintenance costs and overall vehicle condition. As a guide, staff uses 12 years or 100,000 miles as the life expectancy of a class C vehicle.

Once the decision has been made to replace a vehicle, staff identifies the appropriate type of vehicle to meet the business need; sedan, truck, van, etc. Staff then identifies what options are available. Referring to the “Guidelines for Energy-Related Activities” (attached) staff also identifies energy efficient and/or low emission alternatives, if any are available. These may include diesel, gas, gas-hybrid, plug-in hybrid and all electric options, as well as natural gas, biodiesel and other “green” alternatives. Staff then considers CO₂ emissions and overall life cycle cost of the options as well as a general preference for vehicles made in the USA. The analysis is then reviewed by the FOG, and a recommendation is made to the General Manager for the vehicle purchase.

Once the new vehicles are received, surplus vehicles are disposed through the County surplus program. The County charges Zone 7 a fee of \$200 to sell surplus vehicles and any revenue in excess of the fee is transferred to Zone 7. While part of the County, Zone 7 must participate in this program.

Since 2009, Zone 7 has added six gas-electric hybrid vehicles to its fleet. As vehicles in the fleet age and are replaced, additional low emission, energy efficient vehicles are anticipated to replace sedans and small utility vehicles. There are fewer viable gas-electric hybrid or all-electric options available for larger vehicles limiting their use in that portion of the fleet. However, all vehicles are becoming more energy efficient and produce fewer emissions in order to comply with new California vehicle regulations.

Zone 7 currently has a pool of 45 Class C cars and trucks in its fleet. This includes pool vehicles which are generally shared among Administration and Engineering staff and “assigned” vehicles which are typically for emergency response or assigned to field staff, primarily within the operations and maintenance departments so that tools and equipment can be stocked for the typical work for which the vehicle is used. The current fleet vehicles range in age from relatively new to 17 years old. To help maximize the use of vehicles, periodically vehicles may be rotated between assignments, exchanging low mileage vehicles for those getting higher use.

In addition to Class C vehicles, Zone 7 also manages a fleet of off road and heavy duty vehicles. The vehicles are also owned, managed and maintained by Zone 7 and are an integral part of carrying out the agency’s day-to-day business. These vehicles are the responsibility of the Maintenance Section and include the following: a ten-wheel dump truck, a backhoe, two Bobcat tractors, a boom lift and four forklifts. A replacement fund has been established for these vehicles as well. This replacement fund is based on a 15-year vehicle life with actual replacement depending on the vehicle age, usage and condition. Smaller items, such as trailers, are not included in this fund.

In the current fiscal year Zone 7 has been operating under drought conditions. As a result of reduced water sales revenue, it also reduced all discretionary vehicle purchases which have been put on hold. No new vehicles were added to the fleet and only one vehicle is planned to be

replaced due to a combination of age and significant repair costs. The vehicle (a half ton pickup) is currently out of service. While funding has been set aside for replacement vehicles, it was deemed prudent to defer routine vehicle replacement purchases until the economic situation related to lost drought revenues improves. The deferral of replacement vehicle purchases due to poor current economic conditions may result in the need for a larger number of vehicle purchases in future years. No additional funding will be required, but more new model vehicles may be acquired than during a normal budget cycle.

Staff is also exploring the installation of electric vehicle charging stations at the North Canyons building and possibly other Agency facilities. While Zone 7 does not currently own any electric plug-in vehicles, several requests have been received by employees who either own or are considering the purchase of an electric vehicle. Having charging stations for electric vehicles would encourage their use by employees and result in reduced Green House Gas emissions. The charging facilities would also facilitate the future use of electric vehicles by Zone 7.

RECOMMENDATION:

No action - for board information only.

Zone 7 Water Agency

GUIDELINES FOR ENERGY-RELATED ACTIVITIES

These energy guidelines have been prepared in support of Zone 7's Mission Statement which in part states that the agency will ... "develop and manage the water resources in a fiscally responsible, proactive, innovative, environmentally-sensitive way. "These energy guidelines have also been identified as a deliverable in the Zone 7 Board's Strategic Planning Priorities. Listed below are energy related goals in support of Zone 7's mission and strategic plan:

- Use energy in a non-wasteful manner, reducing usage when and where possible
- Reduce energy-related costs
- Stabilize energy purchase costs
- Investigate renewable energy sources, considering both the costs and benefits of such projects
- Reduce adverse energy-related impacts to the environment
- Be readily compliant with future regulations
- Provide periodic updates to the Zone 7 Board on energy related accomplishments

The guidelines, which are intended to be general in nature, are expected to foster an agency culture which encourages staff at all levels to undertake those activities they perform in their respective roles in support of the energy related goals. To that end, each division/section is encouraged to develop more specific criteria, where appropriate, for the projects and programs within their area of responsibility for incorporation into their respective processes and procedures. Guidelines for Zone 7 activities in the areas of planning, design and construction, operations and maintenance, and purchasing are described below.

Planning Guidelines

In updating Water Supply Plans, Capital Improvement Program (CIP) or Asset Management Plan (AMP), consideration will be given to projects whose purpose, in whole or in part, is to reduce energy usage/costs or impacts to the environment. Additionally, energy related Projects shall be identified and noted as such in the CIP or AMP.

Preliminary investigations will be pursued when new and innovative ways are found to achieve the energy related goals in order to evaluate appropriateness for implementation. Studies for developing alternative energy projects will be performed and updated as necessary. Consideration will be given to the relative energy/cost efficiency and emissions levels of the available alternatives.

When a more efficient or low-emissions alternative costs significantly more than a conventional item, a cost analysis (e.g. rate of return over the life cycle) will be performed to determine if the higher cost alternative would cost less over the useful life of the asset due to lower energy or maintenance cost. When Zone 7 staff becomes aware that significant improvements in energy efficiency or emissions can be achieved with a new alternative energy project, staff will be proactive in analyzing the potential benefits of the project. Project development and

implementation should consider partnering with local cities, retailers and other appropriate agencies for meeting energy related goals. The cost analysis will also consider any greenhouse gas (GHG) emissions charges that may be in place at the time and/or credits that may benefit Zone 7.

Design and Construction Guidelines

Upon initiating design of new capital facilities, consideration will be given to the latest energy efficient design standards and equipment specifications available. Staff will consult available public resources for energy efficient facilities and capital equipment standards and will evaluate new technologies and techniques against other methods of achieving the same result. Effort should be made to ensure that new facilities and equipment are more efficient and/or produces lower emissions than the equipment being replaced, if applicable. When a more efficient or low emissions alternative costs significantly more than a conventional item, a cost analysis will be performed to determine if the higher-cost alternative would cost less over the useful life of the asset due to lower energy or maintenance cost. Again, the cost analysis will consider any GHG emissions charges that may be in place at the time and/or credits that may benefit Zone 7.

Operations and Maintenance Guidelines

Staff will perform energy audits to identify energy conservation projects, operational changes or other measures that can be taken to reduce energy use. Zone 7 staff will conserve energy by using or operating equipment or facilities in a manner consistent with energy conservation practices. Facilities and equipment will be regularly maintained in a manner that leads to optimal performance, including energy efficiency. Criteria for water operations planning for importing, producing and delivering water will include minimizing energy usage and costs. Standard Operating Procedure guidelines will be updated to reflect appropriate energy conservation measures.

Purchasing Guidelines

Upon purchasing new vehicles, office or other equipment, consideration will be given to the relative energy efficiency and emission levels of the available alternatives. Effort should be made to ensure that new equipment is more efficient and/or produces lower emissions than the equipment being replaced, if applicable. When a more efficient or low-emissions alternative costs significantly more than a conventional item, a cost analysis will be performed to determine if the higher cost alternative would cost less over the useful life of the asset due to lower energy or maintenance cost. When Zone 7 staff becomes aware that significant improvements in energy efficiency or emissions can be achieved by replacing older or worn equipment, staff will be proactive in analyzing the potential benefits of replacing the old or worn equipment. The cost analysis will consider any GHG emissions charges and/or credits that may benefit Zone 7.