LOS OSOS GROUNDWATER BASIN, BASIN MANAGEMENT COMMITTEE

NOTICE OF MEETING

NOTICE IS HEREBY GIVEN that the Los Osos Groundwater Basin, Basin Management Committee Board of Directors will hold a **Board Meeting** at **1:30 P.M.** on **Wednesday, March 21, 2018** at the South Bay Community Center, 2180 Palisades Ave, Los Osos, CA, 93402**.**

Directors: Agenda items are numbered for identification purposes only and may not necessarily be considered in numerical order.

NOTE: The Basin Management Committee reserves the right to limit each speaker to three (3) minutes per subject or topic. In compliance with the Americans with Disabilities Act, all possible accommodations will be made for individuals with disabilities so they may attend and participate in meetings.

BASIN MANAGEMENT COMMITTEE BOARD OF DIRECTORS AGENDA

1. **CALL TO ORDER**

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL**

4. **BOARD MEMBER COMMENTS.** Board members may make brief comments, provide project status updates, or communicate with other directors, staff, or the public regarding non-agenda topics.

5. **CONSENT AGENDA**

   The following routine items listed below are scheduled for consideration as a group. Each item is recommended for approval unless noted and may be approved in their entirety by one motion. Any member of the public who wishes to comment on any Consent Agenda item may do so at this time. Consent items generally require no discussion. However, any Director may request that any item be withdrawn from the Consent Agenda and moved to the "Action Items" portion of the Agenda to permit discussion or to change the recommended course of action. The Board may approve the remainder of the Consent Agenda on one motion.

   a. **Approval of Minutes from January 17, 2018 Meeting.**
   b. **Approval of Warrants, Budget Update and Invoice Register through February 2018.**

6. **EXECUTIVE DIRECTOR'S REPORT**

7. **ACTION ITEMS**

   a. **Update on Status of Basin Plan Infrastructure Projects**

      Recommendation: Receive report and provide input to staff for future action.

   b. **Support for Potential Basin Boundary Modification Request for Los Osos Groundwater Basin**

      Recommendations:
      1. Receive a presentation from County staff regarding the Department of Water Resources (DWR) Basin Boundary Modification Request (BBMR) process and potential basin boundary modifications being explored by the County for the Los Osos Valley Groundwater Basin (Los Osos Basin); and

2. Authorize the BMC Executive Director to provide a letter of support for the County's submittal of a potential basin boundary modification request to the California Department of Water Resources (DWR) for the Los Osos Groundwater Basin.

c. Water Conservation Program Update

Recommendation: Receive update and set date for community conservation forum (preliminary date Thursday, June 22, 2018 at 7 pm).

d. Groundwater Basin Modeling for Adaptive Management

Recommendation: Approve the proposed scope and fee for hydrogeologic services in an amount not to exceed $10,000, as approved in the calendar year 2018 budget.

8. PUBLIC COMMENTS ON ITEMS NOT APPEARING ON THE AGENDA

The Basin Management Committee will consider public comments on items not appearing on the agenda and within the subject matter jurisdiction of the Basin Management Committee. The Basin Management Committee cannot enter into a detailed discussion or take any action on any items presented during public comments at this time. Such items may only be referred to the Executive Director or other staff for administrative action or scheduled on a subsequent agenda for discussion. Persons wishing to speak on specific agenda items should do so at the time specified for those items. The presiding Chair shall limit public comments to three minutes.

9. ADJOURNMENT

BASIN MANAGEMENT COMMITTEE BOARD OF DIRECTORS

Agenda Item 5a: Minutes of the Meeting of January 17th, 2018

Agenda Item	Discussion or Action
1. CALL TO ORDER **2. PLEDGE OF ALLIGANCE** **3. ROLL CALL**	Rob: Meeting was listed at wrong location on the agenda. After further review it was decided that moving the meeting to the location listed (LOCSD Office) would be the safest option. Director Ochylski serving as chair, called the meeting to order at 1:51 pm and led the Pledge of Allegiance. Mr. Miller, acting Clerk, called roll to begin the meeting. Director Zimmer, Director Garfinkel, Director Gibson, and Chairperson Ochylski were all present.
4. Board Member Comments	Director Gibson: Apologizes for only attending until 2:30 when Alternative Hutchinson will take his place. Director Ochylski: Apologizes for the error in the agenda
5a. Minutes of the Meeting of January 17th, 2018 **5b. Approval of Budget update and Invoice Register through December 2017**	Director Garfinkel: I would like to pull the financials. Director Garfinkel: Motion to accept the minutes. Director Gibson: Second the Motion. **Ayes: Director Zimmer, Director Garfinkel, Director Gibson** **Nays: None** **Abstain: Director Ochylski** (Was not at the last meeting) **Absent: None** We will move that other item to after the Executive Director's report, it will be the first item on the action item list.
6. Executive Director's Report	Executive Director, Rob Miller, provided a verbal overview of the written content of the Executive Director's report. <u>Questions from the Board</u> Director Garfinkel: In your report you have that map of Los Osos, the Fringe Area boundary, we can't tell where the boundary is exactly. Could you tell me the cross street the boundary falls on? Mr. Miller: I can't tell that from the map, but I can get back to you with that information. Director Zimmer: I have some questions regarding the status of the zone of benefit and the funding and financials. The fact that we're looking at funding these capital projects through the purveyors, when we started the plan that wasn't the case. I think there are other options out there to consider. I notice there's a timeline for completing some of these projects now and it concerns me that were committing to those timelines when we have these other options. The fact that these are being funded solely by the purveyors the benefits will be basin wide. We started down that path because we have active seawater intrusion and we had to act quickly and implement projects. How do we go back and

	make sure everyone is accountable for that and it's not all on the purveyors and rate structures? My main point is, I just don't want to narrow ourselves to a certain pathway. Also, the community meeting regarding the fringe area, did we have a date on that? Mr. Miller: I'm not sure, I think Mr. Hutchinson may have a date, but sometime in March. Director Alternative Hutchinson: No, you have to have your recycled water fully complete, it is only Broderson at this point. Director Zimmer: We started deliveries to Bayridge, is that recent? Mr. Miller: In September. Director Zimmer: Are we planning to ramp that up? Mr. Miller: We'll have Mr. Hutchinson come up and go over that, I think they can go up to 33-acre feet. Director Zimmer: Are we going to try and put all 33-acre feet in Bayridge? <u>Public Comment</u> Ms. Owen: Are we able to talk about the minutes from the last meeting? Mr. Miller: No that just went through. Ms. Owen: Okay I thought were starting later than we did. Thank you. Mr. Best: I've talked about this a couple times, we are taking the water from the plant and putting it in the Broderson field. I wonder at what point after putting this water in the ground are we going to be contaminating our aquifer to the point we won't be able to use the water without first putting it through reverse osmosis? I don't understand why we're allowing chemicals to go into our groundwater. We need to do something better with the water that comes out of the plant besides putting it back into the ground. <u>Response from the BMC</u> Mr. Miller: Staff notes Director Zimmer's comments and they are well taken. In removing the item from the status update I don't want to imply that it can't readily come back upon direction. When we talk about the infrastructure projects we need to look and see if there are any projects that we really don't have any rate base funding allocated right now and revisit that. A brief note from the discharge discussion… that issue is cropping up a lot lately with questions of how clean is clean enough. Santa Maria and Paso are putting large amounts of water back into their basins with a level of treatment that is lower than what we are doing now. It's something the State is grappling with and in the future they may regulate trace contaminants. As it stands today, this plant is typical of what is done other places within the County. Director Ochylski: We'll go to the action items then and we'll go to the pulled item first, (Approval of Budget update and Invoice Register through December 2017) which is the one you pulled Bill, so do you have a comment or question? Director Ochylski: When I look at the register, the second column is called cost incurred.

	I'm assuming that is actual invoices that we've paid. Mr. Miller: Including the ones that are pending approval; invoices received. Director Garfinkel: When you look at the dates, we haven't been billed by some of these vendors in quite some time. When we try to compare our new budget and what has occurred so far there is a real gap in being able to correlate the figures when the year to date or end of year is missing so many items. Mr. Miller: Yes, some vendors haven't billed us yet, so there might be a rollover from the previous period. Director Garfinkel: It could be a very large rollover. Mr. Miller: It won't be large because we've covered all the big items. There are some smaller invoices where vendors may take a couple months to get us a bill, so there is a possibility of some rollover. The list that you have is a running total for the entire calendar year. We've reached out to all vendors where the invoice is going to be over $1,000 and asked them for their invoices every BMC period. Director Ochylski: Bring it back for action. Director Zimmer: Move approval. Directing Garfinkel: I second that. **Ayes: All in Favor, Unanimous.** **Nays: None** **Abstain: None.** **Absent: None**
7a. Update on Status of Basin Plan Infrastructure Projects	Mr. Miller: Gave detailed overview and updates on projects under Programs A & C. Director Zimmer: This brought some clarity to my original comment. What initiated my comment was the fact that the timeline was a short amount of time for the well project. I wanted to make sure we were clear how that funding would transpire. And bring up the fact that there could be other options they should all be considered as we're moving forward. On the staff level we should have more detailed discussions on those options and bring it back to the group. Director Gibson: Regarding Director Zimmer's original comment, I don't think we're shutting ourselves off from the possibility of spreading the cost of the right kinds of projects to the proper beneficiaries of this ground water resource. The ISJ was crafted with a non-differentiated look at the users that are outside the purveyor's zones of interest. There are projects such as potential metering that we might want to undertake as part of the consideration. I think all these efforts need to keep moving with all the options on the table. While I think the schedule for this project is great I wish it could all happen a little quicker than it's currently scheduled. Denitrifying more upper aquifer water which could drive the questions whether more upper aquifer wells are drilled. We use static modeling to predict the steady state of the basin once various states of the project are in, it would be interesting under that to understand what happens when the upper aquifer well comes on board or when the second expansion well comes on board

	where do we see that balance. I wonder if there is a case to be made to extend our modeling to be dynamic modeling, though it is a $100,000 proposition. It would bump up against other issues that the County has, regarding dealing with the Coastal Commission, what can we expect to see the timeline on results. I'd like to suggest at least a short memo on the pros and cons of going to dynamic modeling, so we can get an estimate of how quickly the basin might respond. <u>Public Comment</u> Ms. Owen: Supervisor Gibson said something, that "he would like to see a non-differentiated look at the users outside of this project". There is no balancing this basin without knowing how much private wells/users are using. We see more and more growth outside the prohibition zone, in many cases unmetered. I think Director Gibson would like to get the growth started whereas I would like to see if the water is currently sustainable before more growth is allowed. Mr. Miller, could you tell us a rough idea of how many years' worth of water, at current use, can this Basin provide? Mr. Best: I keep wondering at what point are we going to look at this Water District as one Water District and consolidate all our resources? We need to find a way to utilize the water fairly, and equitably. We need to consolidate our water infrastructure and have one Water District, so it's managed properly. Mr. Edwards: With respect to the blending project, Golden State has its Skyline; do we have monitoring wells, so we can over time measure any water level fluctuation in Zone C? <u>Response from the BMC</u> Mr. Miller: We do have a monitoring network for the upper aquifer water level and in our last annual report we forecasted that this year we're going to add a metric that tracks that upper aquifer. Now that we are producing more aggressively from it, we need to guard against seawater intrusion in that zone as well as the deep zone, even though the shallower you go, the less potential for seawater intrusion due to seawater density. The issue of private well metering is certainly something that staff can bring back if the committee would like to talk about that in more detail. Perhaps we could look at some of the other SGMA managed areas and see where the industry is doing with respect to private well metering. We could provide a snapshot of where that sits along with the costs and options would be for Los Osos, we would be happy to do that if so directed. As far as managing the basin as a single unit, while we are broken up into different purveyors, that is the functional intent of this meeting. There can be some advantages to having different entities such as different types of funding. Golden State is on a 3-year cycle and was able to fund a well at a time that the District wasn't able, so there are some advantages there. We will bring back cost information on dynamic modeling and the pros and cons, it will be some good input for our next meeting.

7b. Adoption of Basin Management Committee Annual Budget	Mr. Miller: Gave detailed overview on the Adoption of the Basin Management Committee Annual Budget. Public Comment BMC Comments Director Garfinkel: I motion that we approve the annual budget for 2018. Director Zimmer: I second that. **Ayes: Unanimous.** **Nays: None** **Abstain: None.** **Absent: None** After roll call, Director Gibson exited the meeting and Alternative Director Hutchinson took his place.
7c. Approval of Proposals for Hydrogeologic Services for Calendar Year 2018, to be provided by Cleath Harris Geologists	Mr. Miller: Provided a verbal overview of the proposed scope and fee for hydrogeologic services for calendar year 2018, to be provided by Cleath Harris Geologists. Mr. Miller: Our consultant was under a lot of pressure last year to year to get the Annual Report together in time for June. Giving them another month would really help, Allowing more time for rounds of comments and preparation of the document. In an effort to provide the consultant with more time, it would be appreciated if you could review these proposals similar to last year and approve them contingent on your individual bodies endorsing the budget that you just adopted. We would not give notice to proceed to the consultant until you've given notice that you have done that. Director Garfinkel: I think that with the quality of the report they did covering last year; if they can continue to provide that quality we should give them that extra month, because it was great. Public Comment No public comment. Director Garfinkel: Motion to approve the contracts to Cleath Harris. Director Ochylski: With the contingency that until they get the notice to proceed, after approval by the 4 bodies here, then they won't be authorized to move forward. Director Zimmer: I will second that as stated and clarified. **Ayes: Unanimous** **Nays: None** **Abstain: None** **Absent: None**

7d. Water Conservation Program Update	Mr. Miller: Gave a detailed overview of the Water Conservation Program Update. Director Zimmer: I do like the postcard idea. I think that is what we are moving toward. I missed how we were going to implement this, Rob were you going to take this on first? Mr. Miller: It would be great if one person from the committee here could work with me and give us a little creative license to include all those rebate programs and have at least one other set of eyes to look it over before sending it out. Director Zimmer: I'll volunteer for that and we can circulate it through our Golden State presentation. We will also coordinate the timing of that meeting so Matt can attend as well. Director Garfinkel: The rebates are going to be paid for by the purveyor for their own area? Mr. Miller: No, they are County rebates, as part of the Wastewater Project. Thank you, I failed to clarify that. <u>Public Comment</u> Mr. Edwards: I'm a little unclear on how much money is available for the rebate program. I wasn't aware that there was any at this juncture. If you don't have any money it would be premature to promote a program unless you have the money. Your Executive Director has spent a lot of time on conservation, and I think it could be better spent on other things. Regarding the postcard, I believe it was created by the County, why can't the County do it for Los Osos as they did for Nipomo and Paso Robles. Ms. Owen: I think the conservation programs are a part of saving the basin. I don't know how else you start besides not wasting the water that we have. Maybe Mr. Hutchinson could explain, is this the $2.5 Million that remains in the sewer budget for conservation that has not been spent? Alternative Director Hutchinson: That program is ongoing. Ms. Owen: It's been on hold, we've been asking to have it continue as ongoing. I think all the rebate programs going together is not a bad idea. I know Golden State and the CSD all have budgets for conservation and maybe those should all be pooled together for funding further education efforts. We need to keep the awareness going. Ms. Corin: I am very pleased to hear about the conservation plan and the educational part of the communal forum. Everyone in my household is working very hard on conservation and we would like to learn more. I will attend the forum to learn more about the conservation and rebates. Mr. Miller: Mr. Zimmer and I will work on dates for the forum. Mr. Hutchinson if you want to go into a little more detail on the rebate program? Director Ochylski: Mr. Hutchinson could you also touch on the funds from the Wastewater Project?

	Alternative Director Hutchinson: Mr. Miller did a good job describing what the new rebates are, the more important piece of information is this; as far as the County's rebate program goes water users within the wastewater service area, previously to these changes, there were set of rebates available for the required retrofits. There was a second part to those rebates that if you had already done those retrofits years ago and your house was already compliant there was a set of optional measures where you could get rebates. However, you couldn't get rebates for both, required as well as the optional. The huge change here is that the optional rebates are now available to everyone. People who retrofitted, hooked up to the sewer, and got rebates, if you want to come back and look at optional measures, rebates are available for those and the funding for those is part of the $5 Million commitment from the Wastewater Project. Director Zimmer: Some of Golden State Customers are inside the prohibition zone and some aren't, so those rebates wouldn't be available for all of them. So, Golden State might have funding opportunities for more outreach programs. Director Garfinkel: We were asked if the money is available now, is it available? Alternative Director Hutchinson: Yes, the Wastewater Project Water Conservation rebate money is available for those rebates that are listed in the County Program inside the Wastewater Service Area. Director Garfinkel: Okay, but the money is not available for the optional measures? Alternative Director Hutchinson: No, it is available. Director Ochylski: All the items in Exhibit A are now within that program, as long as they are within the Wastewater Project Area. Mr. Miller: We did reach out to County Planning who did prepare that postcard to see if they are able to help us with this one.
7e. Update on Recycled Water Agreements for Agricultural Users	Mr. Miller: Gave a detailed overview of the Update on Recycled Water Agreements for Agricultural Users. Alternative Director Hutchinson: There's more than one perspective to the AG Reuse Program. It's not simply a matter of offsetting basin water use and the concept of operational flexibility for the Wastewater project. If you think about the fact wastewater never stops flowing into the plant, the plant never stops running, and the treated water must go somewhere. We tend to look at the big numbers, annual acre ft. It's important to realize that there are not only variabilities in daily flows but also seasonal flows. For the plant to have all those options it's important because everyone is aware we do not have a surface water outfall. You mentioned the Coastal Commission requirement for 10% to go to Ag, although little known, it's just as important that the funding agreements from both State Water Board and the USDA require a fully developed project description. Those agencies did not want to extend low interest loans to a project that had the potential to not be able to run long term because there was no disposal site. The discussion of these funding agreements were based on, among other things, having the operational flexibility for disposal of treated water.

Public Comment

Mr. Edwards: For a long time, we thought we'd have too much water as a result of the plant, now it's clear we're going to have half of what we were thinking we would have. We will never need dry land farmers to take any of the water. If you finalize these agreements with these dryland farmers, you will commit the wastewater project to about 80 acre feet a year in perpetuity. The idea that it would be difficult to amend the CDP is absurd. It would be a minor amendment approved by the Executive Director, you could amend the CDP to remove the 10% minimum commitment.

Mr. Tornatzky: (Personal Opinion) I suggest that we look for early adopters of novel approaches to using recycled water. All people aren't the same, and there is significant research literature I used to cover, a main person in there was a guy named Everett Rogers. There is a process of gradual acceptance and it starts with early adopters, then the next cadre will adopt and so on and so forth.

Ms. Owen: I agree with Mr. Edwards, the cost we've already had to pay for the pipes, to send water we have to pay to recycle, to the farmers with no use for it, is ridiculous. Is the water going to the cemetery, the school, or the golf course? You talk about infrastructure costs if we're going to blend upper aquifer water that has nitrates and stuff in it, why can't we take this and blend it with pure drinking water so that we stop using so much drinking water. The whole idea here is to save the basin, so when you talk about sending water to farmers that have no use for it, doesn't make sense.

Mr. Best: I know the farmers are worried about the salts in the recycled water, but what about all the other CEC's? If they are irrigating with that, what is the residual buildup of those contaminants in the ground? I have some viable options to convert our existing plant into a potable water production facility, but the feedback I've gotten is that we cannot go outside the permit we already have. We need to look at this 10% requirement and ask ourselves is this really a requirement? We need to keep our options open.

Mr. Cesena: (Personal opinion) I agree with previous speakers about sending the water to dryland farmers, I don't think it makes any sense. Conditions are different now, we don't have the water we thought we were going to have. I think revisiting funding agreements and the Coastal Permit is not as difficult as you think given those conditions. I wouldn't be surprised if it's an immaterial amendment to the Coastal permit. What about the integrity of the project? Its intent was to protect the basin, and now we're going to ship water outside of the basin.

Mr. Margetson: The wording states that the water given to Ag use, shall not be less than 10% of total treated effluent. There is no mitigation factor for shipping the water to dryland farmers, it's zero. The contract was written in this way, so we could meet all the requirements and have the money start coming in. The fact we're taking this percentage of water and shipping it outside of the basin with no substantial rain and no septic recharge makes no sense. If you take that argument to the funding agencies or the Coastal Commission, they'll agree that it plan doesn't make sense.

Alternative Director Hutchinson: It was stated that these contracts commit the project to 81-acre feet of Ag water in perpetuity, they do not. Once the contracts have run 5 years, several of them have already run 3 or 4 years, the water can be cancelled with 6 months' notice.

Director Garfinkel: Monterey County is using their recycled water for farming in many

	places. What is the quality of their recycled water compared to the quality of ours? Mr. Miller: It's very similar in character, there is no shortage of examples statewide for agriculture, but that doesn't always satisfy a farmer who hasn't seen any test data. Now we have real test data they can analyze in more detail. When the farmers were approached years ago there was no data, so they weren't willing to do it. Director Ochylski: These are comments that need to go to the County. We can forward them to them, and you can forward them in person as well.
8. PUBLIC COMMENTS ON ITEMS NOT APPEARING ON THE AGENDA	Ms. Tornatzky: I was wondering about the water coming back in to town. I am on the Board to celebrate Los Osos and we are waiting to get that recycled water. We were wondering if there is some sort of timeline that we could know about. We want to repair the median in front of Ralph's and need the recycled water to do it. Is there any timeline for when that water is coming back to town? Ms. Owen: Farmers were approached, we made a bus trip to the Coastal Commission and that was part of the reason we went with this design. However, I feel the County wanted to charge more than the farmers will be willing to pay. I think we'll be successful if we lower the price a little bit for the farmers. This water should be used, not dumped. Regarding the Morro Bay sewer plant, I don't understand why Morro Bay is going to spend $200 Million on a new plant when they could use ours. If they were going to use our plant, how much would it reduce our cost? Mr. Best: The plant's productivity is based upon its redundancy in case of catastrophic failure the plant would be able to handle the output of the town without creating any type of catastrophe. Redundancy provides less wear and tear on the equipment which is good for long term viability of the plant, and less maintenance costs. I proposed a design for a saltwater pool, that could add some funding from the State, and would have helped eliminate saltwater intrusion. I am looking for people to talk with about this idea. Mr. Edwards: Some comparisons were made between our ground water basin and the Monterey groundwater basin as it related to Ag use. The situation in Monterey is that their agricultural use and their farming occurs along the coast. Their wells are high in salinity and have poor quality. When those farmers were given the opportunity to use treated effluent they jumped at it because that water could be blended with their lesser quality water and produce reasonably good water. That is not the same situation for Los Osos. Our farmers have good water and that is why they are not interested in our recycled water. Also, on the last item it called for a receive, update, and provide input to staff for future action and you did not do that. I would respectfully request this committee take a position on the potential delivery of treated effluent to dryland farmers. Mr. Margetson: The affordability for Ag is there, that has always been part of my issue. At $100 an acre ft., 81acre ft. would be $8,100. That wouldn't cover the cost of pumping, treating, and delivering the water. The water is very well priced for them and they still don't want it. Mr. Cesena: (Personal opinion) The Bayridge leach field has a minimum commitment of 33 acre ft. for environmental mitigation for the downstream wetlands, that I believe we have an obligation to preserve, so maybe more can go there. At LOCAC we are starting to see a lot of applications for remodels and new homes. New bedrooms are a new water use. Many of the applications say we have a will serve from Golden State but none of

	them have provided a copy of that will serve, so I am wondering if they are being handed out. At the CSD we are not currently processing will serves. This committee needs to start taking a position.
9. ADJOURNMENT	Meeting was adjourned at 3:35 pm. The next meeting will be on March 21st at the South Bay Community Center in Los Osos at 3:34 pm.

TO: **Los Osos Basin Management Committee**

FROM: **Rob Miller, Interim Executive Director**

DATE: **March 21, 2018**

SUBJECT: **Item 5b – Approval of Budget Update and Invoice Register through February 28, 2018**

Recommendations

Staff recommends that the Committee review and approve the report.

Discussion

Staff has prepared a summary of costs incurred as compared to the adopted budget through February 28, 2018 (see Attachment 1). A running invoice register is also provided as Attachment 2. Staff recommends that the Committee approve the current invoices, outlined in Attachment 3. Payment of invoices will continue to be processed through Brownstein Hyatt as noted in previous meetings.

Attachment 1: Cost Summary (Year to Date) for Calendar Year 2018

Item	Description	Budget Amount	Costs Incurred	Percent Incurred	Remaining Budget
1	Monthly meeting administration, including preparation, staff notes, and attendance	$50,000	$5,325.00	10.7%	$44,675
2	Meeting expenses - facility rent (if SBCC needed for larger venue)	$1,000	$0.00	0.0%	$1,000
3	Meeting expenses - audio and video services	$6,000	$0.00	0.0%	$6,000
4	Adaptive Management – Groundwater Modeling	$10,000	$0.00	0.0%	$10,000
5	Semi annual seawater intrusion monitoring	$26,400	$0.00	0.0%	$50,000
6	Annual report	$29,600	$11,095.00	37.5%	$18,505
7	Grant writing	$5,000	$0.00	0.0%	$5,000
8	Creek recharge and replenishment studies	$15,000	$0.00	0.0%	$15,000
9	Cuesta by the Sea monitoring well	$115,000	$0.00	0.0%	$115,000
10	Conservation programs (not including member programs)	$10,000	$0.00	0.0%	$10,000
	Subtotal	$268,000			$247,580
	10% Contingency	$26,800			
	Total	**$294,800**	**$16,420.00**	**5.6%**	**$278,380**
	LOCSD (38%)	$112,024			
	GSWC (38%)	$112,024			
	County of SLO (20%)	$58,960			
	S&T Mutual (4%)	$11,792			
Notes					

Attachment 2: Invoice Register for Los Osos BMC for Calendar Year 2018 (through February 28, 2018)

Vendor	Invoice No.	Amount	Month of Service	Description	Budget Item	Previously Approved
CHG	20180203	$11,095.00	Feb-18	Annual Report	6	
Wallace Group	0384-0011-01	$5,325.00	Jan-18	Administration	1	
Total		**$16,420.00**				

Not yet approved

ATTACHMENT 3

Current Invoices Subject to Approval for Payment (Warrant List as of February 28, 2018):

Vendor	Invoice #	Date of Services	Amount of Invoice
Cleath Harris Geologists	20180203	February 2018	$11,095.00
Wallace Group	0384-0011-01	January 2018	$5,325.00

TO: **Los Osos Basin Management Committee**

FROM: **Rob Miller, Interim Executive Director**

DATE: **March 21, 2018**

SUBJECT: **Item 6 – Executive Director's Report**

Recommendations

Staff recommends that the Committee receive and file the report, and provide staff with any direction for future discussions.

Discussion

This report was prepared to summarize administrative matters not covered in other agenda items and also to provide a general update on staff activities.

Funding and Financing Programs to Support Basin Plan Implementation

As indicated in the January 2018 meeting the State Board confirmed that sea water intrusion mitigation projects under Program C are eligible for low interest loans but are not currently eligible for grants under Proposition 1. New wells in the upper and lower aquifer are viewed as aquifer management, not aquifer clean-up as defined by the State, therefore we will need to look for future funding rounds and other opportunities. Staff has engaged in the IRWM process with SLO County for the Los Osos Creek Replenishment and Recharge Project (IRWM Project ID 2017 NT-07).

Status of Zone of Benefit Analysis

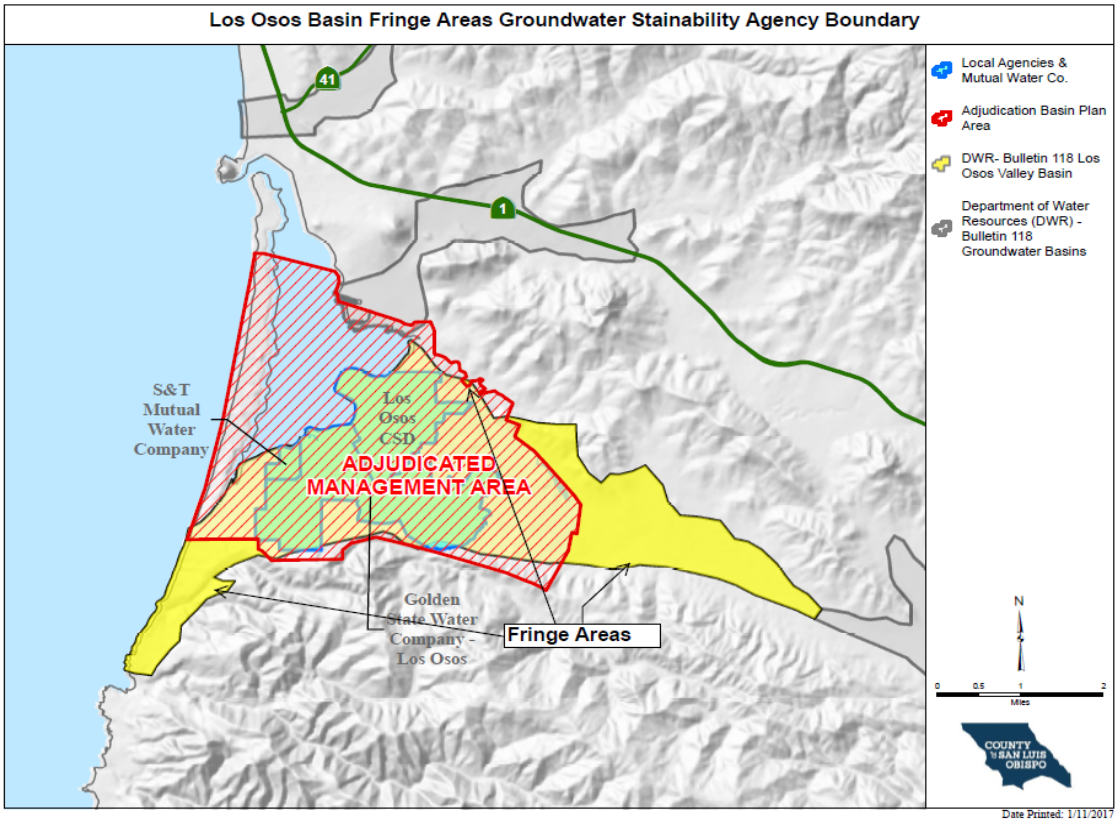
Similar to previous updates, no special tax measure is being pursued by staff to fund BMC administrative or capital costs. This item has been removed from the BMC budget for 2018. Under Item 7d, the BMC will consider a formal review of assets in place and pending, under the principles of adaptive management. The Zone of Benefit approach can be initiated at any time as directed by the BMC.

Sustainable Groundwater Management Act (SGMA) Compliance and Pending Deadlines

As indicated in the July 2017 update, the Plan Area defined in the Los Osos Basin Plan and approved by the Court is largely exempt from the requirements of SGMA. However, SGMA compliance is currently required in the areas outside of the adjudicated management area, but within the State's designated basin boundary (i.e., "fringe areas").

On April 4, 2017, the County of San Luis Obispo (County) Board of Supervisors decided to become the Groundwater Sustainability Agency (GSA) for the Los Osos Basin "fringe areas". The GSA's first key steps is understanding the "fringe areas". The County and its consultant, Cleath-Harris Geologists, Inc., are in the process of finalizing a basin characterization study, in order to characterize and develop a hydrogeologic conceptual model of the "fringe areas". The

draft study is anticipated to be posted by late March 2018 at
http://www.slocountywater.org/sgma



Los Osos Wastewater Project Flow and Connection Update

- Of the 191 unconnected properties, 72 are waiting for the County/USDA/LOCSD low-income grant program to pay for their connection leaving 119 properties that may require enforcement. Of the 119 properties, 46 are in the process of connecting (ie: obtained a building permit), and 15 have responded to the County's survey giving reasons why they are not connected yet. Subtracting those categories leaves 58 properties (1.4% of 4200 total connections) that are the focus of the Code enforcement process.
- The County is in the process of securing a Board date & preparing a staff report to amend the County Code. The Board date will be in the next coming month or two.
- Influent flows into the treatment facility are peaking at 0.50 mgd. No recycled water deliveries have been made to irrigation users yet. Effluent is being disposed at both Broderson and Bayridge leachfields. As of 2/28/2018, effluent disposal totaled 91 AF to Broderson and 3 AF to Bayridge leachfields.
- Regarding the permitting of the recycled water discharges from the Los Osos WRF, we intend to use the Statewide General Waste Discharge Requirements for Recycled Water, Order No. WQ 2016-0068-DDW. Here is a link to that Order: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/requirements.shtml

- The Central Coast Regional Water Quality Control Board (RWQCB) will be the permitting agency for recycled water use. To obtain coverage under the Recycled Water Order, the County has to submit an application. The application is currently being prepared. After the permit to distribute recycled water is obtained from the Water Board, the County anticipates bringing users online to the recycled water distribution system this Summer.

Option to Bring Morro Bay Wastewater to Los Osos WWRF

Similar to staff's last update, it was determined that both summer and winter peak day flows at the City of Morro Bay are expected to exceed the available capacity in the Los Osos Wastewater Reclamation Facility, and therefore an expansion would be required to accommodate the higher flows. A number of peak day flows of over 3 mgd have been observed at the existing Morro Bay facility. Additional information on the Morro Bay project can be found here: http://morrobaywrf.com/.

Summary of Metered Pumping for 2017

Currently the only groundwater pumping that is monitored in the basin is from the urban purveyors (LOCSD, GSWC, S&T). The results are summarized below and compared to 2016:

Urban Purveyor	2016 (Calendar Year)	2017 (Calendar Year)
LOCSD	520	570
GSWC	450	450
S&T	30	30
Total	**1,000**	**1,050**

Private domestic, agricultural, cemetery, and golf course pumping are not currently monitored and reported. As a result, these quantities are estimated annually. During the January meeting, the BMC briefly discussed initiating additional discussion on the topic of additional metering for these estimated basin extractions. This issue can be incorporated into the Basin Infrastructure Program under Adaptive Management if desired.

TO: **Los Osos Basin Management Committee**

FROM: **Rob Miller, Interim Executive Director**

DATE: **March 21, 2018**

SUBJECT: **Item 7A. – Update on Status of Basin Plan Infrastructure Projects**

Recommendations
Receive report and provide input to staff for future action.

Discussion
The Basin Management Plan for the Los Osos Groundwater Basin (Plan) was approved by the Court in October 2015. The Plan provided a list of projects that comprise the Basin Infrastructure Program (Program) that were put forth to address the following immediate and continuing goals:

Immediate Goals

1. Halt or, to the extent possible, reverse seawater intrusion into the Basin.
2. Provide sustainable water supplies for existing residential, commercial, community and agricultural development overlying the Basin.

Continuing Goals

1. Establish a strategy for maximizing the reasonable and beneficial use of Basin water resources.
2. Provide sustainable water supplies for future development within Los Osos, consistent with local land use planning policies.
3. Allocate costs equitably among all parties who benefit from the Basin's water resources, assessing special and general benefits.

The Program is divided into four parts, designated Programs A through D. Programs A and B shift groundwater production from the Lower Aquifer to the Upper Aquifer, and Programs C and D shift production within the Lower Aquifer from the Western Area to the Central and Eastern Areas, respectively. Program M was also established in the Basin Management Plan for the development of a Groundwater Monitoring Program (See Chapter 7 of the BMP), and a new lower aquifer monitoring well in the Cuesta by the Sea area was recommended in the 2015 Annual Report. The following Table provides an overview of status of the Projects that are currently moving forward or have been completed. A schedule of the active projects is also provided to support the discussion in the Table.

As indicated in the July 2017 BMC meeting, the LOCSD has implemented new water rates intended to provide net revenue for capital funding over the next three fiscal years as follows:

- FY 17/18: $500,000

- FY 18/19: $700,000
- FY 19/20: $900,000

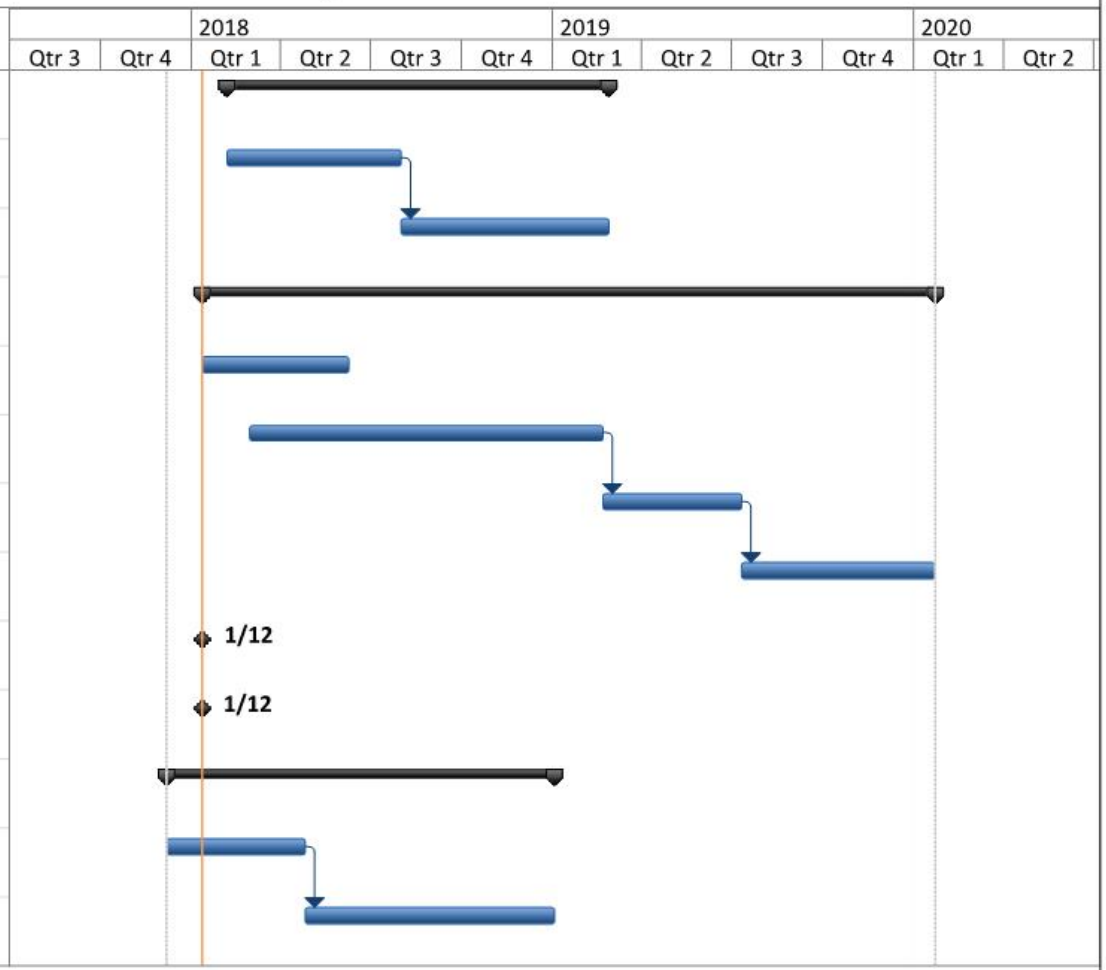
These rates will be sufficient to fully fund the District's portion of all Program A and C projects, either using debt service or pay-as-you-go. Additional cooperative funding approaches with other BMC members could also be considered for Expansion Well No. 3 or other program elements.

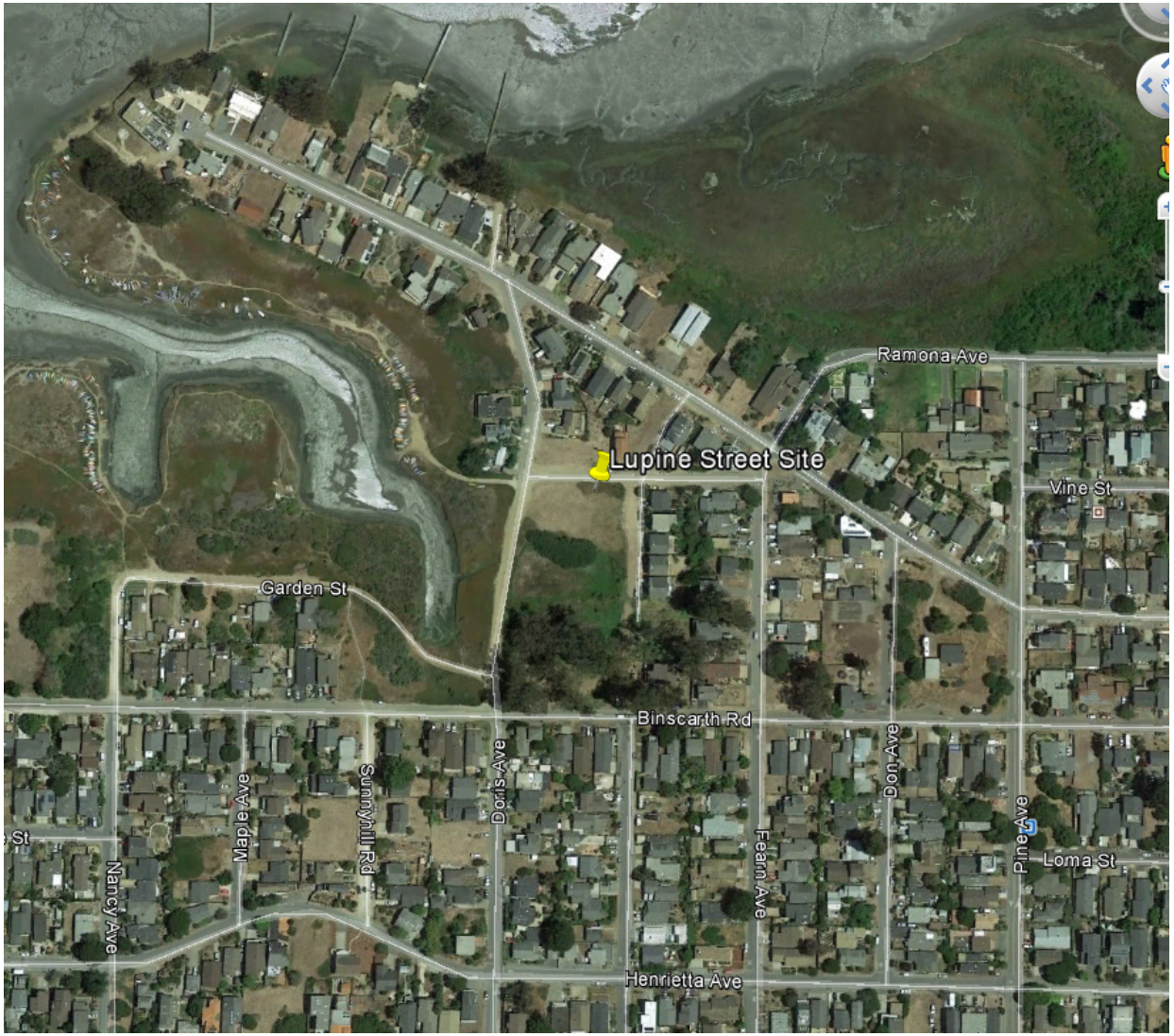
Project Name	Parties Involved	Funding Status	Capital Cost	Status
Program A				
Water Systems Interconnection	LOCSD/ GSWC	Completed		
Upper Aquifer Well (8th Street)	LOCSD	Fully Funded	$250,000	Well was drilled and cased in December 2016. Budget remaining $250,000 to equip the well. Design RFP was issued in April, and a consultant was retained in June 2017. Bid documents are currently being prepared by the consultant.
South Bay Well Nitrate Removal	LOCSD	Completed		
Palisades Well Modifications	LOCSD	Completed		
Blending Project (Skyline Well)	GSWC	Fully Funded	Previously funded through rate case	No change since last update: The Rosina Nitrate Unit was brought on-line on October 9, 2017, and it is currently producing 160 gallons per minute of treated water.
Water Meters	S&T	Completed		
Program B				
LOCSD Wells	LOCSD	Not Funded	BMP: $2.7 mil	Project not initiated
GSWC Wells	GSWC	Not Funded	BMP: $3.2 mil	Project not initiated
Community Nitrate Removal Facility	LOCSD/GSWC	Partial	First phase combined with GSWC Program A	GSWC's Program A Blending Project allows for incremental expansion of the nitrate facility and can be considered a first phase in Program B.
Program C				
Expansion Well No. 1 (Los Olivos)	GSWC	Completed		

Project Name	Parties Involved	Funding Status	Capital Cost	Status
Expansion Well No. 2	GSWC/LOCSD	Cooperative Funding	BMP: $2.0 mil	Property acquisition phase is on-going through efforts of LOCSD. Three sites are currently being reviewed, and all appear to be viable for new east side lower aquifer wells, Environmental studies were initiated in December 2016 for expansion well #2.
Expansion Well 3 and LOVR Water Main Upgrade	GSWC/LOCSD	Cooperative Funding	BMP: $1.6 mil	Property acquisition phase is on-going through efforts of LOCSD.
LOVR Water Main Upgrade	GSWC	May be deferred	BMP: $1.53 mil	Project may not be required, depending on the pumping capacity of the drilled Program C wells. It may be deferred to Program D.
S&T/GSWC Interconnection	S&T/ GSWC	Pending	BMP: $30,000	Conceptual design
Program M				
New Zone D/E lower aquifer monitoring well in Cuesta by the Sea	All Parties	Funded through BMC Budget	$115,000 (2018 BMC Budget Item 9)	Cleath-Harris scope was approved in September 2017 meeting, and staff is currently working through right of way and permitting issues for the selected site. Based on discussions with Public Works, the well can be sited within the right of way, but not within the paved roadway. As a result, staging during the one two week construction duration will be a potential challenge as displayed on Figure 1 (attached). Additional brief comments will be provided during the BMC meeting.

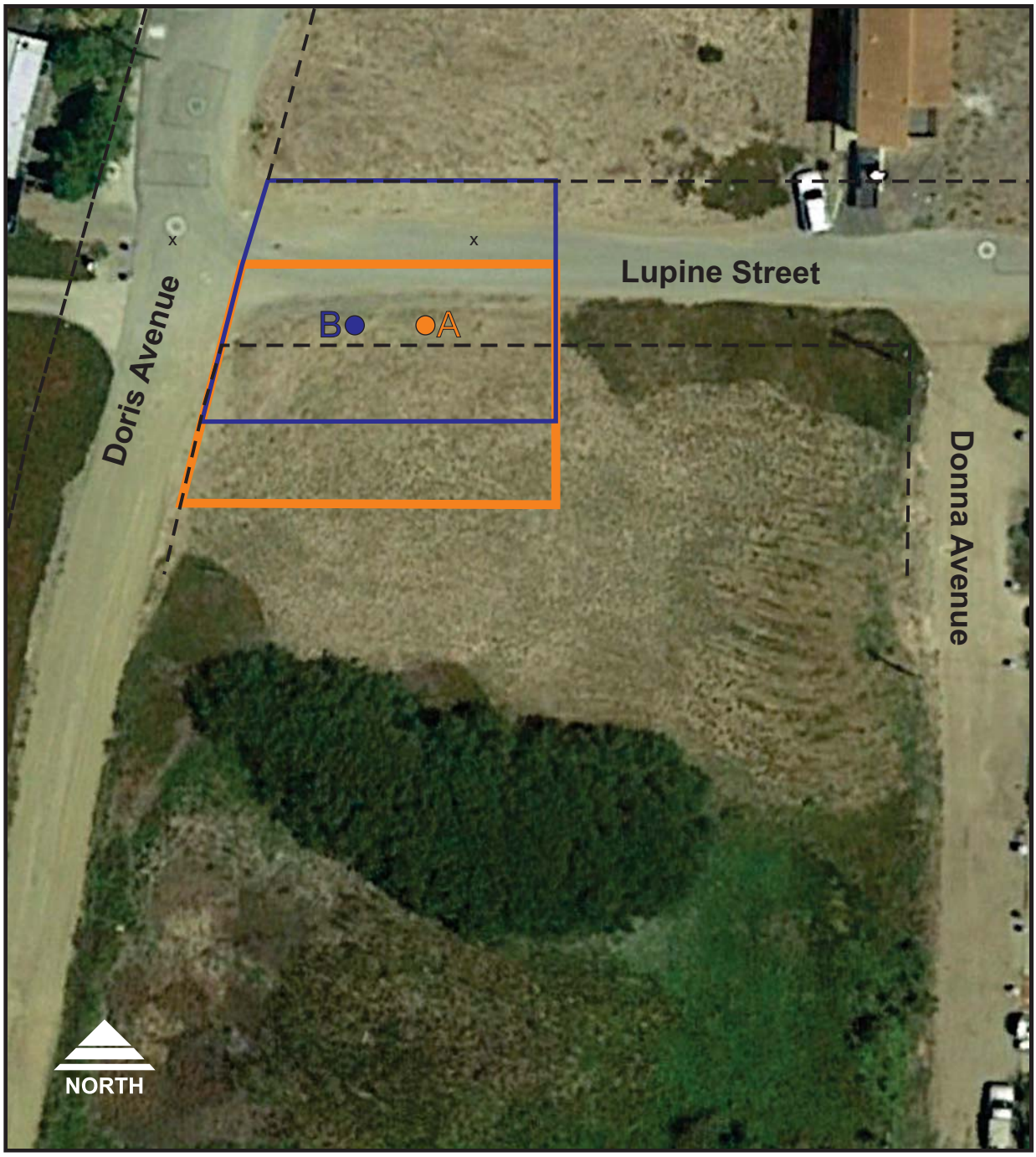
Los Osos Basin Management Committee
Basin Plan Infrastructure Projects

ID	Task Name
1	**Upper Aquifer Well (8th Street)**
2	Engineering
3	Bidding and Construction
4	**Expansion Well #2**
5	Land Acquisition Phase
6	Environmental Studies and Coastal Development Permit
7	Engineering
8	Bidding and Construction
9	**Expansion Well #3 and LOVR Water Main Upgrade**
10	Schedule pending Land Acquisition and additional hydraulic modeling to determine necessity
11	**New Zone D/E lower aquifer monitoring well in Cuesta by the Sea**
12	Design
13	Bidding and Construction





Program M:
Lupine Street
Monitoring Well
Site Location



Google Earth Image date: 6/14/2017

0 40 80

Scale: 1 inch = 40 feet

Explanation

- A — Well Site - Partial Road Closure
- B — Well Site - Full Road Closure
- Work Area - Partial Road Closure
- Work Area - Full Road Closure
- Approximate right-of-way boundaries

Figure 1

Work Area Options
Lupine Street Monitoring Well

Cleath-Harris Geologists

TO: **Los Osos Basin Management Committee**

FROM: **Cathy Martin, County Public Works, Water Resources Engineer**

DATE: **March 21, 2018**

SUBJECT: **ITEM 7b – SUPPORT FOR POTENTIAL BASIN BOUNDARY MODIFICATION REQUEST FOR LOS OSOS GROUNDWATER BASIN**

Recommendations

The County of San Luis Obispo (County) Public Works staff recommends that the Los Osos Basin Management Committee (BMC):

1. Receive a presentation from County staff regarding the Department of Water Resources (DWR) Basin Boundary Modification Request (BBMR) process and potential basin boundary modifications being explored by the County for the Los Osos Valley Groundwater Basin (Los Osos Basin); and
2. Authorize the BMC Executive Director to provide a letter of support for the County's submittal of a potential basin boundary modification request to the California Department of Water Resources (DWR) for the Los Osos Groundwater Basin.

Discussion

The Sustainable Groundwater Management Act (SGMA) requires sustainable groundwater management in all high and medium priority basins throughout the State of California, as designated in DWR's Bulletin 118, including the Los Osos Basin. On April 4, 2017, the Los Osos Basin Fringe Areas – County of San Luis Obispo Groundwater Sustainability Agency (Los Osos GSA) was formed, covering multiple fringe areas of the Los Osos Basin (i.e., areas located outside of the adjudicated portion[1] of the Los Osos Basin).

DWR established a process for GSAs or local agencies to request revisions to the boundaries of a groundwater basin/subbasin and/or create new subbasins via the adoption of Basin Boundary Emergency Regulations (23 CCR Section 340 et seq.) and associated BBMR application requirements. The regulations detail the required processes that a local agency must follow prior to requesting that DWR make modifications to a basin boundary. Such requests must be based on scientific and/or jurisdictional information, such as a hydrogeologic conceptual model demonstrating impediment to flow or other conditions warranting basin boundary adjustments.

On June 6, 2017, the San Luis Obispo County Flood Control and Water Conservation District (Flood Control District) contracted with Cleath-Harris Geologists Inc. (CHG) to develop a groundwater basin characterization and boundary modification study (Study) of the Los Osos Basin fringe areas. The Study provides an improved scientific understanding of the Los Osos Basin fringe areas, and helps to address DWR's previous comments on the 2016 BBMR submittal. The draft Study is anticipated to be posted by late March 2018, and related basin boundary modification materials, are available at: http://www.slocountywater.org/sgma

On March 6, 2018, the County Board of Supervisors, acting as the Los Osos GSA, directed County staff to submit an initial notification of intent to explore a boundary modification for the Los Osos Basin

[1] Pursuant to Water Code 10720.8, SGMA does not apply to the adjudicated areas of the Los Osos Basin (that portion of the Los Osos Basin at issue in *Los Osos Community Services District v. Southern California Water Company* [Golden State Water Company] et al. (San Luis Obispo Superior Court Case No. CV 040126)), provided that certain requirements are met. Although the adjudicated area covers a majority of the Basin; there are multiple "fringe areas" located outside of the adjudicated area.

to DWR[2], and to coordinate with basin users to develop a basin boundary modification request (BBMR) in accordance with the regulations. County staff submitted the initial notification to DWR and initiated notice and consultation efforts consistent with the regulations[3].

County staff is conducting various efforts to engage the affected agencies/ systems, basin users, and the public. Today, County staff will present a summary of the proposed Los Osos Basin boundary modification and overall process to the BMC. On March 26, 2018, County staff will host a public meeting to describe the regulations, public process, and proposed boundary modification in further detail. Concurrent to these public meetings, County staff is soliciting public comments on the draft Study through April 10, 2018. Comments should be submitted via email to Catherine Martin at cmmartin@co.slo.ca.us (*to assist staff, please use Subject: "Los Osos BBMR Comment"*). As a final step, the County Board of Supervisors will hold a public hearing on June 5, 2018 to take final action to consider submittal of a BBMR to DWR by the June 30, 2018 deadline.

County staff will notify interested stakeholders of key milestones related to the BBMR through the SGMA email list server. For stakeholders to receive emails about future updates on the BBMR for the Los Osos Basin, please visit the County's SGMA website *http://slocountywater.org/sgma* and sign up with our emailing list.

Financial Considerations

The costs associated with the Board's decision to explore a basin boundary modification, submittal of this initial notification to DWR, and engagement with Los Osos Basin users are included in the Flood Control District FY 2017-18 budget. The subsequent BBMR, related technical support, and preparation efforts associated with the Professional Consultant Services Contract with CHG, are also included in the Flood Control District's FY 2017-18 budget.

Results

Approval of the recommended action will provide support for the proposed basin boundary modification request and approach to align the DWR Bulletin 118 basin boundary with best available scientific data, and within the context of the boundaries consistent with the final court order. Boundary modifications will help the County to allocate resources more effectively toward the pursuit of groundwater resources sustainability, thereby contributing to a well-governed community.

[2] Code of Regulations §343.9 (a) Within 15 days of a local agency's decision to explore boundary modification, the relevant local agency shall notify the Department by written notice of its interest in exploring a boundary modification and make general information about its process publicly available by posting relevant information to the local agency's Internet Web site or by other suitable means. The initial notification shall include a brief description and preliminary map of the proposed boundary modification.

[3] Code of Regulations §344.4 Each request for boundary modification shall include information demonstrating that the requesting agency consulted with affected agencies and affected systems…

TO: **Los Osos Basin Management Committee**

FROM: **Rob Miller, Interim Executive Director**

DATE: **March 21, 2018**

SUBJECT: **Item 7c – Water Conservation Program Update**

Recommendations
Received update and provide input to staff for future action.

Discussion
In November 2016, the BMC reviewed and endorsed an Addendum to the Water Conservation Implementation Plan for the Los Osos Wastewater Project. The document can be found at the following web address:

http://slocountywater.org/site/Water%20Resources/LosOsos/pdf/WCIP_Addendum%201_rev.pdf

In June 2017, the County approved a subset of the BMC rebate programs intended for properties connect to the Los Osos Wastewater Project as shown on the attached summary (Exhibit A). Two of the BMC's recommended measures are not included in the staff recommendation. These are the septic tank repurposing program (BMC Outdoor 1) and the Low Impact Development Landscape measure (BMC Outdoor 4). While both measures are reasonable elements of a community water conservation program, they are not recommended for inclusion in the County's efforts because there is no clear nexus between the wastewater project and the reduction of outdoor irrigation using potable water supplies. On June 20, 2017, the County submitted the measures in Exhibit A to the Executive Director of the California Coastal Commission. In November 2017, the County received approval for the rebates and is currently processing them.

During the January 2018 BMC meeting, Golden State Water Company volunteered to work with staff on community outreach, including preparation for a community conservation meeting. A tentative date of Thursday, June 21, 2018 (7 pm to 9 pm) has been suggested, and the South Bay Community Center has been booked while the date is confirmed. The proposed agenda for the meeting is as follows:

1. Overview of water conservation opportunities in Los Osos (20 min)
    a. New rebates in wastewater service area
    b. GSWC rebates available for customers outside wastewater service area
    c. Statewide rebates – turf removal
    d. Water audits
2. Technology and benefits overview for new rebates (20 min)
    a. Hot water recirculation
    b. Grey water systems

    c. Ultra low flow toilets
    d. Laundry to garden
3. Vendor presentations (20 min)
4. Individual discussions at informational booths, including Q&A (45 min)

Staff will continue to work on outreach materials in advance of the meeting. Any input from the BMC regarding the proposed agenda would also be appreciated.

Title 19 Status

As described in the March 2017 BMC meeting, Title 19 retrofits are pursued by private parties in order to facilitate development within the community. In recent years, the County has found that minimal retrofit opportunities are available through pre-approved measures with published values for water savings. This situation primarily impacts new development that is either outside of the prohibition zone, or not subject to Special Condition 6 of the Los Osos Wastewater Project's Coastal Development Permit. The County currently considers retrofits on a case by case basis, including the installation of high-efficiency clothes washers. Since such retrofits are expected to continue irrespective of rebate funding, BMC ased staff will continue to communicate with County Planning regarding the potential inclusion of measures from the Addendum to the Water Conservation Implementation Plan within an updated version of Title 19.

EXHIBIT A

Water Conservation Implementation Plan, Los Osos Wastewater Project **Proposed Rebate Program** *changes in italics*			
Measures Required for Connection to the Wastewater System			
Fixture or Appliance	*Existing Fixture Flow Rate*	*New Fixture Flow Rate Eligible for Rebate*	*Rebates*
Toilets Residential & Commercial	Greater than 1.6 gpf	1.28 gpf or less	$250
Showerheads Residential & Commercial	Greater than 2.0 gpm	1.5 gpm or less	$40
Faucet Aerators Residential	Greater than 1.5 gpm	1.5 gpm or less	$5
Faucet Aerators Commercial	Greater than 0.5 gpm	0.5 gpm	$5
Urinals Commercial	Greater than 1.0 gpf	0.5 gpf or less	$500
Pre-rinse Spray Valves Commercial	Greater than 1.15 gpm	1.15 gpm or less	N/A
Optional Measures Eligible for Rebates (Requires Connection to the Wastewater System and Compliance with Above Measures)			
Toilets Residential & Commercial	Equal to 1.6 gpf	~~1.0~~ *1.28* gpf or less	$250
Washers Residential & Commercial	Less than Tier 3, Water Factor 4	Tier 3, Water Factor 4 or Less	~~$150~~ *$450 (1)*
Hot Water Recirc System *Residential & Commercial*	*N/A*	*N/A*	*$350*
Showerheads *Residential & Commercial*	*1.5 gpm or more*	*Less than 1.5 gpm*	*$40*
Complete Gray Water System	*N/A*	*N/A*	*$500*
Laundry only Gray Water System	*N/A*	*N/A*	*$50*
Recycled Water Irrigation *Commercial & Institutional*	*N/A*	*N/A*	*negotiated*
~~Alternative Measures~~	~~1.28 gpf toilet~~ ~~1.5 gpm showerhead~~ ~~1.5 gpm faucet aerators~~	~~Needs prior approval~~	~~$300~~

gpf = gallons per flush
gpm = gallons per minute

NOTES: (1) Rebate not retroactive to prior

TO: **Los Osos Basin Management Committee**

FROM: **Rob Miller, Interim Executive Director**

DATE: **March 21, 2018**

SUBJECT: Item 7d: Groundwater Basin Modeling for Adaptive Management

Recommendations

Approve the proposed scope and fee for hydrogeologic services in an amount not to exceed $10,000, as approved in the calendar year 2018 budget.

Discussion

In January 2018 the BMC approved a 2018 calendar year budget. One of the budgeted work items included funding for additional groundwater modeling to review the infrastructure that has been completed and placed into service, or that is currently funded and pending. The latter category includes one additional Program C expansion well to the east of South Bay Boulevard. LOCSD has included funding for this item in its current rate structure. The proposed modeling effort will consider current annual production volumes, given that water demand has decreased substantially compared to the level contemplated with the Basin Infrastructure Plan that was first published as part of the Basin Plan. The full proposal from Cleath Harris Geologists is attached for consideration.

On a separate but related matter, the subject of the development of a transient hydraulic model was also briefly discussed in January, and staff has assembled some additional pro/con information for consideration during the meeting. The budget required for a transient model is on the order of $140,000, which substantially exceeds the available Adaptive Management budget of $10,000.

Transient Model Pros:

1) The calibration data set for a transient flow model is much larger than the steady state model, which can result in better calibration, even if the actual calibration statistics are equivalent. For example, calibrating to within 3 feet residual mean error on 1,000 target observations is better than 3 feet RME on 100 target observations. The calibrated transient model has a potential to be more accurate for making predictions.

2) A transient model can be used to simulate variable climatic conditions and variable pumping. The short-term effects of drought may become important to basin management. Seasonal or otherwise variable pumping can have temporary impacts on creek flow and seawater intrusion that are not simulated with a transient model.

3) A transient model can be periodically updated to incorporate changing basin conditions and should lead to a greater understanding of basin dynamics.

Transient Model Cons:

1) SEAWAT is a true variable-density code that simulates flow and transport equations in a process which typically requires multiple iterations. Solution convergence under transient flow conditions can be difficult due to large changes in pumping, recharge, or other dynamic variables between stress periods. Requirements for more intermediary time-steps and iterations within time-steps to achieve model convergence can extend individual run times to the point that efficient model calibration is difficult or not possible. SEAWAT is also not compatible with stream flow routing packages and requires a work-around for simulating transient stream seepage. An alternate seawater intrusion package (SWI2) is available for MODFLOW that's designed for regional models, works with stream flow packages, and is much more efficient than SEAWAT, but it only simulates a sharp interface boundary. Mixing zones simulated by SEAWAT are important when looking at chloride concentrations produced by individual wells.

2) Even with a fully transient model, evaluating basin yield and long-term sustainability basically involves running the model to a steady state condition.

3) Complex transient models require a significant investment of time and effort, and expectations can be greater than the end result (some basin models last longer and prove to be more useful than others).

Financial Considerations

The Committee budget for calendar year 2018 includes a specific line item in the amount of $10,000 for the proposed work as described in the CHG proposal.

Cleath-Harris Geologists, Inc.
71 Zaca Lane, Suite 140
San Luis Obispo, California 93401
(805) 543-1413

March 15, 2018

Los Osos Basin Management Committee
c/o Mr. Rob Miller, P.E.
Wallace Group
612 Clarion Court
San Luis Obispo, CA 93402

SUBJECT: Proposal for Los Osos Basin Plan Infrastructure Program Review and Evaluation.

Dear Mr. Miller:

Cleath-Harris Geologists (CHG) proposes to perform hydrogeologic services related to reviewing and evaluating the Los Osos Basin Plan (LOBP) infrastructure program using the Basin Model. This proposal presents a background, scope of work, schedule, and the estimated costs for these services.

Background

The LOBP is in its third year of implementation. There have been two Annual Groundwater Monitoring Reports completed (2015 and 2016), with a report for 2017 in progress. Several components of the infrastructure program identified in the LOBP have also been completed, including one of three expansion wells planned for infrastructure Program C.

The purpose of this review and evaluation is to provide the Los Osos Basin Management Committee with information for making potential adjustments to the infrastructure program, if appropriate, based on the current basin metric trends and anticipated trends using the Basin Model. This work may be considered part of the adaptive management process for LOBP implementation.

Scope of Work

Tasks to be completed under the scope of work include:

- Review the wells and infrastructure already in place as of December 2017. Compare anticipated basin metric trends with actual trends and evaluate whether expectations are being met.

- Evaluate whether adding a second expansion well under Program C is sufficient, with current basin demand, to achieve both the 80 percent Basin Yield Metric and a distribution of pumping that maintains a stationary seawater intrusion front.

- Provide a technical memorandum with results of the review and evaluation. Include potential adjustments to the infrastructure program and associated groundwater pumping distribution that could better meet LOBP objectives.

Schedule

The scope of work will require approximately two months to complete.

Fees and Conditions

CHG proposes to perform the above scope of work on an hourly rate plus expenses basis in accordance with the attached terms of fees and conditions and the hourly rate schedule listed below. The estimated cost for services to complete the scope of work is estimated at $10,000.

SCHEDULE OF HOURLY RATES

Principal Hydrogeologist	$ 150
Senior Hydrogeologist	$ 140
Project Geologist	$ 125
Environmental Scientist	$ 110
GIS Specialist	$ 110
Staff Geologist Level II	$ 110
Staff Geologist Level I	$ 95

EXPENSES

Mileage $0.54/mile
Other expenses at cost plus 10 percent handling.

If the herein described work scope, fees and conditions are acceptable, this proposal will serve as the basis for agreement.

Cleath-Harris Geologists, Inc.

Spencer J. Harris, Vice President

SCHEDULE OF FEES AND CONDITIONS

- Invoices will be submitted monthly. The invoice is due and payable upon receipt.

- In order to defray carrying charges resulting from delayed payments, simple interest at the rate of ten percent (10%) per annum (but not to exceed the maximum rate allowed by law) will be added to the unpaid balance of each invoice. The interest period shall commence 30 days after date of original invoice and shall terminate upon date of payment. Payments will be first credited to interest and then to principle. No interest charge would be added during the initial 30 day period following date of invoice.

- The fee for services will be based on current hourly rates for specific classifications and expenses. Hourly rates and expenses included in the attached schedule are reevaluated on January 1 and July 1 of each year.

- Documents including tracings, maps, and other original documents as instruments of service are and shall remain properties of the consultant except where by law or precedent these documents become public property.

- If any portion of the work is terminated by the client, then the provisions of this Schedule of Fees and Conditions in regard to compensation and payment shall apply insofar as possible to that portion of the work not terminated or abandoned. If said termination occurs prior to completion of any phase of the project, the fee for services performed during such phase shall be based on the consultant's reasonable estimate of the portion of such phase completed prior to said termination, plus a reasonable amount to reimburse consultant for termination costs.

- If either party becomes involved in litigation arising out of this contract or the performance thereof, the court in such litigation shall award reasonable costs and expenses, including attorney's fees, to the party justly entitled thereto. In awarding attorney's fees the court shall not be bound by any court fee schedule, but shall, if it is in the interest of justice to do so, award the full amount of costs, expenses, and attorney's fees paid or incurred in good faith.

- All of the terms, conditions and provisions hereof shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns, provided, however, that no assignment of the contract shall be made without written consent of the parties to the agreement.