

# 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, May 17, 2017** 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 However, any Director may request that any item be withdrawn from the Consent Agenda and moved to the "Action Items" portion of the Agenda to permit discussion or to change the recommended course of action.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 March 15, 2017 Meeting.**
- b. **Approval of Warrants, Budget Update and Invoice Register through April 2017.**

## 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. **Update and Discussion of Los Osos Community Plan**

Recommendation: Review and approve draft letter to the Coastal Commission.

- c. **Review and Discussion of Spring 2017 Monitoring Data**

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

**d. Presentation on the Los Osos Basin Salt and Nutrient Management Plan**

Recommendation: Receive a presentation from County Public Works Staff on the Los Osos Basin Salt and Nutrient Management Plan (SNMP).

**e. Water Conservation Program Update**

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

**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**



# SGMA Fringe Areas

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## Questions from the Board

Q: Director Zimmer: If the County forms the GSA there will be an advisory committee. How will that advisory committee be established? Since the County will be the only agency participating is it possible that the BMC could be a part of that committee?

A: Director Gibson: The Meeting on the 27<sup>th</sup> was positive. The way my staff and I are approaching this is that we would welcome any participation in the advisory committee for the fringe area GSA. It is not comprised of many parcels, and any interested party that wants to participate can. The other thing about the work plan of the GSA, it's totally focused on getting a boundary modification to take itself out of existence as far as a high priority, critically overdrafted basin. With cooperation from private well owners, we hope to substantiate the case that there is no connection between the fringe areas and the adjudicated part of the basin.

Director Zimmer: We will continue to get an update on that progress?

Director Gibson: Yes. April 4<sup>th</sup> is the formation of the committee. With the necessary studies in place, we have to show the lack of hydrologic communication with the adjudicated part of the basin.

Director Zimmer: In the attempt to show that there's no connection that would support a basin boundary modification?

Director Gibson: Correct.

Mr. Miller: Continued with the Executive Director's Report.

Director Ochylski: Are they monitoring monthly, bi-monthly, or quarterly?

Mr. Miller: Semi Annually.

Mr. Miller: Continued with the Executive Director's Report.

Director Zimmer: Regarding the Zone of Benefit Analysis, are we not pursuing any funded administrative or capital costs? Is there an activity that we could be doing for the Zone of Benefit Analysis, to help prepare for 218 and things like that? What options are viable to secure this funding moving forward?

Mr. Miller: Current perspective, and it could be modified, is that we have the Technical Report from the consultant, with the types of funding that would apply and how they would be secured if we did a special tax. There was a presentation focusing on both Administrative as well as Capital Costs. It was thought that if you just went after Administrative Costs you would risk an unsuccessful vote, as such approvals have been difficult in other areas. In respect to Capital Costs, we applied for Prop 1 dollars, but having those projects shovel ready, or close to it, is very important to be competitive for any grant program. If you're going to do a Special Benefit Assessment, we have to have a defined project. Figuring out our final well sites for program C is something the District has undertaken as part of their budget process. They are looking at a number of sites and are actively pursuing those. Once those sites are decided and we know where we are going to drill and where the pipelines will be, while continuing to make progress with our coastal development permit, we will be a lot more competitive and clear on our funding path. However, the funding is not delaying progress for these projects. We have a budget item that we can activate for this calendar year if we decide that now is the time to look at a community wide measure of some kind. I believe it might be premature for that.

Director Zimmer: That makes sense, thank you for the clarification. In addition to these wells, are there other projects that we could be working on to get shovel ready?

Mr. Miller: Our Program A Projects are already self-funded by the different entities, and are essentially funded now. When you get into Programs B & D, those were originally identified as supporting future growth not necessarily for the current population. The monitoring costs within the Basin Plan are funded through this committee. We will be looking for funding for conservation but that is a separate agenda item here today. We've rounded out the programs that are in the Basin Plan, and have strategies for each one.

Director Zimmer: Also under Program C, the Interconnection project between S&T and Golden State is something that should start moving forward.

Mr. Miller: The projects that the District is involved with have had some forward progress. If the staff of the two parties wants to get together and begin looking at sites and specifics on that, we can certainly bring that forward into a planning stage. Perhaps it is a lot easier than the recently completed intertie between the District and Golden State, which was expensive.

Director Garfinkel: I think we should pursue that. I'll work with Mark on that.

Director Gibson: I think that's great, it sounds like you are capable of moving forward without the overall district assessment which makes it a very efficient process. I did want to mention that the four different entities in this committee have four very different sets of constraints and procedures and approaches to getting funding together. I agree with Rob that it is a little early to start thinking about the Zone of Benefit Assessment but it may not be far off. I think it would help to have a conversation of how each entity would propose to approach their share of the Infrastructure Costs. We have the ongoing conversation of Administrative Costs of the committee that we need to conclude soon. It would be nice to see another Annual Report or some more monitoring data to get a sense if we're heading in the right direction. We have a Cost Benefit Analysis that we'd like to have some more information on, such as Creek Discharge. Do we want to denitrify the upper Aquifer? Is there more of that we want to do? We need to keep this on the agenda and be aware of it coming in the immediate future.

Director Zimmer: That makes sense, and having all the projects looked at as we're working on these through the individual entities when we're pursuing these as the BMC, having all of these projects would be better for the community.

Public Comment

Ms. Owen: I wanted to ask if we could get a little more information on where we're at with denitrifying the upper aquifer? That seems to be one of the sources of water that we should be using to stop drawing from the lower basin. With denitrification and blending, are there any advancements in taking pressure off drawing from the lower aquifer? Regarding the effluent disposal, is it going to go to the schools? Also, how well is the sewer plant performing?

Mr. Miller: We will be talking about the denitrification system later in today's Agenda. The treatment plant is meeting their obligations in terms of quality, as well as hitting their nitrogen numbers.

Response from the BMC

Mr. Garfinkel: Does the County now have the go ahead on delivering the recycled water to the sites we have planned?

Mr. Miller: No, they are still working on both the retrofit packages with the schools, which are required to separate the utilities as well as the final agreements. I hope they will all be completed sooner rather than later.

Mr. Garfinkel: The water quality issue is now behind us?

Mr. Miller: Yes, The Division of Drinking Water has already certified the tertiary status of that water.

**7a. Update on Status of Basin Plan Infrastructure Projects**

Mr. Miller: Gave Brief overview and updates on projects under Programs A, B, C, & M.

Project Name	Parties Involved	Funding Status	Capital Cost	Status
<b>Program A</b>				
Water Systems Interconnection	LOCSD/ GSWC	Fully Funded	Construction Value: \$103,550	Project completed February 2017, with final approval in March 2017
Upper Aquifer Well (8 <sup>th</sup> Street)	LOCSD	Fully Funded	\$250,000	Well was drilled and cased in December 2016. Budget remaining \$250,000 to equip the well. Project to be completed by June 2018
South Bay Well Nitrate Removal	LOCSD			Completed
Palisades Well Modifications	LOCSD			Completed
Blending Project (Skyline Well)	GSWC	Fully Funded	Previously funded through rate case	Blending of Skyline Well and Rosina Well Project was completed. Project required modifications to include a new nitrate removal unit. Permits and equipment secured, and construction completed anticipated in Fall, 2017.
Water Meters	S&T			Completed
<b>Program B</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.
<b>Program C</b>				
Expansion Well No. 1 (Los Olivos)	GSWC	Fully Funded	Previously funded through rate case	Well has been drilled and cased. GSWC is in the equipping phase. Well can be used, if needed, using on-site generator.
Expansion Well No. 2	GSWC	Pending Funding Vote	BMP: \$2.0 mil	Property acquisition phase is on-going through efforts of LOCSD. Two sites are currently being reviewed, and both appear to be viable for new east side lower aquifer wells, Environmental studies initiated in December 2016 for expansion well #2.

Project Name	Parties Involved	Funding Status	Capital Cost	Status
Expansion Well 3 and LOVR Water Main Upgrade	GSWC	Pending Funding Vote	BMP: \$1.6 mil	Property acquisition phase is on-going through efforts of LOCSD. Two sites are currently being reviewed, and both appear to be viable for new east side lower aquifer wells.
LOVR Water Main Upgrade	GSWC	Pending Funding Vote	BMP: \$1.53 mil	Project not initiated
S&T/GSWC Interconnection	S&T/ GSWC	Pending	BMP: \$30,000	Conceptual design
<b>Program M</b>				
New Zone D/E lower aquifer monitoring well in Cuesta by the Sea	All Parties	Not funded	\$100,000	Pending funding plan

Response from the BMC

Director Gibson: In Program A, regarding the 8<sup>th</sup> St. Well, it seems like 15 months is a long time to equip the well.

Mr. Miller: It is. It is a large project since there will be a blending pipeline, mixing facilities, as well as the power components.

Director Gibson: So there is Design work that has to be done?

Mr. Miller: Yes, we have an RFP coming out for the design of those facilities. Once RFP is out, we will award the project to a consultant, perform the design work and complete construction, which can take quite some time. I may have been generous with the timeline to give us a little bit of room, it probably could be done by early 2018.

Director Gibson: Do we have any sense on how big a change this project (or any of these projects) will have on the overall health of the Basin? What overall effect would this project have on the Basin Metrics, low or high priority?

Mr. Miller. It's high. It gives us another 100 acre-feet of upper aquifer water from day 1.

	<p>Director Gibson: Then I would encourage cutting this timeline down. Regarding community nitrate removal, you indicated that we are in an analysis phase right now of cost benefit. You spoke about the possibility of it being expanded. Where are we in understanding the cost benefit? It's expensive technology with the challenge of removing brine but on the other hand it has a triple bottom line benefits in terms of cleaning up the aquifer and providing more supply while reducing seawater intrusion. Is there a time when we might know how to consider expanding denitrification?</p> <p>Mr. Miller: It's a good discussion item. We know those cost factors pretty well having experience with them at the District level. It's about \$800-1,000 an acre-foot to produce that water.</p> <p>Director Gibson: So it is not cost prohibitive.</p> <p>Mr. Miller: There is some chlorides that come out of it, on the backside too, but it is more expensive than drilling East Side Lower Aquifer Wells from an ongoing cost perspective. That is why, in the Basin Plan we contemplated Programs A &amp; C to avoid that cost. As those Programs continue to get stretched out I think looking at other westerly sources of Upper Aquifer water that already exist in some of the wells in the golf course area, is something that can be looked at.</p> <p>Director Gibson: I look forward to that discussion where dollars are best invested.</p> <p>Director Zimmer: I agree. Golden State positioned itself as far as a transmission line, the facility we have at Rosina, can be expanded so the capital side and infrastructure is a small component versus ongoing operations and maintenance costs. Maybe with Rob's help we can get together, look at those, and have some type of budget summary. I think getting the Rosina Project up and running and get the hard costs out there, since we anticipate having this done by summer or late fall.</p> <p>Mr. Miller: Important regional issue to note. There is lack of cost effective brine disposal mechanisms in the County, which increases the cost almost double comparatively to larger places like the Bay Area.</p> <p><u>Public Comment</u></p> <p>Ms. Owen: There are two sources of water, the clean Upper Aquifer water that is not nitrified, and Lower Aquifer water. We have not talked about endocrine disruptors which is important. The signal of nitrates in the water generally means you have a lot of endocrine disruptors from waste that will never be removed from our water. So when we talk about blending those, I would prefer to have clean Upper Aquifer water blending in, than denitrified water because of those disruptors. Also, the numbers of nitrates out by the golf course were one of the highest out of any spot due to runoff and fertilizers on the golf course.</p> <p>Mr. Margetson: Currently for the CSD, what is maintenance cost to pump an acre-foot of water right now?</p> <p><u>Response from the BMC</u></p> <p>Mr. Miller: We are somewhere around \$300 per acre-foot for pumping costs.</p>
<p><b>7b. Update and Discussion of Los Osos Community Plan</b></p>	<p>Mr. Miller: Gave brief overview of the draft letter from the last few meetings, to review and approve.</p>



Director Ochylski: We have talked about this at the past few meetings, but we decided to make this letter more general, Director Gibson, did you see this as something we should submit?

Director Gibson: Yes. Ms. Brown had a look at it and felt it has the right level of detail as well as coverage. The issue is that this is land use planning in the update of our Community Plan. This is a resource and infrastructure constraint. The most important thing for us to do is to transmit to County Planning the details of how we go about our business and what they can expect in terms of a water supply.

Director Zimmer: How does our response tie into the County. What is our role, or authority or purview?

Director Gibson: This is a matter of coordination. We have in our Plan another set of initiatives to serve a buildout that is consistent with what the County is projecting. So our job is to make good on the initiatives that we've put forward in an appropriate timeframe that meshes with the development horizons that are going to be outlined in the Local Coastal Program and the Growth Management Ordinance. There is also another level which is jurisdiction by jurisdiction, so as individual developments proposals come forward, the purveyors will need to work together and decide if we'll serve the developments under these conditions for this timeframe.

Director Ochylski: That's similar to the way it is now. The bottom line call will be left to the individual purveyors. However, I would like to see an integrated effort between the purveyors.

Director Zimmer: That's why I asked the question. Just to look at that timing and how do we coordinate that together? As the Community Plan comes together I would like to see us as a Basin Management Committee come together, as three different entities serving water.

Director Ochylski: I agree with Director Gibson, we're not looking at them by project by project basis but hopefully we'll come with policies that will be implemented from all of the water purveyors.

Director Gibson: We talked as a Committee about how we bind the four entities together possibly as a JPA, for financing reasons. If we go that route that would be one place to coordinate policy. If we don't need to go that route maybe an MOU among entities to layout how we're going to proceed.

Mr. Miller: One more thing, Special Condition 6 within the Coastal Development Permit, if these properties are within the prohibition zone and vacant, really no development can occur until the Commission itself determines that there is substantial evidence that there is a water supply for them.

Director Gibson: And that is what we are working on the LCP Update to provide.

Director Ochylski: I think we have discussed that, and I think everyone is familiar with that. It does raise the issue that the Community Plan Update does have to be approved by the Coastal Commission.

#### Public Comment

Ms. Owen: I don't understand how the County can allow growth and use of the Basin depending on who buys the property. Would it not be intelligent for the BMC to buy some property to compete with wealthy homebuilders? There are two zones, if you're in the PZ, you don't get to do anything, but if you're outside of PZ you can build, you can pollute, you can do anything you

want. There's no septic management that was supposed to be in place. It seems to be an unfair playing field for people inside and outside of the PZ. I would like to see this discussion come back. I would like to see all water companies in agreement on issuing Will Serve letters. It is unfair that some do and others do not. Also, how are the water credits working for people?

Mr. Best: I've been going to the Land Use meetings of LOCAC? I have seen some interesting precedents being set with the use of the land being subdivided outside of the Prohibition Zone. It seems to be setting a dangerous precedent that properties that were large enough to be outside the Prohibition Zone are now being subdivided into smaller lots that are the same size as those inside the Prohibition Zone, but will be treated as larger properties with building rights. I think there needs to be a halt and a plan in place that is comprehensive and covers everyone equally.

BMC Comments

Director Garfinkel: Mr. Miller, you suggested sending out the letter in Word form for suggestions, edits or comments, and I would like to see that happen.

Mr. Miller: Yes we can send it out for edits or we can approve this version if everyone is in agreement.

Director Ochylski: Ms. Brown, I know we've gone over it, but could you please give us the timing on this again please?

Ms. Brown: Our draft Environmental Impact Report will be out this summer so we would like to have this feedback before then.

Director Ochylski: So, if we brought this back at our next meeting there would be enough time?

Ms. Brown: Yes.

Director Gibson: I feel like it is ready to go right now, but I do respect other agencies wishes to ponder it. I think the only change that I would make was in the statement of the efforts of the Basin Management Plan on halting seawater Intrusion, the plan is halt and reverse, which is best summed up as remediate.

Director Ochylski: So, should we bring it back next meeting?

Director Zimmer: I would like to bring it back.

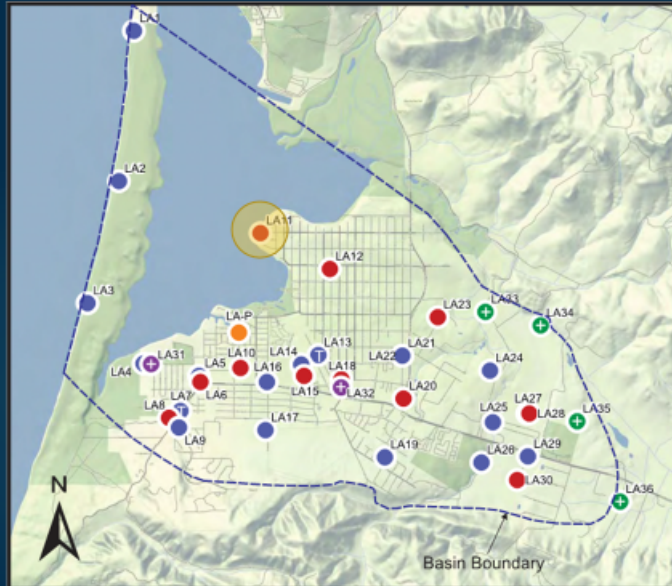
Mr. Miller: I will send the Word document out for edits.

**7c. Review and Discussion of Hydrogeologic Studies on Climate Change and Fall, 2016 Monitoring Data**

Mr. Miller: Rob gave a brief overview of the Studies, Metrics and Fall monitoring results.

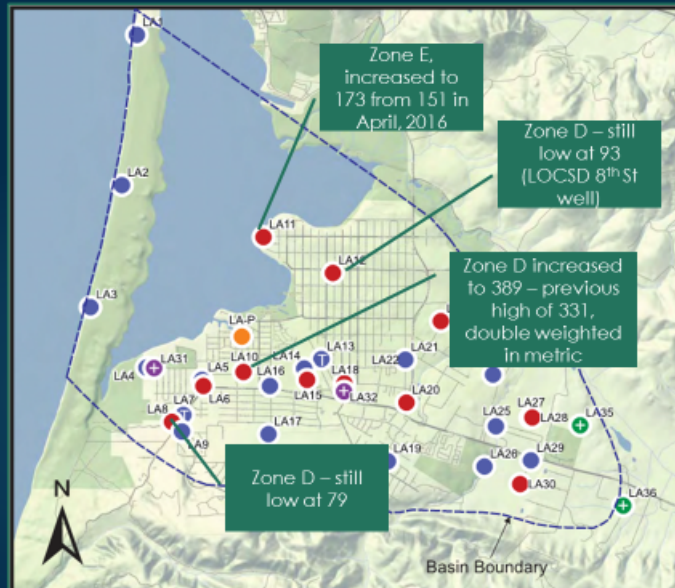
## Lower aquifer test locations

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## Lower aquifer key results

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Director Ochylski: Mr. Miller, looking at this I want to clarify we are looking at the end of the Summer (August) monitoring with the end of the “rainy season” monitoring. I think in the future it would be helpful to include the year ago monitoring comparison, as well as the most recent during the same monitoring periods.

Director Garfinkel: In the past we have superimposed on these maps, and I think it would be helpful if we made a line to kind of show the wedge from year to year. I think it would be helpful to show where the wedge is from year to year as a whole, a opposed to just the points shown here.

Mr. Miller: Yes, we will do that every year at the time of the annual report. Cleath is under contract to do that for 2016. You will see that in the coming months when we present the annual

report data for 2016.

Director Gibson: My observation is that, that line is drawn on two and a half data points. It reinforces the importance of the Cuesta by the Sea well to help determine where that line should be drawn. Concentrations are the highest in the area of highest pumping so this is a consequence of a cone of depression that's being filled by seawater rather than void space.

Mr. Miller: This table shows that we looked at each portion of the Basin, and what would occur in various rainfall scenarios.

### Results of BYM Analyses, w/ Groundwater Prod. for each Aquifer

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**Table 3**  
Sustainable Yield for 2016 Scenarios

BASIN AREA	SUSTAINABLE YIELD SCENARIO			
	Infrastructure and % of long-term average precipitation			
	2016 (100%)	2016 (90%)	2016 (80%)	2016 (67%)
Simulated Sustainable Yield (acre-feet per year)				
Upper Western	100	NC <sup>1</sup>	NC	NC
Lower Western	190	50	30	0
Upper Central	690	NC	650	560
Lower Central	860	730	520	290
Eastern Alluvium	130	NC	NC	NC
Eastern Lower	790	NC	NC	NC
<b>BASIN TOTAL (SUSTAINBLE YIELD)</b>	<b>2,760</b>	<b>2,490</b>	<b>2,220</b>	<b>1,870</b>
PURVEYOR TOTAL <sup>2</sup>	1,640	1,370	1,000	750
2016 BYM <sup>3</sup>	78	87	97	116
<b>BYM 80 PRODUCTION</b>	<b>2,210</b>	<b>1,990</b>	<b>1,780</b>	<b>1,500</b>

<sup>1</sup>NC = No Change in value from 100 percent long-term average precipitation scenario.  
<sup>2</sup>Purveyor total (simulated) = Basin total - 1,120 AFY for golf, private domestic, and agricultural uses.  
<sup>3</sup>BYM based on 2016 basin groundwater production of 2,160 AFY

### Est. Sustainable Yield (LOBP Combination U+AC) with Production for each Aquifer.

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**Table 4**  
Sustainable Yield for U+AC Scenarios

BASIN AREA	SUSTAINABLE YIELD SCENARIO			
	Infrastructure and % of long-term average precipitation			
	AC (100%)	AC (90%)	AC (80%)	AC (67%)
Simulated Sustainable Yield (acre-feet per year)				
Upper Western	100	NC <sup>1</sup>	NC	NC
Lower Western	110	70	20	0
Upper Central	790	720	670	560
Lower Central	1,080	830	580	290
Eastern Alluvium	130	NC	NC	NC
Eastern Lower	790	NC	NC	NC
<b>BASIN TOTAL (SUSTAINBLE YIELD)</b>	<b>3,000</b>	<b>2,640</b>	<b>2,290</b>	<b>1,870</b>
PURVEYOR TOTAL <sup>2</sup>	1,880	1,520	1,170	750
BYM <sup>3</sup>	74	84	97	119
<b>BYM 80 Production</b>	<b>2,400</b>	<b>2,110</b>	<b>1,830</b>	<b>1,500</b>

<sup>1</sup>NC = No Change in value from 100 percent long-term average precipitation scenario.  
<sup>2</sup>Purveyor total (simulated) = Basin total - 1,120 AFY for golf, private domestic, and agricultural uses.  
<sup>3</sup>BYM based on projected demand (i.e. groundwater production) of 2,230 AFY (LOBP Table 46).

Director Garfinkel: So, this table tells us at 90%, the metrics will go higher than our target of

80%? The other question I have is, we are still using the 17.5 inches as our average, which we have been using for a long time. Why aren't we taking into account the average of the full period?

Mr. Miller: When Cleath and the peer reviewers looked at this, they sought for a balanced hydrologic period. With drought areas as well as areas where there is enough rainfall. They selected the median rain fall amount. I would have to defer to them for more of a satisfying technical answer to that.

Director Garfinkel: I would like to know why they are choosing that and not updating it.

## BYM 80 Sensitivity to Reduced Precipitation

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**Table 5**  
**BYM 80 Sensitivity to Reduced Precipitation**

Infrastructure Program Combinations	Percent of Long-Term Precipitation <sup>1</sup>	BYM 80 (AFY)	Percent BYM 80
2016	100	2,210	100
	90	1,990	90
	80	1,780	80
	67	1,500	68
U+AC	100	2,400	100
	90	2,100	88
	80	1,830	76
	67	1,500	62

<sup>1</sup>17.5 inches average annual precipitation

## Pumping Distribution Summary

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- The Location of Pumping, both vertically and horizontally in the Basin, is an important aspect of any BYM.
- Model predicts 2016 increases in chlorides with continued westerly, lower aquifer pumping

	<p>Director Zimmer: So will the results of this study go into our 2016 Annual Report?</p> <p>Mr. Miller: I think it would be a good appendix to our Adaptive Management Plan, yes.</p> <p><u>Public Comment</u></p> <p>Mr. Edwards: It appears that our Basin is responsive to precipitation so that underscores the importance of the creek discharge that we're pursuing now, in times of drought or as a seasonal program for the summer. We're in essence mimicking nature, groundwater basins D &amp; E are recharged so I think again this data shows the importance of that project.</p> <p>Ms. Bell: We (Morro Bay National Estuary Program) helped support this effort and I wanted to thank Mr. Miller and the committee for spending time to get through the document with Cleath Harris. We find it helpful to look at the larger picture with precipitation, groundwater, the creek flow, and the water shed so hopefully in the future we can be a resource for that.</p> <p>Ms. Tornatzky: I had a question on page 6 of the report where it says "stream flow records are available for 19 years between 1976 and 2002." What happened after that? Is that something we should find more records for? Why did it happen and what happened next?</p> <p>Mr. Margeson: In the last ten years how many years have been above 17.5 and how many years have been below?</p> <p>Director Gibson: I don't think it's relevant since the modeling has been done over a sufficient period of time to account for drought periods.</p> <p>Director Ochylski: Well it's in the previous staff reports where we had the climate analysis. If anyone is interested in that we can bring it back next meeting.</p> <p>Mr. Miller: Lynette's comment was interesting, I know that stream gauge still provides some basic level data, but perhaps the primary device that totalizes the acre feet is no longer published, but we can bring that back. Cleath may have more information on that.</p> <p>Director Ochylski: This is basically a receive and file.</p> <p>Mr. Miller: Receive and file, yes.</p>
<p><b>7d. Water Conservation Program Update</b></p>	<p>Mr. Miller gave a brief update on the Water Conservation Program.</p> <p>Director Ochylski: The addendum that's going to the County, could you describe how that process works?</p> <p>Mr. Miller: So this is the addendum that we approved as a committee in November. It's our understanding that the County will be considering that, at a Board of Supervisors meeting to approve that addendum as an update to their Water Conservation Implementation Plan. It would then be forwarded for an executive director approval at the Coastal staff level. In April funding may be approved by the County, since they consider some rebates as having a nexus with the Wastewater Project, including indoor retrofits and possibly outdoor repurposing where related to recycled water.</p> <p>Director Ochylski: How does this dovetail with the Title 19 Retrofit Credits and is there overlap?</p> <p>Mr. Miller: These are two different sources of funding. For retrofits under the item that the County Board of Supervisors may consider in April, that's a public source of funding flowing</p>

	<p>through the Wastewater Project, in the Prohibition Zone only. The Title 19 funding is a private source of funding, developer funded.</p> <p>Director Gibson: Title 19 is outside the Prohibition Zone, because that Zone is fully retrofitted at an adequate level.</p> <p>Mr. Miller: For toilets and shower heads. They are allowing some retrofits in the Prohibition Zone for washer machines.</p> <p>Director Ochylski: There is an overlap between the Title 19 and the retrofit credits, and I want to make sure people are clear that you can't double count these so public funds aren't subsidizing a retrofit credit?</p> <p>Mr. Miller: Correct.</p> <p><u>Public Comment</u></p> <p>Ms. Owen: I think we could benefit from a conservation standpoint of water alarms. With these alarms, leaks don't go unnoticed for months at a time. Also, I do not see any advertising for any water credits or this opportunity to get a washer machine. One more question, where is the \$3 Million from 6 years ago that was supposed to be used for conservation?</p> <p>Mr. Edwards: I support any kind of rebate program as funds are available. From my perspective, there just isn't that much funding available at the County, State or Federal levels. If there isn't very much funding available to perpetuate a rebate program, how is conservation going to occur? I don't think it's probable that we'll receive more money. The only other opportunity is to modify the existing Title 19 Program. If this matter is going to the Board of Supervisors for consideration why wouldn't we ask the Board at the same time, to authorize an amendment to Title 19 to allow additional conservation driven by private sector funding? The retrofit opportunities outside of the Prohibition Zone have been exhausted and yet there's still a demand for retrofit credits by any number of parties. I ask the committee to encourage the Supervisor broaden the scope of the Boards consideration of this matter in April, to include authorizations of amendments to Title 19.</p> <p><u>BMC Comment</u></p> <p>None</p>
<p><b>8. PUBLIC COMMENTS ON ITEMS NOT APPEARING ON THE AGENDA</b></p>	<p>Ms. Owens: I would encourage more conservation. I'm frustrated at green lawns and expansive gardens outside of the Prohibition Zone. We're all in this together and should treat it as a serious situation.</p> <p><u>BMC Comment</u></p> <p>Director Zimmer: I think we have previously talked about having a community conservation subcommittee. I want to follow up and see if there is still an interest in that, and do we plan to pursue that? Was there any public inquiries after our last meeting?</p> <p>Mr. Miller: We certainly reflected on that as we prepared this agenda package. Once some funding is available to begin offering rebates, we know there's a list forming of people who are interested in rebates, even though they are not available today. And that list is growing. I believe there will be a lot of interest to serve on this committee. It is coming, but I think staff is waiting for funding first.</p> <p>Director Ochylski: Since I am not sure what our bylaws allow us to do in terms of committees, I would like to ask our legal counsels to bring that information to the next meeting.</p>

	<p>Director Garfinkel: Mr. Miller, you said you have had requests for rebates, what kind of rebates are those people looking for?</p> <p>Mr. Miller: Outdoor septic system repurposing.</p>
<b>9. ADJOURNMENT</b>	<p>Meeting was adjourned at 3:20 pm. The next meeting will be on May 17<sup>th</sup> at the South Bay Community Center in Los Osos at 1:30pm.</p>



**TO: Los Osos Basin Management Committee**

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

**DATE: May 17, 2017**

**SUBJECT: Item 5b – Approval of Budget Update and Invoice Register through April 30, 2017**

### **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 April 30, 2017 (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. The invoice from WSC covered work performed in 2016, but it was not received by staff until recently, and therefore has not yet been approved by the BMC.

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 2017 (updated through April 30, 2017)**

<b>Item</b>	<b>Description</b>	<b>Budget Amount</b>	<b>Costs Incurred Through December 31</b>	<b>Percent Incurred</b>	<b>Remaining Budget</b>
1	Monthly meeting administration, including preparation, staff notes, and attendance	\$50,000	\$12,475.68	25.0%	\$37,524
2	Meeting expenses - facility rent (if SBCC needed for larger venue)	\$1,000	\$120.00	12.0%	\$880
3	Meeting expenses - audio and video services	\$6,000	\$1,450.00	24.2%	\$4,550
4	Legal counsel (special counsel for funding measure)	\$10,000	\$0.00	0.0%	\$10,000
5	Semi annual seawater intrusion monitoring	\$15,000	\$10,879.26	40.3%	\$4,121
6	Annual report - not including Year 1 start up costs	\$35,000	\$13,600.00	38.9%	\$21,400
8	Grant writing (outside consultant)	\$12,000	\$1,102.50	9.2%	\$12,000
9	Creek Recharge and Replenishment Studies	\$25,000	\$837.20	3.3%	\$24,163
10	Funding measure including Proposition 218 process	\$100,000	\$0.00	0.0%	\$100,000
11	Conservation programs (not including member programs)	\$10,000	\$0.00	0.0%	\$10,000
	Subtotal	\$264,000			\$224,638
	10% Contingency	\$26,400			
	<b>Total</b>	<b>\$290,400</b>	<b>\$40,464.64</b>	<b>13.9%</b>	<b>\$249,935</b>
	LOCSD (38%)	\$110,352			
	GSWC (38%)	\$110,352			
	County of SLO (20%)	\$58,080			
	S&T Mutual (4%)	\$11,616			
Notes					

**Attachment 2: Invoice Register for Los Osos BMC for Calendar Year 2017(through April 30, 2017)**

<b>Vendor</b>	<b>Invoice No.</b>	<b>Amount</b>	<b>Month of Service</b>	<b>Description</b>	<b>Budget Item</b>	<b>Previously Approved</b>
Wallace Group	43235	\$6,056.77	Jan-17	BMC admin services	1	x
Wallace Group	43389	\$1,418.50	Feb-17	BMC admin services	1	
Wallace Group	43548	\$5,000.41	Mar-17	BMC admin services	1	
South Bay Comm. Center	105	\$120.00	Mar-17	Meeting Expenses-Facility Rent	2	
AGP	6849	\$675.00	Jan-17	Audio services	3	x
AGP	6912	\$775.00	Mar-17	Video/Audio	3	
State Water Resources	RW-1008149	\$837.20	Jan-17	Creek Discharge	9	x
Cleath Harris Geologists	20170302	\$3,196.25	Mar-17	Semi-Annual Seawater Intrusion Monitoring	5	
Cleath Harris Geologists	20170400	\$7,683.01	Apr-17	Semi-Annual Seawater Intrusion Monitoring	5	
Cleath Harris Geologists	20170401	\$8,387.50	Apr-17	Annual Report Preparations	6	
Cleath Harris Geologists	20170303	\$5,212.50	Mar-17	Annual Report Preparations	6	
WSC	2205	\$1,102.50	Aug - 16	Grant Writing	8	
<b>Total</b>		<b>\$40,464.64</b>				

**ATTACHMENT 3**

**Current Invoices Subject to Approval for Payment (Warrant List as of April 30, 2017):**

<b>Vendor</b>	<b>Invoice #</b>	<b>Date of Services</b>	<b>Amount of Invoice</b>
AGP	6912	March 2017	\$775.00
South Bay Comm. Center	105	March 2017	\$120.00
Wallace Group	43389	Feb. 2017	\$1,418.50
Wallace Group	43548	March 2017	\$5,000.41
Cleath Harris Geologists	20170302	March 2017	\$3,196.25
Cleath Harris Geologists	20170400	March 2017	\$7,683.01
Cleath Harris Geologists	20170401	March 2017	\$8,387.50
Cleath Harris Geologists	20170303	March 2017	\$5,212.50
WSC	2055	August 2016	\$1,102.50

**TO: Los Osos Basin Management Committee**

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

**DATE: May 11, 2017**

**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

Similar to the March 2017 update, staff continues to await confirmation from the State Water Resources Control Board regarding the Proposition 1 pre-application. We have also engaged WSC to review a potential scope of work for grant pursuit activities in 2017.

#### Status of Zone of Benefit Analysis

Similar to the March 2017 update, no special tax measure is being pursued by staff to fund BMC administrative or capital costs, though some funding has been set aside in the 2017 BMC budget to advance a funding measure if needed. Discussions are ongoing with SLO County Public Works staff to review other funding alternatives for the County’s share of administration. Staff’s current approach to capital projects under the Basin Plan Infrastructure Program is to advance the needed projects through the property acquisition, environmental review, and Coastal Development Permit phases. These efforts are currently being funded by the LOCSD for the remaining two Program C wells. The LOCSD Board recently approved a rate study and noticed a public hearing for June 15, 2017 pursuant to Proposition 218. The proposed rates are intended to raise adequate capital to advance all District obligations under the Basin Plan, including the implementation of a Program C well.

#### Sustainable Groundwater Management Act (SGMA) Compliance and Pending Deadlines

The Plan Area defined in the Basin Plan and adopted by the Court is not subject to the requirements of SGMA, including the pending deadline to form a Sustainable Groundwater Management Agency by June 30, 2017. However, given that DWR did not approve the basin boundary modification in 2016, the fringe areas between the defined Plan Area in the Basin Plan and the DWR Bulletin 118 boundary are subject to SGMA. On April 4, 2017, the County Board of Supervisors adopted a resolution to form a GSA pursuant to California Water Code Section 10723 et seq., over the non-adjudicated portions of the Los Osos Valley Groundwater Basin. In the upcoming months, the County plans to work with landowners in the fringe areas to

develop an advisory committee. The County is in the process of selecting a consultant to conduct a basin characterization study for the basin fringe areas, in preparation for submitting a basin boundary modification request to DWR in early 2018 if found appropriate. It is anticipated that the study will begin in June 2017.

#### Recent Court Decision Regarding Hexavalent Chromium

As indicated in the 2015 Annual Report, hexavalent chromium is present in both the upper and lower aquifer. In 2014, the State adopted a Maximum Contaminant Level (MCL) of 10 parts per billion (ppb). This new requirement was substantially lower than the then existing 50 ppb total chromium requirement, and extensive comments were made during the MCL establishment process. The LOCSD was unable to pump its 3<sup>rd</sup> Street upper aquifer well due to a hex chrome violation where the concentration averaged 11 ppb, just over the new MCL. The new LOCSD 8<sup>th</sup> Street upper aquifer well will also require blending due to hex chrome, with a current level of 15 ppb.

On May 5, 2017, the Superior Court of Sacramento set aside the State's MCL and ordered the State to conduct a more thorough economic feasibility study regarding the cost impacts of treatment. If Committee members are interested in more information, the ruling reference is as follows: California Manufacturers and Technology Association, et al versus State Water Resources Control Board, Case No. 34-2014-80001850.

#### Los Osos Wastewater Project Flow and Connection Update

Staff plans to provide periodic updates on the status of connections and flows from the LOWWP. The following is an update on the status:

- As of 5/4/17, 87% of the lateral connections have been completed, or approximately 3,650 out of 4,200 laterals.
- Flows are averaging approximately 450,000 gallons per day, with weekend peaks of 470,000 gallons per day
- Effluent has been discharged to the Broderson percolation site since August 10th. It is filtered and disinfected, which meets the WDR requirements of 7mg/L total nitrogen. The County has completed the process verification procedure with SWB Division of Drinking Water, and the effluent has been deemed Title 22 disinfected tertiary recycled water.
- The County released a groundwater monitoring report in December, 2016, which includes wells downgradient from Broderson. The anticipated groundwater mound has not yet been detected in these wells.

**TO: Los Osos Basin Management Committee**

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

**DATE: May 11, 2017**

**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.

Project Name	Parties Involved	Funding Status	Capital Cost	Status
<b>Program A</b>				
Water Systems Interconnection	LOCSD/ GSWC	Fully Funded	Construction Value: \$103,550	Project completed February 2017, with final approval in March 2017
Upper Aquifer Well (8 <sup>th</sup> 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 should be retained by June 2017. Project to be completed by June 2018 or earlier if possible.
South Bay Well Nitrate Removal	LOCSD	Completed		
Palisades Well Modifications	LOCSD	Completed		
Blending Project (Skyline Well)	GSWC	Fully Funded	Previously funded through rate case	Blending of Skyline Well and Rosina Well Project was completed. Project required modifications to include a new nitrate removal unit. Permits and equipment secured. Delivery of the treatment unit is estimated for the beginning of July. Assuming 4 weeks for installation, start-up is anticipated in August 2017.
Water Meters	S&T	Completed		
<b>Program B</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.
<b>Program C</b>				
Expansion Well No. 1 (Los Olivos)	GSWC	Fully Funded	Previously funded through rate case	Well has been drilled and cased. GSWC is in the equipping phase. Well can be used, if needed, using on-site generator. Formal startup of the well with permanent equipment is anticipated in June 2017.
Expansion Well No. 2	GSWC	Pending	BMP:	Property acquisition phase is on-going through



		Funding Vote	\$2.0 mil	efforts of LOCS D. Two sites are currently being reviewed, and both appear to be viable for new east side lower aquifer wells, Environmental studies initiated in December 2016 for expansion well #2.
<b>Project Name</b>	<b>Parties Involved</b>	<b>Funding Status</b>	<b>Capital Cost</b>	<b>Status</b>
Expansion Well 3 and LOVR Water Main Upgrade	GSWC	Pending Funding Vote	BMP: \$1.6 mil	Property acquisition phase is on-going through efforts of LOCS D. Two sites are currently being reviewed, and both appear to be viable for new east side lower aquifer wells.
LOVR Water Main Upgrade	GSWC	Pending Funding Vote	BMP: \$1.53 mil	Project not initiated
S&T/GSWC Interconnection	S&T/ GSWC	Pending	BMP: \$30,000	Conceptual design
<b>Program M</b>				
New Zone D/E lower aquifer monitoring well in Cuesta by the Sea	All Parties	Not funded	\$100,000	Pending funding plan

**TO: Los Osos Basin Management Committee**

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

**DATE: March 11, 2017**

**SUBJECT: Item 7B – Update and Discussion of the Los Osos Community Plan**

**Recommendations**

Review and approve draft letter to the Coastal Commission.

**Discussion**

The County of San Luis Obispo Planning and Building Department is updating the Los Osos Community Plan. In March 2017, the BMC reviewed a draft letter provided by staff and requested the opportunity to make detailed edits. Edits have been received from Directors Garinkel and Gibson, and they are presented on the attached redline version. Staff plans to have a working version available electronically so that final changes can be made during the meeting.

Draft language for BMC letter to SLO Co. Department of Planning and Building, and California Coastal Commission

[How about an intro paragraph?]

The Los Osos Basin Management Committee (LOBMC) understands that the update to the Los Osos Community Plan (part of the County's Local Coastal Program) is proceeding toward hearings before the County Planning Commission and Board of Supervisors. We write to provide you information regarding LOBMC efforts to implement actions that will create a sustainable water supply for the community. We realize that a clear and accurate description of the community's groundwater resources is fundamental to the land use planning process.

In January 2015, the Los Osos ~~Water-water Purveyors-purveyors~~ and the County of San Luis Obispo released the Updated Basin Plan for the Los Osos Groundwater Basin (Basin Plan), detailing a series of strategies, plans and projects to manage and protect groundwater water resources in the basin. The Basin Plan is the conclusion of a multi-year planning process that first began in 2008 following the initiation of the basin adjudication.

The updated Basin Plan establishes goals, timeframes, milestones, and metrics to address basin management. The Los Osos Community Services District, Golden State Water Company and S&T Mutual Water Company, as well as the County of San Luis Obispo worked together to develop the immediate and continuing goals, and to create a framework that defines the fiscal and management authority to finance and implement the Basin Plan projects. Both the Basin Plan and the cooperative authority described in the plan were approved by the Superior Court in October, 2015. The area covered under the adjudication is termed the Plan Area in the Basin Plan (see Basin Plan Figure 10), and it fully encompasses the Urban Reserve Line.

The primary goals of the Basin Plan include halting seawater intrusion into the basin and providing sustainable water supplies for existing and future needs. Strategies outlined include:

- Implement conservation measures to minimize basin demand
- Shift pumping away from the coast and lower aquifer to halt seawater intrusion and maximize basin yield
- Beneficially use recycled water to minimize seawater intrusion
- Reserve 20 percent of basin safe yield to create a buffer to proactively protect the basin

In September 2014, California ~~State~~-Governor Jerry Brown signed the Sustainable Groundwater Management Act (SGMA), groundwater management legislation ~~to that~~ strengthens local management and monitoring of groundwater basins, ~~called the Sustainable Groundwater Management Act (SGMA)~~. Since the Los Osos Groundwater Basin is adjudicated, it was specifically excluded from the requirements of SGMA in the final version of the legislation. However, the Basin Plan is compliant with the substantive requirements of SGMA, and shares common goals for basin monitoring, management, and sustainability.

### **Basin Management Committee Activities**

Pursuant to the court-approved Stipulated Judgment approved in October, 2015, the water purveyors and the County of San Luis Obispo formed a Basin Management Committee (BMC) in December, 2015. In September 2016, the BMC released its first Annual Report documenting the monitoring performed and Basin Plan progress made in 2015. The 2015 Annual Report includes:

- 2015 Groundwater Production
- The status of the basin based on the metrics set in the Basin Plan
- Framework for an Adaptive Management Plan
- Update on the basin infrastructure programs identified in the Basin Plan

The BMC meets regularly to discuss progress, establish upcoming priorities, and evaluate adaptive management measures. In November, 2016, the BMC updated the current and future water projections based on current production data. A copy of the staff note is attached for reference, but the key conclusions are summarized as follows:

- The Basin Plan projected a build-out purveyor water demand of 2,100 acre feet per year (AFY)
- Based on implemented water efficiency measures and community use patterns, the current range of estimated water demands is now revised to 1,100 to 1,500 AFY, depending on the future per capita demand and total population.

### **Status of Basin Infrastructure Program**

The Basin Plan provides 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 and~~, 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 m~~Maximize 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 are designed to 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. The following Table provides an overview of the status, as of March 2017, of the Projects that are currently moving forward or have been completed. Programs A and C are currently

intended to balance the basin with the current population, and Programs B and D are generally intended for future development.

### **Basin Management Committee Recommendations**

**Future development within the Los Osos basin should be incremental and only occur after:**

- 1. meeting the Basin Plan's immediate goals as listed above**
- 2. sustainable water supplies are identified to support growth**

The BMC is available to provide periodic input and updates concerning groundwater basin conditions and project status. The 2016 Annual Report is expected to be released by June, 2017. Please let us know if you have any questions, or if you need more information.

Project Name	Parties Involved	Funding Status	Capital Cost	Status
<b>Program A</b>				
Water Systems Interconnection	LOCSD/ GSWC	Fully Funded	Construction Value: \$103,550	Project completed February 2017, with final approval in March 2017
Upper Aquifer Well (8 <sup>th</sup> Street)	LOCSD	Fully Funded	\$250,000	Well was drilled and cased in December 2016. Budget remaining \$250,000 to equip the well. Project to be completed by June 2018
South Bay Well Nitrate Removal	LOCSD			Completed
Palisades Well Modifications	LOCSD			Completed
Blending Project (Skyline Well)	GSWC	Fully Funded		Blending of Skyline Well and Rosina Well Project was completed. Project needed modifications to include a new nitrate removal unit. Construction is expected to commence in Spring, 2017.
Water Meters	S&T			Completed
<b>Program B</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	Not Funded	Pending further review	GSWC's Program A project allows for incremental expansion of the nitrate facility and can be considered a first phase in Program B.
<b>Program C</b>				
Expansion Well No. 1 (Los Olivos)	GSWC	Fully Funded	Pending Completion	Well has been drilled and cased. GSWC is in the equipping phase. Well can be used, if needed, using on-site generator.
Expansion Wells No. 2	GSWC	Pending Funding Vote	BMP: \$2.0 mil	Property acquisition phase is on-going through efforts of LOCSD. Two sites are currently being reviewed, and both appear to be viable for new east side lower aquifer wells, Environmental studies initiated in December 2016 for expansion well #2.
<b>Project Name</b>	<b>Parties</b>	<b>Funding</b>	<b>Capital Cost</b>	<b>Status</b>

	<b>Involved</b>	<b>Status</b>		
Expansion Wells 3 and LOVR Water Main Upgrade	GSWC	Pending Funding Vote	BMP: \$1.6 mil	Property acquisition phase is on-going through efforts of LOCSA. Two sites are currently being reviewed, and both appear to be viable for new east side lower aquifer wells.
LOVR Water Main Upgrade	GSWC	Pending Funding Vote	BMP: \$1.53 mil	Project not initiated
S&T/GSWC Interconnection	S&T/ GSWC	Pending	BMP: \$30,000	Conceptual design

**TO: Los Osos Basin Management Committee**

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

**DATE: May 11, 2017**

**SUBJECT: Item 7c. Review and Discussion of Spring 2017 Monitoring Data**

**Recommendations**

Receive report and provide input to staff for future action.

**Discussion**

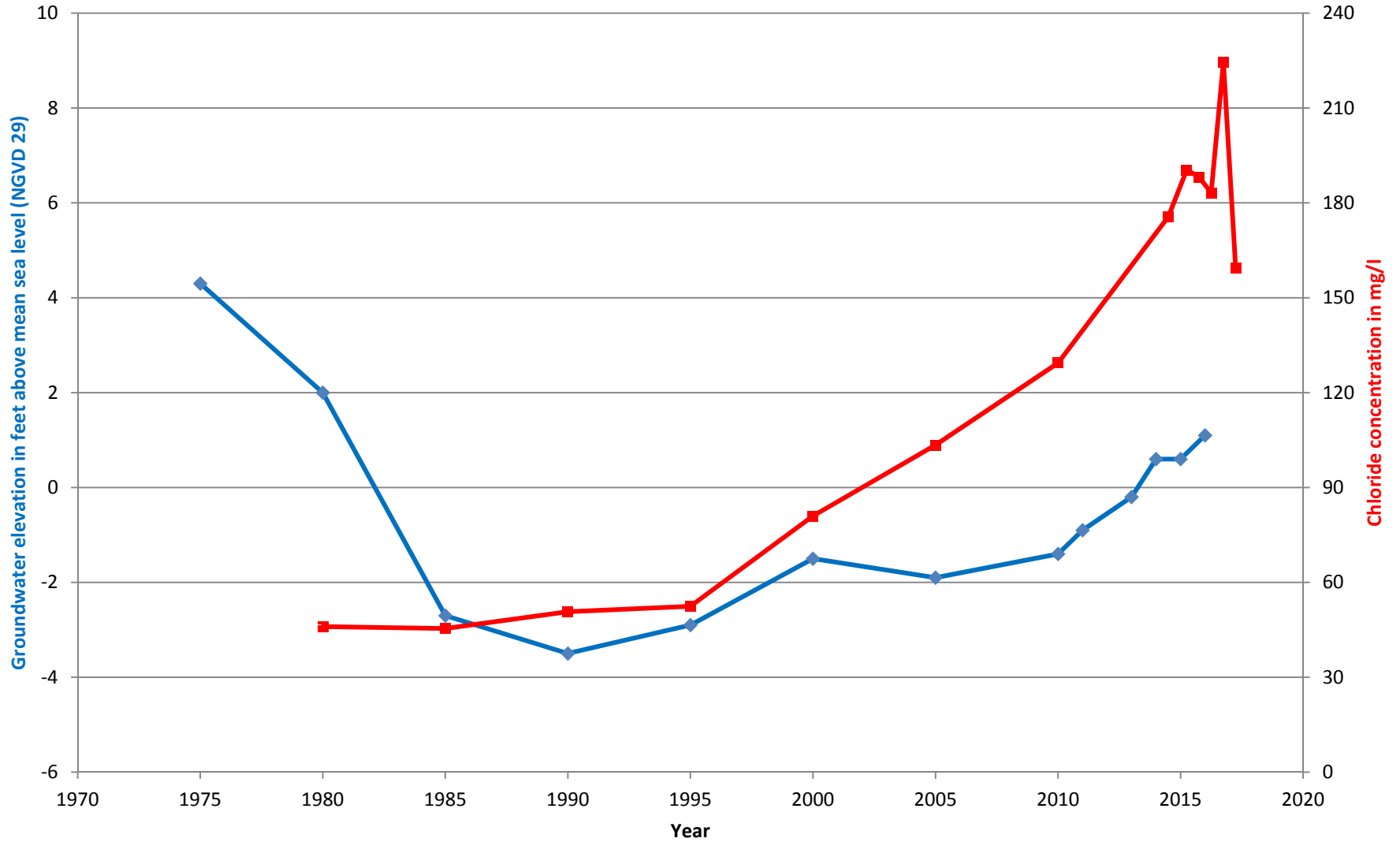
The BMC monitors basin conditions within the lower aquifer in October and April of each year. Data regarding both water levels and water quality was collected in April 2017, and the results are attached. The positive data obtained in this sampling event followed an exceptional rainfall year, where approximately 27 inches of rainfall accumulated at the Los Osos landfill gauge, which is 50% more than the average amount. Staff would like to remind the Committee and public that conclusions on the status of seawater intrusion should not be drawn from a single monitoring event. In general, the October monitoring event provides a reasonable worst case for water quality each year.



**Table 19. 2017 Chloride Metric**

<b>Metric Well</b>	<b>Spring 2017 Chloride Concentrations</b>	<b>Fall 2017 Chloride Concentrations</b>
LA8	77 mg/L	
LA10	231 mg/l (double counted for average)	
LA11	167 mg/L	
LA12	91 mg/L	
<b>Chloride Metric (weighted average)</b>	<b>159 mg/L</b>	

# Chloride and Water Level Metric Lower Aquifer



◆ Key well spring water level composite    ■ Key well average chloride composite

**Table**  
**Water Quality Results - Lower Aquifer Monitoring**

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
30S/10E-12J1	MBO5 DWR Obs.	LA11	E	2/14/2005	350	370	1300	8.1	840	77	ND	190	51	58	6.1	110
				11/20/2009	300	360	1150	7.5	732	83	ND	190	51	58	4.4	95
				7/24/2014	360	489	1290	7.7	780	105	ND	212	69	77	5	88
				4/22/2015	360	475	1290	7.8	810	112	ND	189	65	76	5	88
				10/1/2015	250	486	1280	7.3	840	117	ND	188	68	77	4	85
				4/20/2016	330	524	1370	n/a	840	151	ND	193	73	40	5	83
				10/10/2016	350	497	1370	7.1	930	173	ND	189	69	79	4	81
4/11/2017	350	541	1380	7.5	880	167	ND	186	75	86	4	81				
30S/10E-13J1*	GSWC Rosina	LA10	D	12/20/2004	72	230	720	7.1	410	150	7	14	38	33	1.4	29
				1/14/2010	35	260	778	6	435	200	7.1	13	41	38	1.5	33
				7/24/2014	80	418	1200	7.3	910	303	7.6	16	67	61	2	39
				4/22/2015	80	431	1230	7.1	750	331	8.3	20	69	63	2	39
				10/5/2015	70	460	1280	7	950	329	7.3	19	74	67	2	41
				4/26/2016	80	412	1170	7.1	840	299	8	18	66	60	2	37
				10/12/2016	60	509	1430	6.8	1100	389	8	26.7	82	74	2	44
4/10/2017	80	327	957	6.9	720	231	11.7	14.7	52	48	2	35				
30S/10E-13M2	Howard East	none	C,D	11/22/2004	51	810	2900	7.3	1500	810	2.4	140	60	120	4.7	210
				12/9/2009	55	1100	3740	7.1	2170	1100	2.2	220	160	160	4.8	370
				8/4/2014	60	757	3340	7.1	2450	990	2.5	178	117	113	5	382
				4/21/2015	60	739	3430	7.3	1930	950	2.5	178	117	113	5	382
				10/6/2015	30	756	3370	7.1	2140	960	2.4	185	115	114	5	342
				4/20/2016	50	726	3520	7.2	2190	941	3.1	179	113	108	5	400
				10/19/2016	70	722	3420	7.4	2190	943	2.8	182	113	107	4	398
4/17/2017	60	733	3380	6.8	2060	907	2.6	178	114	109	4	413				
30S/10E-13N	S&T #5	LA8	D	11/23/2004	42	80	390	6.9	200	67	26	9.2	13	12	1.7	38
				11/19/2009	41	89	386	6.8	267	73	27	11	15	13	1.4	38
				7/24/2014	50	100	438	7.4	270	76	31	10	17	14	2	38
				4/21/2015	50	98	445	6.9	280	77	33.9	11	16	14	2	38
				10/6/2015	40	98	422	7.2	310	75	30	10	16	14	1	38
				4/20/2016	20	97.5	446	7	320	76	32	12	16	14	1	38
				10/13/2016	50	104	470	8	320	79	31.9	12	17	15	1	40
4/11/2017	50	100	434	7.4	270	77	32.4	12.4	17	14	1	38				

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
30S/10E-24C1	GSWC Cabrillo	LA9	D	12/20/2004	64	130	610	7	310	110	20	19	22	19	1.6	50
				11/20/2009	60	150	611	7.1	347	130	18	22	23	22	1.6	52
				7/24/2014	40	69	339	7.6	240	46	37	6	11	10	1	32
				4/22/2015	70	117	530	7.3	320	95	24.2	16	19	17	2	45
				10/5/2015	50	75	349	7.6	270	50	33.4	7	12	11	1	34
				4/26/2016	70	115	499	7	300	90	24.6	16	18	17	2	44
				10/12/2016	70	111	506	7.1	320	93	24.4	15.1	18	16	1	44
4/10/2017	70	111	490	7	310	89	25.1	15.9	18	16	1	43				
30S/11E-7Q3	LOCSD 8th St.	LA12	D	11/18/2004	250	270	790	7.5	410	73	ND	39	44	40	2.3	48
				11/19/2009	220	290	782	7.4	465	92	ND	46	46	42	1.9	53
				7/23/2014	290	303	876	7.6	460	91	ND	43	49	44	2	54
				4/21/2015	290	305	897	7.7	500	101	ND	55	48	45	2	59
				10/6/2015	280	298	828	7.4	490	91	ND	46	47	44	2	55
				4/20/2016	190	307	907	7.7	520	91	ND	49	49	45	2	54
				10/11/2016	280	278	827	4.9	490	93	ND	46.2	44	41	2	52
4/10/2017	300	294	839	7.3	480	91	ND	49.5	47	43	2	54				
30S/11E-17E8	So. Bay Obs. Middle	LA22	D	1/14/2005	150	150	440	7.5	290	34	9.7	11	24	22	1.4	28
				11/20/2009	120	160	455	7.3	255	42	19	12	25	23	1.3	29
				7/23/2014	150	166	500	7.6	270	43	28	10	27	24	2	28
				4/21/2015	150	157	481	7.6	270	49	31.4	13	25	23	1	28
				10/1/2015	120	164	475	7.4	290	44	29.2	10	26	24	1	28
				4/19/2016	150	164	476	6.9	290	45	30.5	12	26	24	1	29
				10/13/2016	140	161	521	7.3	290	46	30.6	11.9	25	24	1	29
4/13/2017	150	164	466	7.3	300	46	29.7	13.2	26	24	1	29				
30S/11E-17N10	GSWC So. Bay #1	LA20	C,D,E	Jan 2003	250	--	510	7.1	290	37	ND	21	41	25	1.3	35
				11/20/2009	230	220	638	7.3	357	41	2.4	30	35	33	1.7	37
				7/24/2014	280	232	646	7.7	370	37	2.3	24	37	34	2	41
				4/22/2015	290	234	653	7.4	360	43	2.5	27	36	35	2	42
				10/5/2015	280	227	614	7.2	370	38	2.4	23	35	34	2	41
				4/26/2016	230	227	629	7.1	360	39	2.6	27	35	34	2	40
				10/12/2016	290	221	631	7	370	40	2.5	25.2	34	33	2	40
4/10/2017	280	227	624	7.2	380	39	2.7	26.7	35	34	2	40				

Station ID	Well Name	Basin Plan Well ID	Aquifer Zone	Date	HCO3	Total Hardness	Cond	pH	TDS	Cl	NO3	SO4	Ca	Mg	K	Na
					mg/l	mg/l	umhos/cm		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
30S/11E-18K8	10th St. Obs. East (Deep)	LA18	E	1/19/2005	260	290	650	7.5	370	33	ND	38	62	33	2.5	28
				11/20/2009	230	220	620	7.5	378	32	ND	40	51	24	1.8	23
				7/24/2014	290	271	647	7.5	380	28	ND	34	56	32	2	27
				4/21/2015	290	265	634	7.7	400	33	ND	39	55	31	2	27
				10/19/2015	230	256	621	7.3	370	29	ND	33	53	30	2	26
				4/20/2016	190	265	700	7.5	390	31	ND	38	55	31	2	26
				10/18/2016	290	256	615	6.8	370	31	ND	35.9	53	30	2	26
4/12/2017	290	274	616	7.5	450	31	ND	38	57	32	2	27				
30S/11E-18K9	LOCS D 10th St.	LA32	C,D	May 2002	250	--	550	6.9	320	37	1	26	31	32	--	39
				11/20/2009	180	160	539	7.2	307	36	4.6	27	27	24	1.3	32
				7/23/2014	220	190	546	7.7	300	32	4.3	20	30	28	1	35
				4/21/2015	190	108	504	7.6	270	38	7	20	17	16	1	
				10/6/2015	50	62	248	7.2	190	31	26.2	3	10	9	ND	21
				4/20/2016	130	121	382	7.5	220	32	14.6	12	19	18	1	27
				10/11/2016	200	168	511	6.6	270	36	5.3	21.5	26	25	1	34
4/10/2017	190	155	461	7.3	270	35	8.4	19.1	24	23	1	31				
30S/11E-18L2***	LOCS D Palisades	LA15	D,E	11/18/2004	220	330	880	7.3	420	120	ND	31	54	48	2.2	40
			D,E	11/19/2009	200	590	1460	7.2	890	360	1.8	39	94	86	2	44
			D	7/23/2014	250	293	783	7.8	390	90	1.8	26	48	42	2	40
			D	4/29/2015	80	78	348	7.4	230	43	22	10	13	11	ND	30
			D	10/28/2015	230	288	782	7.4	420	104	2.8	29	46	42	ND	36
			D	4/27/2016	230	264	796	7.3	450	93	4.1	28	43	38	2	43
			D	10/11/2016	200	221	694	7	380	91	7.3	25.5	36	32	1	35
			D	April 2017	temporarily out of service											

ND = Not Detected

Chloride Metric Wells in Green (13J4 weighted x2); current chloride concentrations in red

\*Chloride concentrations at 13J1 have varied seasonally by 100+ mg/l, and are affected by well production, so fluctuations are expected.

\*\*\*Water from 18L2 affected by borehole leakage/upper aquifer influence when inactive

**Table 2 Legend and Detection Limits**

Constituent	Description	Practical Quantitation Limit*
HCO <sub>3</sub>	Bicarbonate Alkalinity in mg/L CaCO <sub>3</sub>	10.0
Total Hardness	Total Hardness in mg/L CaCO <sub>3</sub>	--
Cond	Electrical Conductance in µmhos/cm	1.0
pH	pH in pH units	--
TDS	Total Dissolved Solids in mg/L	20.0
Cl	Chloride concentration in mg/L	1.0
NO <sub>3</sub>	Nitrate concentration in mg/L	0.5
SO <sub>4</sub>	Sulfate concentration in mg/L	2.0
Ca	Calcium concentration in mg/L	1.0
Mg	Magnesium concentration in mg/L	1.0
K	Potassium concentration in mg/L	1.0
Na	Sodium concentration in mg/L	1.0

\*where dilution not required

**TO: Los Osos Basin Management Committee**

**FROM: Catherine Martin, SLO County Public Works Water Resources Engineer**

**DATE: May 11, 2017**

**SUBJECT: Item 7d: Presentation on the Los Osos Basin Salt and Nutrient Management Plan**

**Recommendations**

Receive a presentation from County Public Works Staff on the Los Osos Basin Salt and Nutrient Management Plan (SNMP).

**Discussion**

In February 2009, the State Water Resources Control Board (SWRCB) adopted Resolution No. 2009-011, which established a statewide Recycled Water Policy (Policy). The Policy requires the development of a Salt and Nutrient Management Plan (SNMP) for the Los Osos Groundwater Basin, as it relates to the Los Osos Wastewater Project's Recycled Water Permit. The objective of the SNMP is to manage salts/nutrients in a manner that ensures attainment of water quality objectives and protection of beneficial uses.

County Staff's presentation will summarize the SNMP for the Committee and public, and overview the process and timing for stakeholders to provide input. Comments should be submitted via email to Catherine Martin at [cmmartin@co.slo.ca.us](mailto:cmmartin@co.slo.ca.us) (*to assist staff, please use Subject: "SNMP Comment"*).

The draft SNMP was prepared pursuant to the State's Recycled Water Policy and subsequent discussions with the Central Coast Regional Water Quality Control Board (CCRWQCB) staff. After the SNMP is finalized, it will go through necessary processes for submittal to the CCRWQCB.

**TO: Los Osos Basin Management Committee**

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

**DATE: May 11, 2017**

**SUBJECT: Item 7e – 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](http://slocountywater.org/site/Water%20Resources/LosOsos/pdf/WCIP_Addendum%201_rev.pdf)

County staff is processing an item for the Board of Supervisor's Consent Agenda for late June 2017 to modify the Los Osos Wastewater Project's Water Conservation Rebate Program to incorporate the BMC's recommendations and to establish rebates as an ongoing element of the Program.

The additional conservation measures recommended for adoption by the Board of Supervisors are shown in the attachment. 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 because there is no clear nexus between the wastewater project and the reduction of outdoor irrigation using potable water supplies.

The staff recommendation also includes an element not identified by the BMC, the provision of rebates to offset the costs of converting outdoor irrigation to recycled water at commercial and institutional sites, that is, converting turf irrigation at schools, the community park, and the golf course to recycled water. Providing rebates for converting to recycled water irrigation at residential locations is not included at this time because it is currently precluded by State regulation. If State regulations are modified in the is regard, the issue will be revisited. Because of the variability between sites for accomplishing the conversion, no specific amount is identified. Rebates, that is, project paid costs, would be negotiated as part of the required recycled water agreements. A nexus between this measure and the wastewater project exists because, from the perspective of the wastewater project, irrigation with recycled water is a necessary part of the treated water disposal element of the project.



If the Board of Supervisors makes changes to the Water Conservation Implementation Plan, those changes will be submitted to the Executive Director of the California Coastal Commission for review and approval pursuant to the Coastal Development Permit for the Los Osos Wastewater Project. The changes would become effective upon the Executive Director's approval.

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, the BMC may wish to recommend to the County inclusion of measures from the Addendum to the Water Conservation Implementation Plan within an updated version of Title 19.

Water Conservation Implementation Plan, Los Osos Wastewater Project Proposed Rebate Program changes in <i>blue italic</i> text			
Measures Required for Connection to the Wastewater System			
<i>Fixture or Appliance</i>	<i>Existing Fixture Flow Rate</i>	<i>New Fixture Flow Rate Eligible for Rebate</i>	<i>Rebates</i>
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	<del>1.0</del> 1.28 gpf or less	\$250
Washers Residential & Commercial	Less than Tier 3, Water Factor 4	Tier 3, Water Factor 4 or Less	<del>\$150</del> \$450 (1)
<i>Hot Water Recirc System Residential &amp; Commercial</i>	<i>N/A</i>	<i>N/A</i>	<i>\$350</i>
<i>Showerheads Residential &amp; Commercial</i>	<i>1.5 gpm or more</i>	<i>Less than 1.5 gpm</i>	<i>\$40</i>
<i>Complete Gray Water System</i>	<i>N/A</i>	<i>N/A</i>	<i>\$500</i>
<i>Laundry only Gray Water System</i>	<i>N/A</i>	<i>N/A</i>	<i>\$50</i>
<i>Recycled Water Irrigation Commercial &amp; Institutional</i>	<i>N/A</i>	<i>N/A</i>	<i>negotiated</i>
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 rebated or prior purchased appliances.