

# 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, January 18, 2017** at the Los Osos Community Services District Office at 2122 9<sup>th</sup> Street, 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 However, any Director may request that any item be withdrawn from the Consent Agenda and moved to the "Action Items" portion of the Agenda to permit discussion or to change the recommended course of action.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 November 16, 2016 Meeting.**
- b. **Approval of Warrants, Budget Update and Invoice Register through December, 2016.**

### 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. **Adoption of Basin Management Committee Annual Budget**

Recommendation: Adopt an annual budget for the Basin Management Committee for calendar year 2017.

- c. **Update and Discussion of Los Osos Community Plan**

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

**d. 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**



Q: Director Garfinkel: Mr. Miller in the written report that you sent, you said they were looking for reduced chloride measurements in the wells. Is that possible to do in the near term?

A: Mr. Miller: Not in the near term, our chloride metric is based on the Rosina Well on the west side. The well has a double weight in the metric. If we establish the front where the figure in the Basin Plan (chapter 7) shows it, the front will be pushed back out to the west near the urban fringe. We will then be able to sample the Rosina Well and other westerly wells and see a decrease in chlorides.

Director Garfinkel: For discharge, there is a problem with the County Waste Water Project getting a permit to discharge effluent onto the golf course. I would like to understand that, since there is a connection, what is the problem with the permitting?

Mr. Miller: This has to do with the timing of the salt and nutrient management plan going beyond the urban reuse that's already programmed. They need that plan to be completed before they can do an application of recycled water to agriculture and to the golf course. There was an outline of this at the last meeting. It will come back forward when the County has it ready.

Director Garfinkel: Is it important to have the boundary as it was in the Basin Management Plan. Are we willing to spend money to go further to get evidence on where that boundary is on the western edge?

Director Gibson: The County had already organized a meeting with the people who live on the eastern fringe. What we have to do between now and 2018 is additional studies to document and show that the boundary assertion is true.

Director Ochylski: Agrees with Gibson's response, the studies will work for now to make the best effort. If it does not work it would need to be dealt with in a different fashion at that time.

Director Zimmer: Agrees as well.

Director Zimmer: So, is the entire amount of the effluent 300,000 gallons per day going out to Broderson, or to a holding pond first?

Director Gibson: There is water in the holding ponds not sure of split of flow. Broderson is performing as was intended.

Director Zimmer: As for the timing for Title 22 determination, when we will receive confirmation?

Director Gibson: No timeline for final certification.

Director Ochylski: Repurposing is important, are we still running at 22%?

Mr. Miller: Mid-twenties, and around 25%.

Mark Zimmer: One objective of The Community Plan is to provide a response from the BMC on the plan. What is the date or time commitment?

Mr. Miller: It is going to Planning Commission in April. Input is recommended early next year.

Director Zimmer: Are there additional studies?

Mr. Miller: Climate change is the only formal study.

Director Zimmer: Concerning the Basin Plan Implementation Nitrate Removal System, can we still provide a pre-application? Have we missed any deadlines to make that happen?

Mr. Miller: Upper aquifer elements were in our pre-application from Program A, and a supplemental application can be submitted.

Director Zimmer: What is shovel ready? How far should we be in the plan?

Mr. Miller: Approximately 30% design with environmental documentation and Coastal Development Permit ready.

Director Zimmer: Can it be a phased project community nitrate removal approach?

Mr. Miller: As long as each phase provides measurable benefit.

#### Public Comment

Mr. Wimer: If Proposition 1 application includes several projects, could we look at runoff going to estuary as recycled water? In regards to the Creek discharge, the Sustainability Group's recommendation is to only go that direction if you can verify that beyond a doubt that it would substantially increase the volume extractable from new wells. Recycled water is essentially wasted unless you can verify its going where you want. How does obtaining verification of the Basin Boundary Modification impact management of the basin? Will there be a climate metric added to the recommendation? Seawater intrusion monitoring - hoping that the committee looks at overall water level and storage of the basin. This should be an indicator of health of the basin. Is reduced pumping along the coast sufficient to stop seawater intrusion or do we have to bring up the water levels?

Ms. Owen: How many years at current use under drought conditions is there water supply in lower basin as well as the upper basin? County is issuing remodel permits to add bedrooms that are adding water use using potentially 50 gallons more per day. Will recycled water be approved on statewide basis for home deliveries? Do we have any new farms signed on for getting that water? Will flows get up to 500,000 gallons a day? Did a recent septic pumper dump illegally into a sewer?

Mr. Edwards: It is critically important to match projects under the basin plan with funding sources. There are some costs under Program C that account for \$6.5 million. Could be hard to get grant funding for them, should look into some self-funding. Creek discharge is important to fight seawater intrusion in Zones D & E, and it has a lower basin priority discharge equal or higher to Broderon. Basin boundary modification was expensive and requests committee to spend no more money on it.

#### Response from the BMC

Mr. Miller: In response to Mr. Wimer we are looking at sources of urban runoff with the intent of reducing salt loading. The Climate metric will be brought back to the



**7c. Water Conservation Program Update**

Director Zimmer: This was prepared for the Los Osos Community Plan, and we are also looking at the redevelopment criteria in a matrix. Will the build out projections be incorporated into the matrix?

Mr. Miller: They are related but can be considered separately.

Mr. Miller: Provided overview of Water Conservation Program update.

Director Ochylski: Added committee received a four-page letter from the Sustainability Group.

BMC Comments

Director Garfinkel: Put in his recirculation system in his house for less than \$200, which is less than the proposed \$300 rebate. The problem with outdoor repurpose rebate, do you just get the \$500 or do you have show proof of using the water? Some people have repurposed their tank and there's no access to the septic tank. Also, there should be an incentive to go xeriscape or low impact landscape.

Director Gibson: With the septic tank repurposing, roof water in septic needs to be accessible and used. They will need to be able to access the water with a pumping system. Xeriscape is complex to monitor. With the high efficiency clothes washer, we need to make sure the cost is correct per acre foot saved.

Director Zimmer: Wondering where the \$400,000 grant funding is coming from?

Mr. Miller: Don't have it yet. The DWR grant dollars from the Wastewater Project for the Implementation Plan, which must be amended through the Coastal Commission, are not yet secured.

Director Gibson: The staff has looked at it. The administrative complexity is challenging but there are other options from the Flood Control District. Hoping the Coastal Commission approves the amendment.

Mr. Miller: Verification process for the rebates is important. Actual guidelines for the rebate would include cleaning and closing the tank, providing access, and installing a means of pumping the water.

Director Zimmer: It would be a good idea to have a public committee or board member to help with oversight and make sure projects meet requirements.

Director Garfinkel: It would be good to consider taking advantage of the Estuary Program, using the money not for rebates but for education of how it can be done.

Public Comment

Mr. Wimer: The Sustainability Group provided 15 recommendations, without adding significant cost. Would like to go over the recommendations and have a decision on them today. Mr. Wimer provided a brief overview of some of the measures included in the Sustainability Group's letter.

Mr. Edwards: Mentions rebate program only covers about 20% of the implementation costs. Mr. Edwards feels like the "steam has run out of the [rebate] program", and the best way to optimize conservation is under a private sector program like one currently available under Title 19. Mr. Edwards wants to modify

the program to broaden its availability. Wants to fundamentally broaden Conservation Plan and allow private sector to drive and pay for the conservation efforts.

Gibson left the meeting for another engagement. Alternate Mr. Hutchinson stepped in on his behalf.

Mr. McGibney: County should fully fund this program now without further cost to the people. The Wastewater Project Conservation Program should be paid for with project funds. The Coastal Development Permit required the County to commit \$5 million to help basin residents reduce potable water use as much as possible. The Water Conservation Implementation Plan with this draft addendum and with our comments does that fully, if funded now. The Implementation Plan should be reviewed and improved periodically to make sure it is meeting its goals. The County got a grant of \$3.4 million that required the County to put up a \$400,000 match. That is \$3.8 million for the program and the county needs to fund it now. Program was put in place to provide greatest possible mitigation for potential adverse impacts. Mentioned as a side note his hot water recirculation pump cost \$750 so estimates (earlier in the meeting) of \$200, seemed low.

Mr. Cesena: We are in a time of uncertainty, 60% of people are hooked up and only 300,000 gallons of water is coming through the plant. None of the projections are working out as we thought they would. Mr. Cesena thinks that we should proceed with creek recharge studies since it is valuable to know if the recharge is working. He would like to make sure we are monitoring rebates, and the people must use repurposed water not just seal their tank. The County committed \$5 million to water conservation, and they need to make sure it is translated to actual conservation. Mr. Cesena urges the Committee to support Los Osos Sustainability Group comments regarding amendments to the Water Conservation Implementation Plan.

Ms. Owen: Concerning the water conservation update, Ms. Owen questioned the funds that have already been expended. Looking at the DWR funding there will be \$400,000 available which is only \$80 a home. Can we have water trucked to tanks in our home? Requests review of the rebate costs and indicated that people should be made to implement pumps.

Mr. Best. Concerned about split between City, County and LOCAC. Los Osos could make revenue off trucking water to homes. Concerned he cannot find enough information on what is going on with the Basin and implementation. Wondering how does putting water in one part of the basin help seawater intrusion in other parts? There should be more information available.

Director Ochylski: Would like to have a conversation about the Sustainability Group's recommendations.

Mr. Miller gave brief overview of recommendations 5-12.

Director Ochylski: How do we proceed?

Mr. Miller: Are you proposing 5, 6, 7, 11 and 12? If so, staff can include adjustments in the final plan.

Director Ochylski: I want to take action today, 12 is nothing, 11 is an increase for the



recirculation pump so I agree with that.

Director Garfinkel: We should add item 9. It has the biggest potential for saving water.

Director Ochylski: How do we implement it, that one takes some monitoring?

Director Garfinkel: You award it after landscaping is done.

Mr. Miller: Staff can bring it back if you want to see details on it?

Director Ochylski: Concerns that someone may do it for the rebate and then take it down.

Director Garfinkel: A drive by would work to see if they are implementing the low impact xeriscape properly.

Mr. Miller: Saveourwater.org used before and after pics, as well as listing planting materials to validate rebate eligibility.

Director Ochylski: Not to disagree on the concept, how to set a variable rebate concept between 1-4, there needs to be more specific criteria.

Director Garfinkel: I agree it needs to be more specific.

Director Zimmer: This justifies an ad hoc committee; turf programs include an application phase and follow up process. We may need a committee to oversee that process. One thing I've seen with rebate programs is lack of participation. We should see if the lack of participation is in the dollar amount, or the lack of outreach.

Director Ochylski: Can we implement these and somehow indicate low impact landscape?

Mr. Miller: We can implement measures as discussed, and request Coastal Commission review through the County.

Director Ochylski : Is there a way to say that the low impact landscape rebate up to \$400 and worry about details at a later date?

Mr. Miller: We can fill in the documentation process, including verification.

Director Garfinkel: We will need to include more specificity in the details for the rebate on the tanks as well.

Director Ochylski: I would like to see up to \$400 on item 9.

Director Zimmer: Rob, were you on the state program on turf removal, is it still active?

Mr. Miller: It is still active.

Director Ochylski: \$50 or \$100 on laundry? Let's keep that one at \$50.

	<p>Mr. Miller: So, we have 5, 6, 7, 9, 11, &amp; 12.</p> <p>Director Ochylski: Can we have a motion? What should the motion say?</p> <p>Mr. Miller: Motion would be to approve staff’s recommendation with addition of 5, 6, 7, 9, 11, &amp; 12 from the Los Osos Sustainability Group comments.</p> <p>Moved by Director Garfinkel and seconded by Director Zimmer.</p> <p>Further discussion after motion</p> <p>Director Hutchinson: Wanted to interject, worrying that people may abandon these conservation measures and that they might lose their effectiveness. Continued grant funding should be planned for.</p> <p>Director Ochylski: That is something in the long term or relatively medium term that will need to be addressed.</p> <p>Ayes: Directors Zimmer, Hutchinson, Ochylski and Garfinkel  Nays: None  Abstain: None  Absent: None</p>
<p><b>8. PUBLIC COMMENTS ON ITEMS NOT APPEARING ON THE AGENDA</b></p>	<p>Ms. Owens: Golden State won the top conservation award. Hopefully the water purveyors can work together to fund some of the conservation information. The community could take turns at booths and fairs. We have no leadership to put it together. Maybe Mr. Zimmer can help us with it?</p> <p>Mr. McGibney. Indicated support for video recording. The comments the BMC are receiving from community are valid and there is more of an informed community. Did the 2010 CDP say that the County must commit \$5 million to conservation? Did the County commit \$5 million to conservation?</p> <p>Mr. Wimer: Previous speakers at BMC meetings made the case for having solid evidence of a sustainable water level metric and chloride metric targets to be achieved over a period of time. Feels the BMC might lean towards approving a matrix that would allow building based on inconclusive evidence of sustainable yield or Title 19, and that would be a mistake. Many property owners who live here have assets tied up in their homes. With high taxes and an uncertain water supply they could lose value in their homes. Special condition 6 requires conclusive evidence of basin sustainability before building and condition 5 requires conservation and recycle water programs to maximize basin sustainability. By maximizing these programs as soon as possible, it’s the best way to see conclusive sustainable water supply. Doesn’t feel you can achieve conclusive evidence of a sustainable basin without monitoring and managing private well use that amounts to half of the basin water use.</p> <p>Mr. Edwards: Requests committee and staff to bring back an agenda item for discussion that focuses on Title 19 and possible amendments. We need a second-generation Title 19 program, since the last has run its course. Title 19 is self-funded and would better help the residents fund projects, and the residents wouldn’t have</p>

	<p>to wait for a rebate.</p> <p>Director Ochylski: Title 19 is the County plan so the committee can only provide input on it.</p> <p>Director Garfinkel: The BMC should individually go through and reread Title 19 before making recommendations to the County.</p> <p>Director Ochylski: I agree, we should find some understanding on Title 19 and put as a potential future agenda item.</p> <p>Ms. Owens: Could you address the idea of possibly having a subcommittee to at least look at the conservation outreach?</p> <p>Director Ochylski: We had our second joint utility advisory meeting and financial advisory committee last Monday who worked on coming up with an educational outreach program to go to entities around town to help educate and inform people on the situation. Maybe Mr. Zimmer could work with me on ideas before our next meeting to improve outreach that can be implemented?</p> <p>Director Zimmer: That sounds good.</p> <p>Director Ochylski: Next meeting will be January?</p> <p>Mr. Miller: Should be the 3<sup>rd</sup> week in January, but we will send out a notice.</p>
<p><b>9. ADJOURNMENT</b></p>	<p>Meeting was adjourned at 3:45 pm. The next meeting will be on January 18<sup>th</sup> at the South Bay Community Center in Los Osos at 1:30pm.</p>

November 14, 2016

Los Osos Basin Management Committee

Subject: Recommendations and observations regarding the proposed Addendum to the LOWWP Water Conservation Implementation Plan (WCIP) (Agenda Item 7c: “Water Conservation Program Update,” November 16, 2016)

Dear Committee Members,

The Los Osos Sustainability Group (LOSG) is submitting the following recommendations and observations to help maximize the benefits of the LOWWP Water Conservation Implementation Plan (WCIP), consistent with the goals of the Basin Plan and LOWWP Coastal Development Plan (CDP Special Condition 5). We ask the BMC to encourage the County to include them in the plan and to fully fund and implement the plan in the very near future.

**General observations/recommendations:**

1. *The introduction to the addendum should mention CDP Special Condition 5 and quote some of the language (e.g., that it is intended to “help basin residents to reduce their potable water use as much as possible”) so that the objective of the program and parameters are clear to decision makers and the public.*
2. *Like the 2012 WCIP, the Addendum should have time-specific targets for implementation of each measure. The targets should be relatively near term (1-2 years) because near-term targets are achievable and because the objective of the WCIP (Special Condition 5) and Basin Plan is for the program to benefit the Basin as much as possible. The sooner measures are put in place, the greater the benefits to the Basin. A main reason for the WCIP and Special Condition 5 is to mitigate (avoid) impacts from the LOWWP, and that is best achieved with early implementation. The cumulative impacts of the LOWWP, drought, and Basin Plan infrastructure programs make rapid implementation even more necessary. Time-specific targets also allow the BMC to gauge the success of implementation and know when to ramp up outreach and incentives, if necessary.*
3. *The plan should stress the critical need of strong outreach for program success and identify specific outreach measures. It should support full implementation of the Education and Outreach Program of the 2012 WCIP (Residential Water Surveys, Commercial, Industrial and Institutional Surveys, Public Information Program, and Media Campaign) (WCIP, Pages 46-52). The Public Information Program was supposed to include radio and TV ads (in part to present the goals of the program and get the public excited about it). Water Surveys were supposed to provide property owners an evaluation of current water use, leak detection, and recommendations for how to best reduce water use indoor and outdoors. Surveys weren’t implemented despite language in the DWR grant requiring them for every property prior to sewer*

hook up. Immediate implementation of these measures is key to helping Basin residents reduce water use as much as possible per the CDP (e.g., understand the benefits of repurposing their septic tanks).

4. *We encourage the Parties to set a target of 50 gpcd or below on average for residential indoor-outdoor potable water use, and support that target with purveyor rate structures and a County basin-wide ordinance to achieve the target.*

### **Specific measure observations/recommendations—**

#### BMC Outdoor 1 and 2:

5. *Outdoor measures 1 and 2 could be combined since they do basically the same thing—provide incentives for septic tank or rainwater tank collection and use of non-potable water for outdoor landscaping. If it is necessary for the parties to develop a program (e.g., to make recycled water available for this purpose or establish a delivery service), it could be a separate item.*
6. *Rainwater tank rebates should include a \$500 rebate for installation of systems with 1000 gallons of storage or more plus a \$400 rebate for 500 to 1000 gallon systems. This would provide equitable benefits to homeowners who have abandoned their septic tanks (had them filled with sand or cement) since septic tanks provide about 1000 gallons of storage. Smaller tanks usually cost more per gallon of capacity and there are certain minimum costs involved in setting up systems (pumps, filters, overflows, etc.) so a \$400 minimum rebate is appropriate. These changes provide an incentive to collect as much rainwater as possible. Storage is the only limiting factor to collecting rainwater since virtually an unlimited amount can be collected from rooftops. About 3000 gallons of storage should allow most homes in Los Osos to have zero outdoor potable water use—a target we recommend since water from the Basin is too valuable to use out-of-doors.*

#### BMC Outdoor 3:

7. *Greywater reuse systems should not be limited to systems that treat and store the water or to systems that reuse all water except toilet water, as the Addendum implies. The most cost-effective systems (which most experts recommend) use gravity to move the water directly to landscaping requiring no storage or treatment. Drainpipes are plumbed to below-ground-level watering stations in flowerbeds or near trees. A \$500 rebate is still appropriate since accessing and diverting drainpipes, especially in homes with slab foundations (which often requires opening up walls), can be costly, and permits can be costly (several hundred dollars) unless the County reduces or waives these fees. The Addendum should also recognize that it is likely not cost-effective for homes with slab foundations to capture a significant amount of greywater. A survey of how many homes in the community have raised foundations will help tune in realistic targets.*

#### BMC Outdoor 4:

8. *Laundry to Landscape rebates should be at least \$100 to provide an adequate incentive for people to implement the measure, and they could be combined*

*with the additional measure we recommend below—conversion to low water-use landscaping with LID.*

New outdoor measure:

9. *A variable rebate of \$100 to \$400 should be added for low water-use landscaping, especially landscaping that includes Low Impact Development (LID) measures, which capture and infiltrate storm water runoff (including rainwater tank overflow). Low water use landscaping is known to be one of the most effective means of reducing outdoor potable water use.*

Cap on outdoor rebates (footnote on chart):

10. *The \$500 cap on rebates for outdoor measures should include a \$100 rebate for Laundry to Landscape and rebates for low water use landscaping. This encourages property owners to install multiple measures (e.g., a rainwater tank and Laundry to Landscape system or low water use landscaping). The BMC should raise the \$500 cap to \$1000 if it is discovered that a significant portion of residents are not taking advantage of the outdoor measures after learning of their options via Water Surveys. This will allow people participating in the program to maximize conservation and benefits to the Basin.*

BMC Indoor Measures 1 & 2:

11. *We note that the rebates for hotwater recirculators and efficient washers will likely have to be raised to \$350 or more to incentivize homeowners to participate. Increasing the rebate, however, may be something the BMC does if implementation of the measure falls below targets (e.g., as shown by a 6-month review). Good recirculators installed cost between about \$650 and \$750, and good-quality efficient washers will cost that much or more. Cost is likely a factor for homeowners who do not already have efficient washers. Note that the current WCIP rebate for residents who do not use rebates for other measures is \$450 although implementation still fell more than 95% below targets. Industry rebates are available, as the WCIP points out, to augment WCIP rebates, but \$250 is still most likely not adequate. Also, the cost benefits of washer rebates should be re-evaluated. Assumptions regarding the number of loads per week may be low. We know two-person households that do five loads per week. Studies show efficient washers to be a significant source of water savings so cost benefits should be closer to that of toilets if rebates are similar. A higher recirculator rebate will still mean recirculators are one of the most cost-effective measures.*

BMC Indoor Measure 3:

12. *Toilet rebates should include rebates for 1.28 toilets and dual flush toilets. Both provide a substantial water savings over 1.6 gpf toilets many of which remain in the community. Also, 1.28 and dual flush toilets are available in a much wider range of options.*

**Final observations**

13. *Conservation is one of the most vital components of the LOWWP, and the County should restore conservation money to the LOWWP budget without any further costs to residents. The County had a grant of \$3.8 million for*

conservation awarded by the DWR but redirected about \$2.4 million to “construction administration.” The County should restore that funding without any additional costs for property owners in the wastewater service area to fully fund the WCIP and “help Basin residents to reduce their potable water use as much as possible” per the CDP. Also, plans for how the other \$1.2 million will be spent should be spelled out. The LOWWP CDP requires the County to commit \$5 million “to initiate the water conservation program as soon as possible.” The County has spent about \$1.5 million so far, leaving a commitment of about \$3.5 million.

14. *Some of the remaining DWR grant money (we understand about \$400,000 remains) should be spent immediately to implement the Education and Outreach program of the 2012 WCIP, including the Water Survey program, which the DWR grant required prior to project hook up.*
15. *We note that this Addendum, like the WCIP, applies to water use within the wastewater service area although a Basin-wide program is needed to establish Basin sustainability. The Basin Plan recognizes that a basin-wide program is essential largely because properties outside the LOWWP service area account for over 30% of Basin water use. The 2015 Annual Report points out that water use outside purveyor areas (which corresponds roughly to water use outside the LOWWP service area) rose by 70 AFY in 2015 (Page 23), offsetting much of the decline in water use within the purveyor/LOWWP service area. This clearly highlights the need for a basin-wide program. A program outside the LOWWP service area cannot be funded with LOWWP funding and must be implemented primarily by the County. That program should be developed in cooperation the County and implemented immediately with a County ordinance.*

Thank you for your work on this vital program. With full funding and implementation of the LOWWP WCIP in the near future, including the Addendum with the improvements we recommend, the Basin will move much closer to sustainability. We encourage the BMC to continue to work with the County to ensure conservation measures are implemented Basin wide to capture the significant remaining conservation potential within the Basin.

Respectfully,

Patrick McGibney, Chuck Cesena, Keith Wimer, Elaine Watson, Larry Raio

Los Osos Sustainability Group

**TO: Los Osos Basin Management Committee**

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

**DATE: January 4, 2017**

**SUBJECT: Item 5b – Approval of Budget Update and Invoice Register through December 31, 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 December 31, 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.

Several items should be noted as the attachments are reviewed:

- With the exception of the approved basin boundary work, costs incurred in 2015 are not included.
- Work efforts authorized prior to the formation of the BMC are not included, such as the creek discharge study or legal expenses related to the final judgment.

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 2016 (updated through December, 2016)**

<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	\$48,995.34	98.0%	\$1,005
2	Meeting expenses - facility rent	\$4,000	\$360.00	9.0%	\$3,640
3	Meeting expenses - audio services	\$4,000	\$4,500.00	112.5%	-\$500
4	Legal counsel (special counsel for funding measure)	\$10,000	\$0.00		\$10,000
5	Semi annual seawater intrusion monitoring	\$12,000	\$27,309.84	105.0%	-\$1,310
6	Annual report - not including Year 1 start up costs	\$30,000	\$31,992.50	106.6%	-\$1,993
7	Annual report - Year 1 costs	\$14,000	Combined with Item 5		
8	Grant writing (outside consultant)	\$12,000	\$2,095.00		\$9,905
9	Basin boundary definition (CHG only)	\$20,000	\$19,602.50	98.0%	\$398
10	Funding measure including initial feasibility report, final report, and proposition 218 process	\$120,000	\$14,250.00		\$105,750
11	Conservation programs (not including member programs)	\$10,000	\$1,777.99		\$8,222
	Subtotal	\$286,000			\$135,117
	10% Contingency	\$28,600			
	<b>Total</b>	<b>\$314,600</b>	<b>\$150,883.17</b>	<b>48.0%</b>	<b>\$163,717</b>
	LOCSO (38%)	\$119,548			
	GSWC (38%)	\$119,548			
	County of SLO (20%)	\$62,920			
	S&T Mutual (4%)	\$12,584			
Notes	<p>1. Costs incurred in 2015 for legal and administration are not included.</p> <p>2. Costs are recognized in month service provided, as opposed to when paid.</p> <p>3. Tasks approved by ISJ prior to BMC (ie, MKN work on creek discharge) are not included.</p>				

**Attachment 2: Invoice Register for Los Osos BMC for Calendar Year 2016 (through XXXX 2016)**

<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	40966	\$1,452.50	January	BMC admin services	1	x
Wallace Group	41097	\$3,614.00	February	BMC admin services	1	x
Wallace Group	41313	\$4,961.75	March	BMC admin services	1	x
Wallace Group	41513	\$4,710.14	April	BMC admin services	1	x
Wallace Group	41741	\$3,366.02	May	BMC admin services	1	x
Wallace Group	41868	\$6,027.74	June	BMC admin services	1	x
Wallace Group	42102	\$5,560.65	July	BMC admin services	1	x
Wallace Group	42326	\$3,323.50	August	BMC admin services	1	x
Wallace Group	42504	\$4,275.52	September	BMC admin services	1	x
Wallace Group	42655	\$4,135.50	October	BMC admin services	1	x
Wallace Group	42829	\$6,478.52	November	BMC admin services	1	
Wallace Group		\$1,089.50	December	BMC admin services	1	
WSC	2151	\$2,095.00	July	Funding Research	8	x
DTA	1604053	\$4,346.60	April	Feasibility Analysis	10	x
DTA	1605065	\$9,320.11	May	Feasibility Analysis	10	x
DTA	1606026	\$583.29	June	Feasibility Analysis	10	x
South Bay CC	77	\$60.00	February	Facility rental	2	x
South Bay CC	87	\$60.00	June	Facility rental	2	x
South Bay CC	96	\$120.00	September	Basin Mgmt Meeting	2	x
AGP	6531	\$375.00	February	Audio services	3	x
AGP	6561	\$375.00	April	Audio services	3	x
AGP	6599	\$375.00	May	Audio services	3	x
AGP	6645	\$2,025.00	June, July	Video production services; Audio	3	x
AGP	6752	\$675.00	September	Video production services; Audio	3	x
AGP	6787	\$675.00	November	Video production services; Audio	3	
Cleath Harris	20160306	\$16,712.50	March	Annual report preparation	6	x
Cleath Harris	20151221	\$10,697.50	December, 2015	Basin boundary study	9	x
Cleath Harris	20160117	\$4,020.00	January, 2016	Basin boundary study	9	x
Cleath Harris	20160218	\$3,355.00	February, 2016	Basin boundary study	9	x
Cleath Harris	20160402	\$8,300.00	April, 2016	Annual report preparation	6	x
Cleath Harris	20160403	\$8,791.74	April, 2016	Annual Monitoring (2016)	5	x
Cleath Harris	20160504	\$4,356.70	May, 2016	Annual Monitoring (2016)	5	x
Cleath Harris	20160503	\$1,920.00	May, 2016	Annual report preparation	6	x
Cleath Harris	20160606	\$2,960.00	June, 2016	Annual report preparation	6	x
Cleath Harris	20160607	\$1,360.00	June, 2016	Annual Monitoring (2016)	5	x
Cleath Harris	20160805	\$2,100.00	August, 2016	Annual Report (2016)	6	x
Cleath Harris	20160806	\$280.00	August, 2016	Boundary study	9	x
Cleath Harris	25010134	\$1,250.00	November, 2015	Boundary study	9	x
Cleath Harris	20161001	\$12,801.40	Sept.-Oct. 2016	Annual Monitoring (2016)	5	x
SBCC	82	\$60.00	April, 2016	Facility rental	2	x
SBCC	86	\$60.00	May, 2016	Facility rental	2	x
ASAP	414280	\$1,350.28	May, 2016	Conservation	11	x
ASAP	414344	\$427.71	June, 2016	Conservation	11	x
<b>Total</b>		<b>\$150,883.17</b>				



**TO: Los Osos Basin Management Committee**

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

**DATE: January 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

Staff is waiting for a formal notice to submit a complete application for funding the Program C projects under Proposition 1, and if additional feedback is received from the SWRCB prior to the meeting, staff will provide an update.

#### Status of Zone of Benefit Analysis

At this time, no special tax measure is being pursued by staff to fund BMC administrative costs. Discussions are ongoing with SLO County Public Works staff to review other funding alternatives, and this item will be brought back at a future meeting. A more detailed discussion of this issue may be appropriate as part of the CIP update (Item 7a) or the 2017 budget (Item 7b)

#### Fall 2016 Water Quality and Water Level Data

As of this writing, staff is still waiting for compiled water level data for the fall, 2016 monitoring event. If available prior to the meeting, staff will present the results and post them to the BMC website.

#### Status Update on NEP-funded Climate Change Analysis

Cleath Harris Geologists is continuing to make progress on the model runs associated with reduced rainfall amounts in the basin, and a final report is anticipated prior to the March, 2017 meeting.

#### 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 basing 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, and must comply with the June deadline. County staff will be available at the meeting to provide a update on fringe area activities.

#### Follow Up on Potential Creek Discharge

As indicated previously, the State Division of Drinking Water (DDW) has categorized the project as a Groundwater Replenishment Reuse Project (GRRP), and therefore additional study will be necessary to advance the effort. The studies required can be categorized into two steps as summarized below:

##### Step 1: Work Plan for Advanced Treatment Evaluation

A GRRP project may require treatment beyond the tertiary effluent being produced by the Los Osos Wastewater Project, depending on the amount of carbon reduction anticipated by subsurface flow through soils underlying Los Osos Creek. Now that we have actual effluent to sample and test, an initial step would include the following activities:

- Perform sampling and initial effluent analysis
- Pursue input from advanced treatment industry members based on the sample results, including a review of the cost and viability of current technologies
- Perform bench scale testing with key vendors if available at reasonable cost
- Fully scope field testing phase (Step 2) and pursue planning grant if available

The cost of the above effort is expected to be in the range of \$15,000 to \$20,000, and a line item has been included in the draft budget under Item 7b. It should be noted that this work would also inform any direct groundwater injection projects that may be considered in the future.

##### Step 2: Advanced Treatment and Soil Aquifer Evaluation, Preliminary Design

- Detailed evaluation of ozone/ biologically activated filters including final bench scale and pilot testing
- Evaluation of soil aquifer treatment, including further modeling and tracer studies
- Develop detailed cost and scope for project implementation for the purpose of environmental review
- Complete related CEQA studies for the purpose of a Coastal Development Permit

The cost of this effort will depend on the results of Step 1, but could be in the range of \$150,000 to \$200,000 based on recent experience in other communities. Planning grants may be available to reduce this cost as noted above.

#### 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:

- 3,089 connections out of 4,200 laterals have been made, including neighborhood systems and mobile home parks.
- Flows are averaging approximately 350,000 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.

**TO: Los Osos Basin Management Committee**

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

**DATE: January 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 would transfer groundwater production from the Lower Aquifer to the Upper Aquifer, and Programs C and D would shift production within the Lower Aquifer from the Western Area to the Central and Eastern Areas, respectively. The following Table provides an overview of status of the Projects that are currently moving forward or have been completed. Programs B and D have not been initiated at this point, however, the Skyline

well blending project now includes the installation of a nitrate removal system at the GSWC Rosina blending site. In addition to completing a Program A project, this effort could be considered as an initial phase of Program B.

#### Program C Funding

As indicated below, the remaining two Program C expansion wells are in the property acquisition and environmental study phase. Staff previously submitted a Prop 1 pre-application package to pursue partial grant funding for these wells with a 50% match requirement. Other sources of funding include various loan programs, purveyor funding through rates and charges, or some form of assessment/special tax. In previous BMC meetings, the Committee indicated that the community is unlikely to support a basin-wide special tax to fund administrative costs. Staff's current approach is to advance the proposed expansion wells through the property acquisition, environmental review, and Coastal Development Permit phase. These efforts are currently being funded by the LOCSD.



<b>Project Name</b>	<b>Parties Involved</b>	<b>Funding Status</b>	<b>Status</b>
<b>Program A</b>			
Water Systems Interconnection	LOCSD/ GSWC	Fully Funded	Construction of the project has commenced, and the project will be complete and operational by March 1, 2017.
Upper Aquifer Well (8 <sup>th</sup> Street)	LOCSD	Fully Funded	Project bid and awarded. Drilling is complete and staff is awaiting final water quality data. It appears that the well will product 100 gal/min (100 to 120 AFY) and that nitrate levels were lower than anticipated.
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. County permitting is complete and the nitrate removal unit has been purchased and received. Project anticipated to bid spring 2017 and complete construction 3 <sup>rd</sup> quarter of 2017, if not sooner.
Water Meters	S&T		Completed
<b>Program C</b>			
Expansion Well No. 1 (Los Olivos)	GSWC		Completed
Expansion Wells No. 2 and 3 and LOVR Water Main Upgrade	GSWC	Pending Funding Vote	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 began on one of the sites in December, 2016.
S&T/GSWC Interconnection	S&T/ GSWC	Pending	Conceptual design

**TO: Los Osos Basin Management Committee**

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

**DATE: January 11, 2017**

**SUBJECT: Item 7b – Adoption of Basin Management Committee Annual Budget**

### **Recommendations**

Staff recommends that the Committee adopt the Calendar Year 2017 budget as drafted.

### **Discussion**

Section 5.13.2 of the Stipulated Judgment requires that the parties develop an annual budget to fund its activities. Staff has prepared a draft budget attached as Exhibit A, which includes the following key items:

- Basin Management Committee general administration for Calendar Year 2017
- Funding for a Proposition 218 funding process, if applicable, including required consultant services
- Consultant services for the preparation of the Annual Report, including monitoring
- Consultant services to assist in the pursuit of grants
- Funding for jointly pursued water conservation efforts
- Funding for additional studies regarding recycled water recharge in Los Osos Creek

Given that the parties operate on different fiscal calendars, staff believes a standard calendar year to be the appropriate budget interval. In calendar year 2016, approximately 50% of the adopted budget of \$314,600 was expended. The reduced amount was primarily due to the Committee's feedback on an administrative special tax, which did not move forward due to perceived lack of voter support. The total allocated budget for the special tax was \$143,000 including legal counsel and contingencies, and only \$14,250 was expended. As indicated above, funding for a Proposition 218 process has also been included for 2017 if needed.

### **Financial Considerations**

The total budget proposed for 2017 is \$290,400. The budget also includes a 10% contingency for unforeseen expenses. The estimated cost to each party is summarized as follows:

LOCSD (38%): \$110,352

GSWC (38%): \$110,352

County of SLO (20%): \$58,080

S&T Mutual (4%): \$11,616

**Table 1: BMC 2017 Budget for 12 month period, allocated by fiscal year**

Item	Description	Cost	Projected Total in LOCS D FY 2016/17	Projected Total in LOCS D FY 2017/18	Comments
1	Monthly meeting administration, including preparation, staff notes, and attendance	\$50,000	\$25,000	\$25,000	Assumes 20 to 25 hours per month, on average
2	Meeting expenses - facility rent (if SBCC needed for larger venue)	\$1,000	\$500	\$500	\$30/hr for non-profit
3	Meeting expenses - audio and video services	\$6,000	\$3,000	\$3,000	
4	Legal counsel (special counsel for funding measure)	\$10,000	\$5,000	\$5,000	Normal matters to be handled by BMC member attorneys
5	Semi annual seawater intrusion monitoring	\$15,000	\$7,500	\$7,500	
6	Annual report - not including Year 1 start up costs	\$35,000	\$30,000	\$5,000	Not including services contributed directly from BMC member staff
8	Grant writing (outside consultant)	\$12,000	\$6,000	\$6,000	BMC member staff may also contribute to grant efforts
9	Creek Recharge and Replenishment Studies	\$25,000	\$20,000	\$5,000	
10	Funding measure including Proposition 218 process	\$100,000	\$10,000	\$90,000	Consultant time only, not including BMC member staff time
11	Conservation programs (not including member programs)	\$10,000	\$5,000	\$5,000	Bulk of cost will be budgeted by individual BMC members
	Subtotal	\$264,000			
	10% Contingency	\$26,400	\$14,000	\$12,400	
	<b>Total</b>	<b>\$290,400</b>	<b>\$126,000</b>	<b>\$164,400</b>	
	LOCS D (38%)	\$110,352	<b>\$47,880</b>	<b>\$62,472</b>	
	GSWC (38%)	\$110,352			
	County of SLO (20%)	\$58,080	\$25,200	\$32,880	
	S&T Mutual (4%)	\$11,616			

**TO: Los Osos Basin Management Committee**

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

**DATE: January 11, 2017**

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

**Recommendation**

Receive report and provide input to staff for future action.

**Discussion**

The County of San Luis Obispo has requested that the BMC recommend a standard for future development to be included in the Los Osos Community Plan. Staff recommends that the BMC consider finalizing its input by March, 2017 in order inform the County Planning Commission during its April, 2017 hearing on the matter. At its July 20, 2016 meeting, the BMC received an initial presentation of potential alternatives to recommend to the County for inclusion in the Los Osos Community Plan, and the matrix in Table 1 below was provided in the September, 2016 meeting. While the Committee did not reach a conclusion in previous meetings, staff was able to synthesize some general principals from Committee feedback:

1. The nitrate metric in Table 1 will not be a useful factor for considering development.
2. Development that relies on the lower aquifer for its supply should only occur after the water level and chloride metrics are met for some period of time.
3. Development that relies on the upper aquifer may be considered, as long as a conservative plan for phasing in Program B is assembled, along with appropriate metrics to guard against upper aquifer seawater intrusion.
4. The Committee would like to review the function of Title 19 in additional detail, though no firm direction was given on this issue.
5. The potential for reduced average rainfall should be discussed, and an analysis by Cleath Harris Geologists was commissioned and funded by the Morro Bay NEP. The results of this study are not available yet, but the analysis should be complete in time for the March, 2017 meeting.
6. Limitations on the growth rate may be advisable

In addition to general development criteria, future purveyor production requirements were estimated as part of the November, 2017 meeting, with buildout values ranging from 1,142 acre feet per year to 1,478 acre feet per year. Staff's intent with this staff note is to bring this item forward for further discussion and clarification, with the intention of assembling a recommendation for action at the March meeting.

**Table 1: Matrix of Key Factors for Development Standard**

<b>Development Subject To</b>	<b>Development Threshold</b>	<b>Time</b>	<b>Environmental Factors</b>	<b>Level of Allowable Development</b>	<b>Review</b>
New development required to incrementally implement Basin Plan Program B projects so that new water supply requirements met from upper aquifer	Chloride Metric meets Basin Plan goal	[NUMBER] of consecutive years	Drought State of Emergency formally lifted	Growth restricted to level that new water demand can be met from upper aquifer	County to review standard for new development every five (5) years
Implementation of fee program to fund implementation of Program B and Program D projects sufficient to supply water to meet new demand	Water Level Metric meets Basin Plan goal			Growth restricted to [NUMBER] Equivalent Development Units/year	County to review standard for new development every ten (10) years
Building permits not issued until additional water available pursuant to completion of Program C and Program D projects	Nitrate Metric meets Basin Plan goal		Los Osos receives an average of [NUMBER] inches of precipitation over [NUMBER] of previous water years	Level of growth subject to metrics for upper aquifer designed to protect Zone C from sea water intrusion	County to review standard for new development upon evidence that basin conditions are changing in unanticipated way
	Water Level Metric displays clear improvement over certain period				
Development subject to Title 19 water conservation retrofit requirements	Chloride Metric displays clear improvement over certain period				
	Nitrate Metric displays clear improvement over certain period				
	Completion of Basin Plan Program A and Program C projects				

**TO: Los Osos Basin Management Committee**

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

**DATE: January 11, 2017**

**SUBJECT: Item 7d – 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 final Addendum that incorporates the Committee's comments was previously published to the website and is attached for reference. In order to prepare for implementation of the rebates once funding becomes available, the following activities have been completed since the November meeting:

- The County has initiated drafting a form for a septic tank repurposing rebate, and is working to determine the staff cost to process each rebate.
- With respect to future recycled water use for individual irrigation customers, staff received a helpful briefing from the San Simeon Community Services District (SSCSD), who recently implemented a local recycled water hauling and irrigation plan. The regulatory framework required to operate a successful program is an important future consideration.

### **Funding Considerations (from November, 2016 staff note)**

Once the addendum is adopted by the County Board and approved by the Coastal Commission, detailed and specific funding sources can be coordinated. The Morro Bay National Estuary Program (MBNEP) staff has also indicated that some initial funding may be immediately available in the range of \$5,000 to \$9,000. While this funding may only cover a limited number of rebates, it may be beneficial to offer rebates on an initial lottery or first come, first serve basis. Staff is currently working with County and MBNEP staff to determine the best method to administer these initial funds.

Conservation that occurs through the existing Title 19 retrofit program is funded by the mutual agreement between two private parties. No fees are collected or distributed through this program. In recent years, the County has found that fewer and fewer retrofit opportunities are available. In response to this issue, the County has recently modified the program to allow the retrofitting of items other than toilets, faucets and showerheads. The County now allows replacement of high-water-use washing machines with high-efficiency machines within *both* the prohibition zone and outside of the prohibition zone. The County has found the water savings to be considerable and that the program revision has created substantial opportunities for additional water conservation. These replacements are similarly funded by the mutual agreement between two private parties. However, there may be an opportunity to fund a rebate

program or other program to further encourage conservation via the washing machine replacement program. The BMC may wish to direct staff to recommend inclusion of one or more of the measures.

# MEMORANDUM

## WATER CONSERVATION IMPLEMENTATION PLAN LOS OSOS WASTEWATER PROJECT



**Date:** December 2, 2016  
**To:** Basin Management Committee  
**From:** Rob Miller, PE  
Wallace Group  
**Subject:** Addendum 1 – BMC Water Conservation Measures

CIVIL AND  
TRANSPORTATION  
ENGINEERING

CONSTRUCTION  
MANAGEMENT

LANDSCAPE  
ARCHITECTURE

MECHANICAL  
ENGINEERING

PLANNING

PUBLIC WORKS  
ADMINISTRATION

SURVEYING /  
GIS SOLUTIONS

WATER RESOURCES

The following memorandum is an addendum to the current Water Conservation Implementation Plan for the Los Osos Wastewater Project (WCIP), adopted by the County of San Luis Obispo (County) on October 23, 2012. The WCIP was prepared by Wallace Group, in coordination with the development of the Los Osos Groundwater Basin Management Plan (BMP), which was adopted by the County in January 2015. Both plans share a common goal: to protect the sustainability of the Los Osos Groundwater Basin (Basin) as a source of potable water supply for the Los Osos community.

The BMC began monthly meetings on December 14, 2015. Of the items discussed in the meetings, focus initiated on existing and proposed conservation measures for the Basin. Several measures identified by the BMC were proposed as additional or supplemental measures to the ones outlined in the 2012 WCIP. The BMC recognized that further water savings could be seen with newer technology with lower flow values than were available at the time the original WCIP was prepared. In addition, the BMC wanted to add new measures to the plan, as they could provide for additional water savings not recognized in the initial WCIP report. This addendum provides a description of the modified or additional measures proposed by the BMC. It is desired that these measures be included in the program currently being implemented by the County. Table 1, located at the end of this memo, outlines the eight proposed BMC conservation measures.

The BMC conservation measures are separated into two categories: indoor and outdoor. Indoor conservation measures are supplemental programs to the Category 1 Residential measures discussed in the WCIP. The proposed outdoor conservation measures are new, as there were no comparable measures included in the WCIP.

### BMC Indoor-1: Hot Water Recirculation System

This conservation measure would provide for a \$350 rebate for installing a hot water recirculation system inside the home. The water recirculation system is designed to minimize water waste while residents wait for tap water to heat up. Annual savings estimates vary, but using EPA Water Sense estimates, it is assumed that approximately 7,000 gallons per year per unit could be conserved, resulting in an overall Basin water savings of 50 to 100 acre-feet/year if full implementation is

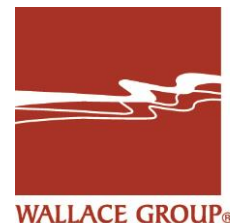
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achieved. The plan is assumed to have a 10 year life span, which would cost approximately \$1,600/acre-ft saved.

#### BMC Indoor-2: High Efficiency Clothes Washer

This measure would provide for a \$350 rebate to residents who replace their existing clothes washer with a new high-efficiency clothes washer. The current WCIP Measure 1B includes a clothes washer rebate program which offers \$150 per eligible washer. This measure would increase the washer rebate by \$200.

Estimates assume that approximately 400 washers per year would be replaced and that 3,300 gallons per year per unit in potential savings could be realized, assuming 20 to 30 gallons per washing load. With full implementation of this program, total Basin water savings are estimated to reach 40 to 60 acre-ft/year. Rebate costs are estimated to be close to \$7,000/acre-ft saved.

#### BMC Indoor-3: Replace 1.6 GPF Toilets

The current WCIP Measure 1A provides property owners with a rebate for replacing inefficient toilets. The current program goal is to replace all toilets flushing more than 1.6 gallons per flush with ones that use 1.28 gpf or less, with a rebate amount of \$160 per unit. The proposed modification would provide a rebate of \$250 for homes that replace a 1.6 gpf toilet with a toilet that flushes 1.28 gpf or less, or install a dual flush model.

The water savings for this measure is estimated to be 1,500 gallons per year per unit, corresponding to a 30 to 50 ac-ft/year Basin water savings, at a cost of approximately \$2,500/acre-ft saved.

#### BMC Indoor 4: Replace 2.0 GPM Showerheads

Similar to BMC Indoor-3, this measure would be a supplement to the current WCIP Measure 1A for the replacement of showerheads. The current program provides a \$30 rebate for replacement of showerheads that use more than 2.0 gpm with fixtures that use no more than 1.5 gpm.

The proposed BMC Indoor 4 program would provide a rebate for all showerheads flowing 1.5 gpm or more to be replaced with ones that flow less than 1.5 gpm. The proposed program would be voluntary and provide a rebate of \$40 per unit. The estimated average savings water savings is 1,500 gallons/year per unit, which would equate to approximately 30 to 50 ac-ft/year in total Basin savings. The program is estimated to cost approximately \$900/acre-ft saved.

#### BMC Outdoor 1: Septic Tank Repurpose

This measure includes a rebate of \$500 per household for the conversion of an existing septic tank (assumed abandoned as part of the wastewater project) into a rain water capture basin for roof runoff or for recycled water storage. Water would either be captured through gutters on the roof and piped to the septic tank for storage and re-use as irrigation supply, or recycled water could be pumped into the tank from a recycle water fill station. It is envisioned that a simple access riser and mobile pump assembly would provide for easy application of re-used water, making the rebate attractive.



Since some residents have already backfilled their septic tanks as part of the wastewater project, this measure would offer a \$500 rebate to anyone who implements more than 1,000 gallons of capacity for rainwater catchment/recycled water storage on the property, and a \$400 rebate to anyone who implements storage of 500 gallons up to 1,000 gallons.

This measure is to coincide with the County's wastewater program, which includes a recycled water fill station at a location on 10<sup>th</sup> Street in Los Osos, to be monitored by Los Osos CSD or County staff during designated periods. The recycled water from the fill station is proposed to be used for dust abatement, construction activity, or irrigation, so long as the beneficial use is in conformance with California Title 22 regulations. It is suggested that local hauling programs be developed to minimize hauling costs.

Annual water savings for this program are estimated to be 4,500 gallons per year per unit, depending on the number of participants and irrigation events. The cost of this measure is estimated to be approximately \$1,800/ac-ft for a Basin savings of approximately 100 to 140 ac-ft/year if widely implemented.

#### BMC Outdoor 2: Gray Water System

BMC Outdoor 2 measure involves a \$500 rebate for the installation of a gray water recycling system on the property. Gray water is the combination of waste water from showers, baths, sinks, and washing machines. Gray water is typically all the wastewater from the home with the exception of toilets and kitchen sinks. It is envisioned that graywater from the home would be diverted to an on-site pre-treatment and storage unit, or to be directly plumbed to a below-ground watering station, such as a flowerbed or near trees, to be used as irrigation or for other beneficial reuse purposes. Installation of a graywater system would be subject to code and permit requirements, and would require homeowners make sure the system meets those requirements. Gravity flow systems will be eligible for this rebate. Proposed Basin savings, with full implementation, could reach 70 – 90 ac-ft/year with a rebate cost of around \$1,400/ac-ft.

#### BMC Outdoor 3 – Laundry to Landscape Program

This measure, similar to BMC Outdoor 2, would provide residents with a \$50 rebate for installation and implementation of a laundry-only gray water system. As described above, gray water is the combination of wastewater from house drains, with the exception of toilets and kitchen sinks. This measure would be for systems that are installed to reuse water from the washing machine only. Diverting the drain line from a washing machine is substantially easier than re-routing all of the drains from inside the home, therefore the rebate amount is less than BMC Outdoor 2. Recipients who receive a rebate for the BMC Outdoor 2 measure would not qualify for this laundry-only program. Current code allows for permit exemption for gravity discharge of laundry water to landscape area with a minimum of 2 inches of mulch provided at the discharge location. Diaper washing or pumped flow from the washing machine are not allowed. Proposed Basin water savings are estimated to be 10 – 20 ac-ft/year, with an estimated rebate cost of \$2,600/ac-ft.



BMC Outdoor 4 – LID Landscape

This measure would provide a rebate of up to \$400 for the installation of low water-use landscaping, especially landscaping that includes Low Impact Development (LID) measures, which capture and infiltrate storm water runoff.

Similar to BMC Outdoor 1, it is estimated that approximately 3,000 gallons per year per unit, where approximately 50 – 70 ac-ft/year of water might be saved. The rebate cost is estimated to be approximately \$1,358/ac-ft saved.

**TABLE 1. BMC CONSERVATION MEASURES**

Item No.	Conservation Measure Name	Draft Rebate Amount	Water Savings Potential and Assumptions (ac-ft/year)	Estimated Savings per Unit (gal/yr)	Fixture or Program Estimated Lifespan	Cost of rebate per acre-ft saved	Approximate Savings Potential (AFY) <sup>4</sup>
Indoor-1	Hot water recirculation system	\$350	EPA Water Sense estimates > 10,000 gal/year, assume 5,000 to 10,000 gal/year	7,000	10	\$1,629	50 to 100
Indoor -2	High efficiency clothes washer	\$450	3,000 to 5,000 gal/year, depending on household size	3,300	5	\$6,911	40 to 60
Indoor - 3	Replace 1.6 gpf toilets with 1.28gpf or less	\$250	1,000 to 2,000 gal/year, depending on use	1,500	20	\$2,545	30 to 50 (See Note 5)
Indoor - 4	Replace 2.0 gpm showerheads with 1.5 gpm	\$40	1,000 to 2,000 gal/year, depending on use	1,500	10	\$869	30 to 50 (See Note 5)
Outdoor - 1	Septic tank repurpose	\$500 (see Note 3)	Assume 3 to 4 tank volumes, at 1,000 gallons each	3,500	20	\$2,327	110 to 150 (See Note 1)
Outdoor - 2	Gray water system	\$500 (see Note 3)	Potentially eliminate outdoor potable usage	6,000	20	\$1,358	70 to 90 (See Note 1)
Outdoor - 3	Laundry to landscape program	\$50 (see Note 3)	1,000 to 1,500 gallons per year, depending on use	1,250	5	\$2,606	10 to 20 (see Note 1)
Outdoor – 4	Low Water Use Landscape	\$100 - \$400	1,000 to 3,500 gallons per year, depending on use.	3,000	20	\$1,358	50 – 70 (see Note 6)
<b>Notes:</b>	<p>1. Total savings for outdoor programs are not additive. For example, outdoor use can be addressed through gray water or hauled recycled water.</p> <p>2. All estimates depend on use patterns and other factors. Values are stated for comparison.</p> <p>3. Only one \$500 rebate will be provided per property under programs Outdoor -1, 2, and 3. Participants in these programs are not eligible for program Outdoor - 4. Property owners who have already backfilled their septic tank will receive a rebate of \$500 for implementation of an alternative storage tank/basin with a minimum of 500 gallons of capacity.</p> <p>4. Approximate Savings Potential assumes total 4,500 unit participation.</p> <p>5. Assumes 2 replacement fixtures per household unit.</p> <p>6. Rebate amount to vary between \$100 - \$400, depending on landscape area. Savings value calculated assuming average of \$250/unit.</p>						