

## 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, November 16, 2016** 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 However, any Director may request that any item be withdrawn from the Consent Agenda and moved to the "Action Items" portion of the Agenda to permit discussion or to change the recommended course of action.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 September 21, 2016 Meeting.**
- b. **Approval of Warrants, Budget Update and Invoice Register through October, 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. **Review Future Water Demand Projections for Los Osos Community Plan**

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

- c. **Water Conservation Program Update**

Recommendation: Review and Endorse Addendum to Water Conservation Implementation Plan for the Los Osos Wastewater Project. Direct staff to transmit the Addendum to San Luis Obispo County Public Works for submission to Coastal Commission staff.

#### **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**



construction. He asked where this committee will get more money for conservation.

Mr. Edwards said in regards to the grants, not only do we have to have local match funds, but we also need proof of a shovel ready project. With the Zone of Benefit Analysis, Mr. Edwards expressed his view that the special tax should be dropped as a means of securing administrative costs. He asked what the next step in the creek discharge issue is and how quickly can we have that project shovel ready in order to apply for one or more grants. He asked if the Annual Report has been submitted to the Court yet. He also asked if the Basin Boundary Modification request has been dropped or is it still being sought after.

Ms. Owen: Asked if recycled water is eventually going to be directed to schools in the community. Also asked if there is any thought on recycled water being delivered by truck to community members.

#### Response from the BMC

Mr. Miller said in terms of the pre-application for Proposition 1 funding the programs listed in the application were broad and showed the specific programs in the Basin Plan for current development. The next step in the creek discharge process is to receive the State's formal review and if that review is positive it will come back to the BMC to carry out an environmental review to make the project more shovel ready. The Annual Report has not been submitted to the Court. Mr. Miller said it will be submitted when there is a final version drafted. Mr. Miller also noted that staff is not taking any current steps to continue to pursue a Basin Boundary Modification. The recycled water is not being delivered to the schools yet. The recycled water is going through a Title 22 verification process first before being directed to schools. There still needs to be a discussion regarding achieving a fill station in town to be used for recycled water delivery.

Director Zimmer asked if a list of shovel ready projects should be drafted in order to have a stronger application to submit for grant funding.

Mr. Miller replied by saying that would be smart and the list will be reviewed by committee members to see which programs would best qualify for grant funding.

Director Zimmer asked if there was a response as to why the Basin Boundary Modification draft request was unsuccessful.

Ms. Berg representing the Public Works Division of the County of San Luis Obispo replied that the State updated their table of recommended Basin Boundary Modifications. If a draft request is submitted and denied, the sections in the table will be highlighted in order to show the areas that need to be improved in the request for it to be approved. DWR will be publishing their final boundaries by the end of this month (September).

Director Gibson stated in order to pursue another attempt at a Basin Boundary Modification Request, there needs to be tests done in the east area of the Basin to convince DWR that water does not communicate with the eastern fringe and the main part of the basin.

Director Garfinkel asked if there has there been an initiative to prioritize programs that have the most potential to be eligible for grant funding.

Mr. Miller replied that energy could be focused on specific projects as opposed to a shotgun approach.

**7a. Review Alternatives for BMC Input for the Los Osos Community Plan**

Mr. Miller and Ms. Acos presented a matrix regarding this agenda item. Please see attached.

An example was explained by Ms. Acos in order to show how a development standard can be crafted.

She went into an explanation of the matrix. Each one of the cells in the matrix is a separate criterion. One or more criteria can be chosen from any or all columns.

Example from Staff Report:

Allow further development subject to Title 19 water conservation retrofit requirements, but only after (1) the Chloride Metric, the water level metric, and the Nitrate Metric, have met the Basin Plan Goals for a period of 3 consecutive years, and (2) the Governor has repealed the Drought State of Emergency. Also, restrict growth to five Equivalent Development Units per year and require the County to review every five years.

The red circles around a cell means that cell or criteria correlates with this example:

Development Subject To	Development Threshold	Time	Environmental Factors	Level of Allowable Development	Review
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		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	[NUMBER] of consecutive years			
	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		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
	Nitrate Metric displays clear improvement over certain period				
	Completion of Basin Plan Program A and Program C projects				

Response from the BMC

Director Gibson did not think the Nitrate metric is relevant because it is not a water supply issue. He said that new development will not contribute to changing the Nitrate metric. The Chloride metric is the main issue. Mr. Gibson said that the development subject to the Title 19 Water Conservation Retrofit

Requirements Program is at the end of its run. He does not believe this aspect needs to be referenced.

Ms. Brown of County Planning Staff gave an overview on the schedule of the Community Plan and the Public Hearing Draft. For the Community Plan, she said they are expecting to submit to the Planning Commission in April of next year. Right now the Administrative Draft of the Environmental Impact Report (EIR) is being reviewed. The Public Hearing draft will be completed in February.

Director Zimmer said it is good to have this matrix because it helps ensure that standards are being met regarding the criteria within it.

Mr. Miller explained that the time column of the matrix determines the time frame of each metric. There is a column regarding environmental factors which correlates with metrics that are external to the Basin. Rainfall is one example. Presentation on Climate effects to the Basin given by Director Garfinkel. Please see slides attached.

#### Public Comment

Mr. Edwards said he would like to see numbers in regards to build out in the community including population and water consumption. The total build out of this community under the current General Plan would require less than 200 acre-feet of water per year. In the Basin Management Plan, 80% has been used as a safe Basin Yield Metric. Mr. Edwards expressed that the basin yield metric should be weighed more than the water level or chloride metric.

Mr. McGibney thanked Director Gibson for saying Title 19 has run its course. He disagreed with Mr. Edwards in saying the Basin Yield Metric ought to be weighed more. Mr. McGibney expressed gratitude for being able to have public comment in this portion of the meeting. He referred to the matrix presented by Mr. Miller and Ms. Acos and thought that there should be a section involving climate included in the matrix. He stated that 3 years of average rainfall should occur before any building. If another drought occurs, then Mr. McGibney believes build out should be placed on pause again.

Ms. Owen asked a series of questions. What is the current water level in the upper basin? Has salt water intrusion stopped and how can it be stopped? What is the water level in the lower aquifer? Ms. Owen believes that allowing build out to commence at this point would not be wise until specific metrics have been identified concerning water levels in the aquifers.

Mr. Ceseña requested to know what the chloride and water levels are and how has the climate been affecting the basin?

#### Response from the BMC

Mr. Miller said that water supply level is dynamic due to the intensity of the water cycle. As far as reversing sea water intrusion, Mr. Miller noted that there are other basins in California that succeeded in this effort.

Director Gibson said the inflow and outflow model should be run with different average rainfall values with worst case scenario values included. Another parameter is conservation, which is part of the outflow portion of the model. The basin model has been analyzed using static values so switching to dynamic

<p><b>7c. Water Conservation Program Update</b></p>	<p>values is worth it.</p> <p>Director Zimmer said to go ahead and continue with what is laid out in the Basin Plan right now instead of doing additional modeling.</p> <p>Note: The order of the agenda was switched because Director Gibson had to leave the meeting at 3:25pm.</p> <p>Mr. Miller said at the last meeting the direction given to staff was to prepare a Memorandum of Understanding (MOU) and secure funding for the water conservation program that was discussed last April, in which money can be pulled from available wastewater project funds. The first funding source for the wastewater project was from United States Department of Agriculture (USDA). Unfortunately, those funds have been spent so they cannot be used for conservation programs. The State Revolving Fund Loan paid for a majority of the wastewater plant, but this fund cannot support conservation measures either. The last source is the Integrated Regional Water Management (IRWM) Grant Program from DWR and these funds can possibly be made available for the series of rebates that the BMC has discussed. DWR gave the feedback that the County can amend the use of their grant funds to include outdoor conservation. The MOU has not been drafted yet due to difficulty in transferring money from these grant funds to outdoor conservation programs.</p> <p><u>Questions from the Board</u></p> <p>Q: Director Ochylski: Does the Flood Control District have the ability to do funding for us?</p> <p>A: Mr. Miller: Flood Control District funds can be sought after.</p> <p>Director Gibson added on by saying the reimbursement process through DWR is cumbersome and those funds could be spent more efficiently on other measures.</p> <p>Q: Director Ochylski: How long will it take to make a draft for the Water Conservation Implementation Plan?</p> <p>A: Mr. Miller: We are aiming to have it ready by the next meeting.</p> <p>Director Garfinkel noted that people are repurposing their tanks, but it seems that no one is pumping water out of them because of the amount of equipment needed.</p> <p><u>Public Comment</u></p> <p>Mr. Ceseña responded to Director Garfinkel’s comment by saying there isn’t a lot of equipment needed in order to make connections for repurposed septic tanks. For a total of \$150 he was able to connect his septic tank to his irrigation system. This includes a pump and the hoses to make the necessary connections.</p> <p>Mr. McGibney said dollar for dollar, conservation is the best way to save the</p>
---	---

<p><b>7b. Presentation Overviewing the Salt and Nutrient Management Plan Elements</b></p>	<p>basin. He talked with Wade Horton, the Director of Public Works of the County of San Luis Obispo, and got feedback that there was \$2.8 million available for conservation measures. He does not believe a Prop 218 vote will get passed by this the community.</p> <p>Ms. Tornatzky said the legal counsel at the last Community Service District meeting talked about barriers to using recycled water for repurposed tanks. She asked for an update on this in a future meeting.</p> <p>Ms. Owen said that repurposing septic tanks would be the best way to use the \$2.8 million for conservation.</p> <p>Mr. Edwards said conservation is not the core mission. He believes conservation methods can be funded by the Private Sector that funded Tile 19 for the past 7 years. Mr. Edwards discussed retrofitting shower heads and toilets that use less water per use.</p> <p><u>Response from the BMC</u> Director Gibson said that there are leftover funds in the wastewater project. The Coastal Commission agreed that they will permit this money leftover in the wastewater project to be used for outdoor conservation. The problem is that the funding source that puts money into the wastewater project makes it very difficult to move that money to the desired uses for conservation. Director Gibson noted that people have been taking the easier way out and buying water from their water purveyor instead of hooking up their repurposed septic tank for irrigation.</p> <p>Director Ochylski said that if people are not choosing to repurpose their septic tanks right now, they should clean and seal them for future use when it makes more financial sense for the homeowner to repurpose the tank. The law reads that a Home Owners Association can utilize recycled water, but an individual property cannot at this point.</p> <p>Ms. Martin of San Luis Obispo County Public Works gave a presentation on this agenda item. Please see slides attached.</p> <p><u>Questions from the board</u> Mr. Miller noted to the community that this agenda item is very important because it concerns the long term health of the upper aquifer.</p> <p><u>Public Comment</u> Ms. Owen said that the recycled water has been turned down by most of the farming community. She asked if this agenda item concerns permitting for farmers to use this water. She also asked if there can be an explanation on how the Broderson program works.</p> <p><u>Response from the BMC</u> Ms. Martin said that this initiative will allow the farmers to use recycled water for irrigation. Currently only urban users can use the recycled water.</p> <p>Mr. Miller said the Broderson program recharges Zone C or the upper aquifer. If there are water quality issues with the effluent at Broderson then those issues</p>
---	--



	will show up down gradient in Zone C, as well.
<b>8. PUBLIC COMMENTS ON ITEMS NOT APPEARING ON THE AGENDA</b>	Ms. Owen believes that some issues can be solved using common sense approaches. She advocated putting meters on wells to monitor discharge and it being funded by the Basin Management Plan.
<b>9. ADJOURNMENT</b>	Meeting was adjourned at 3:49 pm. The next meeting will be on November 16 <sup>th</sup> at the South Bay Community Center in Los Osos at 1:30pm.

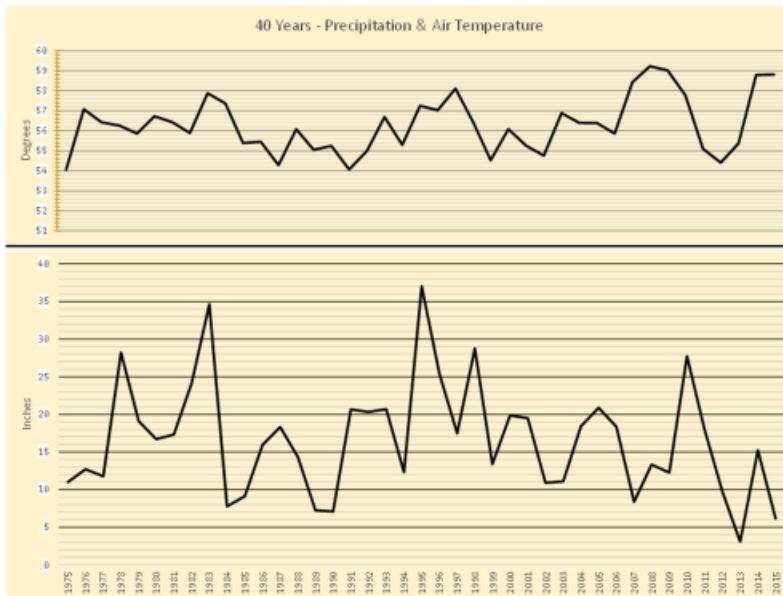
Matrix Presentation given by Mr. Miller and Ms. Acos

Development Subject To	Development Threshold	Time	Environmental Factors	Level of Allowable Development	Review
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 Water Level Metric displays clear improvement over certain period			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
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				

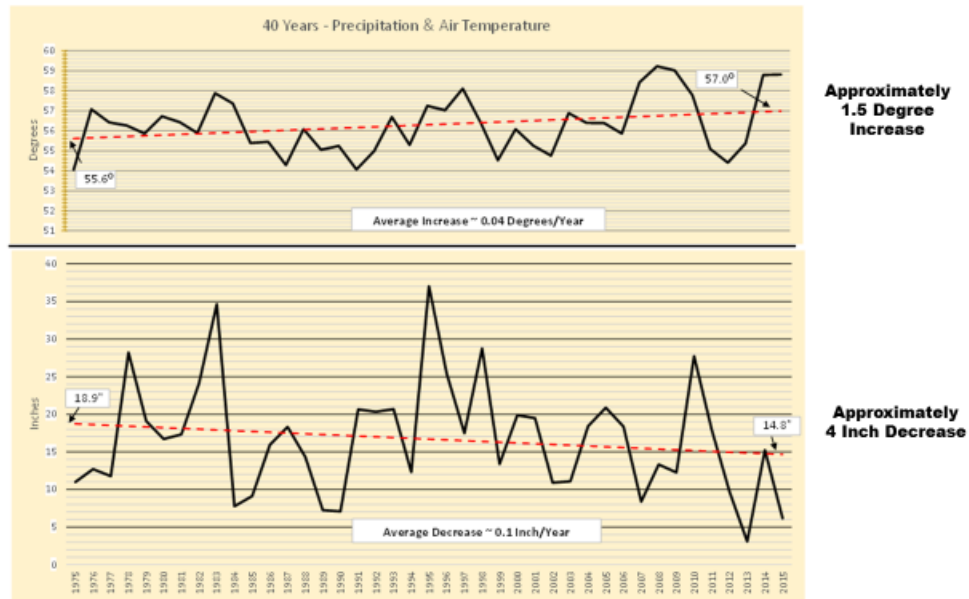
# A Climate Metric

Factoring Rainfall as a Guide to Development

## Data From Morro Bay Fire Station Weather



# Data From Morro Bay Fire Station Weather

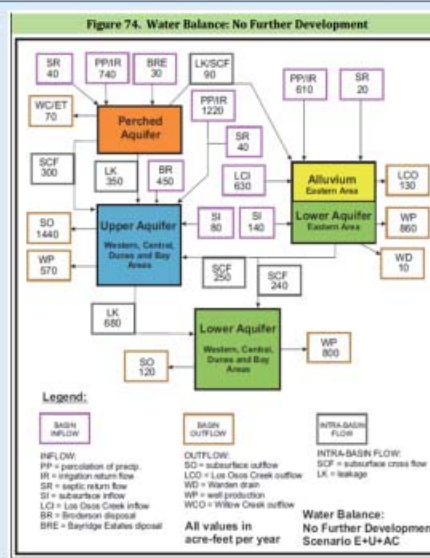


## Water Inflow and Outflow - Balance

PP/IR = Precipitation and Irrigation Return Flow

Precipitation (Rainfall) is 90% of PP/IR

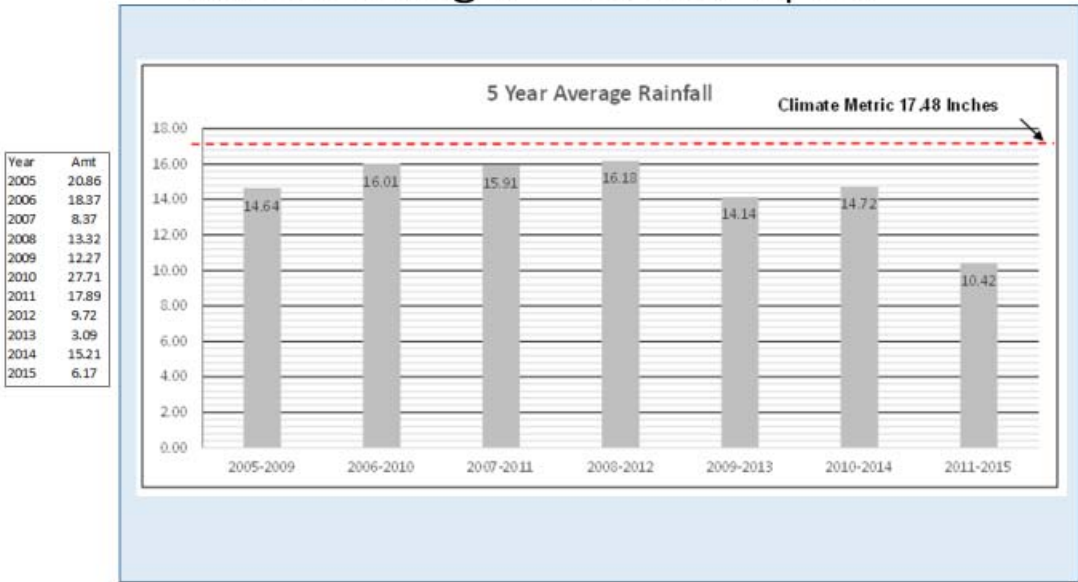
Basin Plan Model Based on 17.48" Average Rainfall 1981 - 2010



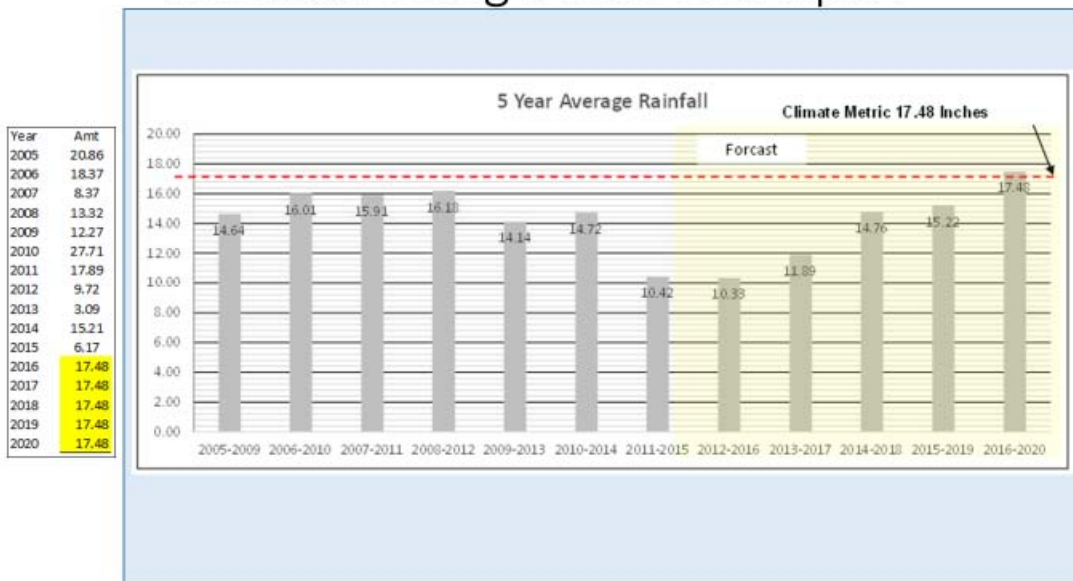
# Rainfall Averaging



# Result Using a Five Year Span



# Forecast Using a Five Year Span



- Need to run the water balance model for different amounts of rainfall
- Need to determine a defensible value for the climate metric
- No new development until five year average meets or exceeds the climate metric

# Recycled Water Policy Salt and Nutrient Management Plan Elements

1



## Background Overview

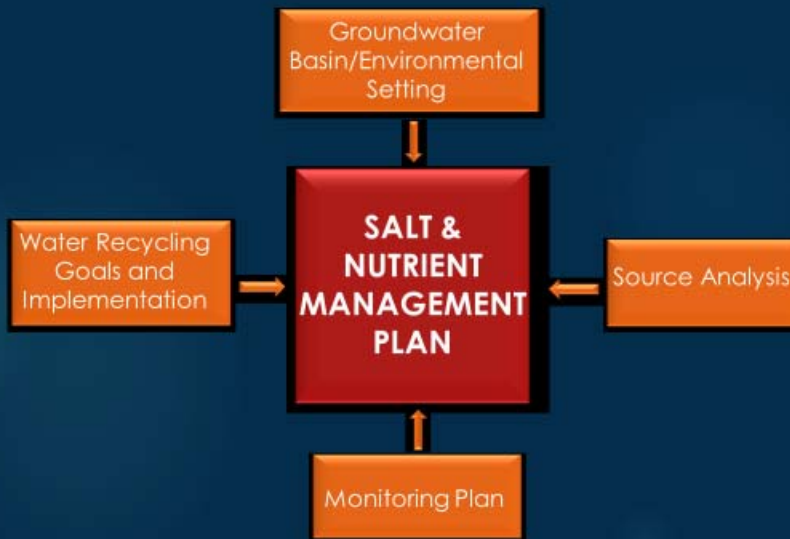
2

- 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 Water Recycling Facility.
- The SNMP will allow the facility to enroll in the Statewide 2014 General Waste Discharge Requirements for Recycled Water and will streamline the permit process. This permit will also allow the start of supplying recycled water for agriculture irrigation.



## Element Categories

3



## Groundwater Basin Description/Environmental Setting

4

- Geology
- Hydrogeology/hydrology
- Existing/background groundwater and quantity conditions
- Beneficial uses



## Source Analysis

5

- Conceptual model
- Water balance
- Salt and nutrient balance
  - source identification/
  - loading/concentration analysis
- Antidegradation Analysis

## Monitoring Plan

6

- Water quality/Salt and nutrient monitoring
- Water balance monitoring
- Trend analyses
- Data management and reporting

# Goals

7

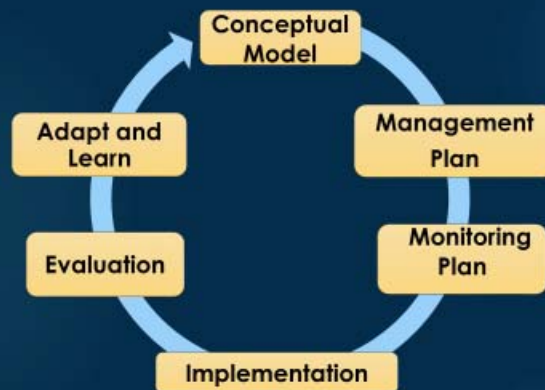
## Quantitative

- Sustainable salt/water balance plan(s)
- Load reduction
- Water conservation
- Water recycling
- Beneficial use

# Implementation

8

- Performance measures
- Adaptive Management Plan



# Next Steps

9

## Tentative Schedule - Key Milestones / Public Meetings



# Questions?

10

Optimization  
of Beneficial  
Recycled  
Water



Protection of  
Water  
Resources

**TO: Los Osos Basin Management Committee**

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

**DATE: November 16, 2016**

**SUBJECT: Item 5b – Approval of Budget Update and Invoice Register through October 31, 2016**

### **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 October 31, 2016 (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 XXXX 2016)**

<b>Item</b>	<b>Description</b>	<b>Budget Amount</b>	<b>Costs Incurred Through August 31</b>	<b>Percent Incurred</b>	<b>Remaining Budget</b>
1	Monthly meeting administration, including preparation, staff notes, and attendance	\$50,000	\$41,427.32	82.9%	\$8,573
2	Meeting expenses - facility rent	\$4,000	\$360.00	9.0%	\$3,640
3	Meeting expenses - audio services	\$4,000	\$3,150.00	78.8%	\$850
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			\$144,035
	10% Contingency	\$28,600			
	<b>Total</b>	<b>\$314,600</b>	<b>\$141,965.15</b>	<b>45.1%</b>	<b>\$172,635</b>
	LOCS (38%)	\$119,548			
	GSWC (38%)	\$119,548			
	County of SLO (20%)	\$62,920			
	S&T Mutual (4%)	\$12,584			
Notes	1. Costs incurred in 2015 for legal and administration are not included. 2. Costs are recognized in month service provided, as opposed to when paid. 3. Tasks approved by ISJ prior to BMC (ie, MKN work on creek discharge) are not included.				

**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	
Wallace Group	42655	\$4,135.50	October	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	
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
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	Basin boundary study	9	x
Cleath Harris	20160218	\$3,355.00	February	Basin boundary study	9	x
Cleath Harris	20160402	\$8,300.00	April	Annual report preparation	6	x
Cleath Harris	20160403	\$8,791.74	April	Annual Monitoring (2016)	5	x
Cleath Harris	20160504	\$4,356.70	May	Annual Monitoring (2016)	5	x
Cleath Harris	20160503	\$1,920.00	May	Annual report preparation	6	x
Cleath Harris	20160606	\$2,960.00	June	Annual report preparation	6	x
Cleath Harris	20160607	\$1,360.00	June	Annual Monitoring (2016)	5	x
Cleath Harris	20160805	\$2,100.00	August	Annual Report (2016)	6	x
Cleath Harris	20160806	\$280.00	August	Boundary study	9	x
Cleath Harris	25010134	\$1,250.00	Nov-15	Boundary study	9	x
Cleath Harris	20161001	\$12,801.40	Sept.-Oct. 2016	Annual Monitoring (2016)	5	
SBCC	82	\$60.00	April	Facility rental	2	x
SBCC	86	\$60.00	May	Facility rental	2	x
ASAP	414280	\$1,350.28	May	Conservation	11	x
ASAP	414344	\$427.71	June	Conservation	11	x
<b>Total</b>		<b>\$141,965.15</b>				



**TO: Los Osos Basin Management Committee**

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

**DATE: November 10, 2016**

**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 has received initial feedback from SWRCB staff on the Proposition 1 pre-application submitted by WSC. They have requested additional information to clarify that the Program C projects contemplated in the Basin Plan will do more than just augment supply, but they will also serve to reduce chlorides in existing purveyor wells. The reduction of contaminants in the groundwater basin is a key criterion for determining if the project is grant eligible. Otherwise, the Program C expansion wells would only be loan eligible.

#### 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.

#### Follow Up on Potential Creek Discharge

Staff received a reply from the Division of Drinking Water (DDW) concerning the feasibility study completed by MKN Associates. DDW has categorized the project as a Groundwater Replenishment Reuse Project (GRRP), and therefore additional study will be necessary to advance the effort. Staff is currently working to provide a scope and schedule for additional efforts required prior to environmental review, and this information will be provided to the BMC at a future meeting. In general, the work will include field studies regarding effluent travel time, analysis of blending water to reduce carbon content, and a review of current LOWWP effluent quality.

#### Annual Report Update

A final version of the Annual Report was filed with the Court on 10/13/2016, and it has also been posted to the BMC website.



### Basin Boundary Modification Request Update

The California Department of Water Resources (DWR) closed the first Basin Boundary Modification request period and the final 2016 modifications will be published online in late September at [http://water.ca.gov/groundwater/sgm/basin\\_boundaries.cfm](http://water.ca.gov/groundwater/sgm/basin_boundaries.cfm).

The next submission period for the Basin Boundary Modification Request for DWR is in 2018.

### 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:

- 2,500 connections have been made, including neighborhood systems and mobile home parks. There are approximately 3,000 homes and businesses connected.
- Flows are averaging approximately 300,000 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 is now going through the process verification procedure with SWB Division of Drinking Water so that the effluent can be deemed Title 22 disinfected tertiary recycled water.

### Development Criteria for Los Osos Community Plan

At the September meeting, staff presented a matrix to the BMC to facilitate a discussion of key development criteria that could be used to provide substantial evidence of an adequate water supply. Director Garfinkel presented information concerning rainfall trends and climate change at that meeting. Staff was subsequently contacted by Morro Bay National Estuary Program staff, who offered to provide funding for Cleath Harris Geologists to perform additional analysis to quantify climate effects on basin yield. This work is currently in process, and staff expects to present it to the BMC at the January, 2017 meeting.

### October, 2016 Seawater Intrusion Monitoring

Sample results and water level information are being collected for the fall monitoring event, and additional information will be presented at the next BMC meeting. Staff plans to also include a discussion on current pumping patterns as they related to the Basin Yield Metric, since significant production is still occurring on the west side of the lower aquifer.

**TO: Los Osos Basin Management Committee**

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

**DATE: November 16, 2016**

**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.

<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	Project bid in November 2016, and low bid is within 5% of \$100,0000 project estimate. Project to be awarded in December 2016 and constructed by spring 2017
Upper Aquifer Well (8 <sup>th</sup> Street)	LOCSD	Fully Funded	Project bid and awarded. Drilling expected in early December, 2017. Well to be completed with equipment by September, 2017, assuming blending will be sufficient.
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. GSWC is working through permitting with County. Project anticipated to bid spring 2017 and complete construction 3 <sup>rd</sup> quarter of 2017.
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 expected to begin in January, 2017.
S&T/GSWC Interconnection	S&T/ GSWC	Pending	Conceptual design

**TO: Los Osos Basin Management Committee**

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

**DATE: November 16, 2016**

**SUBJECT: Item 7B. – Review Future Water Demand Projections for Los Osos Community Plan**

**Recommendations**

Receive report and provide input to staff for future action.

**Discussion**

The population within the Los Osos Urban Reserve Line (URL) was identified in the Basin Plan as 14,159 persons based on the 2010 Census. The build-out population was estimated at 19,850 persons. The County of San Luis Obispo has issued a Public Review Draft of the Los Osos Community Plan (Plan) and is re-evaluating the build-out potential and the population within the URL. Based on more recent information, the County has updated the build-out population to be 18,747 persons based on 7,811 dwellings at 2.4 persons per dwelling. The County has also noted a downward trend in occupancy with a current estimated rate of 2.2 persons per household. In addition, the potential for a small increase in the number of total units at build-out has been identified, from a published value of 7,811 dwellings to a new value 7,887. Using the lower density and revised dwelling count, a future population of 17,352 can be calculated. For the purposes of this update, a range of 17,000 to 18,750 persons will be used for the projected build-out population within the URL.

To further understand the population within Los Osos, the following table provides a breakdown of the existing population and future build-out population for the Water Purveyors and the population outside of the water purveyor boundaries. These values were based on Census block data and should be considered approximate.

	<b>Existing Population (2010 Census)</b>	<b>Build-out Population Range</b>	
<b>Total Water Purveyors</b>	<b>13,544</b>	<b>16,330</b>	<b>18,075</b>
Estimated Population Outside of Water Purveyor Boundary	615	670 <sup>1</sup>	675 <sup>2</sup>
<b>Total</b>	<b>14,159</b>	<b>17,000</b>	<b>18,750</b>

<sup>1</sup> Assumes 25 additional dwelling units outside of water purveyor boundaries with a household density of 2.2 persons per household.

<sup>2</sup> Assumes 25 additional dwelling units outside of water purveyor boundaries with a household density of 2.4 persons per household.



capita demand of 95 gpcd, resulting in a total future production value of 2,100 AFY. This value includes water production from private domestic wells within the URL.

**TO: Los Osos Basin Management Committee**

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

**DATE: November 7, 2016**

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

### **Recommendations**

Review and Endorse Addendum to Water Conservation Implementation Plan for the Los Osos Wastewater Project. Direct staff to transmit the Addendum to San Luis Obispo County Public Works for submission to Coastal Commission staff.

### **Discussion**

As discussed in the September meeting, BMC staff is currently pursuing funding for additional conservation measures to augment the current Los Osos Wastewater Project program. The next step in the funding process is the formal modification of the approved Water Conservation Implementation Plan (WCIP) dated October, 2012. The WCIP was previously approved by the County Board of Supervisors and the Coastal Commission. An addendum to the WCIP has been prepared for BMC review and comment. If comments are relatively minor in nature, the BMC could choose to endorse the WCIP at the November 16, 2016 meeting and request approval from the County and Coastal Commission. The addendum includes the addition of 4 indoor measures and 4 outdoor measures as follows:

- BMC Indoor 1 – Hot water recirculation system
- BMC Indoor 2 – High efficiency clothes washer
- BMC Indoor 3 – Replace 1.6 gpf toilets with 1.28 or below
- BMC Indoor 4 – Replace 2.0 gpm showerheads with 1.5 gpm
- Outdoor 1 – Septic tank repurpose – roof water only
- Outdoor 2 – Septic tank repurpose – recycled water hauling
- Outdoor 3 – Gray water system
- Outdoor 4 – Laundry to landscape

### **Funding Considerations**

Once the addendum is approved by the Coastal Commission, a formal request can be made to utilize DWR-administered grant funds to initially fund the new rebate programs. As indicated in previous meetings, staff believes approximately \$400,000 may be available. An alternative source of initial funding may also be available from the SLO County Flood Control and Water Conservation District. 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.

Private funding of conservation measures has historically occurred through the Title 19 retrofit program. Development that occurs outside of the prohibition zone is subject to these requirements, though availability of indoor rebates is increasingly limited. The BMC may wish to direct staff to recommend inclusion of one or more of the above measures in the formal Title 19 credit list.



# MEMORANDUM

## WATER CONSERVATION IMPLEMENTATION PLAN LOS OSOS WASTEWATER PROJECT



**Date:** November 10, 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 \$300 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

WALLACE GROUP  
A California Corporation

612 CLARION CT  
SAN LUIS OBISPO  
CALIFORNIA 93401

T 805 544-4011  
F 805 544-4294

[www.wallacegroup.us](http://www.wallacegroup.us)



achieved. The plan is assumed to have a 10 year life span, which would cost approximately \$1,400/acre-ft saved.

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

This measure would provide for a \$250 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 \$100.

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 \$5,000/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. Per the current program, toilets with 1.6 gpf do not have to be replaced, however new technology can achieve less than 1.0 gpf. The proposed modification would provide a rebate of \$250 for homes that replace the 1.6 gpf toilets with 1.0 gpf models. This program would be voluntary.

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 \$2,700/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 – Roof Water

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. Water would be captured through gutters on the roof and piped to the septic tank for storage and re-use as irrigation supply. 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 at least 500 gallons of water storage capacity for rainwater catchment on the property.

Annual water savings are estimated to be 3,500 gallons per year per unit, depending on the number of participants and irrigation events. The cost of this measure is estimated to be approximately \$2,300/ac-ft for a Basin savings of approximately 40 to 60 ac-ft/year if widely implemented.

#### BMC Outdoor 2: Septic Tank Repurpose – Hauled Recycled Water

This measure is similar to BMC Outdoor 1 by providing a rebate of \$500 per household for the conversion of an existing septic tank into a recycled water storage basin. As with BMC Outdoor 1, for residents who have already backfilled their existing septic tank, a rebate of \$500 would be provided to those who implement at least 500 gallons of storage capacity for recycled water.

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.

Recycled water from the fill station would be hauled to individual residents and stored in septic tanks (or other storage tank/basin) for beneficial reuse on the property. Implementation of this measure could provide a total Basin water savings of approximately 70 to 90 ac-ft/year depending on hauled quantity. The rebate cost for this measure is estimated to be \$1,400/ac-ft of water saved.

#### BMC Outdoor 3: Gray Water System

BMC Outdoor 3 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, to be used as irrigation water 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. 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 4 – Laundry to Landscape Program

This measure, similar to BMC Outdoor 3, 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 3. Recipients who receive a rebate for the BMC Outdoor 3 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.



**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	\$300	EPA Water Sense estimates > 10,000 gal/year, assume 5,000 to 10,000 gal/year	7,000	10	\$1,396	50 to 100
Indoor -2	High efficiency clothes washer	\$250	3,000 to 5,000 gal/year, depending on household size	3,300	5	\$4,936	40 to 60
Indoor - 3	Replace 1.6 gpf toilets with 1.28 or below	\$250	1,000 to 2,000 gal/year, depending on use	1,500	20	\$2,715	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 - roof water only	\$500 (see Note 3)	Assume 3 to 4 tank volumes, at 1,000 gallons each	3,500	20	\$2,327	40 to 60 (See Note 1)
Outdoor - 2	Septic tank repurpose - with recycled water hauling	\$500 (see Note 3)	Potentially eliminate outdoor potable usage	6,000	20	\$1,358	70 to 90 (See Note 1)
Outdoor - 3	Gray water system	\$500 (see Note 3)	Potentially eliminate outdoor potable usage	6,000	20	\$1,358	70 to 90 (See Note 1)
Outdoor - 4	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)
<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>						

