Page 1-1 – The WSRP describes the 30% reduction of pumping rights. RBMB suggests adding context and history to the water rights adjustment– Decreed rights were raised too high in 1955 and not reevaluated from time to time as suggested in 1955.

Page 1-3 – The WSRP indicates defined Goals and Objectives were developed in partnership with SAG. The RBMB should have been included, at a minimum, from a technical perspective, in these Basin specific discussions in addition to SAG.

Page 1-4 – The WSRP indicated SAG was selected as a diverse group. The omission of the RBMB from the plan development is significant, and severely challenges the application of this WSRP.

Page 2-1 – The WSRP indicates Pasadena purchased portions of Arroyo Seco and Eaton Wash watersheds. More detail is needed, including a description of additional associated surface water rights. New recharge facilities will require Board approval and adoption of measurement and reporting procedures.

Page 2-12 – The WSRP indicates approximately 6,000 to 10,000 AFY are estimated to leak from the eastern portion (primarily Santa Anita Subarea) of this basin to the Main San Gabriel Basin (MSGB), and that pumping to historically low groundwater levels in MSGB increases leakage. These statements are not supported with current information and data. No technical information is provided. The statement on leakage should be significantly "qualified" and the statement regarding groundwater levels in MSGB increasing leakage be removed.

Page 2-13 – The WSRP indicates Pasadena will be (1) implementing specific projects in RB to reduce loss (leakage) of groundwater to MSGB, (2) revise policy on Basin sustainability, (3) develop Basin protection policies and guidelines for Basin wide adoption. RBMB advises these are the roles and responsibilities of the RBMB. Pasadena is on the RBMB and all committees. Pasadena has not introduced any of these concepts in any form to the RBMB. Had RBMB input been included in the WSRP draft, some of these concepts could have already been vetted.

Page 2-14 – The WSRP indicates "...on July 1, 2009, the RBMB implemented a resolution that voluntary reduced pumping from the Pasadena subarea for a term of five years." This statement is incorrect. In order to meet the goal of 30% reduction, water production reductions were implemented incrementally at a rate of 1,070 AFY for over a five year period. The 30% reduction plan is still in place and there is no term limit of five years. The WSRP needs to include more details on why the 30% reduction plan was implemented. The RBMB determined the re-determination of the Safe Yield in 1955 and the adoption of the Long-Term Storage (LTS) Policy by the RBMB in 1993 played a major role in lower overall groundwater levels that the Pasadena subarea was experiencing.

Page 2-16, 4-3 – The WSRP indicates Pasadena's current "long-term storage" is 13,400 AF in Monk Hill and 20,600 AF in Pasadena subareas. The WSRP indicates, "Long-term storage is the key underpinning Pasadena's water supply resiliency". The RBMB suggests this discussion be clarified to include (1) termination of long-term storage when accounts are exhausted (no new storage), and (2) current declining water levels while water is "stored" in LTS accounts. RBMB

determined the LTS Policy adopted in 1993 was one factor in lower overall groundwater levels the Pasadena subarea was experiencing.

Page 2-17 – The WSRP states, "...governing practices confound groundwater pumping capacity in the area." The RBMB is unaware of the "practices" referred to in the WSRP. The RBMB was not included in the SAG and has not been advised of these Pasadena concerns at any RBMB meetings or Committee meetings, where Pasadena is a voting member. Pasadena suggesting the RBMB has "failed" to address sustainability of the basin in the WSRP, is totally inappropriate while Pasadena sits on the Board and Committee and has never expressed these concerns or provided alternative suggestions.

Page 2-17 – The WSRP includes "Historic Pasadena Area Groundwater Levels" and indicates source is from RBMB Draft Opportunities to Enhance Groundwater Levels in Pasadena Subarea. RBMB does not recognize this graph. Please indicate where the graph was obtained and which well(s) the water levels represent and provide a location map of why this is a good representation of the Pasadena Subarea.

Page 4-1 – RBMB would like the opportunity to review the data from the Pasadena simulation model including inputs and outputs data.

Page 4-2 – In the WSRP discussion on Groundwater Supply, there are several assumptions made for "modeling". Any Party to the RBMB can certainly make internal management assumptions and model different scenarios; however, it should be stated and understood, in the WSRP, that the provisions of the RBMB Judgment must be followed and water rights be respected. The WSRP also appears to not recognize the inconsistency of reliance on LTS (declining WLs) and the stated goal of restoring basin water levels and basin sustainability.

Page 4-5 – Figure 4-1 stops in 2009, why is the most recent drought not included?

Page 5-8 – The WSRP describes a potential Raymond Basin imported water storage project. The RBMB has always supported review and consideration of new groundwater storage projects that will benefit the Basin. Similar to efforts to "revive" water levels throughout the Basin, in order for RBMB to implement new groundwater storage projects, we need producer participation, producer consensus and funding sources. In the Monk Hill Subarea, there has been no progress in pushing forward defined projects and storage agreements with MWD, even though Pasadena is a MWD member agency, the majority water rights holder and owner of the spreading facilities in that subarea.

Page 5-10 – The WSRP discusses various options to enhance Pasadena's groundwater pumping rights through improved conservation of local water supplies. The RBMB fully supports increased conservation of local water supplies to benefit the Basin. RBMB also advises that all storage credits must comply with the RBMB Judgment. In addition, all beneficial uses of surface water (groundwater storage, potable and non-potable use) must comply with the RBMB Judgment. This includes centralized capture of stormwater, Low Impact Development Programs, MS-4 programs and compliance with Enhanced Watershed Management Plans.

Please don't hesitate to contact me with any questions you have regarding these comments. I can be reached by telephone at 626-815-1300 or by email at tony@watermaster.org.

Sincerely,

Anthony C. Zampiello
Executive Officer
Raymond Basin Management Board

Translocation of Rainbow Trout to the Arroyo Seco

from the Bobcat Fire Burn Area

Fall 2020

Prepared by Jennifer Pareti

Introduction

Following the 2020 Bobcat Fire, CDFW led a fish rescue in the West Fork San Gabriel River (WFSGR) and Bear Creek (tributary to WFSGR) in Los Angeles County, within the Angeles National Forest. This report is a follow up to the Bobcat Fire Fish Rescue Report (Pareti 2021) and focuses on the translocation of rescued native coastal rainbow trout (*Oncorhynchus mykiss irideus*) to the Arroyo Seco in Los Angeles County, within the Angeles National Forest.

The Bobcat Fire began on September 6, 2020 and burned 115,796 acres of the Angeles National Forest, including 93% of the lower West Fork San Gabriel River watershed and 81% of the Bear Creek watershed (InciWeb 2020). CDFW biologists conducted reconnaissance level surveys on October 13 and 14, 2020 resulting in the observation of the extensively burned watersheds with little to no vegetation remaining on the steep surrounding mountainsides. The Burned Area Emergency Response Report (BAER) projected that upon the arrival of moderate rainfall, heavy debris and sediment loads would occur within the stream resulting in high mortality of native fish species throughout the WFSGR and Bear Creek (USFS 2020). A fish rescue was discussed with US Fish and Wildlife and US Forest Service, and all were in agreement with the CDFW rescue and release plan. Additionally, CDFW evaluated plans for a conservation translocation of rainbow trout to the Arroyo Seco.

The Arroyo Seco, a tributary to the Los Angeles River, has historically supported a rainbow trout population, however the watershed burned extensively in the 2009 Station Fire. Stream habitat within the Arroyo Seco has recovered to a level which should support rainbow trout but fish have not been observed during CDFW reconnaissance level and electrofishing surveys. Fish passage is not currently possible in the Arroyo Seco around Devil's Gate Dam, and therefore, there is no way for native rainbow trout to naturally repopulate the Arroyo Seco. The WFSGR coastal rainbow trout population is recognized as a valuable genetic resource for southern California Steelhead and native coastal rainbow trout (Abadia-Cardosa et al. 2016, NMFS 2012). Translocating WFSGR rainbow trout into Arroyo Seco provided an opportunity to preserve valuable WFSGR genetics as well as potentially re-establishing a native rainbow trout population in Arroyo Seco.

A reconnaissance level survey was conducted in Arroyo Seco on November 12, 2020 to assess the stream habitat. The water level in the stream was low following a year of below average rainfall, but the habitat was still suitable for rainbow trout. Approximately 3 miles of stream were selected for the translocation and 500 rainbow trout was determined as target population size to be translocated. Due to the shallow habitat in the Arroyo Seco at the time of the fish rescue, it was decided to only translocate small rainbow trout (less than 5 inches).

Rescue

Fish rescues in the WFSGR for translocation to Arroyo Seco were conducted by CDFW staff over two days: November 24, and December 1, 2020. Rescue efforts varied in number of rescue teams and rescue locations based on staff availability and are shown in Table 1 and Figure 1. Rescue teams were made up of 5-6 CDFW staff.

Table 1. West Fork San Gabriel River and Bear Creek Fish Rescue Dates and Locations

Rescue Date	GPS Coordinates of Rescue Locations by Rescue Date	
	WFSGR	Bear Creek
November 24	34.244782, -117.946519	N/A
December 1	34.242414, -117.919680	34.240860, -117.884622

Electrofishing was utilized to capture all fish and was conducted using one to two backpack electrofisher units (Smith Root Models LR-20B and LR-24) depending on staff availability, as well as stream width and morphology. Electrofisher voltage settings ranged from 150-250 Volts depending on water depth. Remaining settings were as follows: 30 Hertz pulse frequency, 5 milliseconds pulse width, and 15 percent duty cycle. Rescue locations were selected based on CDFW 2018 habitat and fish data as well as accessibility (Pareti 2020). Electrofishing was conducted in an upstream direction in selected rescue locations and consisted of one or two electrofishers with at least two neters assigned to each unit.

Captured fish were placed in buckets with water and transferred to streamside holding containers with aerators. All fish were identified and counted by species. Rescued rainbow trout individuals were sorted by approximate size to less than or greater than 5 inches (127 mm). Fish translocated to Arroyo Seco had their adipose fin clipped to mark fish for future identification. Fish were weighed and measured (fork length) as time allowed. A representative number of adipose fin clips were collected for genetic sampling and stored dry in individually marked envelopes.

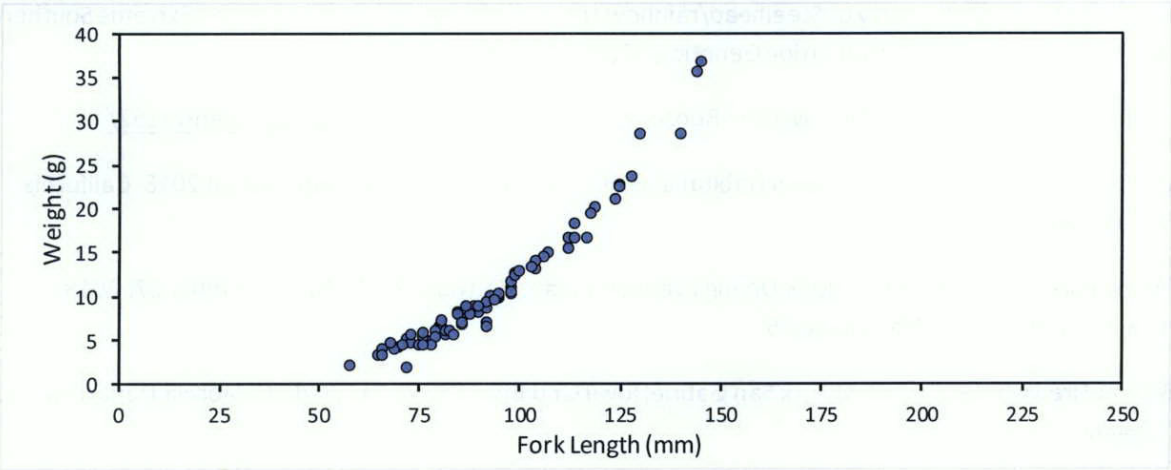
The total number of rainbow trout rescued are listed in Table 2 below along with the numbers of fish translocated to the Arroyo Seco as well as released into the East Fork San Gabriel River. Graph 1 shows length vs. weight relationships for all measured individuals translocated to the Arroyo Seco.

Fish were transferred to coolers filled with stream water for transport to release locations. Water temperature was monitored within the coolers and multiple battery-operated aerators were used for each cooler. Fish collection efforts concluded by 1:30 PM each day.

Table 2. Total Rainbow Trout Rescued from West Fork San Gabriel River and Bear Creek and Released in Arroyo Seco and East Fork San Gabriel River (EFSGR). Due to habitat availability, only rainbow trout less than 5 inches (127 mm) were considered for translocation to Arroyo Seco.

	Number of Rainbow Trout by Date		**Total Fish**
	11/24	**12/1**	
Total Rescued	271	379	650
Total Released in Arroyo Seco < 5 inches (127 mm)	**197**	**272**	**469**
Total Released in EFSGR > 5 inches (127 mm)	69	107	176
Total Mortalities	5	0	5

Graph 1. Length vs. weight of measured and weighed rainbow trout (n=78) rescued in West Fork San Gabriel River and Bear Creek and translocated to the Arroyo Seco, November 24 and December 1, 2020. Due to habitat availability, only rainbow trout less than 5 inches (127 mm) were considered for translocation to Arroyo Seco.



Release

A total of 469 rainbow trout were released into the Arroyo Seco on November 24 and December 1, 2020, distributed over 2.5 miles of stream (Figure 2). Fish were acclimated prior to release by slowing adding water from the Arroyo Seco stream into the coolers until the cooler water temperature was within 2°F of the Arroyo Seco. Once acclimated, fish were transferred to buckets and backpacks of 100% Arroyo Seco water to ensure no water from WFSGR entered the Arroyo Seco. Fish were hiked to release locations in buckets and backpacks and released in small quantities (3-10 fish) into areas with the best available rainbow trout habitat. Fish were observed following release to confirm that they were behaving normally. Mortalities were collected and preserved in ethyl alcohol.

Future Monitoring

A monitoring plan has been designed to collect data on Arroyo Seco stream conditions where rainbow trout were released and in downstream areas where fish may disperse. Fish surveys will be conducted by CDFW in the summer and/or fall.

Acknowledgements

Thank you to the following CDFW Region 5 staff for their assistance with fieldwork and planning for this fish rescue and release effort: Olivia Arredondo, Russell Barabe, Karen Boortz, Claudio Cardenas, Marissa Groenhof, Shelley Hunter, Matt Lucero, Derek Miller, Jenny O'Brien, John O'Brien, Austin Sturkie, Abram Tucker, and Brian Young.

References

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USFS. 2020 (October 11). Burned Area Emergency Response, Bobcat Fire. Angeles National Forest Hydrology and Watershed Specialist Report.

Figure 1: Bobcat Fire Fish Rescue Locations on the West Fork San Gabriel River. November 24 and December 1, 2020.

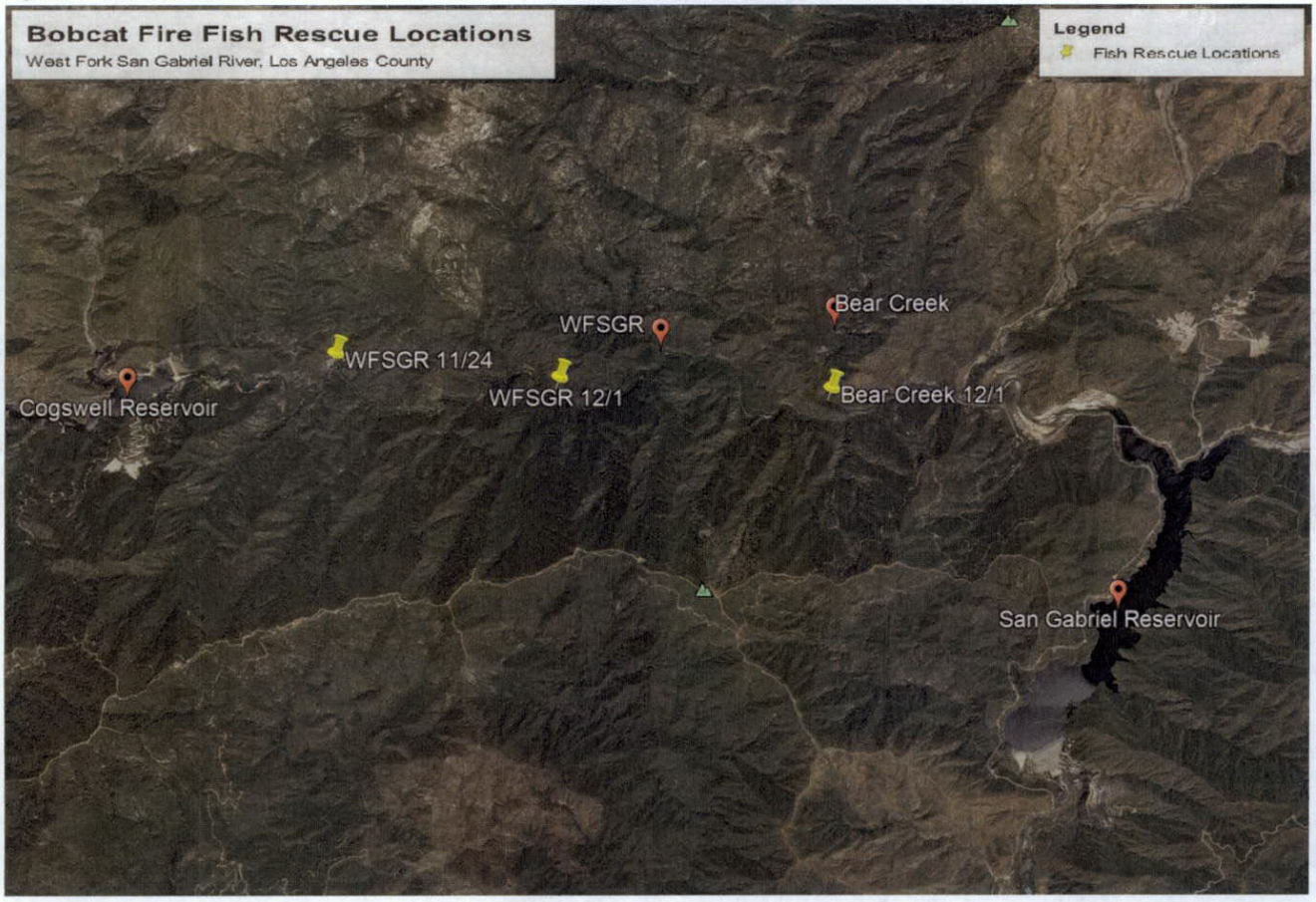
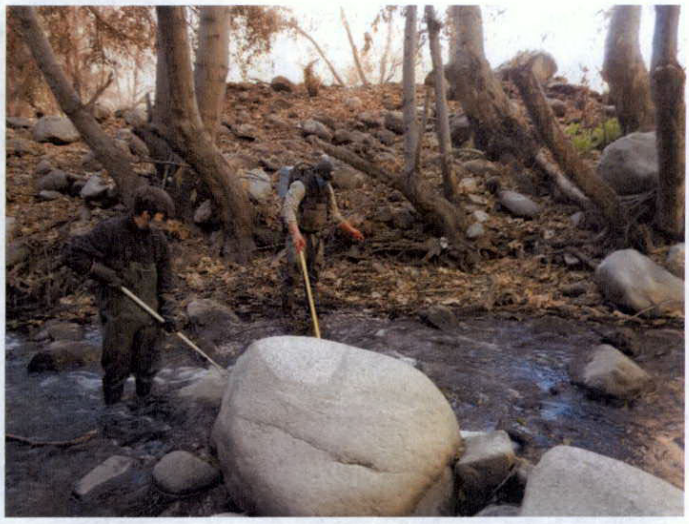


Figure 2. Bobcat Fire Rainbow Trout Translocation Locations on the Arroyo Seco. November 24 and December 1, 2020.

Figures 3-4. Capturing fish in the West Fork San Gabriel River and Bear Creek using backpack electrofishing.

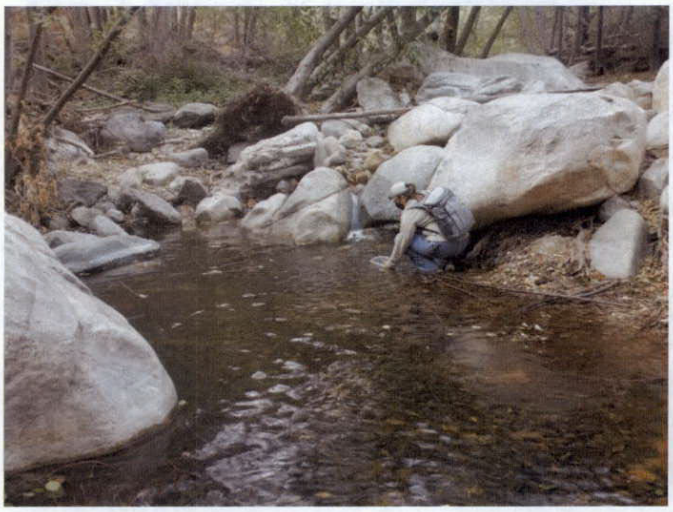


Figures 5-8. Processing fish. Fish were sorted and counted by species. Rainbow trout were further sorted into two size classes, less than or greater than 5 inches (127 mm). Top and bottom left, rainbow trout less than 5 inches. Top and bottom right, rainbow trout greater than 5 inches

Figures 9-10. Processing fish. Fish were measured, weighed, and fin clipped according to the rescue and translocation plan.

Figures 11-14. Representative photographs of fish being acclimated and released to the Arroyo Seco on November 24 and December 1, 2020.

Figures 14-18. Representative photographs of fish being acclimated and released to the Arroyo Seco on November 24 and December 1, 2020.



ZANJERO

December 17, 2018

To: Mitch Dion, Pasadena Water and Power
Roumiana Voutchkova, Pasadena Water and Power

From: Michael J. Preszler, Zanjero
Jim Crowley, Zanjero

Subject: Raymond Basin Assessment

1. Purpose and Scope

Pasadena Water and Power ("PWP") is currently engaged in the significant challenge of staving off the potential of critical water supply shortfalls, ensuring continued water reliability, and implementing long-term solutions to address water quality issues in the Raymond Basin.

The Raymond Basin Assessment (RBA) presented here is based on review of information, data, historical documents, discussions with Pasadena Water and Power (PWP), and others with knowledge of the Raymond Basin. Much information exists describing the Raymond Basin and the longstanding effects over time and little will be repeated in the RBA. This document, the RBA, is intended to provide a perspective on water resource stewardship in the Raymond Basin aimed at forwarding PWP's interest in protection and recovery of the Raymond Basin.

The purpose of the RBA is to provide an initial effort comprised of reviewing the Raymond Basin and management to identify current status and understanding. The RBA is intended to evaluate whether over-all management of the Raymond Basin has been effective over time, including Pasadena's involvement. The purpose also includes consideration of strategic options for Pasadena to consider in working towards improving the Raymond Basin. The findings and recommendations described here are based on an evaluation of limited time availability and resources, and represent an initial effort for implementation.

CONCLUSION

The Raymond Basin is not managed in a sustainable manner as evidenced by the decrease in basin groundwater levels over the last 118 years, and is under threat of spreading contamination.

PWP and RBMB must change its course and take action to prevent permanent failure of the basin.

2. Raymond Basin Adjudication

In the 1940s the Raymond Basin was the subject of adjudication, a legal agreement or decision that defines the rights of water pumpers in a basin. The adjudication focused on water right entitlements. The adjudication did not focus on management efforts that would allow for a sustainable operation of the basin that would balance extractions from the basin with natural replenishment supplemented by imported supplies. The original judgment established a safe yield for the basin of 21,900 acre-feet per year and divided the water rights among sixteen users. In 1955 the judgment was modified, resulting in a decreed safe yield of 30,622 acre-feet per year. Justification for this increase is not clear in the documents. A 1974 modification of the judgment allows basin parties the right to spread canyon diversions and recapture a percentage of the spread water. In 1984 the judgment was restated and modified with no change in the decreed rights. The Raymond Basin decreed rights and storage accounts are shown in Table 1.

Table 1. Raymond Basin Decreed Rights and Long-Term Storage

Area	(Acre-Feet Per Year)	Pasadena Subarea Long-Term Storage as of 6/30/2018, Acre-Feet
Monk Hill Subarea		
La Canada Irrigation District	100	999.3
Las Flores Water Company	249	457.2
Lincoln Avenue Water Company	567	1,254.8
Pasadena, City of	4,464	13,398.8
Pasadena Cemetery Association	91	184.3
Rubio Canon Land & Water Assn.	1,221	1,077.0
Valley Water Company	797	525.4
Subtotal:	**7,489**	**17,897**
Pasadena Subarea		
Alhambra, City of	1,031	3,543.1
Arcadia, City of	2,118	891.0
California-American Water Company	2,299	1,510.6
East Pasadena Water Company	515	317.4
H.E. Huntington Library & Art Gallery	372	434.1
Kinneloa Irrigation District	516	790.0
Pasadena, City of	8,343	9,968.8
San Gabriel County Water District	1,091	2,825.0
Sunny Slope Water Company	1,558	2,427.9
Subtotal:	**17,843**	**22,708**
Western Unit Total:	**25,332**	**40,605**
City of Pasadena Total:	12,807	--
Santa Anita Subarea		
Arcadia, City of	3,526	--
Sierra Madre, City Of	1,764	--
Subtotal	**5,290**	--
Raymond Basin Total	**30,622**	--

3. Groundwater Levels

The Raymond Basin contains alluvium consisting of sands, gravels, and other porous materials of large depth through which groundwater percolates, with total volume estimated at 820,000 acre-feet (Geoscience, 2004). The Pasadena subarea groundwater elevation decreased approximately 100 feet between 1980 and 2008 (Stetson, 2017), and has decreased approximately 275 feet since 1910. Additionally, studies indicate that groundwater levels had generally declined in the Pasadena subarea since the Judgement was entered and had not recovered, even during sustained wet periods. (Stetson, 2017)

The primary groundwater movement in the Western Unit is from the north and west of Monk Hill, through the Pasadena Subarea to the south and east towards the Raymond Fault. The barrier in the alluvium caused by the Raymond Fault zone mostly impedes the sub-surface movement of water from the Raymond Basin to the Main San Gabriel Basin. However, it is estimated that about 6,000-10,000 acre-feet per year "spills" from the Raymond Basin into the Main San Gabriel Basin, mostly along the eastern side of the fault. (Geoscience, 2004) (Zampiello 2018). Over time, Main San Gabriel Basin management has led to a reduction of groundwater levels in the Main San Gabriel Basin, increasing the spillage. A 10,000 acre-feet spill into Main San Gabriel Basin represents approximately one third of the total Raymond Basin adjudicated rights. This water is lost from the basin every year, severely impacting basin health and sustainability. It appears as if nothing has been done in the Raymond Basin to reduce or prevent this loss.

Simulation water level modeling was completed by Stetson for the Woodbury Well, owned and operated by the City of Pasadena (Board R. B., Unknown). This well was designated by the RBMB as the key well for determining the groundwater level of the Pasadena Subarea. Figure 1 illustrates simulated water levels at Woodbury Well for three scenarios. The black line going back to 1911 is the historic measurement. In Scenario 1 (red line), the groundwater production and water use in the Pasadena subarea remain at the 2005-2006 levels (28,243 and 57,737 acre-feet per year respectively) for the following 20 years under average hydrologic conditions. In Scenario 2 (green line), the groundwater production in the Pasadena subarea was reduced 50% from the 2005-2006 levels and remains at that level (14,121 acre-feet per year) for the following 20 years. Scenario 3 (magenta line) is similar to Scenario 2 except the groundwater production in the Pasadena was kept at the 1944 rights starting in 1954-1955 (15,412 acre-feet per year).

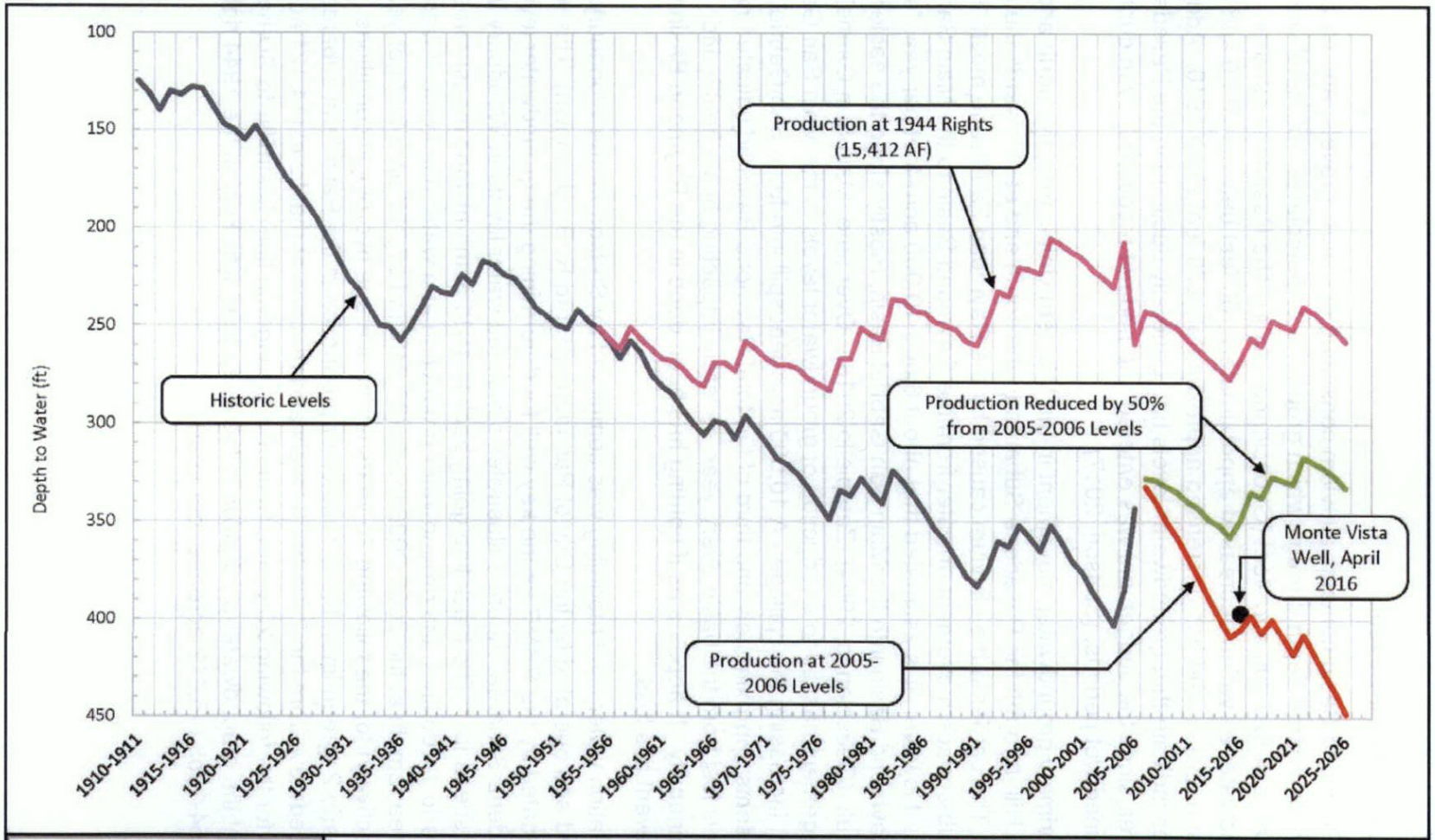


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Figure 1 - Historic and Projected Pasadena Subarea Levels

Source: RMBM, Draft Oppurtunities to Enhance Groundwater Levels in Pasadena Subarea, unknown date

As shown in Figure 1 under Scenario 1, the simulation indicated that the water level at Woodbury Well would continue to decline from approximately 330 feet to 450 feet (about 120 feet). Under Scenario 2, results indicate that the water level at Woodbury Well appears to stabilize although it declines about 10 feet. Under Scenario 3, results indicate that the water level at Woodbury Well stabilizes at about 250 feet since 1954-1955.

Informed with the data shown in Figure 1 and concerned over basin contamination, the RBMB developed an approach to both recover groundwater levels and mitigate groundwater contamination. In 2009, the Pasadena subarea subcommittee adopted Resolution No. 42-0109 entitled, "Resolution of the Board of Directors of the Raymond Basin Management Board Adopting a Cooperative Pumping Reduction Plan for the Parties with Water Rights in the Pasadena Subarea" (Reduction Plan). This Reduction Plan called for the water agencies and pumpers involved to voluntarily agree to incrementally decrease pumping in the Pasadena subarea by six percent each year for five years for a maximum of 30 percent reduction. The initial goal of the Reduction Plan is to increase groundwater levels to 50 feet above the conditions as of July 1, 2009.

The groundwater level, as measured at the Monte Vista Well, decreased by about 13 feet from 2009 to 2017 (Stetson, 2017).[1] The Reduction Plan didn't produce anticipated results (i.e. increase groundwater levels). In addition, the actual volumes pumped didn't significantly change – it was just a "paper" reduction. The Reduction Plan restriction primarily placed a limitation on the use of 1955 Decreed Rights, but allowed producers to continue to produce groundwater against their Long Term Storage. Consequently, it is likely actual production would have been the same whether or not the Reduction Plan was enacted. (Stetson, 2017)

The amount of long-term storage available in the Pasadena subarea is 22,708 acre-feet. (Board R. B., 2018) Although the ability to add to the long-term storage account is no longer available, the remaining long-term storage account could provide decades of "make up" water. In other words, the actual volume of water pumped from the basin may not decrease by 30 percent for decades, resulting in the continual lowering of groundwater levels.

Information available in 2009 when the resolution was adopted to curtail pumping by 30% clearly showed that the curtailment would not obtain stated goals (i.e., 50 feet increase in ground water levels). Modeling information shown in Figure 1 indicated that

[1] Although Woodbury Well was designated as the key well for determining the groundwater level of the Pasadena Subarea, data was not collected and the Monte Vista Well was instead used to determine static water elevation for the Pasadena Subarea.

a minimum curtailment of about 50% would be required to maintain groundwater levels over time and therefore a curtailment of larger than 50% would be required to increase groundwater levels by 50 feet. Even with this data, the RBMB selected to only reduce pumping by 30 percent, and then allowed use of carryover storage, nullifying any potential for positive basin impacts.

4. Contamination of the Basin

The National Aeronautics and Space Administration (NASA) is responsible for remediation of contaminates originating from the Jet Propulsion Laboratory (JPL) site, as required under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA). See Figure 2 below depicting the contamination zone. The cleanup effort includes treatment of groundwater extracted from drinking water production wells in the Monk Hill subarea containing site-related chemicals of interest, which include volatile organic compounds (VOCs) and perchlorate. Contaminated wells are located in both the Monk Hill subarea and the Pasadena subarea down gradient of the JPL facility, however, NASA has not accepted responsibility for groundwater

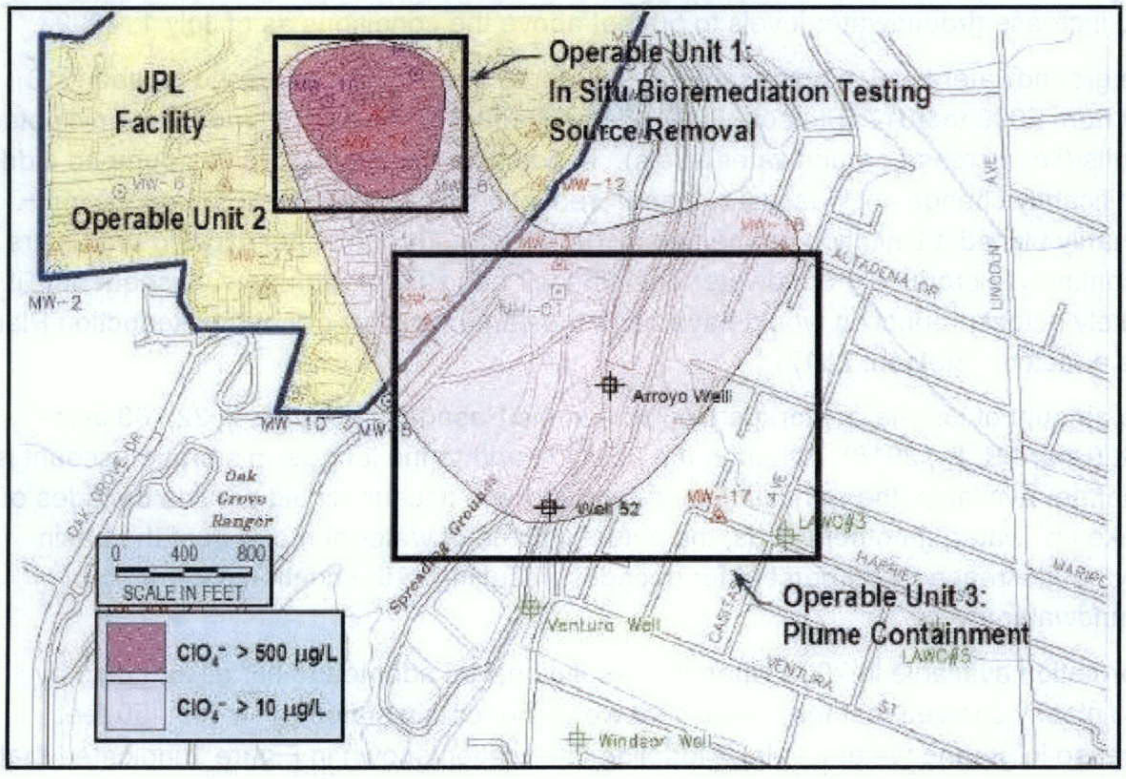

Figure 2 - Map of JPL Perchlorate Contamination in the Arroyo Seco (Brick, 2018)

contamination in the Pasadena subarea. (Brick, 2018) PWP staff has indicated that sampling in wells to the south and east have elevated plume contaminates, indicating the contamination continues to spread outside the capture area. There are contamination sites that are currently not managed that appear to be migrating downgradient into the central portion of the Pasadena subarea, where Pasadena's Woodbury and Monte Vista wells are located, by 2024. (Geoscience, 2004) JPL and NASA's cleanup efforts of the managed areas are important. However, plume movement outside of the existing managed area is a direct threat to the long-term sustainability of the basin and needs to be addressed.

5. Hydrologic Modeling

A Raymond Basin groundwater model has been developed by Geoscience. It uses MODFLOW modeling software. The MODFLOW computer code is a block-centered, three-dimensional, finite-difference groundwater model widely used. MODFLOW was developed by the U.S. Geological Survey for the purpose of modeling groundwater flow.

The Geoscience 2004 report, "Raymond Basin Ground Water Flow Model Predictive Simulations", provides a description of how the Raymond Basin model was developed. The discussion of model development is sound and should provide an adequate tool to examine the Raymond Basin. However, in the 2004 Geoscience report, the projected 2017 groundwater levels, under baseline conditions, were predicted to rise throughout the entire basin. While the basin essentially operated under baseline conditions through 2017, there was actually a decrease in groundwater levels throughout the basin. This is presumably at least partially due the drought conditions experienced in the basin during these years. However, it is unknown how much of the incorrect projection might be attributable to modeling development or calibration.

6. Basin Management

The most noteworthy finding is the seemingly lack of urgency regarding the basin's state of health and implementing effective management actions. There appears to be ample data and basin information to identify the deteriorating state of the basin, and many available project options to reduce declining groundwater levels in the Pasadena subarea. However, only limited efforts have been implemented. Actions that have been taken over time (such as the 30% reduction in decreed rights pumping) have failed to increase or even maintain groundwater levels in the Pasadena subarea. It does not appear that the RBMB fully evaluated the 30% reduction plan prior to implementation as review of information suggests that a 30% evaluation was not completed. A 50% reduction was studied that indicated a 50% reduction would maintain groundwater levels.

Additionally, the over-arching RBMB goals and objectives are unclear. It appears the current goal for the Pasadena subarea is to raise the groundwater levels 50 feet above the 2009 conditions. Why is this a goal? How is that goal tied to reaching basin sustainability? What is basin sustainability? There does not appear to be an over-arching policy that could answer these questions. In addition, there is no urgency or effective practices in place to even meet the stated goal of 50 feet above 2009 conditions.

The structure of the RBMB was determined by the Court. It appears that the approval structure of the RBMB minimizes the ability for PWP to prioritize the Pasadena subarea making significant and meaningful projects difficult to carry out. It also appears that the City of Pasadena has not been proactive or assertive in an effort to improve basin management and sustainability.

The RBMB structure does not address the myriad of interlinking urban issues that impact water quality and quantity. For instance multiple entities have authority over land use, stormwater, well construction/ abandonment, hazardous cleanup, and many other factors. At a minimum, the RBMB should be involved in all these issues to ensure groundwater protection.

There have been discussions regarding combining management of the Raymond Basin with the management of the Main San Gabriel Basin. The RBMB should fully investigate and understand the advantages and disadvantages of this possibility and assure that one basin isn't being favored over the other.

7. Sustainable Groundwater Management Act (SGMA)

Adjudicated basins are largely exempt under the Sustainable Groundwater Management Act (SGMA). As such, SGMA does not require sustainability management of adjudicated basins. The Raymond Basin adjudication focuses on the water rights interests of the parties and not sustainability management of the basin. Discussions with California Department of Water Resources (DWR) SGMA staff indicate that the State of California (State) is aware that adjudicated basins including Raymond Basin, are not operated under a sustainably management approach that would meet the requirements of SGMA.

There is interest at the State level to require adjudicated basins to be managed in a sustainable approach. No known actions at the State level have initiated towards this goal at this time. However, it is likely the State will become involved in the current political atmosphere within California water management. It is recommended that sustainability requirements be considered in developing long-term basin goals and objectives in order to maintain local basin management.

8. Conclusions and Recommendations

The Raymond Basin holds over 800,000 acre-feet of water. The Basin's water supply is critical to the continued success of the member communities. It is also the critical local supply during short-term and long-term supply emergencies. In the case of an emergency where Metropolitan Water District supplies are not available such as through drought, regulatory constraints, contamination, or earthquake, the Raymond Basin would be the primary and only local water supply available to meet the City of Pasadena demands. However, current conditions and trends for basin volume and quality threaten its ability to supply water during normal conditions, and during emergencies. Without a healthy, sustainable basin, there may be no groundwater available for supply shortage emergencies.

There are three main threats to the basin that PWP should address with near-term decisions and actions.

1. Contamination. The JPL contamination plumes need to be actively halted, treated, and remediated to prevent irreparable effects to the basin, limiting operational flexibility and water availability. The RBMB and/or Pasadena could assume an increased role in working with JPL, the EPA and others to develop options to address contamination.
2. Basin Management. The basin levels have trended down since the adjudication, yet there appears to be no urgency in responding. The basin management needs to define basin long-term sustainability goals and develop, support, and implement actions to reach sustainability. RBMB should investigate ways to lead, or at least participate in, the many other urban-interface issues that impact basin health, including land use, stormwater, well permitting, hazardous cleanup, etc.
3. SGMA. The State acknowledges that almost none of the adjudicated basins meet SGMA requirements. Given the State's recent actions in water management, it is highly likely the State will at the minimum soon enforce SGMA requirements on adjudicated basins, or even more intrusive, become active regulators of the basin.

PWP is in the unique situation as the basin's biggest user, and therefore at most risk to basin failures. However, PWP's voting power on the RBMB is equal to all users, limiting the ability to control its destiny. Therefore, PWP should take a two-part strategy to improve the basin and its supply reliability:

1. PWP Self Actions

PWP should identify the risks, goals, and management alternatives to directly improve sustainability of the Monk Hill and Pasadena subareas. Implement these actions as the lead, but enjoining partners where possible if the partnerships do not significantly impact the schedule. Specific project actions include:

a. Reduce loss to Main San Gabriel Basin. Obtain a copy of the basin model for use in alternatives analysis. Calibrate model to most recent conditions as required. Model each project and identify their effect on the water lost over the fault and plume movement.
b. One project could be to pump back from the fault line and recharge near the Arroyo Seco spreading grounds and contamination plume.
c. Another project is to add new wells and/or increase pumping from the fault line to feed Pasadena's distribution system. Obtain the system hydraulic model and analyze feasibility, including necessary improvements.
d. Investigate moving Arroyo Seco diversion/recharge away from plume area and downstream to allow full water right diversions. Investigate ability of relocated diversions to support recycled/raw water opportunities.
e. Investigate potential issues in merging the managements of the RBMB with the Main San Gabriel Basin and identify specific policies PWP should pursue on this effort.

2. PWP and RBMB Actions

PWP needs to work within the RBMB in a proactive manner to establish an understanding of basin threats and a sense of urgency in the need to address long-term sustainability. Specific project actions include:

a. Identify and commit to pursuing responsible entities in contamination management and cleanup. RBMB needs to lead this effort and manage contamination cleanup activities to protect the basin.
b. Determine the sustainable yield of the basin.
c. The RBMB should establish an overarching policy on basin sustainability, develop management goals, and actively implement management actions to meet sustainability goals.
d. Development of basin protection policies and guidelines to be adopted by all other land use and regulatory entities in the basin.

Ultimate success of basin management and sustainability will depend on how concisely the issues and alternatives have been set out and how assertively PWP and the RBMB chooses to act upon them.

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Martinez, Ruben

From: Laura Solomon <
Sent: Thursday, June 03, 2021 3:39 PM
To: PublicComment-AutoResponse
Cc: Tim Brick; Mitchell Tsai; Mark Hunter
Subject: Arroyo Seco Canyon Project

To: Pasadena City Council
RE: Arroyo Seco Canyon Project

June 3, 2021

Dear Pasadena City Council:

Thank you for the opportunity to comment on the FEIR for the Arroyo Seco Canyon Project. My name is Laura Solomon, and I served on the Environmental Advisory Commission for six years. I am also the president of the Pasadena Audubon Society. As a long-time resident of Pasadena (my grandparents moved here in 1901 and 1903), I have some understanding of the need to have access to water here in Southern California. In fact, I cannot think of a more urgent issue facing us than access to water. Because of that, I understand the need to replenish the Raymond Basin, which has been sinking for the last 150 years. It is because I understand that need that I cannot support the Arroyo Canyon Project, and I urge Council to not spend $14 million on a project that will be ineffectual at best and harmful at worst.

I cannot support the ASCP in its current form because it does not create new water. Instead, it merely diverts water from the living stream into settling ponds. These ponds are not as effective as the stream at getting water back into the Raymond Basin. They silt up quickly so they require ongoing maintenance, and they also attract mosquitoes and algae. Their soil bottoms are tamped down so they hold the water much longer than the sandy bed of the stream that allows water to percolate much easier. This water diversion removes sorely-needed habitat, habitat that our local flora and fauna depend upon, in an area that has already suffered enough because of human abuse.

Another reason I cannot support the ASCP is that it ignores the presence of fish in the stream. That alone should trigger a major revision of the EIR.

Another reason I cannot support the ASCP is that it ignores the fact that as part of the settlement between LA Co DPW and the Arroyo Seco Foundation and Pasadena Audubon Society, the County will be leaving water behind Devil's Gate Dam through the spring all the way to July 1. Surely that is a much more effective means of getting water into the Raymond Basin than a few settling ponds?

Another reason I cannot support the ASCP is that its plan to mitigate the destruction of habitat, planting 50 sycamores and mothing else, indicates that the mitigators do not understand the habitat that is already there. There are so many problems with this plan that I don't even know where to begin. I will just say that sycamores soak up a lot of water.

I do understand the urgency of the situation regarding the Raymond Basin. But I cannot support a project that destroys one of our last little bits of alluvial scrub while all over the city there is property that does nothing to harvest rainwater and put it back into the Basin. As long as I see people watering their lush, emerald-green lawns day in and out, I will be

against this project. As long as I see city-owned property that has no swales or other methods of reclaiming water for the Basin, I will be against this well-intentioned but short-sighted project. I would much rather see that $14 million spent on rain harvesting and conservation incentives and education.

I urge City Council to stop funding the misguided ASCP and instead, allow nature to get that water into the Basin and spend the money on projects that will truly help.

Thank you for the opportunity to comment.

Sincerely,
Laura Solomon

Pasadena, CA 91106

Martinez, Ruben

From: Darren Dowell ·
Sent: Monday, June 07, 2021 7:22 AM
To: PublicComment-AutoResponse
Subject: public correspondence on June 7 City Council meeting, agenda item 12, Arroyo Seco Canyon Project

June 7, 2021

Pasadena City Council:

This letter is a recommendation to proceed cautiously into the Arroyo Seco Canyon Project, by invoking key modifications to the project to find a better balance between water management, water conservation, and natural resources.

I am a Pasadena resident who became completely smitten with Hahamongna and the Arroyo Seco from the first visit, and I have since logged thousands of hours observing nature within this unique Pasadena treasure. Understandably, many others in the area are similarly enamored with this place.

And those who deeply know the Arroyo are speaking out clearly:

** Let the stream flow. **

This is the environmentally-superior approach, achieving the project objective of recharging the groundwater basin. The Hahamongna wash has a natural, maintenance-free method for percolation of moderate and low flow into the aquifer, and along the way, nature will take its fraction to restore natural beauty and the rich ecosystem. In the scenario of a renegotiated method of accounting aquifer replenishment, this is a win on all fronts. With or without the facility update from the Canyon Project, Pasadena could and should let the stream flow unimpeded most of the year, starting now.

In a changing climate, and with increasing demand on water resources, stream flow diversion may be a necessary (but imperfect) approach to support the needs of the Pasadena community. However, this tool must be used with great care, to ensure that the diversion and aquifer recharge credit do not lead to overdrawing from the groundwater or to harm to the areas downstream from the intake. The analysis of potential harm to existing downstream habitat (particularly riparian areas) must incorporate the recent, drastic alteration to the profile of the basin. I believe this leads logically to the conclusion that:

** Stream diversion is appropriate only to capture a fraction of high flow periods. **

In wrapping up, I wish to comment on a few of the project details:

- I strongly support invasive species removal and native plantings at the spreading basins. The basins are currently a blight on the land, harboring abundant invasive weeds of low value to wildlife, that once again threaten to spill over into the adjacent alluvial habitat (in which L.A. County has invested significant effort in restoration as part of the mitigation for the sediment removal project). This should be done whether or not the Canyon Project proceeds.

- I strongly oppose the Canyon Project option with the sedimentation forebay (Figure 6-1 of the EIR), which would wipe out a remarkable ecosystem unique to this location where the Arroyo Seco emerges from the canyon and enters the basin.

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- I strongly support protection for fish at the diversion and intake, and a design which allows fish to navigate upstream and downstream, even in low flow.

- Finally, I call attention to the importance of timing construction activities to the seasons with minimum impact to wildlife.

Thank you for considering these recommendations.

Sincerely,

C. Darren Dowell
Pasadena

Martinez, Ruben

From:
Sent: Sunday, June 06, 2021 8:48 PM
To: PublicComment-AutoResponse
Subject: June 7 Council Agenda Item 12. Appeal of Board of Zoning Appeals' Decision

PUBLIC COMMENT RE: JUNE 7, AGENDA ITEM 12. APPEAL OF BOARD OF ZONING APPEALS' DECISION

The Final Environmental Impact Report (FEIR) for the Arroyo Seco Canyon Project does not address the alternative of restoring natural flow of the Arroyo Seco stream, the permanent damage to vital riparian habitat in the Upper and Lower Arroyo Seco, or the impact on recreation in the City's largest area of open space.

The Arroyo Seco Canyon Project (ASCP) was first proposed 16 years ago and would grant Pasadena Water & Power (PWP) "paper rights" to divert water from the naturally flowing stream during wet months in addition to diverting all water from the stream in dry months, harming important regional ecosystems and interfering with fish migration. While the project itself is 16 years old, the resulting Surface Runoff Spreading Credits that would allow PWP to pump additional water from the Raymond Basin aquifer are based on pre-1914, 100-year-old rights. In order to qualify for the Surface Runoff Spreading Credits, PWP proposes to construct a **new spreading basin at a cost of $13.9 million.** The purpose of the new spreading basin is for groundwater recharge to the Raymond Basin yet PWP's own engineering studies indicate that **water percolation in the natural streambed, the no-cost alternative,** is far more efficient at sending water into the aquifer than spreading basins are. However, no-cost natural water percolation to the aquifer doesn't deliver the desired Surface Runoff Spreading Credits.

Sixteen years after the project was originally proposed, the region is experiencing a prolonged drought which affects the entire State of California. The Raymond Basin aquifer currently provides approximately 35% of Pasadena's water but has been overdrawn for years, even before the current drought conditions which may represent the new normal because of global climate change. Rainfall is the main replenishing source for the Raymond Basin aquifer but replenishment is greatly reduced and uncertain because of drought conditions. Pasadena Water & Power proposes to increase its pumping of the already depleted Raymond Basin from 35% to 50% of its urban water.

At the May 25 meeting of the Municipal Services Committee, PWP officials indicated that the prominent inclusion of the Arroyo Seco Canyon Project in the *2020 Urban Water Management Plan* (required by the State every 5 years to manage water demand, ensure adequate water supply, and drought/water shortage planning) and *2020 Water System Resource Plan* (planning through 2045 for water sources and infrastructure) did not mean that the project was pre-approved.

I object to the Arroyo Seco Canyon Project because it will contribute to further environmental degradation in the Arroyo Seco, decline in groundwater levels, and endanger the health of the Raymond Basin. **Please instruct Pasadena Water & Power to revise the Final Environmental Impact Report and to recirculate it for review by the members of the public and regulatory agencies.**

Genette Foster
Pasadena 91106

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Martinez, Ruben

Subject: FW: Opinion: The City Council will be asked on Monday to approve the Arroyo Seco Canyon Project - is there a financial case?

From: Morey Wolfson <
Sent: Friday, June 04, 2021 12:39 AM
To: Morey Wolfson <moreywolfson@aol.com>
Subject: Opinion: The City Council will be asked on Monday to approve the Arroyo Seco Canyon Project - is there a financial case?

Is there a financial case for the Arroyo Seco Canyon Project?

Over the years, Pasadena residents have ramped up their understanding that we are in a fossil fuel-induced global heating emergency. The relentless global carbon loading of the atmosphere has stoked the mega-drought that now encompasses the American West. In addition to bracing for heat waves, elevated fire danger, air quality alerts, and the possibility of blackouts, residents are also increasingly concerned about the possibility that Pasadena may soon face a severe water shortage, brought on in large part by global heating.

Pasadena is facing a summer of cutbacks due to low snowpack in the Sierras that has reduced the allocation of flow down the State Water Project. Reservoirs that provide water to Pasadena are at very low levels. Arizona Central recently reported that since 2000, the water level in the Lake Mead, which is the largest in the country, has dropped about 140 feet. The lake is now just 37% full, headed for a first-ever official shortage and sinking toward its lowest levels since it was filled. The latest projections show that by the end of 2021, Lake Mead will decline below an elevation of 1,066 feet, far below the threshold — 1,075 feet — for the federal government to declare a shortage. That is expected to happen in August, triggering the largest water cuts to date next year for Arizona, Nevada and Mexico. Even larger cutbacks could come in 2023 if the reservoir continues to decline as projected over the next year into a more severe "Tier 2" shortage. Lake Mead's downward spiral is being driven largely by the dire situation upstream at Lake Powell, which has declined to 34% of full capacity. It is during this period of drought, when a conservation budget rate is so needed, that PWP is asking the Council to approve a project that makes no environmental or economic sense.

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Water efficiency and conservation are widely recognized to be the most advantageous ways to protect communities from the worst consequences of a drought. Notwithstanding these realities, it appears at this time, that Pasadena Water and Power (PWP) has its focus on defending a costly, minimal pay back idea - the Arroyo Seco Canyon Project (ASCP).

PWP may have already spent approximately $6 million on staff and consultants planning the project. The project was created in 1995, and was first funded in 2001. The idea is to divert stream water to new settling basins to percolate water measured by the Raymond Basin Management Board so Pasadena could receive credits to pump water that would have otherwise stayed in the stream. Of note, the management board has not pre-approved the project or the available pumping credits. The Raymond groundwater basin stretches on the north along the foothills from LaCanada Flintridge to Arcadia and to the south, roughly to South Pasadena and Huntington Gardens.

This Monday, the Pasadena City Council has the opportunity to adjust water policy and discontinue support for the ASCP. The Council is urged to chart an actual plan to help arrest the century-long constant drawdown of the Raymond Basin, primarily through aggressive efficiency and conservation policies. The Council should reject the ASCP, ending City policy support for an ill-conceived $14 million project. Our elected leaders can select from environmental or economic factors to describe why they prefer a cost-free option to avoid an expensive, outdated idea that would divert only a trivial amount of water. If the stream were allowed to flow, it would percolate into the basin, at an amount roughly equal to what the ASCP envisions.

The Arroyo Seco Foundation has gathered over 1000 signatures on a petition from residents. Hundreds have offered a wide range of common sense reasons why the Council should reject the ASCP, primarily over environmental, hydrologic, and reliability concerns.

Is there a financial case for the ASCP? The answer is no.

To help put the $14 million project into perspective, PWP receives $63 million in annual water revenues from ratepayers. About a third of that revenue is used to pay for water.

PWP supplies about 30,000 acre feet of water per year to customers. (An acre foot of water would flood a football field 1-foot deep).
About two-thirds of Pasadena's water (approximately 20,000 acre feet) is purchased from the City's sole regional wholesale treated water supplier - the Metropolitan Water District (MWD) of Southern California - at a cost of approximately $1,000 per acre foot, totaling about $20 million.

By contrast, about one-third of our water (approximately 10,000 acre feet per year) is drawn from the Raymond Basin. The water is "free." The cost that PWP pays is for the energy and maintenance to pump and treat, at anywhere between $200-500 per acre foot, totaling between $2 million and $5 million a year.

Ignoring their own earlier hydrologic studies, PWP has been attempting to sell the ASCP, arguing that diverting water from the Arroyo Seco would gain pumping credits of about 800 acre feet per year from the Raymond Basin Management Board - that has not given them a green light. As a comparison, the largest single consumer of water in Pasadena – the Brookside Golf Course demand is estimated to be about 850 acre feet per year. Pasadena has been informed that water expenses at the golf course continues to rise and concerns have been raised that reliance on potable water in the long term is in question.

PWP has centered on the idea that pumping water that they divert from the stream will yield a possible net financial benefit to ratepayers. PWP suggests that the Council should authorize continuation of a project that would plan on spending an additional $7 million over the next five years. They position the ASCP as a financial move, pointing to pumped water at $200-$500 per acre foot compared to MWD water at $1000 per acre foot. Because the difference is so tiny, PWP has not offered the Council an estimate of what the actual impact of the difference in water cost would be on rates. This has not been offered, because at best, the project would only supply about 2.5 percent of PWP's total annual water, and damage the Arroyo Seco natural stream and percolation in the process.

Depending on which of two PWP-stated cost figures is correct ($200 per acre foot, or $500 per acre foot) for pumping water from the Raymond Basin, it would take somewhere between 21 and 33 years for a payback resulting from PWP paying less for pumping water, rather than paying MWD for an equal amount of water. The first year's pay back would be about $500,000 – only about 1.5% of the annual cost that PWP currently pays to procure water.

Council is reminded that when they review an environmental impact report, like the EIR for the ASCP, the report is not designed to evaluate whether projects are financially feasible. That is the job of the City Council to determine, and why this information has been produced for their review.

A small fraction of the project's money could hire a team of the brightest and best minds to develop a progressive water budget and conservation pricing structure that would yield water savings an order of magnitude more than the ASCP, which would help address the basin's declining health.

The City Council needs to directly address the folly of continuing to spend money on the ASCP. A far better use of that money would be to actively engage the public in a

process to design a budget and conservation based pricing structure for water. A few years ago, PWP declined to proceed with budget pricing because the City lacked a capable computer information and billing system. Now is the time to design a smart water pricing structure, so the City can timely deploy a new pricing structure that uses its new high capability $20 million computer system. This will be a big step forward to start saving water at an order of magnitude greater than what the ASCP could yield.

At their meeting this Monday afternoon, June 7, the City Council should direct PWP to abandon the ASCP once and for all, and redirect that money towards conservation and efficiency, including early utilization of the City's new billing system to achieve an equitable and drought-resilient result.

Morey Wolfson
Resident of Pasadena Council District 3
Former Member, Pasadena Environmental Advisory Commission

June 7, 2021

Ken Kules' Comments on the CUP #6222
City Council June 7, 2021 Hearing, Item 12

The Agenda Report for the CUP #62322 hearing includes an "Attachment G - Responses to the Appeal Application (dated May 2021)" (Att. G). These comments submitted are with regard to that document.

Pumping Credits

Att. G describes the percent allocation of water spread using language "60 to 80% of its surface water rights that are diverted for spreading. The percentage depends on which of the City's basins are used for recharge."[1] It goes on to say that "Additionally, when the City began to take over spreading operations from the LACDPW, the Raymond Basin Management Board began using a different formula to calculate adjusted spreading from diversions and derive credits. In the last 15 years, however, the City has earned 80% credit from water diverted to the former Behner sludge ponds (Pasadena ponds 1 and 2) and 60% for water diverted to basins 1 through 12. This operation has resulted in 20 to 40% of diverted water spread for percolation remaining in the Raymond Basin."

The above description appears to generally agree with the Raymond Basin Management Board (RBMB) annual reports for the last 15 years except there appear to be irregularities in which the amount of spreading that received 80% credit frequently exceeded the spreading capacity of ponds 1 and 2. Tim Brick and I met with Tony Zampiello, RBMB Executive Officer, on April 8 to discuss Raymond Basin management in general. In the course of the discussion, I pointed out that the RBMB 2003-04 Annual report included the statement that on July 9, 2003, the RBMB "Adopted Calculation of Spreading Credits in the Arroyo Seco and Millard Canyon Proposal for Consideration dated July 9, 2003 as an initial goal." I asked whether that protocol had been finally adopted by the RBMB and was told that it had not. I then asked if the RBMB had adopted any resolution or policy regarding allocation of spreading credits and he said they did not and instead relied on the spreading party to self-certify. I explained to him that Pasadena had been using the above protocols described in Att. G and explained the irregularities that I described above. His response was that he would need to have staff go back and examine the records.

The Water System and Resources Plan (Final Report dated December 2020) assumes that Pasadena will earn an 80% credit for the water diverted and says that "Assumes PWP will be able to negotiate a higher credit percentage than used for the existing spreading grounds."[2]

Aside from the ambiguity surrounding what the actual RBMB rules are, the Draft EIR used the Judgment rules regarding spreading of surface water rights as a shield against considering other alternatives for in-stream percolation through its over-riding project objective: "Fully divert and utilize the City's 25 cubic feet per second surface water rights while operating in a manner objectively consistent with the Raymond Basin Agreement and the 1984 Judgment."[3] The implication is that <u>all</u> 25 cfs of water spread by the ASCP would be accounted for

[1] Att. G, p.8
[2] See p. Appendix F Page 1 of 6
[3] ASCP DEIR, Section 3.2.3

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under the Judgment's 80% rule. If some of the water spread does not fall under the 80% rule and the RBMB does not have rules for how spreading is accounted for, the Draft EIR evaluation of alternatives is invalid.

"New Water"

PWP told the Municipal Services Committee at its October 27, 2020 meeting that "It will be further shown that water spread into the basins augments recharge of the aquifer with stream flows that would otherwise be released through the dam and lost from the basin." This statement – or any similar statement - appears nowhere in either the Draft EIR.

Att. G includes the following:[4]

> *The Appellants erroneously state that PWP has used only monthly data for analysis and that their analysis is more reliable and "granular" because of their use of daily values. While figures in the Draft and Final EIR use monthly displays of volumes of water that might be diverted by the proposed Project, these were based on an analysis of streamflow data reported by the USGS for the Arroyo Seco in 15-minute intervals. This data was summated for daily flow rates and displayed as monthly graphs for visualization purposes.*

The monthly analysis referred to has been relied on heavily in the Final EIR to define "new water" but is described here as being derived from a more-granular analysis that we can't see for some unexplained reason and makes impeachment of the analysis impossible. This is a succinct example of the "conclusory"[5] language used in CEQA Section 15088.5 that speaks to the requirement to recirculate the Draft EIR.

Draft EIR Shortcomings

CEQA Section 15088.5 says that the test for whether Draft EIR recirculation applies to only evaluation of the Draft EIR without regard to whether information was circulated later in the Final EIR or the appeals process

The administrative record clearly shows that PWP made an effort to evaluate hydrologic impacts on the Raymond Basin with the March 2021 analysis prepared by Dudek for PWP and incorporated into the Agenda Report prepared for the Board of Zoning Appeal hearing on the Final EIR - that was after the initial hearing on the Final EIR.[6] This clearly passes the CEQA recirculation test of whether the Draft EIR was "so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded."

Additionally, Att. G includes language on p. 9 that is a "Brief Summary of Draft EIR, Section 4.5, Hydrology and Water Quality (Threshold 4.5b)." The City Council should be leery about whether that brief summary accurately characterizes the Draft EIR analysis as there are no quotes or citations to portions of the Draft.

In particular, the last paragraph of that section says "Because none of the information provided deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the

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[4] P. 12

[5] Conclusory: consisting of or relating to a conclusion or assertion for which no supporting evidence is offered (Merriam Webster)

[6] See Appendix C to Att. G

proposed Project or a feasible way to mitigate or avoid such an effect, recirculation is not warranted or appropriate." The actual language of the CEQA test is whether the Draft EIR was "so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded."

Martinez, Ruben

From: Jennifer Ho <
Sent: Monday, June 07, 2021 11:45 AM
To: PublicComment-AutoResponse
Subject: 6/7 City Council Meeting - Correspondence

This correspondence is being submitted in regards to agenda item: ARROYO SECO CANYON PROJECT ---

Dear Honorable Mayor and City Council:

Thank you for your service in your mission to deliver exemplary municipal services, and for the opportunity to provide comment about the Arroyo Seco Canyon Project.

I reside by the precious gift of life and habitat that is Hahamongna Watershed Park. As someone who cares deeply about stewarding the precious resources around us, I am urging you to **stop PWP's Arroyo Seco Canyon Project (ASCP) and review the alternative considerations below.**

Continuing to alter/manipulate the landscape to add more spreading basins is a **short term, inadequate water management plan** that may be in accordance with traditional way things were done, but have proven to be insufficient and not durable, as seen by the existing and damaged "diversion & intake structures" in the Arroyo Seco. Moreover, it does not satisfy the critical need to heal the planet as a means for long term climate-resiliency. ASCP **does not provide solutions that allow for rehydration of vast landscapes and the bringing back of local, important small water cycles**.

When it comes to preserving and regenerating our valuable water resource, I am concerned about the way things have "always been done," and I also think that there is a better way. A few considerations:

1. **Allow Indigenous and marginalized communities to lead with solutions.** Rather than a top-down approach from the PWP, work directly with those affected and let them lead - they offer a wealth of knowledge. Those closest to problems are also closest to solutions. These leaders need to be given more than a seat at the table. They should be provided enough power and resources to devise and execute solutions for their communities.
2. **Consider education and resources about big vs. small water cycles to help communities better work towards infiltrating water and building healthy soil.** Building healthy soils across rural and urban landscapes can be a big solution to helping rehydrate California's aquifers. Each 1% increase in soil organic matter helps soil hold 20,000 gallons more water per acre and improves natural groundwater recharge (1, 2). I would encourage consideration of concepts like the one below.

Current water paradigm:

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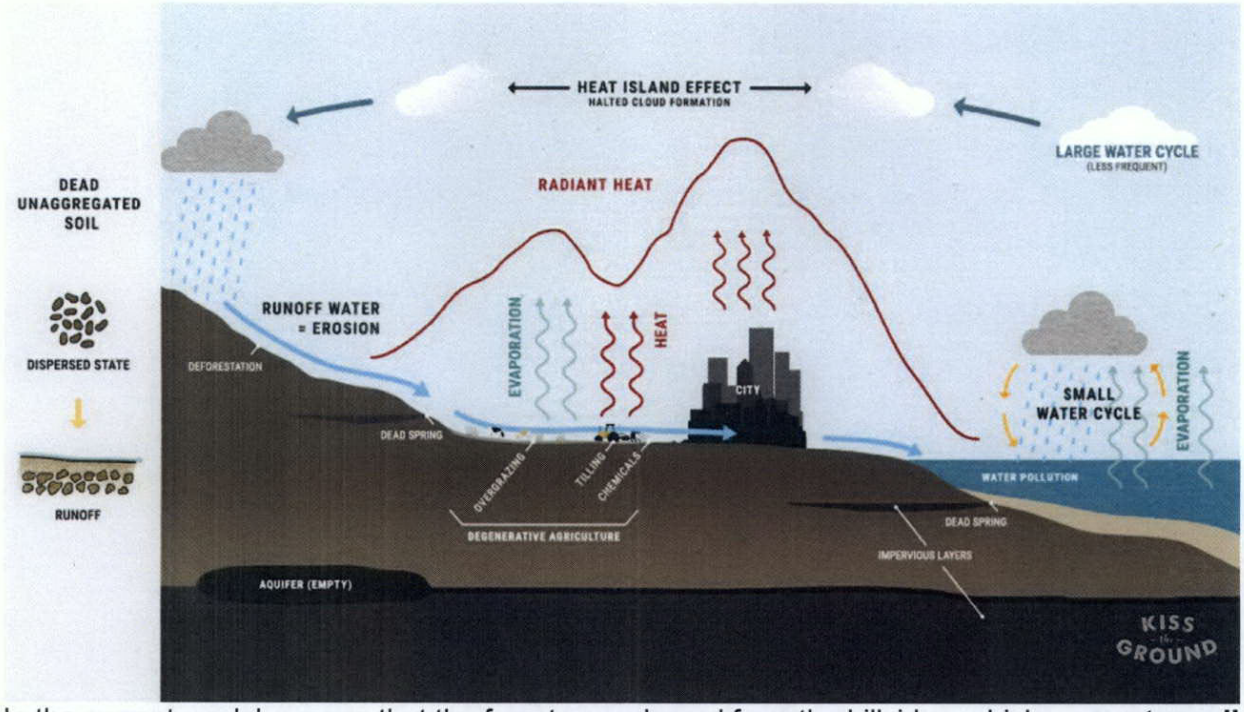
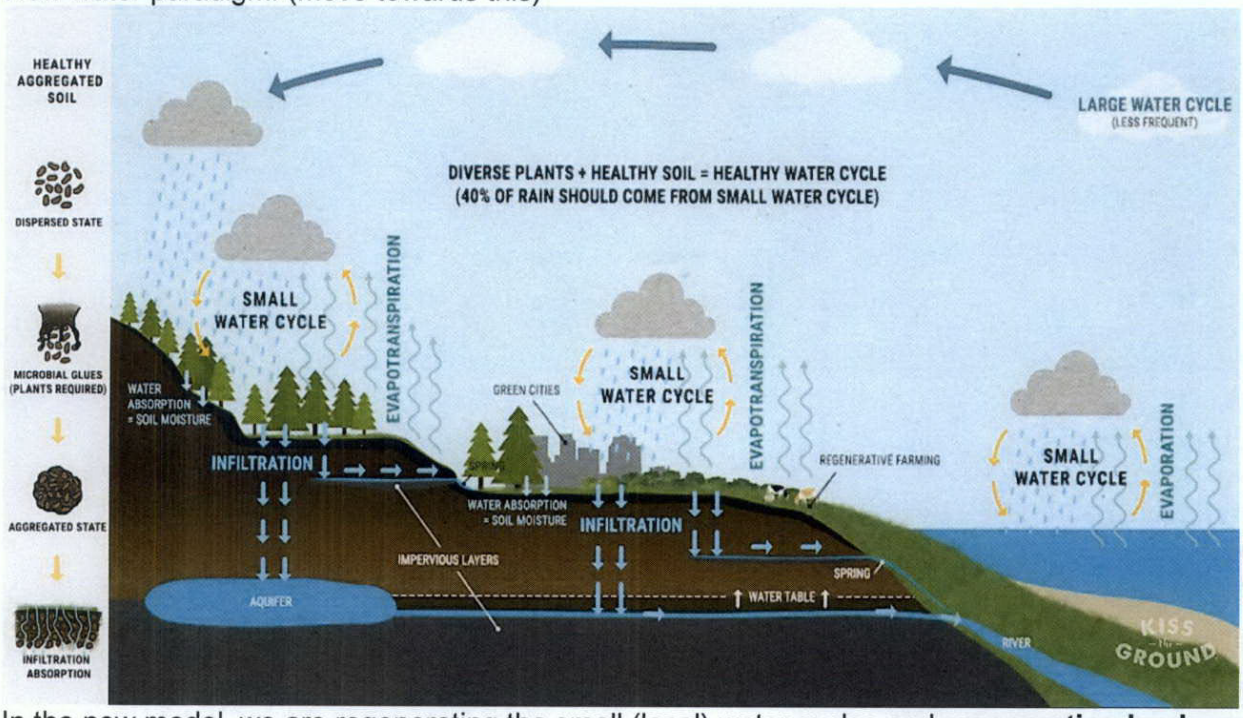


In the current model, we see that the forests are cleared from the hillsides, which means **topsoil is being washed away** during rain events. We have cities with hard surfaces that are **impermeable to water,** with few plants and hot air going up, causing **heat island effect**. In these landscapes, clouds are unable to form, and we essentially have **ineffective rainfall**. On top of this, we have systems in place that **channel water out to sea as fast as possible**. Meanwhile, we pump from our quickly **depleting aquifers** without recharging them.

New water paradigm: (move towards this)



In the new model, we are regenerating the small (local) water cycles and **regenerating landscapes**. We've planted diverse native flora up in the mountain slopes, which intercept rain - some of it soaks in, which starts to **replenish aquifers**. In dense cities like Pasadena, we grow diverse plants on rooftops, switch to **permeable** road surfaces, create **ecological gardens/landscapes** throughout, and encourage **holistic water catchment systems** rather than shuttle water out as quickly as possible into the sea.

With holistic changes in land management techniques like these, we can **create an environment that allows for replenishment of small (local) water cycles and formation of abundant, cool landscapes**.

Thank you for your time and consideration. I look forward to your response and continuing the conversation about considering alternatives to ASCP.

Sincerely,
Jennifer

Sources:
(1) https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/organic/?cid=NRCSEPRD1367235
(2) https://www.energy.ca.gov/sites/default/files/2019-11/Agriculture_CCCA4-CNRA-2018-006_ADA.pdf

Martinez, Ruben

Subject: FW: Arroyo Canyon Seco Project-Support Water Settling Ponds

-----Original Message-----
From: Paul Lofthouse <
Sent: Friday, May 28, 2021 10:13 AM
To: Walker, Alison <awalker@cityofpasadena.net>
Subject: Arroyo Canyon Seco Project-Support Water Settling Ponds

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I live at and the rear of my property looks down on to the dirt parking area that at one time was the asphalt covered JPL parking lot. It still is a dirt parking lot.
Any day that I look down into this area, it has cars parked all over the place; on the weekends it's covered.

Water settling ponds should be installed here to catch excessive water runoff instead of a parking lot. Where in a Drought....
With these settling ponds will come a plethoras of bird and animal life.

As an adjacent neighbor to this project, I want to see birds, animals and greenery; instead of a parking lot with hundreds of cars. I am sure all my adjacent neighbors feel the same.

Best regards,

Paul Lofthouse

Pasadena, Ca.

06/07/2021
Item 12

Martinez, Ruben

Subject: FW: Morey Wolfson's Comments on the CUP #6222
Attachments: Wolfson Comments CUP Agenda Item 12.docx

From: Morey Wolfson
Sent: Monday, June 07, 2021 3:20 PM
To: PublicComment-AutoResponse <publiccomment@cityofpasadena.net>
Subject: Morey Wolfson's Comments on the CUP #6222

Morey Wolfson's Comments on the CUP #6222
City Council June 7, 2021 Hearing, Item 12

I urge the Council to reject the ASCP by a formal vote.
It makes no sense to inflict the environmental damage, when the return on investment is so tepid.
The $14 million project would not have its first payback for between 21 and 33 years.
And, if arguably, there was any net gain in water, the amount is de minimis.

So why should the City do this project? I hope that is not to show that you support the Department by approving something that makes no sense. This is not a vote on whether or not you support the Department. They are doing a fine job during difficult times. They are not being judged just because they continue to support a singular misguided project.

It will be good to move the ASCP out of the way, so it no longer serves as a distraction.

The real topic is the drought and what guidance the Council sends the Department. Water conservation and efficiency are widely understood by water policy-makers to be at the top of the list. I recommend that the Council request a commitment from the Department to return to the Council within two weeks to describe a rate case or investigation process that centers on the pros and cons of how a budget based water pricing structure can meet the goal of providing an equitable means to strengthen our resiliency in the face of a drought, and to help arrest the decline of water in the Raymond Basin. The report back from the Department should also include a description of how they would intend to deploy the new $20 million computer information and billing system for a budget pricing system.

Thank you for your service and for your consideration of this communication.

RECEIVED

ARROYO SECO FOUNDATION

42

TO: Mayor Victor Gordo and Members of the City Council
DATE: June 7, 2021
RE: Settlement Proposal regarding Arroyo Seco Canyon Project and CUP #6222

Dear Mayor Gordo and Member of the City Council:

On behalf of the appellants in the above matter, we offer a settlement resolution.

Our concerns will be resolved if the Pasadena City Council will:

1) Adopt a Motion ordering Pasadena Water & Power to:

A. Modify Mitigation Measure Bio-7 and add as a condition of approval to require that the City modify the design or operation of the diversion / weir structure to accommodate fish passage and satisfy Fish and Game Code Sections 5901 and 5937. In particular, the text should be modified as such:

MM-BIO-7 ~~Prior to the commencement of earthmoving within Area 2 for the demolition of the existing diversion/weir structure, the City shall develop a Native Resident and Migratory Fish Monitoring Plan (Monitoring Plan), in consultation with CDFW. This Monitoring Plan shall set forth annual monitoring requirements to determine if native fish species or migratory fish populations are present within an approximate 3,500 foot section of the stream (about 1,500 feet upstream of the diversion/weir structure to the abandoned headworks (Area 1) and 2,000 feet downstream to the JPL Bridge at the mouth of the canyon). The Monitoring Plan will include the results of the baseline conditions for fish, which shall be conducted prior to commencement of earthwork in Area 2 within the 3,500 section of the stream using the survey methodology described in the 2010 California Salmonid Stream Habitat Restoration Manual (4th Edition), Annual survey protocols shall be established to the satisfaction of CDFW and set forth in the Monitoring Plan. If the results of the annual surveys reveal a positive presence of native fish, the Monitoring Plan shall set forth thresholds for determining the permanency of the population, and whether or not connectivity both upstream and downstream of the diversion structure is appropriate and in the best interest of the long term survival of an established native or migratory fish population, given hazards associated with stranding downstream. Until passage for steelhead is restored to the Arroyo Seco, the City shall implement a program to rescue fish between the diversion structure and the JPL Bridge. If rescue is determined to be ineffective or impractical, then~~ The City shall modify ~~its operations to accommodate passage. At such time as steelhead passage is restored, tThe City shall alter either~~ the design of the diversion/weir structure, the operational methods of the diversion/weir structure, or both to accommodate fish passage as well as satisfy Fish and Game Code Sections 5901 and 5937.

B. Order Pasadena Water & Power to cooperate with the appellants to prepare a study that shall be

brought forward and presented to the City Council concerning i) the natural infiltration capacity of the Arroyo Seco and Devil's Gate Reservoir for the Raymond Basin as well as possible plans and policies to stabilize and replenish the Raymond Basin.

C. Continue the item so that City Staff can draft up a modified resolution modifying the Project as such.

Thank you very much for your consideration of this matter. We hope we can reach an agreement so that we can work together constructively.

Sincerely,

Tim Brick

Managing Director
Arroyo Seco Foundation
(626) 492-2884

Iraheta, Alba

Subject: FW: Re-Arroyo Seco Canyon Project - Pasadena can do better! Invest in Nature based solutions

From: Dorothy Wong >
Sent: Monday, June 7, 2021 4:56 PM
To: Gordo, Victor <vgordo@cityofpasadena.net>; Hampton, Tyron <THampton@cityofpasadena.net>
Cc: Jomsky, Mark <mjomsky@cityofpasadena.net>
Subject: Re-Arroyo Seco Canyon Project - Pasadena can do better! Invest in Nature based solutions

Dear Mayor Gordo,

Please vote no to the Arroyo Seco Canyon Project - Pasadena can do better. The impact to the river system especially downstream will continue to degrade without care and restoration investments. This project should prioritize nature-based solutions, not expanded spreading basins that will take away water from the river system, rather please invest in ways that do not harm the ecosystem, but strengthen it. Pasadena can do better and Pasadena Water and Power can do better.

I support the Arroyo Seco Foundation's position as a long time advocate and as identified by many agencies and science the Arroyo Seco Hahamonga Watershed is a significant ecological area. Much has been lost with the Devil's Gate Project, but there is huge opportunity to recognize the ecological area and one of the last remaining treasures in the region. This is worth its weight in gold.

Please let the water flow. Invest in nature based solutions for water capture. PWD provides Altadena's water and Altadena provides water into the Arroyo Seco.

Thank you for your consideration.

Respectfully,
Dorothy Wong
Altadena Resident
Hahamongna Accountability Project

06/07/2021
Item 12

Martinez, Ruben

Subject: FW: ASCP

-----Original Message-----
From: er.net>
Sent: Monday, June 7, 2021 5:04 PM
To: Jomsky, Mark <mjomsky@cityofpasadena.net>
Subject: ASCP

I'm urging the city to reject this ill-advised plan.
Michael Moreau
1695 N Catalina Avenue

Sent from my iPhone

06/07/2021
Item 12

Martinez, Ruben

From: Kathy - t>
Sent: Monday, June 07, 2021 5:21 PM
To: PublicComment-AutoResponse
Subject: Agenda item 12: Arroyo Seco Canyon Project

Dear City Council Members,

I am writing to you because I am a customer of Pasadena Water Department and have a background in Southern California water resources. I served as the groundwater program manager for Metropolitan Water District of Southern California for many years. I am very concerned about the status of the water levels in the Raymond groundwater basin. The project before you this evening seeks to restore and update the city's spreading basins in the Arroyo Seco so that the city can better capture it's pre-1914 water right of 25 cfs of flow. This is important for Pasadena to do.

Pasadena has been hampered in this effort by the Arroyo Seco Foundation which is opposed to this project. The Foundation's complaints may be accurate.

I believe that the source of the conflict is as follows. Pasadena Water Department has tended to conduct analyses relevant to recharge of the groundwater basin on its own. In response, the Foundation conducted its own analyses. I recommend to you that these analyses must be conducted by the Raymond Basin Watermaster where all parties to the judgment have an opportunity to fully understand the assumptions being made in analyses. Because the analyses for this project were conducted independently by the City, other parties do not buy into the conclusions and challenge them. This wastes everyone's time and money including that of the City.

I am requesting that the City Council, before approving this or any revised project, require the Pasadena Water Department to fully and openly cooperate with the Watermaster to review how to best recover the basin and to analyze with the Watermaster if this project will help or harm the recovery of the basin. Mr. Zampiello, the Executive Officer for both the Raymond Basin and Main San Gabriel Basin Watermasters has extensive experience and knowledge of the basins, the parties, and the judgments. Further, he is very straight forward, easy to work with and has a history of obtaining results on behalf of difficult and varied customers (producers in the basins). I recommend him to the City as the most reasonable way out of the predicament in which the City has landed.

Sincerely,

Kathleen Kunysz

06/07/2021
Item 12

Martinez, Ruben

From: David Cutter <mrdavid@davidcutterpiano.com>
Sent: Monday, June 07, 2021 6:29 PM
To: PublicComment-AutoResponse
Subject: Comment on 6/7 Agenda Item #11

To Whom it May Concern,
#11:
I am very concerned about the water system in Pasadena. Our dependence on a groundwater basin that is and continues to be in decline is a real problem. In addition to declining water levels is the amount of contamination of multiple varieties and also the Total Dissolved Solids. TDS is an indication of a water source that is becoming increasingly unuseable.

As such, the UWMP and the as yet unapproved WSRP are both very light on actual actionable plans to deal with the decline. As such our water system is unreliable.

I think given the state deadline you should move the UWMP forward, however a serious reworking of the WSRP is in order.

#12:
Given what I said above, I remain unconvinced that The ASCP will be worth the investment. It doesn't materially address the decline issues. Both water level and contamination.
Please don't approve or move forward any of the decisions related to the ASCP.
Thank you
David Cutter

David Cutter
Pianist
Free eBook: "Artistry and Piano Students: Inspiring a Lifetime of Enjoyment."

06/07/2021
ITEM 11 & 12