

Marietta Kruels
835 West Mariposa Street
Altadena CA 91001
818-468-4239

1/19/2014

County of Los Angeles Department of Public Works Water Resources Division
Attn: Reservoir Cleanouts Program
P O Box 1460
Alhambra CA 91802-1460
reservoircleanouts@dpw.lacounty.gov

To Whom it may concern:

Having paid attention to the Devil's Gate Dam for some thirty years, I have, of course, actively watched the ever changing plans to conduct sediment removal since the 2009 Station Fire. The confusing part is why the number of cubic yards and affected acreage have consistently been increasing. In a quest for facts on the dam specifications with updated 1995-8 retrofit data, I have found this information missing. Other than the 1920 specs that are mentioned in this DEIR, I have been unable to locate this information nor the retrofit data. Google searches have led me to sites on the DPW's own website that are no longer available. And, this information is not available independently on the DPW's site. During 1995-8, there was a dam retrofit. The spillway was lowered and this may have been due in no small part to DPW's desire to forego maintenance and allow a greater sediment fill to remain. An intentional decrease in sediment removal lowers the size of the reservoir capacity and the fix was to lower the spillway and add additional tunnels to allow for quicker, immediate releases of storm water. DPW's choice to ignore the retrofit specifications and, instead, rely on the 1920 original dam spec's and a return to original 1920 "design capacity", is not acceptable. The retrofit design capacity, along with any potential flaw that further reduced that capacity must be used in order to arrive at the correct conclusions. Why has this been ignored?

It is because of this that I arrive at the flaws of the original "initial study" of this DEIR. The ever shifting amount of sediment removal necessary is highly questionable. This is proven out by DPW's own statements, documents and public comments as well as other governmental documents. I am attaching two such

documents on which I am relying and am asking for responses to these in light of each and every premise contained within them and the DEIR. The first is the 3/18/2011 California Regional Water Quality Board (CRWQB)'s denial of a water quality certification of a 12/1/2010 application. The second is the Proposition 1E application for flood grant money for the Devils Gate and Eaton Stormwater Flood Management Project, of which, I am only attaching pertinent sections as is the document is very large and, obviously, you already have a complete copy of this application and its related attachments. For the record, the Eaton Canyon/Devils Gate diversion project was awarded \$28million.

My reliance on these documents and the information contained therein continues to bring into question the quantity of sediment to be removed and acreage to be disturbed and possible reasons why the magnitude continues to increase. Starting with the CRWQB's denial of the original request to remove 1.6million cubic yards of sediment within a 50 acre area, this denial also comes with a list of suggestions and all of this with the knowledge of the Station Fire's sediment issues. The denial reads "...we cannot conclude that impacts to water of the US have been appropriately avoided and minimized and that the project would not result in an unacceptable degradation of water quality..." The denial acknowledges the activities necessary to provide proper function of the flood control system in accordance with its "original" design which I would question (updated "retrofit" specs should be used). Although this denial calls out for alternatives and analysis, it also clearly states

"1) LACFCD shall identify cleanout alternatives sufficient to protect public safety other than "return to design capacity."...

2) LACFCD shall identify cleanout alternatives which would minimize the 50-acre impact and identify alternatives for phasing the project to minimize impacts over time ... LACFCD shall identify alternatives which include lesser initial volumes but repeated cleanouts over several periods including two years and five years...

The final analysis should include the rationale for the determination that the proposed project is the most appropriate design which meets project needs and that there are not other, more appropriate, project designs which avoid or minimize impacts to waterways while also meeting project needs..."

http://www.waterboards.ca.gov/losangeles/water_issues/programs/401_water_quality_certification/final_letters/Documents/2011/10-170DenialWQC.pdf

CRWQB's approvals must be met in order to obtain a CWA Section 401 certification. While it appears that this DEIR accomplishes requests made in CRWQB' denial letter, it ignores the basic demand - to look to reduce the amount of sediment to be removed, reduce acreage to be disturbed and space the project

out over time. The DEIR goes the opposite way ignoring the denial comment "... we cannot conclude that impacts to water of the US have been appropriately avoided and minimized and that the project would not result in an unacceptable degradation of water quality..." Instead of seeking to reduce sediment volume to be removed and acreage to be disturbed and using repeated cleanouts over several periods over years, this DEIR doubles down on all three. The base numbers of the DEIR are the ones contained in this Water Quality Certification application and denial. The DEIR ignores the requests of the CRWQB to reduce and instead the sediment removal volume ranges up to 250% of the application's 1.6million cubic yards to 4million, acreage ranges up 150% of the application's 50 acres to 125, and the request to have repeated cleanouts over several periods turns into nonstop, whenever sufficiently dry, don't stop 'til you drop cleanout. Why have these basic requests in this denial letter been ignored in the DEIR? Why did the DEIR instead go in direct opposition to all these suggestions? And, yet, the CRWQB's approval is still required as acknowledged under 2.8.2 of the DEIR.

The next document is the application for Proposition 1E grant money for the Devil's Gate and Eaton Stormwater Flood Management Project.

[http://www.water.ca.gov/irwm/grants/docs/Archives/Prop1E/Submitted_Applications/P1E_Round2_SWFM/Los%20Angeles%20County%20Flood%20Control%20District%20\(201243210009\)/Devil%20s%20Gate%20and%20Eaton%20Stormwater%20Flood%20Management%20Project%20Proposal.pdf](http://www.water.ca.gov/irwm/grants/docs/Archives/Prop1E/Submitted_Applications/P1E_Round2_SWFM/Los%20Angeles%20County%20Flood%20Control%20District%20(201243210009)/Devil%20s%20Gate%20and%20Eaton%20Stormwater%20Flood%20Management%20Project%20Proposal.pdf)

This grant application has 5 projects, the first 3 improve Eaton Spreading Grounds, #4 is the pipeline and pumps, and #5 is the 2,000,000 cubic yards of sediment to be removed from Devil's Gate Dam area. Clearly, Devil's Gate's sediment removal is a big part of this project.

[http://www.water.ca.gov/irwm/grants/docs/Archives/Prop1E/Submitted_Applications/P1E_Round2_SWFM/Los%20Angeles%20County%20Flood%20Control%20District%20\(201243210009\)/Attachment%203%20-%20Att3_SWF_WorkPlan_1of2.pdf](http://www.water.ca.gov/irwm/grants/docs/Archives/Prop1E/Submitted_Applications/P1E_Round2_SWFM/Los%20Angeles%20County%20Flood%20Control%20District%20(201243210009)/Attachment%203%20-%20Att3_SWF_WorkPlan_1of2.pdf)

As described in this document

(page 3-12) Devil's Gate Water Conservation

Based on the proposed future configuration of Devil's Gate Reservoir, an estimated 4,500 AF can be captured annually for water conservation by conveying it to the Eaton Wash Spreading Grounds (and possibly to Arroyo Seco Spreading Grounds in the future) for infiltration and recharge to the Raymond Basin.

Devil's Gate Reservoir area covers approximately 175 acres (0.27 square miles) and has a design storage capacity of 4,600 acre-feet (AF).

(page 3-14) Phase V: Devil's Gate Reservoir Sediment Removal and Management

Removing 2 million cubic yards of sediment from the reservoir area by means of either trucking, sluicing, flow assisted sediment transport, or a combination thereof
Establishing a reservoir configuration more suitable for routine maintenance activities including sediment management

[http://www.water.ca.gov/irwm/grants/docs/Archives/Prop1E/Submitted_Applications/P1E_Round2_SWFM/Los%20Angeles%20County%20Flood%20Control%20District%20\(201243210009\)/Attachment%207%20-%20Att7_SWF_TechJust_1of2.pdf](http://www.water.ca.gov/irwm/grants/docs/Archives/Prop1E/Submitted_Applications/P1E_Round2_SWFM/Los%20Angeles%20County%20Flood%20Control%20District%20(201243210009)/Attachment%207%20-%20Att7_SWF_TechJust_1of2.pdf)

See page 8, second chart which clearly states: Measure of Benefit Claimed (Name of Units): Acre-Foot Per Year with project to be 4,500 ac ft.

It is very revealing as it states "based on the proposed future configuration of Devil's Gate Reservoir, an estimated 4,500 AF can be captured annually ... by conveying it to the Eaton Wash Spreading Grounds..." Clearly, the "proposed future configuration" is planning for the capture and storage of 4,500 AF of water (clearly only when storms generate this quantity). This water transfer not only requires storage in the Arroyo Seco, but a 30-36 inch 5 mile pipeline, several pumps along the way, a pump to be installed either at the upstream face of the dam or in an intake tunnel, and major improvements to the Eaton Spreading Grounds. The Eaton Spreading Grounds improvements have mostly been completed. The preferred pipeline route is mostly an easterly route following Woodbury Road, Lake Avenue and New York Drive. This will mainly affect Altadena residents, especially on New York which is an extremely narrow, residential street with high traffic volume. Unfortunately, the water benefit derived will benefit few, if any, Altadenans. While both areas, the Arroyo Seco and Eaton Wash, are in the Raymond Basin Aquifer, the Arroyo Seco/Hahamongna area is in the "Monk Hill" area of the Basin which serves at least one La Canada Flintridge water purveyor, 3 Altadena water purveyors and Pasadena. The Eaton Wash area of the Basin is in the "Pasadena Subarea" and may minimally serve Altadena through the Pasadena Water Department but most if not all the benefit will go to Pasadena. Allowing water to settle in the Monk Hill area will benefit all users and the entire Raymond Basin aquifer.

So here is my premise and question:

Water transfers cannot occur during storm events. Eaton Canyon generates its own storm water which first must use the spreading grounds or be discharged. This can be several months each year. The Devil's Gate Dam area will have to store the water during these wet months and then continue to store the diminishing pond as water is transferred slowly to the Eaton Canyon Spreading Grounds. There is not

enough storage capacity at Eaton Canyon to hold this water. The water will be transferred slowly and allowed to percolate. So how much room does it take to store 4,500 AF of water? There are 1,613 cubic yards in an acre foot. $1,613 \text{ cu yds} \times 4,500 \text{ AF} = 7,258,500 \text{ cu yds}$. This is almost the size of the original design capacity of the 1920 dam, 7.4million cu yds (and this is born out in one of the above documents stating that it has a design storage capacity of 4,600 acre-feet). Interesting isn't it. What does this pond look like - spread over 50 acres, it would be 90 feet deep and over 100 acres it would be 45 feet deep. And, to prevent undermining of water on the sides, it would be a lot deeper if the ponds are earthen ponds and not concrete. This would be a huge, deep pond of water at its maximum and an equally large crater when dry. Due to the highly related nature of these two projects, the combined effects have not been sufficiently addressed or analyzed and have been largely hidden from the public. CEQA requires that these related projects' cumulative impacts be combined and studied together. Why has this not been handled as a combined project?

Why would DPW want to use the entire reservoir to hold water for diversion? Wouldn't having a large pond of water endanger flood control and take up the space and during a DDE would double the danger to the downstream area and the dam? How is this protecting the intent of Devil's Gate Dam flood control when it may, in fact, impede or heighten the flood danger? Would this additional load potentially compromise the integrity of the Dam using the 1995-8 retrofit specifications? Would this not increase the seismic safety issues? What other unintended consequences might this cause?

I do not deny that having water to replenish the aquifer is a noble cause. But, why, if it is safe to hold water in Devil's Gate Dam, would you want to transfer this water to Eaton Canyon? The percolation in both areas, the Arroyo Seco and Eaton Canyon, is similar. All Raymond Basin users would benefit if the water is allowed to recharge within the Arroyo Seco/Hahamongna area. Why would you want to spend \$10-15million dollars and disrupt the neighborhoods with a 5 mile pipeline?

Also, another California entity, California Department of Fish and Wildlife (CDFW), requires that a Section 1600 Streambed Alteration Agreement be obtained. These two California Departments will undoubtedly be coordinating documentation and relying on each other's comments. Why is this being ignored?

The third document of interest is the study by the United States Army Corp of Engineers (USACE) Arroyo Seco Watershed, Los Angeles County CA Feasibility

Study. It is the Army Corp. from whom a Section 404 Permit must be obtained. And this, well publicized soon to be complete study is not even mentioned in the DEIR. This study of the Arroyo Seco Watershed continues to be an ongoing plan. See Congressman Adam Schiff's website:

<http://schiff.house.gov/s20091/schiff-secures-federal-funds-for-arroyo-seco/>

Congressman Schiff's website states:

The focus of the study is to address flood and stream management, habitat, water resources, and ecosystem restoration issues within this vital Southern California watershed. This funding will allow the Corps to conduct technical assessments of ecosystem restoration and watershed management programs to identify projects which will improve the management and conditions of the watershed. The Arroyo Seco Watershed Management Plan is a project supported and coordinated by the County of Los Angeles to develop a comprehensive, environmentally friendly approach to manage the Arroyo Seco Watershed.

Once again, this DEIR is looking for a one solution fix for an area with many stakeholders, including the Army Corp of Engineers. Would you explain how the DEIR alternatives fit in with the County's support of this Watershed Management Plan as underlined above?

Clearly, there are many other issues either not fully considered or entirely ignored within this DEIR. Undoubtedly, others will comment on these but I still would like to ask why the following items were not appropriately considered and would like these items individually addressed:

- Trail Closures – The only 2 east west trails will be closed during all construction hours and may be closed on off hours as well.
- JPL parking structure – This construction will cause the closure of the Arroyo Seco's western most trail between JPL's bridge and Rose Bowl Riders. When combined with the first bullet point, this completely closes off east west trail use in Hahamongna.
- Complete degradation and elimination of all plants and small animals within the construction area
- Air, Noise, and Visual Pollution much of which is ignored or not fully addressed or mitigated.

There is not enough time for me to go into all of the shortcomings and, while I will acknowledge the need for sediment removal now and in the future, I stand by the California Regional Water Quality Board's 3/18/2011 denial letter and their request that this project be reduced in both acreage affected and sediment removed

and that the project be spread out over time of 2-5 years removing much smaller amounts of sediment. Why would this not be the preferred alternative?

I will look forward to your responses to all my comments and questions.

Sincerely,

A handwritten signature in cursive script that reads "Marietta Kruells".

Marietta Kruells

Cc:

LA County Board of Supervisors
Pasadena City Council
Michael Beck, Pasadena City Manager
Arroyo Seco Foundation
Pasadena Audubon Society
California Department of Fish and Game
U.S. Forest Service
Tony Zampello, Raymond Basin Management District
Chris Holden, State Assembly Member
California Regional Water Quality Board



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Acting Secretary for
Environmental Protection

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Edmund G. Brown J
Governor

March 18, 2011

Mr. Christopher Stone
Los Angeles County Flood Control District
900 S. Fremont Ave.
Alhambra, California 91803

DENIAL WITHOUT PREJUDICE OF WATER QUALITY CERTIFICATION FOR PROPOSED DEVIL'S GATE DAM AND RESERVOIR SEDIMENT REMOVAL PROJECT (Corps' Project No. 2010-01122-CO), ARROYO SECO, CITY OF PASADENA, LOS ANGELES COUNTY (File No. 10-170)

Dear Mr. Stone:

On December 1, 2010, the Los Angeles Regional Water Quality Control Board (Regional Board) received an application for a Clean Water Act (CWA) Section 401 Water Quality Certification of the proposed Devil's Gate Dam and Reservoir sediment removal project (Devil's Gate Project) from the Los Angeles County Flood Control District (LACFCD). On December 13, 2010, Regional Board staff, Valerie Carrillo, and LACFCD staff conducted a joint inspection of the project site. The Regional Board sent a request for more information (RFI) for the proposed project application on December 14, 2010 and a response to the RFI was sent by LACFCD dated December 30, 2010. In addition, we have received a revised 'Avoidance and Minimization' Figure dated February 24, 2011.

At this time, we are unable to issue the Certification for the Devil's Gate Project, as proposed, because we cannot conclude that impacts to waters of the United States have been appropriately avoided and minimized and that the project would not result in an unacceptable degradation of water quality. Therefore, I hereby deny your application without prejudice pursuant to §3859(d) of Title 23 of the California Code of Regulations (23 CCR) because it is inadequate.

As described in the application for the proposed Devil's Gate Project and in the response to the RFI, LACFCD is proposing to remove 1.6 million cubic yards of sediment, vegetation and debris from a 50-acre area within the Devil's Gate Reservoir, in the City of Pasadena. The application and supporting documents indicate that the sediment removal activities are required to provide proper function of the flood control system in accordance with its original design in order to protect public safety. The 2009 Station Fires caused significant erosion and contributed significant sediment loading within the Devil's Gate Reservoir basin and resulted in diminished

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flood control capacity. Additional considerations associated with required sediment removal activities include limited capacity at sediment placement sites; truck traffic; and potential environmental impacts of maintenance projects.

In our review of your application and the additional materials, we do not find that the potential significant impacts have been minimized to the fullest degree possible and we do not find an analysis of alternatives, which should include alternatives in terms the overall size of the project (the volume of materials to be removed and the acreage impacted) and the timing and staging of the impact. Alternatives need to be identified and adequately analyzed for a project, such as the one proposed, to proceed. Mitigation for unavoidable impacts can be considered when the most appropriate alternative has been identified.

Before a CWA Section 401 Certification can be issued for the proposed Devil's Gate Project, you must demonstrate that appropriate alternatives, in terms of the amount of material to be removed and in terms of the timing or phasing of the removal of materials, were considered. These alternatives should include as a minimum:

1) LACFCD shall identify cleanout alternatives sufficient to protect public safety other than 'return to design capacity.'

LACFCD has proposed a "total cleanout" to bring the project back to its original design contours which were developed when the reservoir was constructed. Based on past cleanout history for this basin, LACFCD has removed sediment from the reservoir in this manner approximately every ten to fifteen years and then the reservoir has been allowed to fill and provide riparian habitat.

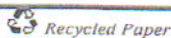
We anticipate that the 'total cleanout' alternative will then permit LACFD to not conduct work in this basin for the next ten to fifteen years. The Regional Board is not aware of other plans for the long-term maintenance of this basin.

LACFCD shall identify the immediate, public safety, capacity need which allows proper function of the flood control system and the corresponding sediment removal need. With this basis, LACFCD shall then develop an alternative(s) for this amount of sediment removal. Alternatives may include a long-term maintenance plan or only the short-term plan allowing for the long-term plan to be developed at a later date.

2) LACFCD shall identify cleanout alternatives which would minimize the 50-acre impact and identify alternatives for phasing the project to minimize impacts over time.

Given a 1.6 million cubic yards removal and the associated 50 acres of habitat loss (or other amount as identified, above), LACFD shall identify alternatives which include lesser initial

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volumes but repeated cleanouts over several periods including two years and five years. LACFCD shall analyze these alternatives for cumulative impacts to habitat and affected species using the habitat.

When considering the alternatives, the evaluations should analyze all significant impacts including the potential environmental impacts including permanent or temporary loss of habitat, and potential for erosion. The final analysis should include the rationale for the determination that the proposed project is the most appropriate design for this project which meets project needs and that there are not other, more appropriate, project designs which avoid or minimize impacts to waterways while also meeting project needs.

In addition, as acknowledged in your letter of December 30, 2010, the issuance of a CWA Section 401 certification will await complete fees, final CEQA determination, and a detailed compensatory mitigation plan,

You may choose to revise or submit any pertinent updated information in the future. Additional fees may be required, pursuant to 23 CCR §3833(4), if the revised application is not filed within twelve months of the date of this action; the revised application does not correct the procedural problems which led to this denial without prejudice; or the project has changed significantly in scope or its potential for adverse impact.

We remain committed to working with LACFCD to develop the best short-term and long-term plans for this Dam and Reservoir, and for the other reservoirs in this region.

Should you have questions concerning this Certification action, please contact Valerie Carrillo, Section 401 Program, at (213) 576-6759 or LB Nye at (213) 576-6785.

Sincerely,

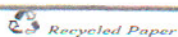


Samuel Unger, P.E.
Executive Officer

cc:

Michael D. Antonovich, Los Angeles County Supervisor
Bill Orme, State Water Resources Control Board
Eric Raffini, US Environmental Protection Agency
Cherry Oo (File No. 2010-00833-CO), US Army Corps of Engineers
Sarah Rains, California Department of Fish and Game
Kelly Schmoker, California Department of Fish and Game

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Proposal Full View

[Print](#)

Applicant Information

Organization Name: Los Angeles County Flood Control District *
 Tax ID: 95600092
 Proposal Name: Devil's Gate and Eaton Stormwater Flood Management Project *
 Proposal Objective: The Project will improve District facilities to better manage stormwater runoff from the Arroyo Seco and Eaton Wash watersheds and achieve the following goals: 1) reduce the likelihood and extent of flood damage to downstream communities, 2) increase recharge into the local groundwater basin and, 3) improve public safety by remediating seismic safety issues. *

Budget

Other Contribution	\$0.00
Local Contribution	\$49,757,651.00
Federal Contribution	\$0.00
Inkind Contribution	\$0.00
Amount Requested	\$30,000,000.00 *
Total Project Cost	\$79,757,651.00 *

Geographic Information

Latitude * DD(+/-) 34 MM 10 SS 40
 Longitude * DD(+/-) 118 MM 7 SS 55

Longitude/Latitude Clarification: Location: Lake Avenue and E Woodbury Road in Altadena, CA
 County: Los Angeles *
 Ground Water Basin: Raymond
 Hydrologic Region: South Coast
 Watershed: Los Angeles River

Legislative Information

Assembly District: 41st Assembly District *
 Senate District: 25th Senate District *
 US Congressional District: District 27 (CA) *

Project Information

Project Name	Devil's Gate and Eaton Stormwater Flood Mana
Implementing Organization	Los Angeles County Flood Control District
Secondary Implementing Organization	Not Applicable
Proposed Start Date	6/1/2009
Proposed End Date	6/2/2025
Project Scope	The Project will improve District facilities to better manage stormwater runoff from the Arroyo Seco & Eaton Wash watersheds
Project Description	<p>The Devil's Gate and Eaton Stormwater Flood Management Project (Project) includes improvement of three existing Los Angeles County Flood Control District facilities and the construction of a new interconnecting pipeline. The existing facilities are the Devil's Gate Dam and Reservoir located within the Arroyo Seco Watershed; and the Eaton Wash Dam, and the Eaton Wash Spreading Grounds located within the Eaton Wash watershed. These facilities, which are operated and maintained by the Los Angeles County Flood Control District (District), serve to control the stormwater runoff from their respective watersheds to prevent downstream flood damage. The facilities within the Eaton Wash watershed also serve to conserve the captured stormwater by recharging it into the underlying Raymond Groundwater Basin (Raymond Basin). The Devil's Gate Dam and Reservoir currently has no associated facilities to conserve captured stormwater. Proposed improvements include restoring reservoir capacity at Devil's Gate Reservoir by removing sediment; Improving seismic performance and operational capabilities, and constructing a new toe drain and erosion protection measures at Eaton Wash Dam; and enlarging and enhancing operations of the Eaton Wash Spreading Grounds. The proposed pipeline will provide a connection from the Devil's Gate Dam and Reservoir to the Eaton Wash facilities to enable conservation of stormwater captured at the Devil's Gate Dam and Reservoir.</p>
	The Project will improve District facilities to better manage stormwater runoff from

Project Objective	the Arroyo Seco and Eaton Wash watersheds and achieve the following goals: 1) reduce the likelihood and extent of flood damage to downstream communities, 2) increase recharge into the local groundwater basin and, 3) improve public safety by remediating seismic safety issues.
Project Benefits Information	

Project Objective

Budget

Other Contribution	0
Local Contribution	49757651
Federal Contribution	0
Inkind Contribution	0
Amount Requested	30000000
Total Project Cost	79757651

Geographic Information

Latitude DD(+/-)	34	MM 10	SS 40	
Longitude DD(+/-)	-118	MM 7	SS 55	
Longitude/Latitude Clarification		Location		Lake Avenue and E Woodb
County Los Angeles Ground Water Basin Raymond Hydrologic Region South Coast WaterShed				
Los Angeles River				

Legislative Information

Assembly District	41st Assembly District
Senate District	25th Senate District
US Congressional District	District 27 (CA)

Section : Applicant Information Question Tab

APPLICANT INFORMATION QUESTION TAB

Q1. PROPOSAL DESCRIPTION

Provide a brief abstract of the Proposal, including a listing of individual project titles.

The Devil's Gate and Eaton Stormwater Flood Management Project (Project) includes improvement of three existing Los Angeles County Flood Control District facilities and construction of a new interconnecting pipeline. The existing facilities are the Devil's Gate Dam and Reservoir located within the Arroyo Seco Watershed; and the Eaton Wa Dam, and the Eaton Wash Spreading Grounds located within the Eaton Wash watershed. These facilities, which are operated and maintained by the Los Angeles County Flo Control District (District), serve to control the stormwater runoff from their respective watersheds to prevent downstream flood damage. The facilities within the Eaton Wa watershed also serve to conserve the captured stormwater by recharging it into the underlying Raymond Groundwater Basin (Raymond Basin). The Devil's Gate Dam and Reservoir currently has no associated facilities to conserve captured stormwater. Proposed improvements include restoring reservoir capacity at Devil's Gate Reservoir by removing sediment; improving seismic performance and operational capabilities, and constructing a new toe drain and erosion protection measures at Eaton Wash Dam; an enlarging and enhancing operations of the Eaton Wash Spreading Grounds. The proposed pipeline will provide a connection from the Devil's Gate Dam and Reservoir to the E Wash facilities to enable conservation of stormwater captured at the Devil's Gate Dam and Reservoir. The project is broken down into the following phases: - Phase I, Eaton W Spreading Grounds Improvements - Phase II, Eaton Wash Dam Rehabilitation Project - Phase III, Eaton Wash Spreading Grounds Intake Improvement and Basin Enlargeme Phase IV, Devil's Gate Water Conservation - Phase V, Devil's Gate Reservoir Sediment Removal and Management

Q2. PROJECT DIRECTOR

Provide the name and details of the person responsible for executing the grant agreement for the applicant. Persons that are subcontractors to be paid by the grant cannot be listed as the Project Director.

Gail Farber, Chief Engineer, (626)458-4002, GFARBER@dpw.lacounty.gov

Q3. PROJECT MANAGEMENT

Provide the name and contact information (including email) of the Project Manager from the applicant agency or organization that will be the day-to-day contact on this application.

Alma Fuentes, Civil Engineer, (626)458-6158, AFUENTES@dpw.lacounty.gov

Q4. APPLICANT INFORMATION

Provide the agency name, address, city, state and zip code of the applicant submitting the application. Also provide the name and contact information of the person filling out the online application.

Los Angeles County Flood Control District, 900 South Fremont Avenue, Alhambra, CA 91803-1331

Q5. ADDITIONAL INFORMATION

Provide the IRWM funding area(s) in which projects are located.

<http://www.water.ca.gov/irwm/grants/fundingarea.cfm>

The Project is located in the Los Angeles-Ventura Funding Area

Q6. RESPONSIBLE REGIONAL WATER QUALITY CONTROL BOARD(S)

List the name of the Regional Water Quality Control Board (RWQCB) in which your proposal is located. For a region that extends beyond more than one RWQCB boundary, list the name of each Board.

http://www.waterboards.ca.gov/waterboards_map.shtml

Los Angeles Regional Water Quality Control Board

Q7. ELIGIBILITY

Is the application from an IRWM region approved in the Region Acceptance Process (RAP)? To verify, see RAP website:

<http://www.water.ca.gov/irwm/grants/rap.cfm>. If yes, include the name of the IRWM region. If not, explain.

Yes, this application is submitted by an agency which is part of the approved Greater Los Angeles County Region.

Q8. ELIGIBILITY

Please specify whether the applicant is a local public agency or non-profit organization as defined in Appendix B of the 2012 Guidelines.

Yes, the applicant is a local public agency.

Q9. ELIGIBILITY

List the urban water suppliers that will receive funding from the proposed grant. Please provide the agency name, a contact phone number and e-mail address. Those listed must submit self certification of compliance with CWC §525 et seq. and AB 1420, see Attachment 10. If there are none, so indicate and answer "NA" for Q10 and Q11.

The applicant is not an urban water supplier and the funding will not be received by any urban water suppliers.

Q10. ELIGIBILITY

Have all of the urban water suppliers, listed in Q9 above, submitted complete Urban Water Management Plans (UWMPs) to DWR? Have those plans been verified as complete by DWR? If not, explain and provide the anticipated date for having a complete plan.

Answer "NA" if no urban water supplier identified in Q9 above.

Not applicable.

Q11. ELIGIBILITY

Have any urban water suppliers listed in Q9 recently submitted AB 1420 compliance tables and supporting documentation to DWR for a different grant program on or after November 1, 2012? If so, please list the urban water supplier and the grant program. An urban water supplier must submit AB 1420 compliance documentation to DWR. If the urban water supplier has not submitted AB 1420 documentation, or that documentation was determined to be incomplete by DWR, the urban water supplier's projects will not be considered eligible for grant funding. Refer to Section III.B of the 2012 Guidelines for additional information.

Answer "NA" if no urban water supplier identified in Q9 above.

Not applicable.

Q12. ELIGIBILITY

Does the Proposal include any groundwater projects or other projects that directly affect groundwater levels or quality? If so, provide the name(s) of the project(s) and list the agency(ies) that will implement the project(s).

Answer "NA" if the Proposal does not include groundwater projects or other projects that directly affect groundwater levels or quality.

Yes, all components of the proposed project will allow the Los Angeles County Flood Control District to increase the amount of water conserved and recharged into the Raym Basin by over 4,100 acre feet per year. The Los Angeles County Flood Control District will implement the Project.

Q13. ELIGIBILITY

For the agency(ies) listed in Q12, how has the agency complied with CWC §10753 regarding Groundwater Management Plans (GWMPs), as described in Section III.B of the 2012 Guidelines?

Answer "NA" if the Proposal does not include groundwater projects or other projects that directly affect groundwater levels or quality.

Raymond Basin is an adjudicated groundwater basin which is governed by the judgment dated February 22, 1984. See Attachment 10 for a copy of the judgment.

Q14. ELIGIBILITY

List the agricultural water suppliers that will receive funding from the proposed grant. Please provide the agency/organization name, a contact phone number and e-mail address. If there are none, so indicate and answer "NA" for Q15.

No agricultural water suppliers will receive any funding awarded to this grant proposal.

Q15. ELIGIBILITY

Have all of the agricultural water suppliers, listed in Q14 above, submitted complete Agricultural Water Management Plan to DWR? Have those plans been verified as complete by DWR? If the plan has not been submitted, please indicate the anticipated submittal date.

Answer "NA" if no agricultural water suppliers were identified in Q14 above.

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Q16. ELIGIBILITY

List the surface water diverters that will receive funding from the proposed grant. Please provide the agency/organization name, a contact phone number and e-mail address. If there are none, so indicate and answer "NA" for Q17 below.

No surface water diverters will receive any funding awarded to this grant proposal.

Q17. ELIGIBILITY

Have all of the surface water diverters, listed in Q16 above, submitted surface water diversion reports in compliance with requirements outlined in Part 5.1 (commencing with §5100) of Division 2 of the CWC? If not, explain and provide the anticipated date for meeting the requirements. Answer "NA" if no surface water diverters identified in Q16 above.

Not applicable.

Q18. ELIGIBILITY

List the groundwater users that will receive funding from the proposed grant. Please provide the agency/organization name, a contact phone number and e-mail address. If there are none, so indicate and answer "NA" to Q19.

No groundwater users will receive any funding awarded to this grant proposal.

Q19. ELIGIBILITY

Have all of the groundwater users, listed in Q18 above, met the requirements of DWR's CASGEM Program: <http://www.water.ca.gov/groundwater/casgem/>? If not, explain and provide the anticipated date for meeting the requirements. Answer "NA" if no groundwater users were identified in Q18 above.

Not applicable.

Section : Application Attachments Tab

APPLICATION ATTACHMENTS TAB

ATTACHMENT 1: AUTHORIZATION AND ELIGIBILITY REQUIREMENTS

Upload Authorization and Eligibility documentation here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

Last Uploaded Attachments: Att1_SWF_Eligible_1of1.pdf

Upload additional Authorization and Eligibility documentation here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

ATTACHMENT 2: PROOF OF FORMAL ADOPTION

Upload Proof of Formal Adoption documentation here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

Last Uploaded Attachments: Att2_SWF_Adopt_1of1.pdf

Upload additional Proof of Formal Adoption documentation here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

Upload additional Proof of Formal Adoption documentation here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

ATTACHMENT 3: WORK PLAN

Upload the Work Plan here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

Last Uploaded Attachments: Att3_SWF_WorkPlan_1of2.pdf

Upload additional work plan components here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

Last Uploaded Attachments: Att3_SWF_WorkPlan_2of2.pdf

Upload additional work plan components here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Upload additional work plan components here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

ATTACHMENT 4: BUDGET

Upload the Budget documents here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

Last Uploaded Attachments: Att4_SWF_Budget_1of2.pdf

Upload additional budget components here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

Last Uploaded Attachments: Att4_SWF_Budget_2of2.pdf

Upload additional budget components here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

Upload additional budget components here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 character.

ATTACHMENT 5: SCHEDULE

Upload the Schedule here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Last Uploaded Attachments: Att5_SWF_Schedule_1of1.pdf

Upload additional schedule components here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Upload additional schedule components here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

ATTACHMENT 6: MONITORING, ASSESSMENT, AND PERFORMANCE MEASURES

Upload Monitoring, Assessment, and Performance Measures here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Last Uploaded Attachments: Att6_SWF_Measures_1of1.pdf

Upload additional Monitoring, Assessment, and Performance Measures here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Upload additional Monitoring, Assessment, and Performance Measures here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

ATTACHMENT 7: TECHNICAL JUSTIFICATION OF PROJECTS

Upload Technical Justification of Projects here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Last Uploaded Attachments: Att7_SWF_TechJust_1of2.pdf

Upload additional Technical Justification of Projects here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Last Uploaded Attachments: Att7_SWF_TechJust_2of2.pdf

Upload additional Technical Justification of Projects here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

ATTACHMENT 8: BENEFITS AND COST ANALYSIS

Upload Benefits and Cost Analysis here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Last Uploaded Attachments: Att8_SWF_BenCost_1of2.pdf

Upload additional Benefits and Cost Analysis documentation here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Last Uploaded Attachments: Att8_SWF_BenCost_2of2.pdf

Upload additional Benefits and Cost Analysis documentation here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

ATTACHMENT 9: PROGRAM PREFERENCES

Upload Program Preference documentation here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Last Uploaded Attachments: Att9_SWF_Preference_1of1.pdf

Upload additional Program Preference documentation here, if necessary.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

ATTACHMENT 10: GWMP, AB 1420, AND WATER METER COMPLIANCE INFORMATION

If your proposal does not include 1) a groundwater project or a project that directly affects groundwater levels or quality, or 2) an urban water supplier who would receive grant funding, you MUST still upload a document that indicates this attachment is not applicable to your proposal. If the upload field to this attachment is left blank, your proposal cannot be saved or completed.

Upload GWMP, AB 1420, and Water Meter Compliance documents here. Ensure file name is consistent with Section V of the Stormwater Flood Management PSP.

Max file size: 50 MB per file. Up to five files can be uploaded to this upload field. Max file name: 50 characters.

Last Uploaded Attachments: Att10_SWF_SelfCert_1of1.pdf

Devil's Gate and Eaton Stormwater Flood Management Project

and lower watersheds of the Arroyo Seco Channel and provides significant storage capacity for stormwater runoff originating from approximately 20,416 acres (31.9 square miles) of mostly undeveloped land north in the San Gabriel Mountains. The Raymond Basin underlies the dam and reservoir area.

Devil's Gate Reservoir area covers approximately 175 acres (0.27 square miles) and has a design storage capacity of 4,600 acre-feet (AF). Devil's Gate Dam is a Concrete Gravity Arch Structure. It is 100 feet high, 310 feet long, and 30 feet wide at its crest and 99 feet wide at its buttress. The dam is under the jurisdiction of the California Department of Water Resources Division of Safety of Dams (DSOD).

Completed in 1920, the Devil's Gate Dam and Reservoir facility was the first flood control facility built by the Los Angeles County Flood Control District to provide flood protection to the Cities of Pasadena, South Pasadena, and Los Angeles. It continues to serve this function today by capturing sediment washed into the reservoir by storm flows, attenuating storm flows, and subsequently controlling water releases to the downstream Arroyo Seco Channel. The Dam protects an inundation area of 1,783 acres including 3,590 parcels, and 10.3 million square-feet of structures. Downstream of Devil's Gate Dam, the lower half of the Arroyo Seco watershed is distinctly different from the upper watershed. The stream is mostly channelized downstream and the watershed is highly urbanized.

Eaton Wash Dam and Reservoir

Eaton Wash Dam and Reservoir is a stormwater and flood management facility located in the City of Pasadena, approximately 15 miles northeast of downtown Los Angeles. The dam separates the upper and lower watersheds of Eaton Wash and provides significant storage capacity for stormwater runoff originating from a drainage area of 7,949 acres (12.4 square miles) of mostly undeveloped land in the upstream San Gabriel Mountains. The Raymond Basin underlies the dam and reservoir area.

Eaton Wash Reservoir has a capacity of 956 AF. Eaton Wash Dam is an Earthfilled Structure with a clay core. The dam is 62 feet high, 1,525 feet long, has a bottom width of 375 feet and a crest width of 15 feet. The dam is under the jurisdiction of DSOD. The Sierra Madre (0.5 miles to the northeast), Raymond Hill (3 miles to the southeast), and San Andreas (21 miles to the northeast) fault zones are all possible sources of seismic activity that could affect Eaton Wash Dam. The dam protects and inundation area of 828 acres including 1,791 parcels, and 8.8 million square-feet of structures.

The United States Army Corps of Engineers finished construction on Eaton Wash Dam in 1937 and ownership of the dam was subsequently transferred to the District. The facility was constructed to provide debris storage, flood control, and water conservation. It continues to

Devil's Gate and Eaton Stormwater Flood Management Project

intake gates are closed, the water continues through the drop inlet until it ends and then the water flows back into the main wash.

To aid the water diversion into the Spreading Grounds, Flood Maintenance Staff do two things within the wash. First, they place sandbags across the vehicle access slab. This blocks water from flowing across the slab and instead causes it to drop into the inlet channel. Second, they place wooden flashboards across the drop inlet channel, just downstream of the Spreading Grounds intake gates to block water from continuing to the end of the drop inlet. This forces the water to flow into the Spreading Grounds intake gates. The sandbags and flashboards cannot adequately divert flows up to 125 cfs.

Second, the original design of the Spreading Grounds includes a levee (and sewer line) between Basins No. 1 and No. 2. There is significant seepage through the levee from one large basin to the other. Because of this, the inflow into the basins must be constricted and monitored carefully to avoid levee failure.

Third, a corrugated metal pipe that conveys flow from the intake canal to the shallow basins south of Sierra Madre Avenue was heavily damaged and no longer conveys flows to shallow Basins No. 4 through 14. The loss of use of Basins 4 through 14 also limits available storage capacity.

A recent study determined that addressing the three problems indicated would significantly increase overall groundwater recharge based on historical releases from Eaton Dam.

Project List

The Devil's Gate and Eaton Stormwater Flood Management Project is the sole Project being submitted with this proposal. The Project has multiple components that satisfy the program eligibility requirements of the Proposition 1E grant and will meet the goals discussed previously. While each component on its own provides benefits, it is through their linkages and synergies that the benefits are optimized to meet the overall goals and objectives. The Project will be constructed in phases. The following information describes the status of each of the Project's components.

Devil's Gate Reservoir

To restore reservoir capacity to address the post-Station Fire sediment impacts at Devil's Gate Dam, the Devil's Gate Reservoir Sediment Removal and Management Project will remove an estimated 2,000,000 cubic yards of sediment from the reservoir. This will reduce the level of flood risk to downstream communities along the Arroyo Seco. Removal of sediment will enable the reservoir to capture future sediment inflows and attenuate major storm inflows

Devil's Gate and Eaton Stormwater Flood Management Project

The Devil's Gate Reservoir Sediment Removal and Management Project will also establish a reservoir configuration that will be more suitable for future routine maintenance activities including sediment management. This will enable the timely removal of sediment in locations, such as those near the dam's valves that are critical to dam safety.

Devil's Gate Water Conservation

Based on the proposed future configuration of Devil's Gate Reservoir, an estimated 4,500 AF can be captured annually for water conservation by conveying it to the Eaton Wash Spreading Grounds (and possibly to Arroyo Seco Spreading Grounds in the future) for infiltration and recharge to the Raymond Basin.

This proposed Project element includes installing a pump house and intake on the upstream face of Devil's Gate Dam and an outlet in Eaton Wash. Approximately 5 miles of pipeline will be installed through the City of Pasadena and County Unincorporated road rights-of-way. The pipeline will allow water to be directed from the Devil's Gate Reservoir where no downstream recharge facilities exist, to the Eaton Wash Spreading Grounds for conservation. A split valve connected to the pump will also allow for a possible future connection to the upstream Arroyo Seco Spreading Grounds. The Arroyo Seco Spreading Grounds, owned and operated by the City of Pasadena capture limited runoff from the upper Arroyo Seco above the dam, but cannot currently utilize water captured at the dam. All of the facilities in this region recharge the Raymond Basin. This proposed Project element will increase local groundwater supplies in the Raymond Basin and reduce the region's reliance on water imports, without compromising flood control functions of the dams.

Eaton Wash Dam

Remediation of the seismic deficiencies will be completed through the Eaton Wash Dam and Reservoir Rehabilitation Element. This will consist of removing the existing seismically deficient outlet tower, gate control house, trashrack, and the metal footbridge. Once these major components are removed, rehabilitation of the outlet gates, replacement of the debris racks, addition of a hydraulic power system with a shelter building and control systems, and structural modification of the outlet works will be completed. The dam embankment will be improved by installation of erosion protection measures on the downstream face. Also, the risk of a piping failure of the embankment will be reduced by the construction of a toe drain on the downstream face.

Additionally, this Project will improve the water quality of water conservation releases from the dam by constructing a concrete apron from the gate intakes to the upstream wing walls and fifty-feet of rip-rap stone to provide erosion protection. One of the four outlet gates will be sized to match the Spreading Grounds intake capacity and will be raised to take flow from a higher elevation within the reservoir that would be less turbid.

Devil's Gate and Eaton Stormwater Flood Management Project

Work Plan

Status

The following is a table of the specific Project components that are included in this Proposal. The table includes abstracts of each Project component, the current status of each Project component's percent completion of design, and the implementing agency:

Project Component	Abstract	Status (% Design Completion)	Implementing Agency
<u>Phase I</u> Eaton Wash Spreading Grounds Improvements	Combine spreading basins, repair pipeline, construct interbasin structures	100	District
<u>Phase II</u> Eaton Wash Dam Rehabilitation Project	Seismic remediation and mechanical and control systems upgrades	100	District
<u>Phase III</u> Eaton Wash Spreading Grounds Intake Improvement and Basin Enlargement	Replace diversion structure from channel, expand spreading basin, install landscaping improvements	100	District
<u>Phase IV</u> Devil's Gate Water Conservation	Construction of a pump and pipeline from Devil's Gate Dam to Eaton Wash	30	District
<u>Phase V</u> Devil's Gate Reservoir Sediment Removal and Management	Removal of 2 million cubic yards of sediment, establishment of reservoir configuration	30	District

**Devil’s Gate and Eaton
Stormwater Flood Management Project**

Technical Justification

Project Name: <u>Phase III-Eaton Wash Spreading Grounds Intake Improvement and Basin Enlargement</u>			
Measure of Benefit Claimed (Name of Units): Acre-Foot Per Year			
Additional Information About this Measure: Flows are based on a high-rainfall year expected to occur 1 in 10 years			
(a)	(b)	(c)	(d)
Physical Benefits			
Measure of Benefit Claimed	Without Project	With Project	Change Resulting from Project
			(b) – (c)
Flow in Eaton Wash Flood Control Channel	5893	5793	100



Project Name: <u>Phase IV- Devil’s Gate Water Conservation</u>			
Measure of Benefit Claimed (Name of Units): Acre-Foot Per Year			
Additional Information About this Measure: Flows are based on an average rainfall year			
(a)	(b)	(c)	(d)
Physical Benefits			
Measure of Benefit Claimed	Without Project	With Project	Change Resulting from Project
			(b) – (c)
Flow in Arroyo Seco Flood Control Channel	6900	2400	4500

Water Supply

The Project will maximize conservation of local ground water resources. In addition to providing a local sustainable groundwater supply, this will generate cost savings through avoided purchase of imported water. Attachment 8 has additional information regarding the cost savings. The following table lists the quantity of additional groundwater the Project can supply on a yearly average basis. The following tables list the quantity of additional groundwater that each phase will conserve during an average rainfall year. This was determined by modeling each component’s proposed attributes with historical stream flow/dam release data. The stream flow data is in **Appendix 7-B**.

Schiff Secures Federal Funds for Arroyo Seco

October 1, 2009



Thursday, October 01, 2009

Contact: Sean Oblack (202) 225-4176

SCHIFF SECURES FEDERAL FUNDS FOR ARROYO SECO

Washington, D.C. – Today, the House passed the Energy and Water Appropriations Act, which included federal funds secured by Rep. Adam Schiff for the Arroyo Seco. The bill allocates \$224,000 to allow the Army Corps of Engineers to complete a Watershed Management Plan Feasibility Study.

"Restoration and conservation of our scarce open spaces is vitally important to ensuring a good quality of life," Schiff said. "This funding will help ensure that the Arroyo Seco returns to its natural state – an environmental gem. Once it's restored, it will provide enjoyable open space and recreation areas for generations to come."

The focus of the study is to address flood and stream management, habitat, water resources, and ecosystem restoration issues within this vital Southern California watershed. This funding will allow the Corps to conduct technical assessments of ecosystem restoration and watershed management programs to identify projects which will improve the management and conditions of the watershed.

The Arroyo Seco Watershed Management Plan is a project supported and coordinated by the County of Los Angeles to develop a comprehensive, environmentally friendly approach to manage the Arroyo Seco Watershed. The project is supported by the Arroyo Seco Foundation, North East Trees, the California Coastal Conservancy, the Mountains Recreation and Conservation Authority, and the cities in the watershed.