

Arroyo Seco Foundation

May 30, 2012

Gail Farber, Director
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RE: Comments on the Sediment Management Strategic Plan

Dear Ms. Farber:

Attached are the comments of the Arroyo Seco Foundation on the Sediment Management Strategic Plan. We applaud your agency for undertaking this review of the current sediment program and moving towards an ongoing sediment management approach.

We also appreciate the stakeholder and agency outreach your agency has conducted and believe that such broad involvement will be key to implementing a long term sediment management program. For that reason, we urge LACDPW to extend the review period for SMSP for an additional ninety days to allow other agencies and stakeholders to generate comments expressing their interests and insights and to build broader public support for its implementation. The abbreviated 30-day review for this 524 page strategic plan has been far too short to ensure broad technical and public review of the program.

Our comments are substantive and basically revolve around our belief that the sediment management program needs to be evaluated across a broader time horizon and integrated into other related planning efforts such as the river revitalization and watershed management programs. LACDPW needs to develop a flood and sediment management program for the next century. It's time for a more thorough review of the function and long term viability of the County's flood program and its unintended environmental impacts and unanticipated maintenance costs. It's time for a new paradigm for flood and sediment managements that links these goals to other related resource issues and societal objectives.

We urge the County to provide additional time for public input and to review that input carefully to improve the draft plan and make it truly strategic and sustainable.

Sincerely yours,



Tim Brick
Managing Director

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Arroyo Seco Foundation

Comments on the Los Angeles County Sediment Management Strategic Plan (SMSP)

Overview

The Los Angeles County Flood Control District (LACFCD) and the County Department of Public Works (LACDPW) are to be commended for undertaking the development of a Sediment Management Strategic Plan and for involving stakeholders and the public in this issue which is so important to watershed management and sustainability in our region. We appreciate the programmatic move from an occasional sporadic task to an ongoing maintenance responsibility.

While the plan presents a great deal of valuable detail about sediment issues throughout the county, it does not integrate that information into the larger goals of watershed management. In short, the focus of the Draft Strategic Plan is too narrow.

Sediment is not a waste product that should simply be disposed of, yet that is the approach taken by the Strategic Plan. Neither is storm water, another neglected resource. Six hundred thousand acre feet of storm water each year flow to the ocean from Los Angeles County, an invaluable resource that we need to better utilize. The management of the dams, debris basins and flood channels in Los Angeles County is critical to recovering some portion of that storm water.

Rivers don't just transport water. Another key function is to transport sediment, a resource of great value, the least of which is monetary:

- It provides habitat for fish and aquatic species
- It supports biodiverse riparian flora and fauna
- It fills our valleys and the coastal plain
- It nourishes the rivers and beaches in Southern California
- It can be used for construction purposes

It's time to take a new look at how we manage sediment and storm water in Los Angeles County. It's time to stop starving the streams and beaches of Southern California and to better utilize local rainfall.

To develop a true Sediment Management Strategic Plan, the County needs to re-evaluate the entire flood control system, including all the reservoirs, debris basins and flood control channels that have been put in place over the last one hundred years. These facilities have done a good job of providing flood protection, but the water resources and environmental costs have never been fully evaluated. These facilities were developed before NEPA and CEQA and have never been subject to a comprehensive environmental review. The relative effectiveness of the diverse structures has also not been analyzed. The current flood control system was based on an approach that narrowed streams and rivers and lined them with concrete to allow for expanded development in flood-prone areas. It's time to review the results of that approach and to compare it to more modern watershed management techniques that emphasize storm water retention, groundwater replenishment, stream restoration and flood plain protection.

SMSP Needs to be Part of Integrated Watershed Management

Integrated Regional Water Management is the best approach to planning for issues such as sediment management. IRWM takes a comprehensive approach to the many values and benefits water resources, storm water and flood management, habitat protection and restoration, and recreational opportunities. Clearly sediment should be seen as a critical element of the IRWM program, yet the Sediment Management Strategic Plan fails to do so, even though the County of Los Angeles Department of Public Works coordinates the IRWM program in Los Angeles County.

The Greater Los Angeles County IRMP Leadership Committee and the five regional subgroups have not been provided with a presentation on the material contained in the Sediment Management Strategic Plan, which is vital to their work. The bodies should review the draft plan, discuss the issues in the SMSP and provide input to the plan.

The Plan Is Not Long-Term and Sustainable

The collection of sediment in the dams and debris basins of Los Angeles County is an expensive, ongoing maintenance responsibility that was not fully considered when these facilities were built. Now that massive amounts of sediment have collected in these facilities and the sediment placement options are narrowing, the sediment problem is likely to get worse each year until it is addressed in a comprehensive fashion. SMSP takes a twenty year look at a perpetual problem. It does not solve the problem, but simply defers more sustainable (and less costly) solutions for future generations. This is not a responsible approach.

SMSP should state a specific commitment to undertake a long-term, sustainable sediment management program for the next century. SMSP, which is intended to be a living document, should be formally reviewed by the County, the public and technical experts every three years.

SMSP Needs to Emphasize Stakeholder Involvement and Public Education

Sediment is an issue not well understood by the public. People have an innate tendency to forget the last flood and to ignore the need for ongoing maintenance and management of flood facilities. It is incumbent on the LACFCD and LACDPW to conduct an ongoing education program through schools, stakeholder groups and local agencies to ensure a better understanding of flood and sediment issues and how they relate to the long-term sustainability challenges faced by our region.

SMSP has been developed with some community and stakeholder involvement, which is praiseworthy. The sediment video, the website and the open house have all been good tools for education, but outreach has been insufficient. SMSP calls for a continuation of such efforts, but this involvement must be ongoing and linked to other campaigns about watershed and environmental awareness if they are to succeed in building a base of public support for effective, sustainable flood and watershed management programs.

Sediment Pass-through

SMSP includes numerous favorable references to Flow Assisted Sediment Transport (FAST), aka sediment pass-through, but eventually rejects it as “uncertain” and infeasible for current projects. ASF feels that FAST and the principles of sediment pass-through can be an effective and relatively inexpensive technique for sediment management that merits considerable

more thorough analysis and testing. It can also be used in conjunction with river restoration and watershed management programs to improve habitat and environmental conditions.

In order to pass sediment through the river channel, it is necessary to evaluate the relationship between stream flow and sediment load for each individual watershed and sub-watershed involved in the sediment management plan of the LACDPW. The United States Geological Survey has collected sediment transport data for the Los Angeles River in one location for only a few decades. The LACDPW should take on this responsibility in the future as part of the Sediment Management program.

Figure 1 shows the relationship between discharge and sediment load on the Los Angeles River. It is clear from this relationship that the majority of sediment transport along the LA River occurs at the highest stream flow levels. This relationship should be carefully studied on each watershed system in Los Angeles County before Flow Assisted Sediment Transport opportunities can be adequately evaluated.

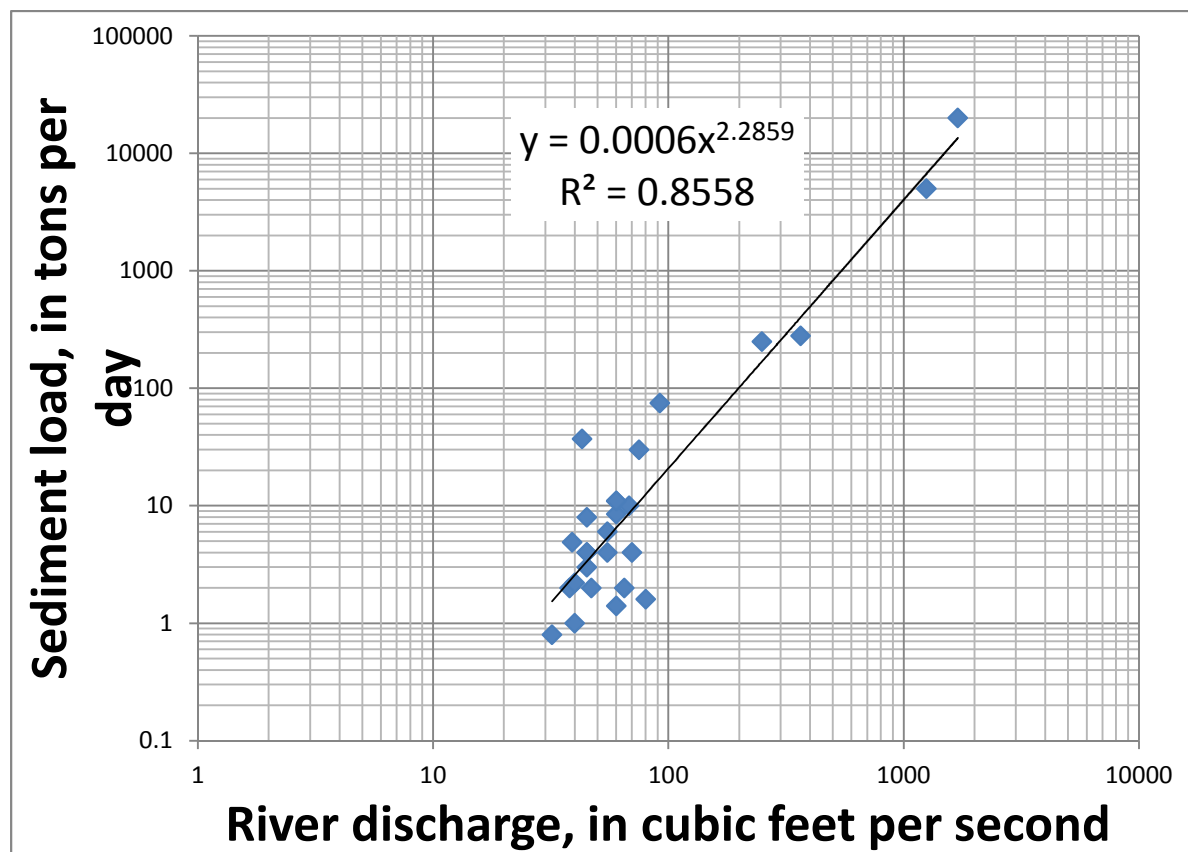


Figure 1. Relation between river discharge and daily sediment load for the Los Angeles River. Figure reproduced from USGS Scientific Investigations Report 2004-5296 - Figure 12.

California Coastal Sediment Management Workinggroup (CSMW)

CSMW is a collaborative taskforce of state, federal and local/regional entities, concerned about adverse impacts of coastal erosion on our coastal habitats. CSMW has been working for almost ten years to implement Regional Sediment Management in order to augment or restore natural processes. The mission of the CSMW is to facilitate regional approaches to protecting, enhancing and restoring California's coastal beaches and watersheds through federal, state and local cooperative efforts.

The goals of CSMW are to:

- Coordinate California's coastal beach and watershed restoration, protection and enhancement efforts with local, state and federal stakeholders and programs;
- Better coordinate coastal sediment management and beach nourishment activities with related ongoing coastal watershed management, habitat restoration and protection, water quality enhancement, resource sustainability, and urban waterfront planning efforts;
- Increase awareness of state and federal coastal beach and watershed protection, restoration and enhancement policies, programs and activities among local and regional governments; and
- Prioritize sediment needs and opportunities, make such information available to resource managers and the public, and identify opportunities to streamline regional sediment management activities in California by developing a comprehensive "Sediment Management Plan".

The lack of participation in this group by the Los Angeles County Department of Public Works is deeply troubling. The issue of coastal sediment management is not unique to Los Angeles, and neither are the solutions. LACDPW needs to participate in and learn from programs like CSMW and play an active role in the broader issue of sediment management.

River Restoration

There are numerous river restoration programs in Los Angeles County that would benefit from a more comprehensive approach to sediment management. Indeed river restoration should be seen as an important tool for sediment management. SMSP should incorporate opportunities for river restoration. The restoration of LA County Rivers will require sediment fluxes

in and out of restored areas. SMSP should consider the potential for river restoration and it can enhance watershed management and river restoration.

A Commitment to Research and Planning

The current sediment management issue in Los Angeles County is a multi-billion dollar problem with no end in sight. Research and planning can provide long-term solutions and reduce skyrocketing maintenance costs. It is important that LACFCD and LACDPW be leaders in this field. Ongoing exchanges with scientists and academic experts and the study of best practices and new approaches emerging around our planet are key.

While SMSP provides impressive documentation of sediment statistics, it provides only a cursory review of alternative techniques for sediment management. Much more substantial planning that includes a greater exploration of alternatives and development of pilot projects using adaptive management is necessary for the development of a comprehensive strategic plan. That planning might seem to be expensive at first, but it is an investment in future sustainability that will substantially reduce costs and bear sustainability dividends for our region.

Averaging of Sediment Delivery

SMSP states: "While typical sediment delivery is in the form of discrete storm events with large storms delivering most of the sediment, for planning purposes it was assumed that approximate annual sediment accumulation values could be estimated by equally distributing the change in accumulated sediment among the years in between two surveys."

Given the nature of variable sediment loads, projected sediment loads should come with appropriate likelihood estimates. The uncertainty of projections should drive the need for more scientific investigation into relationship between discharge and sediment load.

Watershed Management and River Revitalization

SMSP should incorporate the progress of the Los Angeles River Revitalization Movement and other watershed management efforts. Over the last twenty years support for restoration and revitalization has gained enormous support. It is likely that support for this movement will continue to increase significantly in the next twenty years. As more and more stakeholders of the LA and San Gabriel Rivers and their tributaries become aware of the

issues and challenges, including sediment management, greater opposition to the current outdated flood control and sediment management system will arise. LACDPW has taken steps to support more comprehensive integrated management of natural resources such as the establishment of the Watershed Management Division, the sponsorship of GLAC IRWMP, and the development of the SMSP itself. LACFCD and LACDPW should position itself as a leader in watershed management and stream revitalization and not be a barrier to it. This perspective should permeate SMSP through a more comprehensive approach to sediment and watershed issues.

USACE LA River Ecosystem Restoration Study

The United States Army Corps of Engineers is moving forward with their LA River Ecosystem Restoration Study and the Arroyo Seco Ecosystem Study, of which the County is a sponsor. These studies will include options of removing concrete and reforming the LA River and Arroyo Seco channels and their tributaries. With the removal of concrete, sediment issues will become more important. The County's sediment management study should incorporate plans and potential projects of the USACE studies and other similar efforts.

Placement sites

The Strategic Plan identifies about 60 million cubic yards of active, near-capacity and potential placement sites. The plan projects just less than 58 million cubic yards of accumulated sediment in need of removal from major reservoirs. Approximately 43 million of the 58 million cubic yards will be accumulated in the next twenty years. While current placement sites, under optimistic scenarios, may be sufficient for the next twenty years, this practice is not sustainable. The County of Los Angeles will not be able to find 43+ million cubic yards of placement sites every twenty years. This painstaking process of identifying sufficient sediment placement capacity is sure to become more and more challenging in the future, as the most obvious placement sites have already been utilized. Continuing to convert woodlands and wild canyons into blighted sediment dumps is unsustainable and counter to preserving wild ecosystems near park poor urban centers. At some point, if the urban way of life is to continue in Los Angeles County, the sediment accumulation will need to be managed in a sustainable way. It is imperative that LACDPW begins to develop a sustainable sediment management strategy now.

Adaptive Management and Pilot Projects

SMSP needs to develop an adaptive management strategy that actively considers alternatives besides trucking and tests their feasibility and implementation. Pilot projects should be implemented on appropriate reservoirs using the most sustainable and innovative sediment removal techniques. These pilot projects should be studied to find the most sustainable and efficient sediment removal strategy for each reservoir. As no two reservoirs have the exact same opportunities and restraints for sediment management, pilot projects should be chosen carefully for a specific set of similar reservoirs. The most beneficial techniques can then be implemented at other facilities and integrated into the sediment management program.

SMSP should designate several pilot projects for testing and implementation in the first five years of the sediment management program.

Comment period

The comment period for this 524 page strategic plan has been far too short. This has limited the ability of stakeholders and agencies to review the plan and offer comments that will be useful to improve the plan. The outreach program has also not been sufficient to ensure broad technical and public review of the program. We are aware of several important agencies and academic authorities who were unaware that a draft sediment management strategic plan has been issued and unable to conduct a professional review in such a short period of time.

We urge LACFCD and LACDPW to extend the review period of SMSP for an additional ninety days to allow other agencies and stakeholders to generate comments expressing their interests and insights and to build broader public support for its implementation.

- May 30, 2012
