



**Integrated Flood Management  
Workshop No. 1**

**June 26, 2012 ○ 1:30 pm - 4:00 pm  
San Diego County Water Authority  
Board Room**

**Draft Notes**

*Action items in italics*

**Attendees:**

Rob Hutsel, San Diego River Park Foundation	Jim Peugh, San Diego Audubon Society
Don Schumacher, San Diego Country Estates	Sara Agahi, County of San Diego Flood Control
Tory Walker, Tory R. Walker Engineering	Jake Gusman, West Consultants
Mark Umphres, Helix Water District	Brinton Swift, Helix Water District
Michelle Mattson, U.S. Army Corps of Engineers	Iovanka Todt, Floodplain Management Association
Terri Wegener, DWR	Deena Raver, County of San Diego
Karina Danek, City of San Diego Stormwater	Elizabeth Chopp, City of Chula Vista
Kelly Makley, Rose Creek Watershed	Dennis Bowling, Rick Engineering
Leah Browder, City of Poway	Stephani Bracci, City of San Diego Stormwater
Peter Martin, City of San Diego PWD	Michael Handal, City of San Diego
Gus Brown, City of San Diego	Kris McFadden, City of San Diego
Robyn Badger, San Diego Zoo Global	Joe Purohit, EcoLayers, Inc.
Sheri McPherson, County of San Diego	Scott Lynch, RMC Water and Environment
Bruce Phillips, PACE	

**1. Welcome and Introductions**

Bruce Phillips welcomed the group, who did self-introductions. Mr. Phillips then presented the Workshop Objectives:

- Characterize common flood problems/sources
- Identify key flood location/issues
- Existing flood control masterplans
- Existing needs/priorities/constraints for implementing flood hazard mitigation

## **2. Integrated Regional Water Management (IRWM) Program Background,**

Mr. Phillips provided the Workgroup with a brief overview of the IRWM Program, which is a stakeholder-driven program that seeks to develop solutions to regional water management problems, identify projects, and seek funding for their implementation. The San Diego Region adopted its first IRWM Plan in 2007 and is currently working to update the IRWM Plan for 2013. The IRWM Program is administered by a Regional Water Management Group (RWMG) comprised of the San Diego County Water Authority, County of San Diego, and City of San Diego. Program guidance is provided through a Regional Advisory Committee (RAC) which includes representatives from a diverse array of regional stakeholders including public agencies, business, agriculture, tribes, and non-government organizations.

The Regional Water Management Group (RWMG) has engaged a technical consulting team led by RMC to assist in the IRWM Plan update effort.

## **3. 2013 IRWM Update**

Mr. Phillips presented a summary of the 2013 IRWM Plan Update process and a schedule for planning activities. These activities included four additional planning studies, completion of the plan in Fall 2013, and anticipated Proposition 84 – Round 3 Implementation Grant in July 2013.

## **4. Integrated Flood Management**

Mr. Phillips explained that one of the four planning studies to be completed as part of the 2013 IRWM Plan update was an Integrated Flood Management (IFM) study. Integrated flood management provides a holistic approach for dealing with flood risk and integrates multiple water resource benefits. IFM focuses on the entire watershed and hydrologic cycle, integrates land and water management, and includes flexible strategies.

## **5. Flood Management Planning Study**

Mr. Phillips explained that the objective of the Flood Management Planning Study was to develop planning level tools, provide a guidance framework for regional collaborative planning, and define global strategies to form the basis in developing prospective projects for funding. He presented the three phases of the study work plan: inventory/initiation, stakeholder planning process, and strategy formulation process.

## **6. Workshop Forum Discussion**

Mr. Phillips outlined the current understanding of flood hazards and land uses in each of the watersheds in the Region, explained the existing plans and reports that were being used to develop the study, and presented an overview of needs/priorities/constraints for flood management. He then opened the workshop for discussion of the issues and implementation.

Questions/Comments

**Common Flooding Problems/Sources**

Regarding the maps presented to the workshop:

- Inventory
  - Break out open space that is natural vs. other (ex. Schools)
  - Show large reservoirs (some missing)
- Wildfires results in increase in sediments
  - San Dieguito (San Pasqual Valley) – current project
    - San Diego Community College District is having issues
    - Wildfires have greatly increased sediment
    - Issue – long-term effective management to increase groundwater recharge improve flood control decrease sediment load
- Show city boundaries, not just dots
- U.S. Army Corps of Engineers (ACOE) Q: Missing existing watershed maps?
  - A: Yes
  - Only 2 in San Diego – Otay – Planning Principles Document (Developed it, integrate and try to identify areas better for development versus groundwater recharge)

Other discussion related to common flooding problems/sources:

- Research watershed
  - Opportunity assessment – 2007
  - Hydrology study – 2012
  - Research watershed organizations
- City taking asset management approach – looking at hard assets, watershed as an asset
  - Looking at condition of these assets
    - Triple bottom line approach to looking at them
    - Identify and prioritize projects
    - Helps to characterize the assets and projects
    - Use to integrate Total Maximum Daily Loads (TMDLs)
    - Regional Water Quality Control Board (RWQCB): this approach will help with meeting RWQCB issues/needs
  - Goal is to use asset management plan to justify and prioritize their budget
    - Look at costs/economics and environmental needs
- State requested a lot of data and we should use this info
  - Challenge is that we can't get data yet
- City of San Diego = mitigation is very expensive
  - Maybe understanding where mitigation needs are or where options are located or type
  - ACOE - several watersheds have identified these
  - ACOE – look at:
    - Natural open space

- San Diego Association of Governments (SANDAG) funded a vegetation map for county focused on open space -good sources of information
    - Prefer to remove invasive species in the upper part of watershed versus lower.
  - ACOE – would like to see guidelines in design and restoration opportunities
    - Want to see designs that work
    - Provide some technical guidance that work technically (this will help make permitting process easier (private and public))
      - Works for larger event
      - This will help avoid flooding and sedimentation issues
  - Multiple species habitat
    - Find more ways to provide natural flood areas for habitat
  - Built up areas are not well maintained
    - Ex: San Luis Rey River – Lower Watershed (vegetation is not managed)
  - Chula Vista – may start meeting with California Department of Water Resources (DWR) and Federal Emergency Management Agency (FEMA) regarding this
    - Problem with old corrugated metal that will fail eventually and they have no money to replace them
    - issues with channel maintenance and regulations to go through to do it
    - issue where concrete channel ends suddenly at natural channel – concern over flooding
    - Undeveloped coastline
      - Take into account wave action, climate change, others (take these into consideration when they look at develop these areas)
    - Unique erosion problem
  - County – design study would be nice
    - Challenge with implementing Low Impact Development (LID) in existing urban areas
    - If database being developed would be beneficial, especially that showed quantitative results would be nice. City is monitoring many of their LID projects to evaluate effectiveness
  - County – currently updating hydrology and drawing design manual
    - Would like to get ACOE input on it
  - Leucadia – has flooding problems
    - Suggest we reach out to agency to get that information from each agency
    - Suggest sending questionnaire to each jurisdiction
      - Get from DWR as part of their current project
      - A: DWR will work with agencies to get that information
        - DWR working on first draft now on flood report

- Public draft in internal review currently – probably released to public in Fall
- City’s asset management approach – doing consequence of failure analysis as part of risk analysis and integrate their scoring with the water and wastewater department projects
- Could in-lieu program be made to happen?
  - Challenges with organizational structure
  - Issue with who in charge and how to implement
  - ACOE: maybe SANDAG or similar agency could do that
    - Another option form in lieu program would be an “umbrella” bank program
- Wildlife corridors, especially from coast to foothills is a concern
- Mitigation want to see the benefit of potential mitigation sites and how they can integrate with wildlife corridors
  - See Multiple Species Habitat Conservation Plan (MSHCP) - SANDAG has this data
    - Only wildlife corridors
- ACOE: Would like a tool that does a vegetation management strategy
  - Channel maintenance to improve flood control is challenged by vegetation, etc. and loss of wildlife that would result
    - Deal with this by going upstream to control flow or LIDs and remove only portion of vegetation
  - If tool was developed, then ACOE could come up with regional permit (RPG) – RWCQB can pre-certify these
    - Especially for removing invasive species
    - Agencies just need to develop plan, then could just maintain annually without new permit
- ACOE – look at areas where they are open space, but not natural and not steep to utilize for restoration or surface water diversion, water quality or habitat restoration – look for these areas
  - A: we look for these project opportunities

## **Big Flood**

- Borrego alluvium – been burned in past
  - Get fast/big floods that put lower at risk
  - Currently county is doing a geomorphic assessment
- San Diego
  - area has 172 crossings

- looked at all bridges to assess risk
- Telegraph canyon creek at risk of large flood
  - Has structural problems along creek, especially at downstream end close to URS development
- Otay River – West of 805
  - Potential problem area
- Tijuana River Valley
  - City of San Diego gets lots of flooding
  - But few houses in flood area
  - Potential to purchase flood properties
- City of San Diego – Choice Creek: older urban areas often have problems
  - Chollas
  - Serreno
  - Alvarado
- Need more cooperation for private/development (and therefore constructions) comments on implement LIDs
  - LIDs need to be feasible/doable to be attractive, etc.
- Flooding problems – especially in mobile home parks
- Ideas – re-establish floodplain where redevelopment is being planned
- City has and will send map of channels that they have mapped out their vegetation removals
- Bruce will email out to ask for:
  - Top 3 problem areas
  - Top 3 needs
  - Top 3 issues to implement there
- We are looking for GIS layers
  - Modeling lifelines, utilities
    - Water
    - Power
    - Fuel lines
    - Roadways
- Organization called “lifelines” – if sheriff, fire, etc – they may have information we could use
  - Talk to San Diego Gas & Electric

## 7. Next Steps

Mr. Phillips explained that the next steps will be to solicit more information from stakeholders, build up the database, and work with GIS data to look for IFM opportunities and potential constraints. It was suggested that he look at U.S. Army Corps

of Engineers planning documents and data, as well as the Regional Board and the Coastal Commission.