



## Central Valley Flood Protection Plan

# FINAL Summary Management Actions Workshop Ecosystem Restoration

**July 20, 2010, 1:30 p.m. – 5:00 p.m.**

**Center for Collaborative Policy**

**815 S Street, First Floor, Sacramento, CA 95811**

### Participants: 77

<b>Name</b>	<b>Organization</b>
<i>Arrich, Jeremy</i>	<i>California Department of Water Resources</i>
<i>Bair, Lewis</i>	<i>RD108, SRWSLD</i>
<i>Bishop, Debra*</i>	<i>AECOM</i>
<i>Blomquist, Nikki</i>	<i>California Department of Water Resources</i>
<i>Bowles, Chris</i>	<i>CBEC, inc.</i>
<i>Briggs, Kelly*</i>	<i>California Department of Water Resources, Flood Management Office</i>
<i>Britton, Paula</i>	<i>Habematolel Pomo of Upper Lake</i>
<i>Burmester, Daniel</i>	<i>California Department of Fish and Game</i>
<i>Carlson, Dave</i>	<i>California Department of Water Resources, FloodSAFE Environmental Stewardship &amp; Statewide Resources Office</i>
<i>Cepello, Stacy*</i>	<i>California Department of Water Resources, FloodSAFE Environmental Stewardship &amp; Statewide Resources Office</i>
<i>Chew, Lori</i>	<i>California Department of Water Resources</i>
<i>Claude, Chris</i>	<i>US Army Corps of Engineers</i>
<i>Clemons, Scott</i>	<i>RHJV/WCB</i>
<i>Condon, Deborah*</i>	<i>California Department of Water Resources, LRFMO</i>
<i>Cornelius, James</i>	<i>Sutter County Resource Conservation District</i>
<i>Coulton, Kevin</i>	<i>AECOM</i>
<i>Cumming, Kenneth</i>	<i>National Marine Fisheries Service</i>
<i>Darsie, Bill</i>	<i>KSN, Inc.</i>
<i>Dietl, Mike</i>	<i>US Army Corps of Engineers</i>
<i>Dunlap, Maddie</i>	<i>Family Water Alliance</i>
<i>Edgar, Bill</i>	<i>Sutter – Butte</i>
<i>Edwards, Douglas</i>	<i>US Army Corps of Engineers</i>
<i>Eto, Jim</i>	<i>California Department of Water Resources, Central Valley Flood Planning Office</i>
<i>Fahey, Mary</i>	<i>Colusa County Resource Conservation District</i>
<i>Ford, Connie</i>	<i>Sacramento County WR</i>
<i>Gaines, Terri*</i>	<i>California Department of Water Resources</i>
<i>Gettleman, Ben</i>	<i>Kearns &amp; West</i>
<i>Giottonini, Jim</i>	<i>San Joaquin Area Flood Control Agency</i>
<i>Greco, Steve</i>	<i>University of California, Davis</i>
<i>Graham, Margie</i>	<i>California Department of Water Resources, Northern Region Office</i>
<i>Green, John</i>	<i>Stockton East Water District</i>
<i>Griggs, Tom</i>	<i>River Partners</i>
<i>Fahey, Mary</i>	<i>Colusa County Resource Conservation District</i>
<i>Harvey, Allison</i>	<i>S.D. Bechtel, Jr. Foundation</i>
<i>Hegedus, Anna</i>	<i>California Department of Water Resources, DFM</i>
<i>Hobbs, Jennifer</i>	<i>U.S. Fish and Wildlife Service</i>
<i>Hodgkins, Butch</i>	<i>Central Valley Flood Protection Board</i>
<i>Hollister, Nekene</i>	<i>California Department of Water Resources, Delta Habitat Conservation and Conveyance Program</i>

## FINAL Summary: Ecosystem Restoration Management Actions Workshop

Name	Organization
Hoshovksy, Marc*	California Department of Water Resources, FloodSAFE Environmental Stewardship & Statewide Resources Office
<i>Hubert, Elizabeth</i>	California Department of Water Resources, FloodSAFE Environmental Stewardship & Statewide Resources Office
Indrieri, Ashley	Family Water Alliance
Irwin, Rob	Sacramento River Conservation Area Forum
<i>Kie, Marti</i>	<i>California Department of Water Resources</i>
<i>Koehler, David</i>	<i>San Joaquin River Partnership</i>
Koford, EJ	California Department of Water Resources
Larsen, Eric	University of California, Davis
Lasko, Gena	California Department of Fish and Game
<i>Lester, Aric</i>	<i>California Department of Water Resources</i>
Luce, Bill	Friant Water Authority
Magill, Sam*	Center for Collaborative Policy
<i>Matella, Mary</i>	<i>American Rivers</i>
Matsumoto, Sandi	The Nature Conservancy
Mayer, Rod	California Department of Water Resources
<i>McDowell, Ray</i>	<i>California Department of Water Resources, FloodSAFE Environmental Stewardship &amp; Statewide Resources Office</i>
McKevitt, Jim	SRCAF
<i>Melcer, Ron</i>	<i>California Department of Water Resources</i>
<i>Mulvey, Brian</i>	<i>US Army Corps of Engineers</i>
<i>Nelson, Natasha</i>	<i>California Department of Water Resources, FloodSAFE Environmental Stewardship &amp; Statewide Resources Office</i>
Parkin, Meredith*	MWH Global
<i>Patterson, Elizabeth</i>	<i>N/A</i>
<i>Rentner, Julie</i>	<i>N/A</i>
Roberts, Chad	Roberts ECP
Roeh, Jason	California Department of Fish and Game
Shelton, John	California Department of Fish and Game
Shively, Kari*	MWH Global
Shpak, Dave	City of West Sacramento
<i>Spurr, Crystal</i>	<i>California Department of Water Resources</i>
<i>Stork, Ronald</i>	<i>Friends of the River</i>
<i>Strong, James</i>	<i>N/A</i>
<i>Swagerty, Helen</i>	<i>River Partners</i>
Tatayon, Susan	The Nature Conservancy
<i>Tollette, Alexandra</i>	<i>MWH Global</i>
Tomkins, Mark	Newfields
Werner, Gregg	The Nature Conservancy
Woodland, Scott*	California Department of Water Resources
Young, Kip*	California Department of Water Resources
<i>Young, Matt</i>	<i>MWH Global</i>

\*Workshop team

*Italic = Attended via webinar*

This summary only includes comments made during the workshop. Written comments submitted after the workshop will be available at <http://www.water.ca.gov/cvfmfp>.

### Comments and Questions on Draft Initial Management Actions

#### ***MA-039: Reduce runoff through upper watershed management***

Title, Description and Goals

- Q: How is "upper watershed" defined?

## FINAL Summary: Ecosystem Restoration Management Actions Workshop

- A: In general, “upper watershed” is defined as upstream of the major flood management reservoirs.
- My concern is that by focusing on the reduction of peak flows, it works against meadow restoration. I’d like to see meadow restoration called out in the description.
- Change the title to “manage runoff” instead of “reduce runoff”.
- In title, specify “peak runoff” as opposed to “runoff.”
- Managing runoff below Shasta Dam is more important than above it because below the dams, the runoff goes into peak flows.
- The whole Central Valley is a watershed; the upper watershed and the potential to manage it can’t be ignored. The definition of watershed should be better explained.
- Remove “upper” from the title since this is meant to be a toolbox for the entire study region.
- Remove peak flows from the description since they’ll be evaluated on a case-by-case basis.

### Advantages/Disadvantages

- Advantage: statewide yield (i.e. water supply) benefit should be added, particularly associated with meadow restoration.
- Disadvantage: could reduce tax bases; this doesn’t necessarily have to be the case, though.
- Disadvantage: will take agricultural land off the tax rolls, resulting in a loss of property taxes.
- Disadvantage: potential for redirected hydraulic impacts. Water can build up over time and break loose, creating a bubble that comes down through the system

### Economic Considerations

- Upper watershed management would have no effect on floodplain development.
- There are other potential partners for doing restoration. Conservation agencies and the federal government could be brought into the circle of partners.
- Correct typo under capital costs section

### Environmental Considerations

- Q: How will this measure increase the growing season?
  - A: Reducing peak runoff could result in longer base flows and a steadier supply of water available for those who have riparian rights for irrigation. Also, to the extent that you reduce compaction to the soil, the growing season can potentially be extended. There is also potential to increase summer base flow.
- Most riparian plants will do better if they have water for a longer period of time.
- In adverse impacts, it makes a distinction between policy and implementation. This is the first time I’ve seen it divided this way.
  - Response: This should be changed for consistency.

### Social Considerations

- Could affect water rights.

### Technical Considerations

- I am concerned with the impacts on water rights. Some diversions are based on CFS at a certain type of year. This should be taken into account.
- There is potential for redirected hydraulic impacts; this should be added.
- Q: Will you change regional flexibility (i.e. since different regions will have their own considerations)?
  - A: This will be a focus of the second round of CVFPP workshops taking place in August 2010.

### **MA-040: Improve quality and quantity of wetland habitat within the flood system**

#### Title, Description and Goals

- The potential for restoring wetlands is limited without widened channels. Management actions 40, 41 and 48 need to focus on rural areas where the CVFPP is being developed. This should be added to the descriptions for these three management actions.
- There is an important connection to management action 42 that speaks to reducing natural hard points on the river. Armoring the river banks limits the potential to create new wetlands.

## FINAL Summary: Ecosystem Restoration Management Actions Workshop

- Many benefits come from wetlands that provide additional storage. New wetlands should provide flow or storage capacity.
- Wetlands provide more intrinsic benefits than just water supply.
- If you plug up the river channel, it doesn't always store additional water. Different parts of the system operate in different ways. We should keep regional uniqueness in mind.
- This management action seems to only reference wetland restoration within the levees. It should also include offstream storage.
- A focus for the environmental community is the restoration of the rivers to what they used to look like. If river restoration is confined to existing levees, then reconnecting floodplains, setback levees, and increasing areas for riparian restoration and enhancement should all be discussed. If these topics aren't incorporated into the CVFPP, the environmental community won't accomplish its goals.
- A statement should be included stating that a mechanism will be identified to ensure that flood control and ecosystem restoration will be co-equal in terms of managing the system.
- Increased flood control costs should not be incurred because of ecosystem management.

### Advantages/Disadvantages

- Disadvantage: will take agricultural land off the tax rolls, resulting in a loss of property taxes.
- Concerning the disadvantage "Potential for wetland habitat improvements may be limited in areas with extensive urban floodplain development," this is simply a fact, not a disadvantage.
- Disadvantage: people in rural areas feel like the restoration of habitat limits their lives.
- Advantage: habitat restoration projects can be located where there is a high groundwater table and seepage issues exist next to levees.
- Advantage: additional water storage.
- Advantage: recreational benefits and carbon sequestration benefits.

### Economic Considerations

- Add the opportunity costs associated with displaced economic opportunity to the list of costs.
- Regarding capital costs, you can't accurately estimate this since you don't know what the project(s) will be yet.

### Environmental Considerations

- Water quality impacts should be considered. The draining of wetlands can increase the amount of salt in rivers.
- Permitting: in some instances, you will not get permits without restoring wetlands.
- In the permitting section, it states "substantial but less complex." This should be clarified.
- It should be clarified how this management action relates to the Delta and the Delta Conservation Plan.

### Social Considerations

- Water supply and storage should be added.

### Technical Considerations

- Every restoration project under the authority of CVFPB is required to do modeling. It should be made clear that whether a project is feasible or not likely needs to be modeled and technically evaluated.
- For cost sharing, there is no information on what sources of funding are being targeted. There is no indication on how to budget for these projects.
- There is potential for redirected hydraulic impacts.

### ***MA-041: Improve quality and quantity of riparian habitat in the flood system***

#### Title, Description and Goals

- With respect to river restoration, there's a need to have meander and movement; otherwise habitat value is lost.
- The state water board is involved with a riparian protection policy program. It uses a broadened definition of riparian habitat; the definition in this description doesn't reflect that broader definition, but it should.
- Clarify the processes that would be beneficial. Channel cut-off is a benefit; it should be planned for areas that aren't too risky.

## FINAL Summary: Ecosystem Restoration Management Actions Workshop

- The methodology for this management action is well done. It mentions identifying areas where there are opportunities to improve riparian habitat and considers at system compatibility.
- Regarding integration with other programs, the methodology should include more than just state programs.
- This description doesn't reflect all of the restoration that has already happened. Successes should be highlighted.

### Advantages/Disadvantages

- Disadvantage: debris can plug up dams and bridges.
- Advantage: riparian vegetation provides fish habitat.
- Advantage: providing more riparian habitat will increase the likelihood of endangered species being delisted
- Advantage: large woods debris is part of the aquatic habitat.

### Economic Considerations

- With the removal of revetment there is the expectation that creating new habitat will have no capital costs because it's a natural process.
- Q: Why would vegetation decrease level of protection of the levee? This statement needs to be qualified.
- Regarding emergency response, increasing vegetation where the system was not designed to accommodate it could endanger the levee.

### Environmental Considerations

- Water temperature can be affected by vegetation.
- There is potential for cost sharing and drawing money for setback levees. Setbacks make flood control projects fiscally possible because of the ecosystem benefits.
- More vegetation increases the odds of endangered species becoming delisted.
- This should include aquatic wetlands as well, not just riparian wetlands.
- The US Army Corps of Engineers' policy on levee vegetation should be included under permitting considerations.

### Social Considerations

- The Likelihood of Implementation section needs to be further clarified.
- Add reduction of pollution from reduction of absorption into stream bodies.
- Mention USACE ETLs.

### Technical Considerations

- Many modeling studies have shown that substantial restoration is possible without affecting design flow. It is important to know where this is possible because it's not possible everywhere.

### ***MA-042: Improve natural riverine processes by removing un-natural hard points along channels***

#### Title, Description and Goals

- Under problem, add "limitations on channel boundaries" after "such as". Add creation of off channel water bodies to the methodology section.
- Provide examples of hard points.
- A justification process for future rock and the rock that's currently in the channels is needed.
- Under methodology, second sentence, "affords light function", the phrase "where required to maintain operability of flood protection function" should be added.
- For the methodology, consider structures in or on the banks of the river.
- The word "must" in the second sentence of the methodology section should be changed to "can be."
- In the methodology section, it should be mentioned that design should accommodate habitat considerations.

#### Advantages/Disadvantages

- Advantage: removing hard points allows natural off-channel water bodies to form, reduces O&M costs.

## FINAL Summary: Ecosystem Restoration Management Actions Workshop

- Advantage: removing hard points allows the channel to meander, and allows natural riparian forests to regenerate. Riparian habitats need a continual process of regeneration.
- Advantage: removing hard points reduces erosion problems.
- Disadvantage: reduces water supply reliability.
- Advantage: removal of hard points can increase water supply.
- Disadvantage: removing structures could raise the water surface downstream.
- Disadvantage: removing hard points redirects flow and can cause erosion problems.

### Economic Considerations

- It is less expensive to restore riverine processes naturally.
- If removing hard points makes flood fighting easier, this should be made clear.
- Q: How would improving riverine processes affect the state's liability?
  - A: Having habitat on the levees will cause problems for flood fighting. In addition, it would be problematic to remove rock from a levee and then have the levee fail.
- This can also add to maintenance costs, not just reduce them. For instance, a meandering river may undermine infrastructure.
- California tribes need to be included in the consideration of improving riverine processes. Tribes have resources for cost shares. Cooperative ventures should be stressed.
- There is a reliance on maintaining PL 84-99.

### Social Considerations

- There are hazards within the stream (e.g., old dams) that are recreational hazards. These should be removed.
- What are the specifics to salmon rearing? "for example" should be placed ahead of salmon rearing.

### Technical Considerations

- The fluvial process is the most difficult to predict.
- This description is largely negative. There needs to be a more balanced presentation of benefits.
- The statement about wetlands isn't in the right place; it should be moved.
- By removing riprap rock, you create wetlands.
- The sentence under climate change adaptability needs to be reworded.
- Predicting channel migration is difficult.
- The statement "Restoring wetlands to a more natural state will enhance their adaptability to climate change" needs clarification.
- Oxbow lakes are wetlands.

### ***MA-043: Develop hazardous waste and materials management protocols to identify, contain and remediate potential water quality hazards within floodplains***

#### Title, Description and Goals

- This management action is overly focused on point sources.
- Floodplains should be clarified (i.e., is it 200 year?)
- Prolonged drought should be clarified.
- May not do much for ecosystem services – focuses too much on methyl mercury

#### Economic Considerations

- If you're following the flood insurance program, you shouldn't be developing in floodplain. There needs to be a more robust clarification of this.
- Commercial activities should be included.
- If companies are forced to move operations off site, it could have harmful economic effects.

#### Environmental Considerations

- In Yolo County, the Cache Creek Basin is becoming a reservoir for mercury. These concerns are related as this relates to wetland development.
- Nutrients should be considered.
- Illegal activities (i.e., meth labs) should be identified.

## FINAL Summary: Ecosystem Restoration Management Actions Workshop

### **MA-044: Reoperate flood-control reservoirs to more closely approximate natural flow regimes**

#### Title, Description and Goals

- Q: Are there reservoirs that are not flood control reservoirs? Should we be considering these as well?
  - A: There may likely be significant overlap with storage operations
- Water supply and flood control should be considered as a system.
- Off channel storage could be combined with prescription flow.
- Short-term should be clarified. Under methodology, magnitude and frequency should also be considered.
- There are a small number of flood control reservoirs. Many FERC licensed dams don't have licenses to reoperate. You should also include those reservoirs that don't have a flood control function but aren't separated from the valley by a dam.
- The environmental water account should be used for geomorphic and riparian process, not just used for fish.

#### Advantages/Disadvantages

- Advantage: may support natural recruitment of riparian vegetation now constrained by flow regimes.
- Advantage: recreation opportunities may benefit.
- Advantage: may improve water supply availability.
- Advantage: off channel storage would increase the reliability of water storage.
- Disadvantage: may increase water supply cost.
- Advantage: will improve adaptability for climate change.

#### Economic Considerations

- Describing the costs as medium is not accurate.

#### Environmental Considerations

- Reoperating reservoirs will not reduce scour and deposition; it will do the opposite.
- Terrestrial species should be mentioned. Their habitats would improve.
- Under permitting, "less complex" should be clarified.

#### Social Considerations

- Many of the dams aren't under the jurisdiction of FERC. Reoperating reservoirs doesn't necessarily require changing the flood control aspect of the dam. Reoperating reservoirs would be more day to day than flood control related.
- Concerning the likelihood of implementation, many dams create electrical power. This would likely need to go through the energy commission.

#### Technical Considerations

- Under regional applicability, X2 needs to be defined.
- Simulation modeling on a daily time step is not yet available. This is necessary for assessing re-operations accurately.

### **MA-045: Reduce the incidence of invasive species in the flood management system**

#### Title, Description and Goals

- Incentives should be added to the methodology.
- Use "preclude" instead of "avoid use" in the methodology.
- Sometimes non natives will be used if they are not damaging.
- Check the box in Potentially Contributes to section for Improve Operation and Maintenance.
- Methodology should include examples of invasive species that are not plants but can impact the flood management system (e.g., invasive species that impact water intake structures).

#### Advantages/Disadvantages

- Advantage: would increase native habitat for native wildlife.
- Mussels are clogging pumps in southern California, and they're headed in this direction. If we can address this now, it will be an Advantage.

## FINAL Summary: Ecosystem Restoration Management Actions Workshop

- Under Disadvantage, “May take 5 years or more to materialize the benefit”, immediate benefits can also be realized. It doesn’t necessarily need to take that long depending on the species.

### Economic Considerations

- Fire issues aren’t addressed as long term maintenance issues. Invasive species cause fire hazards; reducing them would reduce fire fighting costs.
- Working with invasives systematically may reduce overall costs.
- In Santa Rosa, there is a problem with liguidia. It spawns vectors and has become a public health issue.

### Environmental Considerations

- Temporary destabilization of soil and erosion could take place.
- Avoid piecemeal approaches that cause more harm than good.
- By removing invasives, more ecosystem benefit can be achieved without adding area.
- Include animals, not just plants.

### Technical Considerations

- Dealing with invasive species is a long term strategy. They are managed, not completely eradicated.
- Misuse of herbicides in removal can lead to long term soil toxicity. Herbicides must be used as directed.

### ***MA-046: Remove barriers to fish passage with the flood system***

#### Title, Description and Goals

- It should be better explained how this qualifies as a management action that contributes to the goals of the flood control system.
- The methodology focuses on rim dams; it should also talk about flood plains because of interconnection design.
- In the methodology, hatcheries aren’t a viable mitigation for dams; they are ineffective. There should be more of an effort to improve the benefits of hatcheries.
- Removing barriers is a priority for national agencies, not for state agencies yet. This should be noted in the problem.

#### Advantages/Disadvantages

- Advantage: it would reduce regulatory restrictions.

#### Economic Considerations

- Under disadvantages, it mentions high costs. In economic considerations it states med-high costs. This should be made consistent.
- Annual O&M costs are focused on dam removal for fish ladders. It is likely that on large rim dams the capital costs will be for non-volition passage.

#### Environmental Considerations

- Bypasses represent some of worst constraints to passage; this could be improved. This management action is not just about dam removal.
- In the text under permitting considerations, “substantial but less complex” should be clarified.
- Benefits to tribal fishing should be mentioned.

#### Technical Considerations

- Redirected hydraulic impacts should be added.
- There should be better flood and water supply management throughout the year.
- If a fish ladder is being installed, water rights should be considered.

### ***MA-047: Set back levees to connect rivers to floodplains***

#### Title, Description and Goals

- The title should read “set back levees to connect rivers to floodplains to increase habitat connections.”
- “Creation of off-channel water bodies” should be added to the methodology.

## FINAL Summary: Ecosystem Restoration Management Actions Workshop

- The narrowness of levees restricts riparian vegetation. This is part of the problem and it should be stated. The desired outcome should be a wider floodplain with setback levees.
- Does the loss of connection lead to groundwater recharge? This should be restated as it is not currently clear.
- In the title, floodplains as a broad term can overwhelm people. Consider using “floodways” instead.
- In title, remove “connect rivers to floodplains” and replace with “connect rivers to improve public safety and re-establish fluvial processes.”
- Problem statement should include that it provides habitat for other terrestrial species.

### Advantages/Disadvantages

- Disadvantage: there are potentially negative consequences up and downstream.
- Advantage: reduced levee sizes and reduced maintenance costs.
- Advantage: allows for the establishment and self-sustenance of riparian habitats.
- Disadvantage: can take up massive swaths of agricultural land.
- Advantage: reduces amount of bank protection, and increases habitat banking opportunities.
- How can setback levees improve streamlining but also lead to permitting complexities? This apparent contradiction should be clarified.

### Economic Considerations

- Q: How do bypasses relate to economic considerations?
  - A: This is confusing. Perhaps the bypass related management actions should be combined.
- Developing setback levees is probably the most cost accessible option for rural areas to protect agricultural land. It might be the only viable way to construct levees in rural areas.
- Setback levees increase off stream storage opportunities.
- Setback levees create habitat for banking mitigation.

### Environmental Considerations

- Setback levees need to be combined with reducing the water table if they’re going to be beneficial. The area could be irrigated until the water table is lowered.
- Setback levees could help provide a 200 year or greater level of flood protection.
- “Extensive and complex permitting considerations” should be explained.

### Technical Considerations

- Under Redirected hydraulic impacts, “may results in redirected hydraulic impacts upstream,” add “when not designed for capacity and high roughness.”
- Design the capacity of levees with a high roughness value.
- A lot of work needs to begin downstream.

### **MA-048: Reconnect floodplains to restore seasonal habitat**

#### Title, Description and Goals

- Routing flows through bypasses would increase fish habitat.
- The title should read “Reconnect floodplains to restore seasonal habitat and physical, ecological, and chemical processes.”
- In the methodology, “should consider potential conflict” should be changed to “must consider.”

#### Economic Considerations

- The capital costs lost after floodplains have been inundated should be considered.

#### Social Considerations

- Reconnected floodplains would create increased recreational activities.

#### Technical Considerations

- Will likely to result in upstream and downstream hydraulic impacts
- Need to design roughness of vegetation into modeling
- Need to solve the problem downstream and work upstream.

## Suggestions for New Management Actions

- Create a management action to address sediment transport. Sediment transport will eventually move downstream and create problems in the system.
- Sediment can also be a benefit. It can lead to the creation of point bars, replenishing gravel, etc.
- Legacy historical facilities and cultural artifacts might become exposed due to changes in the system; the consideration of legacy communities may need its own management action.
- Promote floodplain and seepage easements.
- Establish a regional stakeholder forum. A forum is needed to make this effort actually happen. This process should consider a stakeholder forum similar to the Sacramento River Conservation Area Forum.
- There should be a new category of management actions on social learning and science. To adaptively manage, we need to be able to share science across the system. Management actions should be created for developing the best science and continually doing public outreach. You need to be explicit about these to make sure they happen.
- Develop policy framework to speak with water board – ecosystem restoration should be co-equal with flood management.
- The relationships between management actions should be identified.
- Educate the public about recreational opportunities that will result from implementing management actions.
- Improve the safety of fish caught for human consumption; reduce contamination threats