



Action Item 17:

Consider Entering into an Agreement with California American Water for Los Padres Dam Long-Term Plan

Meeting Date: August 17, 2015

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ESA considerations

National Marine Fisheries Service direction to Cal-Am (in 2013) – complete a feasibility study on two alternatives:

- 1) entirely removing Los Padres Dam and restoring the reservoir area to its original environs; or
- 2) improving the dam with permanent fish passage modifications that allow for upstream and downstream migration of all life stages of S-CCC steelhead.

Cal-Am requests in 2015-17 General Rate Case Application (GRC):

- \$4.2 million: downstream steelhead passage improvements at LP Dam
- \$1 million: for feasibility study to determine long term fate of LP Dam and Reservoir
 - Cal-Am focus: satisfy NMFS concerns
 - MPWMD interest: broader than either NMFS or Cal-Am
- Cal-Am/MPWMD Settlement Agreement: co-fund long-term study



reservoir sedimentation



upstream passage



flood/
erosion

Carmel River at Hacienda Carmel (RM 3.5)
Looking downstream at left levee
February 7, 1998

ISSUES



channel
simplification



water supply

Areas of focus

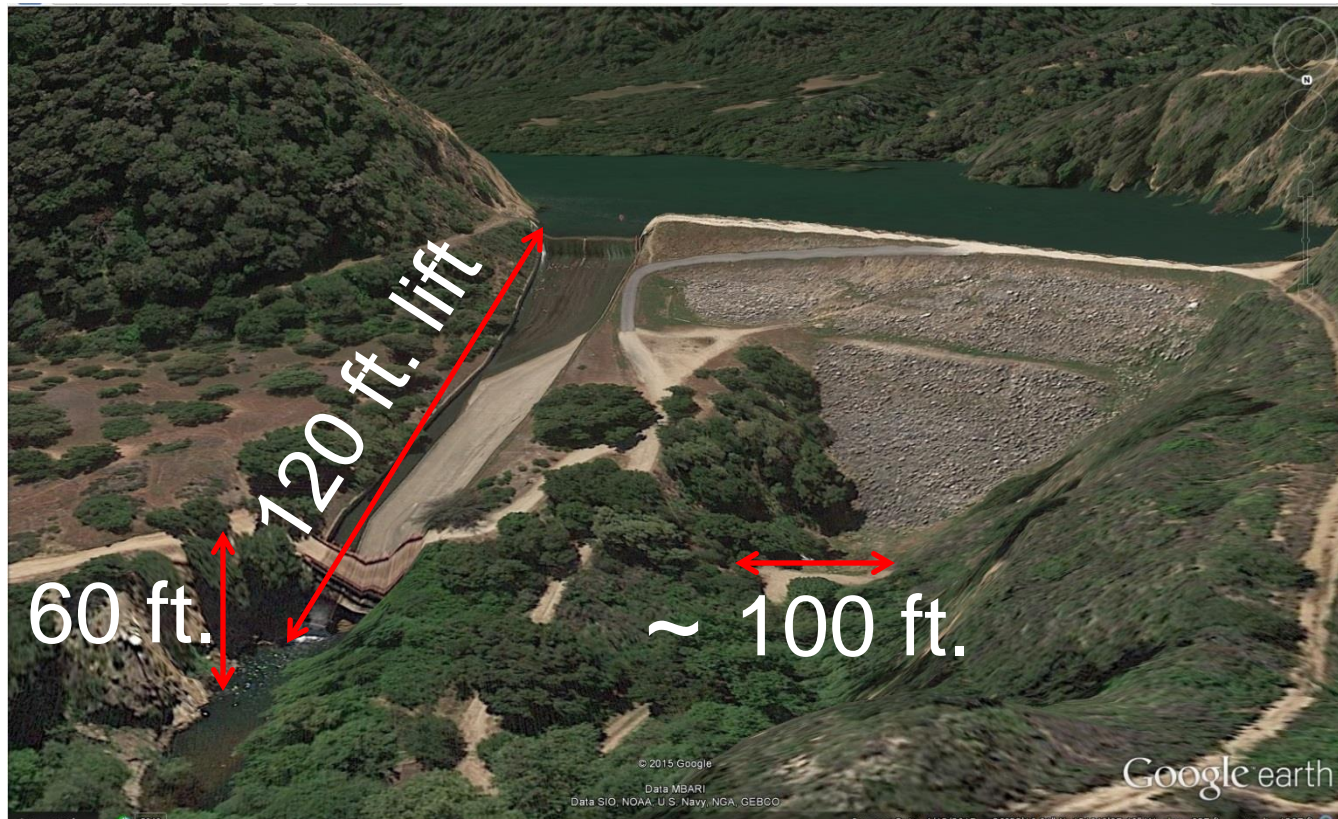
Cal-Am and the District to cooperate on scopes of work to evaluate:

- upstream passage improvements
- future Cal-Am Carmel River operations
- dam removal
- potential changes to steelhead habitat
- sediment management options
- downstream effects of alternatives

District to evaluate increase in surface storage capacity and risks associated with alternatives

Constraints to upstream steelhead passage improvements

- Narrow valley with steep side slopes
- May need to penetrate dam
- Reservoir level highly variable



Water availability analysis

- NMFS (2013): Los Padres Dam is an “important part of a regional water supply system.”
- Shibatani (2014): “...the ability to mete out appropriate releases over the summer season is an essential function.”
- Additional storage is necessary to provide 5 cfs at Highway 1 during the summer months
- Last water availability analysis - 2005

Water availability analysis

- MPWMD developing a new tool (GSFLOW)
 - simulate future Cal-Am and non-Cal-Am operations
 - simulate dam removal and increase in surface water storage (e.g., dredging)
 - simulate climate change scenarios
 - simulate changes to instream flow requirements
- MPWMD uses:
 - water rights application to expand Aquifer Storage and Recovery Program
 - future revision of the Water Allocation Program

Steelhead habitat improvements

- NMFS:

- Los Padres Dam “impedes the downstream transport of sediment (and large woody debris) suitable for steelhead spawning and rearing habitat in the middle and lower reaches of the Carmel River”
- interested in an expedient resolution to trapping of gravels



Habitat and impact evaluations

Combined volume of 4.4 million cubic yards of material trapped at San Clemente and Los Padres Reservoirs

– Up to about 200,000 CY or about 300,000 tons of spawning gravel trapped since 1921

➤ ***Dredge reservoir, place gravel downstream?***

➤ ***What are potential effects:***

➤ ***To habitat?***

➤ ***To channel capacity in a flood?***

➤ ***To channel stability?***

➤ ***To storage capacity/summer releases?***

➤ ***What is to be done with silt and sand?***

Additional studies of risks

All alternatives require risk management


- “do nothing”: environmental; water supply risk; flood/erosion risk when 100% silted in
 - dam modification (e.g., dam raise): fish passage, habitat loss, failure
 - dam removal: water supply, flood/erosion
 - dredging: flood/erosion, habitat impacts
- Need to understand relative risks and costs to reduce risk for each alternative

Recommendation

- Authorize the General Manager to enter into an agreement for California American Water to co-fund up to \$1 million over three years for studies to evaluate long-term options for the future of Los Padres Dam and Reservoir.
- Authorize the General Manager to make non-substantive changes to the draft agreement.



For More Information



Staff reports, ordinances and presentation materials can be found on the District's website at:

www.mpwmd.net

PowerPoint presentations will be posted on the website the day after the meeting.