

Submitted by staff at the 1/18/17 Administrative Comm Mtg.

| Estimate of Study Costs Associated with Long Term Plan for Los Padres Dam - December 28, 2016 | | | | | | | | | | |
|---|---|--|--------------------|---------------------|-----------|------------|------------|------------|------------|---------------|
| | | | | | GRC Costs | | | | | |
| Study | Description | Status | MPWMD Contribution | Cal-Am Contribution | 2015 | 2016 | 2017 | 2018 | Total GRC | Total Project |
| Carmel River Basin Hydrologic Model | Coupled surface-groundwater model using GSFLOW and MODFLOW to simulate Carmel River flow at selected points. Includes ability to vary well production, Carmel River diversions, effects of climate changes. Calibration by USGS will be to historic records. | Under development with completion in early 2017. Funded from MPWMD water supply charge. | \$ 175,000 | \$ - | | | | | \$ - | \$ 175,000 |
| Water Availability Analysis | Run CRB Hydrologic Model for 1) proposed Cal-Am operations post 2020; with LPD, w/o LPD, w/dredging. | | | \$ 25,000 | | | \$ 25,000 | | \$ 25,000 | 25,000 |
| IFIM | Instream Flow Incremental Method. Develop model to update 2002 NMFS Carmel River instream flow recommendations. | Draft scope developed. Study to be implemented in WY 2014-15-16. Requires enough adult steelhead returns and data on juveniles to apply model. | 233,000 | \$ - | | | | | \$ - | 233,000 |
| IFIM model simulation | Apply IFIM model to LP Dam alternatives to evaluate changes to steelhead habitat | | | \$ 25,000 | | | 25,000 | | \$ 25,000 | 25,000 |
| Los Padres Dam Alternatives Study | Evaluate feasibility of passing sediment around Los Padres Dam; impacts analysis to downstream habitat; analysis of spawning gravel requirements downstream of dam; assessment of geomorphic changes to downstream areas from dam removal/increased sediment transport. | Will require results of Water Availability Analysis | | \$ 500,000 | | | 300,000 | 200,000 | \$ 500,000 | 500,000 |
| Permanent steelhead passage | Assessment of alternatives to implement permanent volitional upstream steelhead passage for all life stages. Analysis to include preliminary costs of feasible options. | Not started. Implement in phases: a) analysis of interim improvements to existing trap/truck operation; b) evaluation of feasible permanent | | \$ 282,000 | | 82,000 | 200,000 | | \$ 282,000 | 282,000 |
| Final Report/Recommendations | Combine results of studies; hold public meeting concerning alternatives (i.e., MPWMD Board meeting). | | | \$ 50,000 | | | | 50,000 | \$ 50,000 | |
| Other | Contingencies | | | \$ - | | | | | \$ - | - |
| MPWMD Administration | Estimated at 5% of GRC costs | | | \$ 37,600 | 6,000 | 4,100 | 27,500 | | \$ 37,600 | 37,600 |
| Cal-Am Administration | Estimated \$24,000/year | | | \$ 72,000 | 24,000 | 24,000 | 24,000 | | \$ 72,000 | 72,000 |
| | | Total | \$ 408,000 | \$ 991,600 | \$ 30,000 | \$ 110,100 | \$ 601,500 | \$ 250,000 | \$ 991,600 | \$ 1,349,600 |