Table 1
Project Performance Measures for Planning, Research, Monitoring, or Assessment Activities
Identification of Effective Restoration and Land Management Measures in the Mill Creek Watershed
(Example only – please replace with your own content)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Assess where and what kind of land and water use practices have contributed most to impairment of aquatic life uses	Identification and mapping of anthropogenic sediment "hot spots" and linkage to current land and water management practices, such as increases in the drainage density, impervious surfaces, as well as ill-timed water diversions and reduction of flood plain functions	1. Completeness and coverage of digitized maps of historical and present channel network and hydrology 2. Completeness and coverage of maps of historical and current habitat types	1. Site-, reach-, or area-specific options for alternative land/water management practices and restoration measures. 2. Number of conceptual restoration opportunities 3. Refinements to conceptual model of watershed processes and functions	*Documenting Local Landscape Change: the Bay Area Historical Ecology Project*. In: Egan, D. and E. Howell, editors, *The Historical Ecology Handbook: a Restorationist's Guide to Reference Ecosystems* (Island Press, Washington D.C.)	1. Broad acceptance of identified hot spots based on peer review. 2. Broad acceptance of conceptual model and sediment reduction management options with identified hot spots based on peer review
2. Identify range of restoration measures and management practices that could mimic historic watershed processes and contribute to the prioritization of site-specific TMDL implementation options	1. Development of site-specific and watershed-wide restoration and land management options capable of mimicking historic watershed functions and processes and capable of meeting TMDL implementation targets 2. Identification of appropriate index sites for tracking TMDL implementation progress	1. Digitized map and classification of BMPs and restoration measures. 2. Digitized maps of known and potential salmonid spawning sites	1. Site-, reach-, or area-specific options for alternative land/water management practices and restoration measures. 2. Conceptual restoration plans 3. Refinements to conceptual model of watershed processes and functions. 4. TMDL monitoring plan elements related to tracking progress toward long-term TMDL targets	1. http://www.ctic.purdue.edu/Core4/CT/Choices/Choices.html 2. http://www.dfg.ca.gov/nafwb/manual.html 3. http://www.waterboards.ca.gov/sanfranciscobay/Agenda/04-16-03/Stream%20Protection%20Circular.pdf	1. Adopted list of restoration and land /water mgt. options 2. Adopted list of index sites for TMDL monitoring

Table 2
Project Performance Measures for Education, Outreach, and Capacity-building Activities
Evaluating Alternative Futures in the Mill Creek Watershed
(Example only – please replace with your own content)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Educate landowners and residents about baseline environmental conditions and watershed processes	1. Increase number of watershed residents who can adequately describe what a "watershed" is 2. Oakwood College expands environmental science curriculum 3. Watershed stewardship curriculum is adopted by professional organizations	1. No. of residents attending workshops 2. No. of meetings held with College Board of Trustees for expanding course offerings 3. No. of special events with relevant outreach material 4. No. of meetings held with prof. associations	1. % increase in general watershed knowledge and environmental conditions 2. No. of relevant new college courses offered 3. No. of Farm Bureau, Builders' Council, and other prof. associations' relevant training classes	Opinion/Behavior Surveys (e.g., http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3714-75944--,00.html)	1. 15% increase in watershed residents who can adequately describe what a "watershed" is 2. Two new watershed curriculum components or courses at college 3. A minimum of two professional orgs. have adopted and implemented watershed stewardship curriculum for in-house training
2. Provide understanding about land use decisions and NPS pollution	1. Watershed science and planning curriculum is developed and adopted by the Public Works, Building, and Planning Departments throughout the County for in-house staff training purposes	1. No. of residents attending workshops 2. No. of meetings held with College Board of Trustees for expanding course offerings 3. No. of special events with relevant outreach material 4. Course material developed for County Public Works and Planning staff	1. Increase in knowledge about NPS pollution and land use decisions 2. Inclusion of NPS issues in land use planning and environmental science college curriculum 3. New training classes implemented for County Public Works and Planning staff 4. Increase in County GIS analysis and IT capacity	Opinion/Behavior Surveys	1. County staff training curriculum adopted and implemented 2. 50% of County staff have command of relevant NPS/land use issues after first year of training 3. Incorporation of NPS issues in new college watershed curriculum or courses
3. Involve residents in "Alternative Futures" project and General Plan update	1. Broad community attendance at the Alternative Futures kick-off meeting 2. Broad press coverage of the Alternative Futures Planning effort and outcomes.	1. No. of residents participating in "Alternative Futures" workshops 2. No. of newspaper articles and other media coverage about Alternative Futures	1. Broad understanding about NPS pollution and land use decisions, as demonstrated by evaluation forms 2. Increase in candidates for political office with good NPS and watershed understanding	Negotiated with Grant Manager	1. 200 residents at "Alternative Futures" kick-off meeting. 2. Series of three newspaper articles on AF project 3. Minimum of one candidate in city or county elections with good watershed understanding

Table 3
Project Performance Measures for Habitat Restoration Activities
Mill Creek Arundo donax Eradication Project
(Example only – please replace with your own content)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Eliminate *Arundo donax* from the Mill Creek Watershed	1. Reduction of giant reed coverage of 420 acres to less than 1	1. No. of landowners granting access permission. 2. No. of volunteers participating in training and implementation	1. Percent of each watershed segment with eradicated stands of A.d. 2. Re-establishment of native riparian vegetation	Russian River *Arundo* Eradication Manual	100% eradication in upper and middle reaches of watershed; 90% eradication from lower watershed
2. Prepare a re-infestation prevention plan	1. Adoption of prevention plan and incorporation of re-infestation prevention plan into Public Works Department Standard Operating Procedures Manuals	1. Finalization of prevention plan 2. Integration with existing floodway maintenance SOPs	1. Adoption of prevention plan 2. Broad knowledge of Public Works supervisors about SOP updates 3. Floodway maintenance schedule based on watershed reaches sequenced from upstream to downstream	Negotiated with Grant Manager	100% county staff awareness of newly adopted SOP

Table 4
Project Performance Measures for Load Reduction Activities
Reducing Pesticide-Induced Sediment Toxicity from Stonefruit Orchards in the Mill Creek Watershed
(Example only – please replace with your own content)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1. Demonstrate the environmental response to pesticide use reductions of 20%.	1. Increase in contiguous acreage in the "Going Organic" Program. 2. Large-scale enrollment of Dry Creek farms in BMP testing program. 3. Pesticide use reduction 4. Reduction of sediment toxicity 5. Increase in benthic macroinvertebrate diversity	1. No. of landowners granting access permission; 2. No. of contiguous acres enrolled in "Going Organic" 3. Number of Dry Creek landowners participating in monitoring plan workshop 4. Number of Dry Creek landowners following implementation schedule	1. Percent reduction of sediment toxicity hits 2. Percent increase in aquatic macroinvertebrate diversity 3. Percent reduction in pesticide use 4. Percent reduction in pyrethroid concentrations in orchard drain water	1. Sed. tox. Bioassay standard procedures; 2. Hayworth, J.D. and G. Siemering. July 2003. Aquatic Pesticide Monitoring Program Phase 2 Monitoring Plan. San Francisco Estuary Institute, Oakland, CA. 3. DFG, Rancho Cordova, GC-ECD or GCMS methods.	1. Enrollment of an additional 1,000 contiguous acres in the "Going Organic" Program. 2. Enrollment of 90% of Dry Creek farms in BMP testing program. 3. Statistically significant increase in benthic marcroinvertebrate diversity. 4. Pesticide use reduction of 20%.
2. Contribute to achievement of TMDL target of zero sediment toxicity	1. Reduction of sediment toxicity	1. No. of landowners granting access permission; 2. No. of contiguous acres enrolled in "Going Organic" 3. Number of Dry Creek landowners participating in monitoring plan workshop. 4. Number of Dry Creek landowners following implementation schedule.	1. Percent reduction of sediment toxicity hits. 2. Percent increase in aquatic macroinvertebrate diversity. 3. Percent reduction in pyrethroid concentrations in orchard drain water.	Same as above	Reduction of toxic "hits" between pre-project conditions and project implementation by 75%.

Table 5
Beneficial Use Improvement and Protection Activities
Mill Creek Flood Protection and Conjunctive Water Management Project
(Example only – please replace with your own content)

Project Goals	Desired Outcomes	Output Indicators	Outcome Indicators	Measurement Tools and Methods	Targets
1.Provide safe drinking water to all residents	1. All localities certifying their water treatment systems	1. No. of water treatment managers inquiring about the Department of Health Services (DHS) certification requirements 2. Certification program requirement guidance material produced and posted on web	1. Increase number of water treatment facilities getting certified 2. Local residents inquiring about the water treatment facilities certification	DHS, Drinking Water Program http://www.dhs.ca.gov/ps/ddwem/technical/certification/devices.html	100% of the operating water treatment facilities getting DHS certification
2. Improve drinking water use efficiency	1. Educate local residents about benefits of conserving water	1. % increase in demand for water-saving devices 2. % increase in requests for water audits	1. Volume of water available for environmental enhancement 2. Volume of water conserved for other beneficial uses 3. Level of improved water use efficiency	Opinion/Behavior Surveys (e.g., http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3714-75944--,00.html)	1. 1,000 ac. ft. of water available for environmental enhancement 2. 1,000 ac. ft. of water conserved for other beneficial uses 3. 10%improvement in water use efficiency
3. Provide 200 year flood protection for the Mill Creek watershed	1. Reduction in health and safety risk due to flooding 2. Integrate flood management and land use activities to maximize the value of public infrastructure expenditures 3. Restoration of natural flood processes in the Mill Creek watershed 4. Increase in water available for groundwater recharge	1. Local zoning regulations prohibiting incompatible development in flood plain 2. Integration with exotic species removal SOP's 3. Re-development plans include provisions for new flood terraces and removal of flow constrictions along mainstem and tributaries 4. New development and re-development proposals are required to mitigate for impervious surfaces and include restoration of historical hydrograph wherever feasible 5. Miles of new setback and reinforced levees constructed 6. Acres of natural flood plain restored 7. Areas suitable for groundwater recharge are mapped and included in special land use zones	1. Hydrographs resemble historical conditions in peak discharge amounts and timing 2. Public perception that local health and safety risk from flooding has been reduced to acceptable levels 3. Increase in capacity and volume of groundwater recharge from designated land use areas and integrated flood management activities 4. Measurable economic benefits from improved and sustained infrastructure 5. Reduce costs for local agency capital improvements and sustaining water quality and water supply benefits	1. Napa County Flood and Water Conservation District http://www.napaflooddistrict.org/Flood.asp?LID=535 2. DWR - http://www.publicaffairs.water.ca.gov/newsreleases/2005/01-10-05flood_warnings.pdf 3. DWR – Public Safety http://www.water.ca.gov/nav.cfm?topic=Public_Safety 4. Opinion/Behavior Surveys 5. Program specific economic analysis	100% of the Mill Creek watershed has 200 year flood protection
4. Restore the Mill Creek flow to pre 1920s level for in-stream beneficial uses	1. Restore historic numbers of special-status migratory fish species	1. Increased stream flows 2. Monitor decrease in water temperature	1. Increase the no. of special-status migratory fish spawning in the stream 2. Increase in level of dissolved oxygen level	1. Fish counts and biological monitoring	5 % increase in special-status migratory fish

Table 5 (continued)
Beneficial Use Improvement and Protection Activities
Mill Creek Flood Protection and Conjunctive Water Management Project

			3. Increase in no. of deep holding pools for migratory fish		
5. Treat wastewater and create supply for in-lieu ground water recharge	1. Increase the beneficial re-use of recycled water that meets regulatory requirements and reduce groundwater overdraft	1. Number of benefit assessment districts created to finance recycled water treatment and conveyance infrastructure 2. Number of new customers lined up for recycled water use	1. Reduction in groundwater use and surface water diversions for golf course and landscape irrigation 2. Reduction in groundwater overdraft and surface water diversions for agricultural irrigation needs 3. Public perception that recharge of treated waste water is safe and acceptable	1. DWR - California Water Plan – Updated 2005 http://www.waterplan.water.ca.gov/cwpu2005/ 2. Opinion/ Behavior Surveys	50% reduction in ground water overdraft in 20 years.
6. Improve municipal and industrial water quality for public health and safety protection	1. Provide drinking water that meets or exceeds the federal and state drinking water requirements	1. Measure water quality constituents for primary and secondary drinking water standards	1. Measure water quality parameters at the water treatment plant before it is delivered to customers	1. USEPA and Standard Lab Methods	Meet all primary and secondary drinking water standards over the next 10 years