MokeWISE Program Draft Memorandum:
Project Assessment

Revision Date: 14 February 2014

Table of Contents

Introduction

The Mokelumne Watershed Inter-regional Sustainability Evaluation (MokeWISE) program has emerged following years of dialogue between a diverse set of stakeholders in the Upper and Lower Mokelumne River watersheds. MokeWISE, when concluded, is expected to yield a scientifically-based and broadly-supported water resources program that includes sustainable approaches to water resources management in the Mokelumne River watershed.

Members of the Mokelumne Collaborative Group (MCG), the stakeholder group driving development of the MokeWISE program, were asked to complete a table summarizing initial ideas related to desired potential benefits to be achieved and potential consequences to be avoided by the program, and potential ways of measuring these outcomes. Information provided through this exercise was compiled by the project team with the goal of identifying areas of common interest, which were used to develop joint program objectives and measures.

Based on the information provided by MCG members, MokeWISE Program Objectives were developed and submitted for acceptance by the MCG. The Program Objectives will serve as a guide to determine how well the MokeWISE program addresses the objectives of the MCG. In order to understand whether individually proposed project concepts will address some or all of the Program Objectives, the objectives were used as the basis for developing a process for assessing individual project concepts and portfolios. The following sections present the proposed approach to assessing project concepts and portfolios in the MokeWISE program.

Project Concept Assessment

A wide array of project concepts will be developed through the MokeWISE program. Project concepts will be qualitatively assessed based on four screening criteria: feasible, beneficial, attainable, and compatible. Each criterion is described below.

- **Feasible:** Each project concept will be assessed at a conceptual level for its technical feasibility. Concepts will be determined to pass the preliminary technical feasibility screen if the project concept, or similar projects / concepts, have been demonstrated to be technically feasible and no technical "fatal flaws" have been identified which would suggest the project may not be able to be implemented. If, however, the project concept is determined to have technical or other challenges that threaten its feasibility, the project concept will not pass this screen and will not be eligible for incorporation into a program or portfolio. It should be noted that the purpose of this screen is to remove concepts which are fatally flawed and not to remove concepts which are may not have universal support.
- **Beneficial:** Each project concept will be assessed at a conceptual level to establish whether it is beneficial. A project will be determined to be beneficial if it achieves or helps to achieve one or more of the desired project outcomes established by the MCG. If a project or concept achieves one or more of the desired project outcomes and is therefore beneficial, it is considered to have passed this screen. If, however, the project concept will not achieve or help to achieve one or more of the desired project outcomes established by the MCG, the project concept will not pass this screen and will not be eligible for incorporation into a program or portfolio.
- **Attainable:** Each project concept will be assessed at a conceptual level to establish whether the benefits it seeks to provide are attainable. If it is determined that the project could be reasonably expected based on engineering judgment to provide the benefits it proposes to achieve, it will be preliminarily determined to be attainable and therefore pass this screen. If, however, the project concept is not reasonably expected based on engineering judgment to provide the benefits it proposes to achieve, the project concept will not pass this screen and will not be eligible for incorporation into a program or portfolio.
- **Compatible:** Each project concept will be assessed at a conceptual level to establish whether it is compatible with the desired outcomes and consequences to be avoided expressed by MCG member organizations. If a project concept has no benefits or impacts that are contrary to the objectives, desired outcomes, and impacts to be avoided as set forth by MCG organizations, the project will be determined to be compatible and will pass this screen. If, however, the project concept would provide benefits or impacts that are not compatible with the objectives, desired outcomes, and impacts to be avoided by MCG organizations, the project concept will not pass

this screen and will not be eligible for incorporation into a program or portfolio. In addition, a concept will not pass this screen if it is determined to be in violation of or not compatible with the perceived wishes, goals, or desired outcomes of community members.

It is envisioned that each concept passing all four screening criteria will be carried forward for potential incorporation in a portfolio or program. However, it is understood that the screening process is iterative. So while this document sets parameters for each of the screens, there is room for allowances. The overarching purpose of the screening process is to remove fatally flawed concepts, while retaining concepts which may not have universal support. This keeps some concepts in the process longer and allows time and space for creative discussion which may result in the concepts becoming more broadly supported.

Portfolio Assessment

Following assessment of individual project concepts, the MCG will develop portfolios or programs, which will consist of groupings of project concepts. Portfolios will be developed to achieve the suite of desired project outcomes established by the MCG. The attributing stakeholder(s) associated with each desired outcome will be tasked with determining which project concept(s) best address each outcome and which project concept(s) should be incorporated into programs or portfolios to achieve that outcome.

The process for developing and assessing portfolios will be developed by the MCG in future MCG discussions.

Assessment Criteria

Table 1 summarizes project outcomes and attributing stakeholders. As described above, the attributing stakeholder(s) associated with each desired outcome will be tasked with determining which project concept(s) best address each outcome and which project concept(s) should be incorporated into programs or portfolios to achieve that outcome.

Following assessment of individual project concepts, the MCG will develop portfolios or programs, which will consist of groupings of project concepts.

Table 1: Preliminary Project Concept and Portfolio Assessment Criteria

Category	Objective	Summary	Potential Measurement	Attributing Stakeholders
Water Supply	Promote demand-side management strategies	The program should promote projects and policies that support demand-side management strategies including conservation, water use efficiency, peak period rationing and leak detection.	Cost/benefit of conservation vs. new supply; amount of water saved per project implemented	AWA, Calaveras Planning Coalition, Foothill Conservancy, Calaveras County, JVID, Sierra Club
	Increase supply reliability	The program should result in increased water supply reliability for water purveyors.	Water accounting system for surface and groundwater; Acre-feet (AF) of supply in various hydrologic year types	EBMUD, AWA, Lodi, NSJWCD, GBA/SJ County, CCWD, CPUD, JVID, SJCRCD
	Increase amount of stored water	The program should result in an increase in the amount of water stored within the watershed and consider both ground and surface options.	Acre-feet per year (AFY) of supply diverted for recharge; groundwater level monitoring; AF of surface storage available	CCWD, Stockton East, JVID, GBA/SJ County, Stockton Municipal Utilities, Calaveras County, AWA, Calaveras PUD, JVID, Woodbridge Irrigation District, SJCRCD
	Promote smart, responsible development	The program should promote projects and policies that ensure that the water needs of new development are met while limiting negative externalities and end use harm.	Inclusion of land use coordination component(s) in recommended program	Calaveras County, MyValleySprings.com, Foothill Conservancy, SJCRCD
	Reduce reliance on groundwater for irrigation	The program should result in a reduced reliance on groundwater for irrigation and explore surface water alternatives.	AFY of groundwater used for irrigation	SJCRCD
	Promote a long-term groundwater balance	The program should promote projects and policies that seek to contribute to a positive long-term groundwater balance.	Groundwater level monitoring; flow diversion measurements	CA Sport Fishing, MyValleySprings.com, Stockton East, Stockton Municipal Utilities, SJFB, Woodbridge Irrigation District, SJCRCD

Category	Objective	Summary	Potential Measurement	Attributing Stakeholders
	Maximize water resource availability for all beneficial uses	The program should promote projects and policies that allocate water to the full spectrum of beneficial uses based on full analysis of all potential sources of supply.	Number of different types of uses supported by the recommended program; number of different supply sources studied	Calaveras County, CCWD, Calaveras Planning Coalition, Foothill Conservancy
	Decrease the need to import water	The program should seek to implement state legislative goals to improve self-sufficiency and reduce the need to import water	The amount of water imported	Calaveras Planning Coalition
Water Demands	Review and understand existing agency demand estimates	The MCG should review and come to a common understanding of water demand estimates described in existing planning documents	Number of MCG stakeholders who understand existing demand numbers.	Foothill Conservancy, Calaveras Planning Coalition, MyValleySprings.com, Trout Unlimited
	To identify water demand issues for timely consideration by the water agencies during their next UWMP update.	The program should identify issues and analyses for water agencies to consider as they prepare demand and population estimates.	Number of demand issues and analyses identified for water agency consideration as they prepare demand and population estimates for their UWMP Updates.	Calaveras Planning Coalition, Foothill Conservancy
Water Quality	Protect and improve surface and groundwater quality	The program should result in improved water quality within the watershed for both surface water and groundwater.	Groundwater and surface water quality monitoring.	Lodi, NSJWCD, EBMUD, SJCRCD, CCWD, JVID, Sierra Club
	Match delivered water quality to use	The program should try to avoid wasting high quality water on uses that do not need it.	The amount of high quality water saved by substitution with lower quality water; he amount of high quality water that is put to uses that do not need it.	Calaveras Planning Coalition

Category	Objective	Summary	Potential Measurement	Attributing Stakeholders
	Use water purification technology as a tool to maximize beneficial uses	The program should seek to implement the state's legislative goals to use water purification technology as a tool to increase the beneficial uses of water.	The amount of water that was put to additional beneficial uses through purification technology.	Calaveras Planning Coalition
Recreation	Increase access for water-based recreation	The program should result in increased access to the Mokelumne River from Highway 12 to the headwaters.	Number of new public access points	Delta Fly Fishers, SJCRCD
	Increase angling and other recreational opportunities	The program should result in increased spawning habitat, designating sections of the river for hatchery and wild species, and designating appropriate environmental flows.	Number of fish observed during annual fish counts; amount of spawning habitat created or enhanced; length of river designated for wild species; amount and timing of environmental flows	Delta Fly Fishers
	Increase angling and other recreational opportunities	The program should result in the stocking of hatchery-raised trout, salmon, and steelhead in designated areas on the Upper Mokelumne and designating and managing wild trout, salmon, and steelhead sections.	Number of hatchery-raised trout, salmon, and steelhead observed during angling surveys	Delta Fly Fishers
	Increase angling and other recreational opportunities	The program should result in the reintroduction of trout, salmon, and steelhead in the Upper Mokelumne river.	Number of trout, salmon, and steelhead observed during fish counts	Delta Fly Fishers, MyValleySprings.com
	Increase angling and other recreational opportunities	The program should result in increased angling, harvesting, and other recreational opportunities.	Estimated monetized, or otherwise quantified, benefit of recreational enhancements included in recommended program(s)	EBMUD, JVID, Trout Unlimited, SJCRCD

Category	Objective	Summary	Potential Measurement	Attributing Stakeholders
Water Rights	Resolve existing water rights conflicts in the watershed	The program should seek to resolve existing water rights protests and to achieve a common understanding of the application of relevant water rights law in the watershed.	Number of water rights protests resolved	GBA/SJ County, EBMUD, JVID, Foothill Conservancy, CA Sport Fishing, Woodbridge Irrigation District, Sierra Club
Flood Management	Enhance flood protection and management	The program should result in multi-benefit projects which provide flood protection for residents and businesses within the watershed and enhance ecosystem function.	Annualized cost (probability and magnitude) of flood-related damages in the watershed	NSJWCD, SJCRCD
Data	Use sound, agreed-upon data to evaluate program alternatives	The program should produce an agreed-upon hydrology dataset and Water Availability Analysis	MCG approval of data used during program	CA Sport Fishing, Foothill Conservancy, Trout Unlimited, US Forest Service, Sierra Club
	Use sound, agreed-upon data to evaluate program alternatives	Program components should be described with sufficient detail to allow for evaluation.	Ability of program component to be evaluated	CA Sport Fishing, Calaveras Planning Coalition
	Promote the contribution of sound scientific data to current body of knowledge	The program should generate and promote projects with monitoring and reporting requirements to increase water resources data	Number of recommended project(s) including a data collection and reporting component	Calaveras County, Calaveras Planning Coalition, SJCRCD
Environment	Protect and enhance natural environment	The program should result in the protection and enhancement of the natural environment of the Mokelumne watershed.	Number and extent of protection and enhancement measures; monetization or other quantification of environmental benefits / enhancements	EBMUD, CA Sport Fishing, Foothill Conservancy, JVID, Trout Unlimited, Sierra Club, SJCRCD

Category	Objective	Summary	Potential Measurement	Attributing Stakeholders
	Protect and enhance natural environment	The program should include support for wild and scenic designation of the Mokelumne River down to the Pardee High Pool.	Degree of support for Wild and Scenic designation	Calaveras Public Utility District, Calaveras Planning Coalition, Sierra Club
	Protect and restore fisheries	The program should protect, restore, and enhance fisheries in the Mokelumne River downstream of Woodbridge Dam.	Number of fish counted during annual fish counts and surveys	Delta Fly Fishers, Trout Unlimited
Agricultural Benefits	Enhance or maintain the water supply for the beneficial use of agricultural practices	The project should increase the current agricultural water supply	Measured by amount of water available for agricultural use.	SJFB, SJCRCD
Collaboration	Foster long-term regional relationships and avoid unnecessary conflict and litigation	The program should foster long-term regional relationships which will promote continued collaboration on water management issues and reduce unnecessary litigation.	Percentage of MCG stakeholders continuing commitment throughout project duration and number of issues resolved in the process
Number of issues resolved through the MokeWISE program	USFS, Foothill Conservancy, Calaveras County, Calaveras Planning Coalition, EBMUD, NSJWCD, JVID, SJCRCD
	Promote broadly-supported outcomes that benefit a wide range of interests	The program should promote projects and policies that support outcomes benefiting a wide range of interests within the watershed.	Percentage of MCG member organizations that receive a tangible benefit from implementation of the preferred program	SJCRCD, GBA/SJ County, MyValleySprings.com, Foothill Conservancy
	Promote broadly-supported outcomes that benefit a wide range of interests	The program should promote the least controversial projects and policies.	Degree of consensus among MCG members on selected alternative	NSJWCD, Foothill Conservancy, SJCRCD

Category	Objective	Summary	Potential Measurement	Attributing Stakeholders
	Promote broadly-supported outcomes that benefit a wide range of interests	The program should result in agreements that reduce conflict.	Number of agreements that reduce conflict	Foothill Conservancy, SJCRCD
	Develop a program consistent with all existing licenses, permits, and agreements affecting the River	The program should facilitate a common understanding of the requirements contained in all existing licenses, permits, and agreements affecting the Mokelumne River and ensure that MCG proposals will not interfere with their implementation.	Number of existing licenses, permits, and agreements violated by the recommended program(s) and severity of violation	Trout Unlimited, Foothill Conservancy
	Develop a program consistent with all existing licenses, permits, and agreements affecting the River	The program should adhere to all CEQA/NEPA regulations.	Completion of CEQA/NEPA documentation	Calaveras Planning Coalition
Other Human Values	Increase investment in forest management	The program should promote forest management that reduces the economic impact of wildfires and other natural disasters, particularly on water supply.	Flux of sediment discharged post-fire compared to historic events (e.g., Power Fire); monetization of costs avoided by pre-emptive management	Sierra Nevada Conservancy
	Maximize socio-economic, cultural, recreational, public health, and public safety benefits with a particular emphasis on disadvantaged communities (DACs)	The program should seek to design projects and policies to improve socio-economic, cultural, recreational, public health, and public safety benefits with a particular emphasis on DACs.	Acres of cultural resource areas preserved; acres of recreational area maintained; miles of stream enhanced for fisheries	Calaveras Planning Coalition

Category	Objective	Summary	Potential Measurement	Attributing Stakeholders
	Achieve equity	The program should be designed to achieve equity across regions, cultures, incomes, and time,	Amount of perceived equity across regions, cultures, incomes, and time.	Calaveras Planning Coalition, MyValleySprings.com