

Appendix J: Project Assessment Memorandum

Appendix J provides the MCG-approved methodology for preliminarily assessing project concepts, which includes an assessment to determine if each project is feasible, beneficial, attainable, and compatible.

MokeWISE Program Draft Memorandum: *Project Assessment*

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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 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.

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Table 1: Preliminary Project Concept and Portfolio Assessment Criteria

| <i>Category</i> | <i>Objective</i> | <i>Summary</i> | <i>Potential Measurement</i> | <i>Attributing Stakeholders</i> |
|-----------------|---|---|---|--|
| 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 |

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|-----------------|---|---|--|--|
| | 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 |
| | 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 |

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|-----------------|---|--|--|--|
| 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; the amount of high quality water that is put to uses that do not need it. | Calaveras Planning Coalition |
| | 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 | The program should result in the stocking of hatchery-raised trout, salmon, and steelhead in designated areas on the | Number of hatchery-raised trout, salmon, and steelhead | Delta Fly Fishers |

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|------------------|--|---|---|---|
| | recreational opportunities | Upper Mokelumne and designating and managing wild trout, salmon, and steelhead sections. | observed during angling surveys | |
| | 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 |
| 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 |

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|-----------------------|--|--|---|---|
| | 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 |
| | 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 | The project should increase the current agricultural water supply | Measured by amount of water available for agricultural use. | SJFB, SJCRCD |

| <i>Category</i> | <i>Objective</i> | <i>Summary</i> | <i>Potential Measurement</i> | <i>Attributing Stakeholders</i> |
|-----------------|---|---|---|---|
| | agricultural practices | | | |
| 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 |
| | 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 | The program should facilitate a common understanding of the requirements contained in all existing licenses, permits, | Number of existing licenses, permits, and agreements violated by the | Trout Unlimited, Foothill Conservancy |

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|--------------------|---|--|---|---------------------------------|
| | existing licenses, permits, and agreements affecting the River | and agreements affecting the Mokelumne River and ensure that MCG proposals will not interfere with their implementation. | recommended program(s) and severity of violation | |
| | 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 |

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|-----------------|------------------|---|---|--|
| | 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 |