Evaluation of Cost Effectiveness for CDPH Drinking Water Funding Programs

SDWSRF Construction Funding Application
http://www.cdph.ca.gov/services/funding/Documents/SRF/Apps2009-2010/(2)SRFConstructionGuidelines-12-15-09.doc

1. Engineering Report. The Engineering Report must follow the format provided in the enclosed SRF Applicant Engineering Report (Enclosure 3) and address all of the elements described below. Applicants are not required to have a professional engineer prepare the project Engineering Report but are **strongly encouraged** to use a qualified professional engineer with experience in water system design. The capability of the person you select to prepare the Engineering Report for your project can affect whether the application will be considered complete for purposes of funding review.

   a. Evaluation of Alternatives. All feasible alternatives must be evaluated. For example: if the problem is a contaminated well, alternatives may include drilling a new well, installing treatment, blending the water, purchasing water, or physically consolidating with an adjacent water system. An alternative such as consolidation should be discussed if it is technically feasible regardless of the potential cooperation of an adjacent system.

   In addition to evaluating and discussing the "feasibility" of each alternative, the Engineering Report must estimate and compare the capital costs and "operations and maintenance" (O&M) costs, including certified operating personnel, and disposal of waste from treatment, over a 20-year period. The report must also analyze the technical effectiveness (including reliability) of each alternative. See table below for an example of evaluating alternatives.

Example	Capital	Operation & Maintenance over 20 years including personnel costs	Feasibility (yes/no)	Technical Effectiveness (Rate 1 to 5, 5 = Best)	Rank
Alt 1	$2,000,000	$3,000,000	yes	4	3
Alt 2	$2,000,000	$3,000,000	yes	5	2
Alt 3	$3,000,000	1,000,000	yes	5	1
etc					

   SDWSRF will fund the highest ranked alternative. The highest rank must be determined by comparing the "long-term cost-effectiveness" of the alternatives. Technical effectiveness and feasibility should also

be considered. Preference is given to the project alternative that achieves an acceptable result at the least cost over the long-term.

The California Environmental Quality Act (CEQA) requires that the basic environmental impacts of each alternative be determined and compared.

b. Consolidation. Consolidation with another water system must be evaluated as one of the alternatives by water systems serving less than 10,000 persons. If consolidation is deemed infeasible, the reasons for that determination must be described. If consolidation is part of the proposed project, the applicant must submit a draft water service agreement between the systems. For further information on the necessary elements of the service agreement, consult the District Office.

   Consolidation with other systems must be evaluated for systems that are in reasonably close proximity (within 5 miles). After evaluation, consolidation may be deemed a non-viable alternative due to costs, physical factors, or limitations of the adjacent water system. If consolidation appears to be a cost-effective solution but the other water system refuses to agree to the consolidation, the applicant should include a letter from that water system confirming their refusal.