# DWQP STRATEGIC PLAN STRUCTURE

*The BDPAC Drinking Water Subcommittee, as of November 22, 2002, has developed a conceptual framework for determining an "Equivalent Level of Public Health Protection." The term equivalent level of public health protection (ELPH), as it appears in the Record of Decision, means using a cost-effective combination of actions at multiple points in the water delivery system to achieve a solution that is at least as protective of public health as achieving source water quality of 3.0 mg/L total organic carbon (TOC) and 50 µg/L bromide at Delta drinking water intakes.*

*This outline was developed by CUWA member agencies' staff as a first look at how the conceptual framework might be strategically implemented. It is anticipated that the strategic plan will function on multiple levels, carrying out Stage 1 directed activities related to ELPH and other identified needed actions, while simultaneously looking at the long-term strategy for meeting the ELPH goal.*

*The integration of the DWQP within the overall CALFED Program, which includes water quality improvements for ecosystem purposes, will need to be addressed as the elements of the DWQP are further developed and implemented.*

## 0.0 EXECUTIVE SUMMARY

*The executive summary presents highlights and goals of the program. It identifies the participants and their roles in program implementation. It identifies the funding status and the funding needs, the upcoming activities and the progress towards the goals. The executive summary has a dual role as a stand alone document on the state of the program.*

## 1.0 INTRODUCTION/HISTORY

*The Strategic Plan begins by capturing what CALFED, the CALFED Drinking Water Quality Program, and the BDPAC Drinking Water Subcommittee have done to develop the plan. It identifies and qualifies the starting point (the CUWA report on bromide, the CALFED ROD, best available science) and explains the developed implementation approach (the ELPH). The introduction should also contain a discussion on the current state of water quality in the Delta, the degradation expected from anticipated growth, and the implementation of the CALFED goal of continuous water quality improvement in the Delta.*

**1.1 Background (where did targets come from)**
**1.2 Status of Drinking Water Regulations and Schedule**
**1.3 What is ELPH Approach? Emphasis of integrated approach for water quality improvement**
**1.4 How the Strategic Plan was Developed and how it works (adaptive mgmt)**

## 2.0 TOOLS OF THE ELPH

*This section would build off the conceptual framework developed by the Drinking Water Subcommittee.*

### 2.1 What are the ELPH tools (ELPH diagram and description of tools)

#### 2.1.1 ELPH diagram
#### 2.1.2 Source Improvement
#### 2.1.3 Conveyance
#### 2.1.4 Storage
#### 2.1.5 Exchanges
#### 2.1.6 Treatment

## 3.0 DECISION-MAKING IN THE ELPH

*This section will identify the categories of decision criteria for prioritizing and implementing the strategy. It will recognize the criteria of CALFED and of the Drinking Water Subcommittee and the DWQP staff. It will identify a process for fully developing the criteria for purposes of evaluating ELPH tools and ranking priorities. The decision making process should reflect and incorporate input from local and regional interests. The following are examples,).*

### 3.1 Developing Criteria

#### 3.1.1 CALFED criteria:

- **multiple benefits**
- **no redirected impacts**
- **environmental justice**
- **balance with other programs**
- **meets ROD targets and objectives**
- **beneficiary pays**

#### 3.1.2 DWS criteria:

##### 3.1.2.1 Performance

- **progress towards ELPH goal**
- **fills knowledge gaps**
- **public perception/acceptance**
- **implementation timeframe**
- **economics**
- **program balance (region, activity type, etc.)**
- **robustness**

##### 3.1.2.2 Technical

- **technical feasibility, reliability, margin of safety**
- **exposure to unregulated contaminants**

- **technical performance**
- **Implementation**
- **capital investment (risk of stranded assets)**
- **scientific uncertainty**

**3.1.2.3 Public Health**

- **health benefits/risks**
- **meets upcoming regulatory requirements**
- **provides reliable protection**
- **unintended adverse health effects**
- **equity of benefit**
- **vulnerable sub-populations**

## 4.0 MEASURING PERFORMANCE

*The strategic plan will identify the agreed upon baseline (qualitative or quantitative), the identified or need for performance metrics, and the method of measuring program performance. A programmatic tracking and evaluation of funded projects should also occur, so the program can incorporate lessons learned as early as possible. The strategic plan will be periodically revisited as a means to reassess the progress of the program and make necessary adjustments. The CALFED Science Program should be engaged in the development, monitoring and assessment of performance measures.*

**4.1 Baseline health risk to measure progress of ELPH implementation**
**4.2 Performance metrics – basic method of development (based on overall goals, distributed over the ELPH tools). Specifics in next section.**
**4.3 Monitoring and Assessment – involvement of IEP, MWQI and Science Board**
**4.4 Periodic Reassessment of Program**

## 5.0 PROGRAM ELEMENT PRIORITIZATION

*At this point the DWS has not discussed this topic, so CUWA agency staff is presenting its concept. Ideally, this section will define how the decision criteria, performance measures, and knowledge gaps will be used to prioritize projects and possibly linking combinations of tools that will be used to meet the overall goals. Prioritization should recognize CALFED ROD-defined actions, and contain parallel tracks for these immediate projects and for projects that have consensus they will contribute to meeting the overall program objectives. Local and regional support will be key factors in developing an adequate level of consensus. At this time, the strategic plan might only outline a process (such as a facilitated process) for devising a prioritization strategy. Or, it might begin with a conceptual model*

**5.1 Identify information: decision criteria, knowledge gaps, conceptual models, and performance metrics**
**5.2 Develop weighting for identified information**
**5.3 Develop a strategy for prioritizing the entire program**
**5.4 Develop a strategy for prioritizing elements for CALFED funding**

## 6.0 ELPH TOOLS

*This section will look at each identified ELPH tool in detail, assessing how well each tool meets the decision criteria, what knowledge gaps exist, the status of projects funded in the tool, possible directed actions for the tool and priorities of projects within the tool. The description of the ELPH tools could identify and direct the work of other programs that are integral to the ELPH solution. This section would be used to direct the CALFED PSP process, both in the solicitation package preparation and in the project funding decisions. This section, which should represent state of the art knowledge, would also be a useful resource for individual water utilities.*

**6.1 The state of the tool** (*this small section describes the information we have and the information we need to best implement each tool within the overall ELPH strategy)*
- **6.1.1 Actions identified in CALFED Stage 1** *(what projects were identified in the ROD related to ELPH for implementation)*
- **6.1.2 Status of Implementation and Funding / Lessons learned** *(which of the ELPH related ROD projects have been funded, what is the status of the projects and what have project proponents learned during implementation – how successful have they been?)*
- **6.1.3 What are the knowledge gaps, priority for filling gaps** *(Are there areas where technical information or mathematical modeling is needed to determine how effective ELPH tools like source improvement projects will be? How can we fill the gaps, and how important is it to fill the gaps?)*
- **6.1.4 Priority for implementing tool-specific projects** *(a prioritization of projects within each tool, based on cost-benefit approach)*
- **6.1.5 Funding and resource needs** *(What is needed to implement each of the identified projects? What is needed to meet the overall goal of implementation for the source improvement tool?)*
- **6.1.6 Risk/uncertainty, Balance/limitations** *(What kind of risk is there if the project does not achieve its goals? What are the limitations of the project?)*

*Each of the sections below is depicted on the ELPH diagram and relates to drinking water quality. Each action below (also known as "tool") that is related to protecting and enhancing public health of drinking water consumers would be described in more detail as this outline is further developed.*

**6.2 Source Improvement**
- **6.2.1 Actions identified in CALFED Stage 1**
- **6.2.2 Status of Implementation and Funding / Lessons learned**

**6.2.3 What are the knowledge gaps, priority for filling gaps**
**6.2.4 Priority for implementing tool-specific projects**
**6.2.5 Funding and resource needs**
**6.2.6 Risk/uncertainty, Balance/limitations**

**6.3 Conveyance/ Operations**

**6.3.1 Actions identified in CALFED Stage 1**
**6.3.2 Status of Implementation and Funding / Lessons learned**
**6.3.3 What are the knowledge gaps, priority for filling gaps**
**6.3.4 Priority for implementing tool-specific projects**
**6.3.5 Funding and resource needs**
**6.3.6 Risk/uncertainty, Balance/limitations**

**6.4 Storage**

**6.4.1 Actions identified in CALFED Stage 1**
**6.4.2 Status of Implementation and Funding / Lessons learned**
**6.4.3 What are the knowledge gaps, priority for filling gaps**
**6.4.4 Priority for implementing tool-specific projects**
**6.4.5 Funding and resource needs**
**6.4.6 Risk/uncertainty, Balance/limitations**

**6.5 Local/Regional Source Water Exchanges**

**6.5.1 Actions identified in CALFED Stage 1**
**6.5.2 Status of Implementation and Funding / Lessons learned**
**6.5.3 What are the knowledge gaps, priority for filling gaps**
**6.5.4 Priority for implementing tool-specific projects**
**6.5.5 Funding and resource needs**
**6.5.6 Risk/uncertainty, Balance/limitations**

**6.6 Treatment**

**6.6.1 Actions identified in CALFED Stage 1**
**6.6.2 Status of Implementation and Funding / Lessons learned**
**6.6.3 What are the knowledge gaps, priority for filling gaps**
**6.6.4 Priority for implementing tool-specific projects**
**6.6.5 Funding and resource needs**
**6.6.6 Risk/uncertainty, Balance/limitations**

**6.7 Water Use Efficiency**

**6.7.1 Actions identified in CALFED Stage 1**
**6.7.2 Status of Implementation and Funding / Lessons learned**
**6.7.3 What are the knowledge gaps, priority for filling gaps**
**6.7.4 Priority for implementing tool-specific projects**
**6.7.5 Funding and resource needs**
**6.7.6 Risk/uncertainty, Balance/limitations**

**6.8 Other Considerations/Criteria when evaluating ELPH**

- **6.8.1 Vulnerable Subgroups**
- **6.8.2 Other Contaminants/Challenges**
- **6.8.3 Public Education**

## 7.0 CONCEPTUAL MODEL

*The Conceptual Model is a concept used in the Ecosystem Restoration Program. The idea is to develop a picture of what, to the best of our current knowledge, water quality of the Delta drinking water consumer looks like, using the ELPH diagram. This may mean developing our best ideas of representative ELPH strategies for the differing regions that rely on Delta water quality and determining what the common elements are to all strategies, as a way to initially focus CALFED prioritization and/or funding of ELPH tools. These representative ELPHs would evolve through adaptive management of the program - periodic staff and stakeholder review of the conceptual model, filling in the knowledge gaps, consulting technical experts, and learning about the strength of the tools as they are employed (pilot scales and already funded projects).*

- **7.1 Develop conceptual model of water quality in the Delta**
- **7.2 Develop conceptual models of regional ELPH strategies**
- **7.3 Implement program based on conceptual models**
- **7.4 Assess progress/status of conceptual models**
- **7.5 Redefine conceptual models as needed**

## 8.0 MONITORING AND ASSESSMENT

*A sound monitoring and assessment element will be crucial to the success of the program. Monitoring and assessment elements should accompany every project of the program.*

- **8.1 Actions identified in CALFED Stage 1** (*comprehensive monitoring program*)
- **8.2 Status of Existing Relevant Water Quality Data**
- **8.3 Identify data needs**
- **8.4 Develop monitoring protocol**
- **8.5 Develop assessment protocol and schedule**
- **8.6 Establish a periodic review of all monitoring and assessment and need thereof**
- **8.7 Funding and resource needs**

## 9.0 FUNDING STRATEGY

*The strategic plan should include a process for prioritizing existing limited funding, identifying potential new sources of funding that could be devoted to protecting and enhancing public health, including state, federal, and local. A funding strategy should also identify the state and federal agencies that are*

*responsible for program funding, and track the status of their obligations. The DWS has not yet discussed a specific funding strategy.*

**9.1 Status of funding**
**9.2 Funding tracking protocol/system (ROD obligations)**
**9.3 Program funding priorities**
**9.4 Strategy to obtain future funding, roles of agencies/stakeholders in reporting/briefing on the need for funding**
**9.5 Strategy for partnering with projects to optimize multiple benefits, local share**
**9.6 Beneficiaries' pays principle**

## 10.0 PROJECT SOLICITATION AND DIRECTED ACTIONS FOR DWQP

*This section would specifically guide the project solicitation, funding, and implementation of DWQP projects.*

**10.1 Review**
**10.2 Science panel**
**10.3 Integration panels (one for balance in DWQP, one for balance in CALFED program, or combined look)**
**10.4 Progress reporting**
**10.5 Measuring success and implementation review**