
EXAMPLE USE OF DISTINGUISHING CHARACTERISTICS

Introduction

Eighteen characteristics have been identified that will be useful in distinguishing how the alternatives differ. The characteristics focus on the major differences in alternatives; differences that will be used in the selection of a draft preferred alternative:

- The 18 characteristics show the major differences between the alternative variations.
- All other parts of the alternatives are important but evaluation of their performance will not help select a draft preferred alternative. However, information on the performance of these other parts will also be available to the decision makers.

Review of Status

The draft paper, *Decision Process to Draft Preferred Alternative*, outlined sixteen potential distinguishing characteristics. CALFED staff discussed these with the Program Coordination Team (PCT)¹ on July 15 and July 31, 1997 and with BCAC on July 22, 1997. Based on this input, several text clarifications in these original sixteen characteristics were made and two new characteristics were added; ability to phase facilities and brackish water habitat. On August 14, 1997, the CALFED Policy Group approved the list to begin comparison of the alternatives.

The following bullet items show modifications made as a result of PCT input:

- "Export drinking water quality" was modified to "Export water quality". This will display water quality for any export uses. "Salinity" was added as a parameter that will be considered in ranking export water quality by alternative.
- "Storage and release of non-environmental water" was modified to "Storage and release of water". This provides for consideration of the full

¹ Representatives from CALFED agencies periodically meet as the Program Coordination Team to provide technical advice to the Program.

range of potential flows and not just the increment of flow provided for non-environmental uses.

- The PCT wanted to include some measurement of X-2 as a distinguishing characteristic. CALFED staff added "Brackish water habitat" as a distinguishing characteristic with X-2 (approximate location of 2000 parts per million of total dissolved solids) as one indicator. Delta outflows in excess of existing Delta standards provide a degree of fishery protection not covered in the other characteristics. While operating to meet Delta standards, some alternatives may operate closer to the standards more frequently than do other alternatives. Currently available methods do not directly equate fishery protection with Delta outflow. However, staff believe the X-2 standard may provide an indication of improved or diminished protection for the fishery. Other indicators include the area/volume of the brackish water habitat and the time of year that it is active.
- The PCT wanted to add some measurement for changes in habitat distribution among the alternatives. The changes in habitat distribution result primarily from changes needed to accommodate the method of Delta conveyance and export location. Continued export from the south Delta limits opportunities for habitat restoration in this area. CALFED staff felt that the habitat distribution concern could be addressed in the distinguishing characteristic for "Export diversion effects on fisheries". Text was added to that characteristic to include consideration of habitat distribution.
- The PCT recommended moving the "Risk to export water supply facilities and operations" from the levee system integrity to water supply reliability since it is not entirely dependent on the Delta levees. Staff agreed with this recommendation since the Levee Program is common to all alternatives. No distinguishing characteristics have been identified for levee system integrity.
- The PCT wanted some measurement for the ability to expand facilities in the future. CALFED staff added "Ability to phase facilities" as a distinguishing characteristic.
- The PCT felt that water use efficiency could significantly vary by alternative and should be a distinguishing characteristic. The same water use efficiency program is included in all alternatives and the program and policies do not differ by alternative. Staff believes that the alternatives may make more or less water available which will influence the shortages water users must endure. Our assessment is that these impacts should be

included in the distinguishing characteristic for "Socio-economic impacts" and should not be a new distinguishing characteristic. Differing levels of CALFED support (staff and monetary) which local water users may desire will be included in the "Total cost" characteristic. Consequently, CALFED staff believes that a distinguishing characteristic for water use efficiency is not needed since it is a common program and other distinguishing characteristics cover the potential responses to the program.

- The PCT felt that the distinguishing characteristic for "South Delta channel stages" was inappropriate. They felt the south Delta issues related more to poor water quality and that "channel stage" was a contributing factor to the inability to access water. Staff agreed with this assessment and the characteristic has been reworded to "South Delta access to water". This produces a characteristic which is not solely tied to channel stages (water levels) but can assess other methods to provide more South Delta access to water. The water quality concern is addressed in the distinguishing characteristic for "In-Delta water quality".

The following bullet items show modifications made as a result of BDAC input:

- BDAC recommended adding a measure of how easily the alternatives could be phased. Staff agrees with this advise and the concept is captured in the new distinguishing characteristic for "Ability to phase facilities".
- BDAC wanted to replace "Habitat disturbance" with "Habitat enhancement" since it had a more positive connotation. The intent of the original characteristic for habitat disturbance was to have a cumulative total of adverse habitat impacts for the whole alternative. Many of the other distinguishing characteristics will show different types of habitat enhancement. After consideration, staff reworded the distinguishing characteristic to "Habitat impacts" which can be used to display adverse or beneficial impacts.
- BDAC thought there should be some distinguishing characteristics to show how the common programs vary with storage and conveyance for each alternative. CALFED staff believe that the important differences in the common programs are captured by the set of distinguishing characteristics. For example, the distinguishing characteristics for "In-Delta water quality" and "Export water quality" focus on the major water quality differences by alternative.
- BDAC also thought there should be a distinguishing characteristic for water use efficiency. As stated previously, CALFED staff feels that a distinguishing characteristic for water use efficiency is not needed since it

is a common program with common policies across all alternatives and therefore the performance would not distinguish between alternatives.

The CALFED Policy Group, at its August 14, 1997, meeting, considered BDAC and PCT advice along with the above staff recommendations and approved the eighteen distinguishing characteristics as recommended by staff to begin comparisons of alternatives. The approved eighteen distinguishing characteristics are shown in Attachment 1. A need for additional distinguishing characteristics or modification of how they are measured may become apparent as more detailed information on beneficial and adverse impacts is developed. Any such modifications that are required will be presented to BDAC, the PCT, and the CALFED Policy Group at subsequent meetings.

Supporting Framework

Over the next few months, information on the eighteen distinguishing characteristics will be displayed to allow comparison of the alternatives and to document results of the evaluations. The information will be displayed in a tiered array:

- One decision matrix will show how each alternative performs for each of the eighteen distinguishing characteristics. Information in the decision matrix will be presented as a relative ranking (or other scoring method) for all the alternatives. This will allow agencies and stakeholders to view and compare the alternatives performance for all distinguishing characteristics "at a glance".
- Each distinguishing characteristic has supporting levels of information which provide the documentation and rationale for the ranking in the decision matrix.

Attachment 1 shows the current list of distinguishing characteristics (page 1), a draft structure for the decision matrix (page 2), and draft structures for criteria for each of the 18 characteristics (pages 3 on). The structure for the first characteristic, In-Delta Water Quality, is found on page 3 of Attachment 1. It proposes to display information on salinity, and Delta flow circulation in the Western, South, Central, and North Delta.

Example Use

Four distinguishing characteristics were selected to demonstrate how information on the alternatives can be arrayed. Attachment 2 includes sample information for the four characteristics:

- In-Delta Water Quality

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- Diversion Effects on Fisheries
 - Water Supply Opportunities
 - Total Cost

Attachment 2 provides an example of the decision matrix with relative rankings for 6 alternative variations:

- 1B - Four common programs with existing Delta conveyance and no storage.
- 1C - Four common programs with existing Delta conveyance and storage.
- 2A - Four common programs with modified thru Delta conveyance and no storage.
- 2B - Four common programs with modified thru Delta conveyance and storage.
- 3A - Four common programs with dual Delta conveyance (5000 cfs isolated) and no storage.
- 3B - Four common programs with dual Delta conveyance (5000 cfs isolated) and storage.

These provide example comparisons with and without storage for existing (Alt. 1), thru Delta (Alt. 2), and dual Delta conveyance (Alt.3). Example supporting information is provided for each of the four distinguishing characteristics.

The example contained in Attachment 2 is for demonstration purposes only. All information included in the matrix and supporting sheets are in the preliminary stages of development and subject to change. Since evaluations are ongoing, some simplifying assumptions and approximations were made for the example. Review of this information will facilitate discussions during the September 4, 1997 BDAC meeting.