

Outline of Application of §404(b)(1) Guidelines Relative to Current CALFED Bay-Delta Program ("Program") Alternatives [Note: The language associated with each element of the guidelines is a paraphrase of the regulation, for brevity.]

40 CFR 230.10 (a)

1. No other practicable alternative exists that would have less adverse impact on the aquatic ecosystem, that does not have other significant adverse environmental consequences.

Discussion: Application of this element is intended to identify the LEDPA. Effective application requires the presentation of substantive information regarding environmental effects associated with the range of practicable alternatives. This then allows for a comparison of alternatives so that the LEDPA can be identified. Absent substantive information on the alternatives, this evaluation process cannot be undertaken. The Program has admitted that there will be significant gaps in the information on the impacts in the draft PEIS. Ideally, they will not carry through to the final.

2. If preferred alternative involves discharge into special aquatic site, rebutted presumption that less damaging alternatives that do not impact special aquatic sites are available. ^A

Discussion: This aspect is (probably) going to only be applicable to analyses conducted during Phase III, for evaluations of specific Program elements. It currently does not appear to be a constraint on selection of Program alternatives.

40 CFR 230.10 (b): Prohibitions/Requirements Associated With Satisfying the Guidelines

1. Consistent with the CZMA

Discussion: As the solution area extends into the Suisun Marsh (and potentially into the San Francisco Bay) the Program will need to obtain a determination by BCDC at some point (maybe Phase III) that the selected alternative is consistent with the CZMA.

2. Does not violate state water quality standards

Discussion: This is normally handled under §401 water quality certification. No discussion has been presented on how it will be handled at the programmatic level. Current perception is that it will be handled on a project specific level during Phase III, with the programmatic level handled as part of the current CEQA process for the 1995 WQCP by the SWRCB, and whatever successor to this falls out from the selection of a programmatic alternative by the Program at the end of Phase II.

3. Does not violate toxic effluent standards or prohibitions under §309 of the CWA

Discussion: This does not apply within the context of the Program.

4. Does not jeopardize the continued existence of federally listed threatened or endangered species or adversely modifies designated critical habitat

Discussion: Alternatives that substantially disrupt the physical or chemical characteristics of the Delta, which comprise designated critical habitat for the federally listed as threatened Delta smelt, or which substantially disrupts the physical or chemical characteristics of the mainstem of the Sacramento River, which is designated critical habitat for the federally listed as threatened winter run Chinook salmon, may constitute adverse modification. Alternative 2, including its sub-alternatives, has a substantial likelihood of running afoul of this requirement. Some variations of Alternative 3 and Alternative 1 also have problems here, if more water moves through the Delta to the export pumps than happens currently, or if it causes disruption of migratory patterns of the winter run from the mainstem of the Sacramento River. Disruption of winter run would also be a concern for the "fully isolated facility". There may also be problems with the chemical characteristics in the Suisun Bay area, which is also designated critical habitat for both of the species named above. Determinations made relative to the requirement will depend heavily, if not exclusively, on feedback by the USFWS, NMFS, and CDFG.

5. Conforms to Title III of Marine Protection, Research, and Sanctuaries Act of 1972

Discussion: I don't think that this applies, as no actions are proposed seaward of the Golden Gate.

40 CFR 230.10 (c): Discharge will not cause or contribute to substantial degradation of waters of the United States, taking into account significant adverse effects resulting from the discharge upon:

1. human health and welfare, e.g. effects on municipal water supplies, fish, shellfish, wildlife, and special aquatic sites:

Discussion: The concern here relates mostly to adverse effects on municipal water supplies. Water that enters the Delta picks up dissolved organic carbon (DOC), as a constituent of runoff from agricultural practices in the Delta. Additionally, there is some increase in salinity (and therefore bromides) from saltwater intrusion coming up from the Bay with the tides. If an

alternative ends up increasing the amount of water moved through the Delta and then exported to the southern portion of the state for municipal use, the absolute amount of disinfectant byproduct precursors (e.g. bromide and DOC's; referred to collectively as DBP's) is increased over the baseline. While treatment is available, such treatment constitutes mitigation and should not be pursued until alternatives that avoid this are evaluated (i.e. a "fully isolated facility"). These treatment strategies are also so expensive (under the amendments to the Safe Drinking Water Act) that, during the recent Delta Wetlands water rights hearings, the urban water agencies made it very clear in written and oral testimony that they could not use, and were not interested in, additional water that has moved through the Delta.

2. life stages of aquatic life and other wildlife dependent on the aquatic ecosystem; and

3. aquatic ecosystem diversity, productivity, or stability:

Discussion: Arguably, the Delta is already in a state of substantial degradation. Otherwise, CALFED wouldn't exist and we wouldn't be going through this process. To the extent that construction and operation of a storage and conveyance alternative would have any adverse effect in the Delta, associated with the elements identified in 2 and 3, above, such permitted activities would probably not be in compliance with this element of the guidelines. Again, alternative 2 most readily would disrupt the stability of the system, while all three alternatives, except for the fully isolated facility, have a high likelihood of disruption of life stages of aquatic life and productivity of the aquatic ecosystem, within the Delta. And even the "fully isolated facility" has some potential to adversely affect productivity and stability in the system, absent adequate operational safeguards. Again, this evaluation is made in the absence of compensatory mitigation. Compensatory mitigation is addressed at 230.10 (d), below.

4. recreational, aesthetic, and economic values of the aquatic ecosystem:

Discussion: Little, if any, consideration to this element of the guidelines has been made by any of the entities engaged in the Program, including USACE. No discussion or evaluation relative to this aspect appears to have been attempted in the Program's first draft §404(b)(1) alternatives analysis.

40 CFR 230.10 (d): All appropriate and practicable steps have been taken to minimize potential adverse impacts on the aquatic ecosystem:

Discussion: This is essentially the component that established a

requirement to mitigate for impacts to the aquatic ecosystem. Complete avoidance is generally addressed through demonstrating compliance with 230.10 (a), above. The next steps associated with mitigation are minimization and then compensation. Minimization is generally thought of in terms of making projects smaller than originally proposed, while still substantially satisfying the project purpose. However, with respect to the Program, such a simplistic view would be inadequate to respond to this element of the Guidelines. A more appropriate strategy is to look at non-structural alternatives/strategies or, more accurately stated, non-fill strategies that address the goals underlying the Program's purpose, before engaging in strategies that require fill in waters of the U.S. Note that practicability, relative to the various strategies to be considered, continues to be defined within the constraints of cost, logistics, and technology.

Currently the Program continues to not adequately evaluate non-structural strategies for the water supply reliability goal, which is one of the goals underlying the Program's purpose. This goal is articulated in Program documentation as "The goal for water supply reliability is to reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses dependent on the Bay-Delta system."¹ A variety of non-structural strategies have been identified by both the agencies and commenting members of the public. While the Program is considering some of these strategies, one which is conspicuously absent is permanent land retirement of irrigated agricultural lands, on a willing seller-willing buyer basis. This appears to be a practicable, non-structural alternative to reduce the total demand for water when compared with the cost to construct new reservoirs to develop additional water. This is not to say that the Program has to implement land retirement. However, they will need to document why it is impracticable, within the constraints of cost, logistics, and technology.

This element applies to the water use efficiency program in a slightly different fashion. A mere increase in water use efficiency does not automatically translate into a decrease in the absolute volume of water consumed. Increased efficiency may allow additional lands to be brought into agricultural production or additional residences to be constructed, depending on the ultimate beneficial use of the water. Also, there appears to be no requirement/incentive established by the Program for the consumers of the water to develop and implement more efficient water consumption practices. And there may be a deficiency in how to identify and gather data that will allow for an evaluation

¹Memo by CALFED Bay-Delta Program, dated February 13, 1997, SUBJECT: Purpose and Need Statement for the CALFED Bay-Delta Programmatic EIR/EIS

of the success or failure these practices. These all contribute to a failure to show how the mismatch between supply and demand for water will be reduced by the Program, prior to the construction of storage and conveyance elements that will involve the discharge of fill into waters of the U.S., that also have the intended result of developing water to reduce the same mismatch.