

ALTERNATIVE G - EAST SIDE FOOTHILLS CONVEYANCE

Reduce Conflicts in the System

A solution will reduce major conflicts among beneficial users of water. A solution should:

- significantly reduce each of the four major conflicts which have been identified for the Bay-Delta system. Most of the problems in the Bay-Delta are embodied in one or more of these conflicts. They are:
 - fisheries and diversions - medium/high - export diversion from the South Delta is substantially reduced as are diversions from delta tributaries. Diversions are screened and above critical smelt habitat.
 - habitat and land use/flood protection - medium/high, only moderate levels of vulnerability reduction and habitat restoration are included, however the vulnerability of export supplies to catastrophic interruption is substantially reduced.
 - water supply availability and beneficial uses - medium, this alternative is discounted due to lack of storage and the conveyance size limitation.
 - water quality and land use - medium/high, substantial improvement in export water quality since most export pumping is moved from the South Delta. Increased flow down San Joaquin to help circulation and salt balance.

MEDIUM/HIGH

Equitable

An equitable solution will focus on solving problems in all problem areas. Improvement for some problems will not be made without corresponding improvements for other problems. Equitable considerations include:

- satisfy some portion of each of the 4 primary and 14 secondary objectives which have been identified for the program - High, addresses some portion of all objectives.
- provide a reasonable balance of reliability weighted improvements for the four resource

areas. Balance does not necessarily require an equal level of improvement for each resource areas (e.g. water exporters might be willing to accept less improvement in water supply reliability if water quality is improved). - **High/Medium, all resource areas are substantially benefited.**

- result in costs allocated to the economic users of water based on the benefits they receive from the solution. However, there is no obligation to provide benefits to those unwilling to contribute towards the solution - **Unable to consider this factor in the absence of a financing plan.**

- result in net benefits and burdens balanced across stakeholder groups - **Medium, increased benefits to San Joaquin and south Delta water quality makes a good balance of benefits, discounted due to significant land retirement.**

MEDIUM/HIGH

Affordable

An affordable solution will be one that can be implemented and maintained within the foreseeable resources of the Program and stakeholders. An affordable solution should:

- have identifiable revenue and financing provisions which are adequate for implementation and continued maintenance of the solution - **Unable to consider this factor in the absence of a financing plan.**

- be among the least expensive solutions, for a given level of implementation, which achieve the Program objectives - **Low/Medium, this is a relatively expensive alternative compared to other isolated facility options. Therefore, it has a low cost-effectiveness. Other alternatives with slight modification can perform similar function more cost effectively.**

- minimize the negative effects on the credit rating of those funding the solution - **Unable to consider this factor in the absence of a financing plan.**

LOW/MEDIUM

Durable

A durable solution will have political and economic staying power and will sustain the resources

it was designed to protect and enhance. A durable solution should:

- be adaptive, flexible to changing needs and potential future conditions, and able to address biological uncertainty to sustain the resources it was designed to protect and enhance - **Medium/High**, provides flexibility to operate in the best interests of Delta health (e.g. convey water through the Delta, or divert upstream), on the other hand, once the costly isolated facility is constructed, there may be substantial pressure to increase its use to the detriment of through Delta flows. Lack of storage and no through Delta improvement limits flexibility. Flexibility to manage conjunctively with groundwater on the eastside is improved.

- provide ecosystem improvement using a variety of mechanisms to better face biological uncertainty rather than relying on any single theory of ecosystem improvement - **Medium**, this alternative relies on a combination of habitat improvement (moderate), export diversion relocation, and improved flows in the east-side tributaries and lower San Joaquin River.

- accommodate hydrological and other physical uncertainties (e.g. increased storage would hedge against the unknown, or consideration of impacts of potentially higher sea levels on the various alternatives could strengthen durability) - **Medium**, new partially isolated conveyance improves durability in this sense, but continued export diversions from the South Delta are a negative. The continued South Delta export diversions are more suspect to interruption due to higher sea levels (increased flood risk) and additional species listings.

- have adequate legal, operational, or physical provisions to ensure that objectives continue to be met in an equitable way for the long term - **Low/Medium**, because the basic conveyance configuration of the Delta is unchanged, existing hydraulic constraints on export diversions remain. Complex transfers and exchanges may need new operational provisions. Large potential for misoperation

- include a financial plan which has provisions to ensure that the solution will be implemented as intended, while providing flexibility to alter revenues to respond to changing needs - **Medium/High**, because water diverted to the new storage is readily quantifiable and accountable. Long-term contracts for water supply can be developed based on deliveries from storage and use of storage. Increased flexibility to manage the distribution of water.

MEDIUM

Implementable

An implementable solution will have broad public acceptance, legal feasibility and will be timely and relatively simple to implement compared to other alternatives. An implementable solution should:

- have legal or practical precedents or have a clearly identified series of reasonable steps which could be taken to enable implementation - **Medium**, relative to the other alternatives, development of new conveyance, storage and habitat restoration projects is reasonably straightforward, requiring Section 404, NEPA, and CEQA compliance. Practical precedents are limited for an eastside isolated facility.
- have institutional feasibility - **High**, this alternative could be implemented by and within existing institutional authorities. Some contractual or joint powers authorities might be desirable to implement the new conveyance and storage.
- include as few major legal and institutional changes as necessary while meeting Program objectives - **Medium/Low**, this alternative could be implemented by and within existing institutional authorities. Some contractual or joint powers authorities might be desirable to implement the new conveyance and storage. Would need institutional guarantees to insure operation.
- have broad acceptance across the various geographic areas and interest groups as well as the state as a whole - **Medium**, discounted because of opposition of some groups to structural solutions, particularly one on this scale. Also, depending on the specific conveyance and reservoir locations, the new storage included in this alternative may face significant local or regional opposition. Central and South Delta water users may oppose an isolated facility.

MEDIUM

No Significant Redirected Impacts

A solution will not solve problems in the Bay-Delta system by redirecting significant negative impacts, when viewed in its entirety, in the Bay-Delta or other regions of California. A solution should:

- minimize negative long-term economic impacts at the regional level - **Medium**, relatively small amounts of land-use change compared to other alternatives. However, contains 400 TAC of land retirement which may have long term economic impacts.

- compensate for or mitigate unavoidable negative impacts to the greatest extent practicable - **Medium/High**, relatively small amounts of land-use change compared to other alternatives. The 400 TAC would create some redirected impacts.

MEDIUM

POTENTIAL REVISIONS

Revision	Principle Improved	Rationale	Potential Adverse Affects
Reduce the length of the isolated conveyance facility (e.g. eliminate the reach from the Sacramento and Feather to the Folsom South Canal)	Durable, Affordable, Implementable	Reduce cost, while still providing substantial benefits	Intake is closer to delta, water quality is less than upstream diversions
Provide water service to Central and South Delta water users from the isolated facility	Reduce Conflicts, Implementable.	Provide benefits to in-Delta water users to improve water quality in south and central Delta	Conveyance facility may not be large enough to serve all users, Cost.
Start diversion size at approx 15,000 cfs and scale down as users are served to a terminal capacity at the pumps of approx 7,000 cfs	Reduce Conflicts, Durable, Implementable	Provide benefits to in-Delta water users to improve water quality in south and central Delta and limits misoperation,	Increased screened diversion size, Cost

Add upstream storage	Reduces Conflicts, Equitable, Durable, Implementable	Provides increased water supply benefits and flexibility to manage river flows for ecosystem and improve screen efficiency.	Cost, redirected impacts of Reservoir
Add a screened through Delta conveyance	Reduces Conflicts, Durable	Improve conveyance ,along with habitat improvements, to increase flexibility to pump at full permitted capacity during environmental windows of opportunity.	Cost