

Lower Yolo Bypass Planning Forum Yolo Bypass Conservation Measures

The **Lower Yolo Bypass Planning Forum** (Planning Forum) is proposing the following **Yolo Bypass Conservation Measures** as a set of draft alternatives to the proposed BDCP conservation measure to modify the Fremont Weir to increase the frequency and duration of spring flooding in the Yolo Bypass (Bypass). The proposed actions are based on continuing Yolo Bypass Working Group discussions that began in 1998, when inundation of the Bypass was first brought forward as an aquatic habitat improvement measure. They are presented in the spirit of finding mutually beneficial solutions to the complex statewide water supply and habitat issues facing the Sacramento San Joaquin Delta. This is an evolving proposal that will benefit from additional comment and analysis as it is introduced to the larger community.

This proposed set of conservation measures will contribute significantly towards a multi species plan that benefits both terrestrial and aquatic ecosystems. Bypass stakeholders stand ready to engage BDCP staff to develop such a plan.

As plans for a Bypass Conservation Measure move forward, BDCP should also consider potential impacts to publicly and privately owned/managed lands and services within and adjacent to the Bypass. For actions that are not consistent with this document, the Lower Yolo Bypass Planning Forum developed a list of potential impacts and related solutions in Attachment A entitled, "LOCAL IMPACTS FROM HABITAT CONVERSION AND DELTA INFRASTRUCTURE PROJECTS AND SUGGESTED SOLUTIONS." A list of Planning Forum members in support of the Conservation Measures is included in Attachment B.

Flood Protection

Flood protection is always the first priority in the Bypass. Notwithstanding agreements between landowners and local, state, or federal agencies within the Bypass itself, it also functions as a critical component of the Sacramento River Flood Control Project (FCP), and provides a direct flood protection benefit to urban and urbanizing areas including (but not limited to) the cities of Woodland, Sacramento, West Sacramento, and Davis.

As habitat creation and conversion projects move forward as a result of BDCP Conservation Measures, the flood protection function of the Bypass must be maintained. Additionally, plans for habitat projects must be designed and implemented in such a way that they do not impede or preclude future modifications of the Bypass necessary to maintain or improve the function of the FCP.

A good example of appropriate projects includes the creation of the Yolo Bypass Wildlife Area. Establishment of the Wildlife Area was pursued only after a commitment was made to manage it as part of the Sacramento Flood Control Project in a way that

would not interfere with the flood control function of the Bypass. This was formalized in a “Local Cooperative Agreement” between the Army Corps of Engineers and the Department of Fish and Game in 1991.

Large modifications of the flood control project require a section 408 permit and must be approved by the Army Corps of Engineers in Washington D.C. Modification of the Fremont Weir would be considered to be a large modification and would also require approval by the Central Valley Flood Protection Board. The approval process for the projects discussed below will face fewer permitting challenges than wholesale changes suggested in BDCP or the Biological Opinion.

Agriculture

The Yolo County Agriculture Commissioner estimates that the Yolo Bypass contributes at least \$44 million in annual direct agricultural income to the Yolo County economy. Total effect on the local economy is about \$170 million annually. Rice contributes to the operating income on the Yolo Bypass Wildlife Area, while also providing a tremendous food source for migratory waterfowl. On both Conaway Ranch and the Wildlife Area, rice fields are flooded in the fall and winter to provide important waterfowl and shorebird habitat.

Early implementation Fish Habitat Improvement Projects

The “**Five Step Proposal**” created by the implementing agencies of CalFed's Ecosystem Restoration Program should be at the core of any aquatic conservation measure proposed in the Yolo Bypass. These implementing agencies include the California Department of Fish and Game, US Fish and Wildlife Service and National Marine Fisheries Service with assistance from the California Department of Water Resources. These “early implementation projects,” were designed in partnership with locally affected stakeholders, are the centerpiece of the Yolo Bypass Integrated Project within the Yolo County Integrated Regional Water Management Plan. The Five Step Proposal would improve upstream salmon and sturgeon passage and create about 4,000 acres of additional spring inundated floodplain habitat. These five steps include:

1. **Putah Creek** – Lower Putah Creek stream realignment and floodplain restoration for Salmon passage improvement and multi-species habitat development on existing public lands. Tidal habitat improvements associated with this project would primarily benefit Splittail. The creek realignment would benefit fall run salmon allowing them to move up Putah Creek prior to the December 1 Los Rio check dam on DFG property. The dam is taken down before the annual fall pulse flow used to attract salmon up the creek. This flow takes place between November 15th and December 15th annually. Total potential inundated floodplain habitat is about 800 acres.
2. **Lisbon Weir** – Modify or replace the weir to improve the agriculture and habitat water control structure for fish, wildlife, and agriculture; reduce maintenance.

3. **Additional multi-species habitat development** – Provide for controlled localized seasonal inundation on more frequent intervals; identify areas of opportunity only on: the Wildlife Area; other existing public lands; and private lands where cooperative agreements with willing land owners will provide mutual benefits. Estimated inundated floodplain habitat is about 3,000 acres
4. **Tule Canal connectivity** – Identify passage impediments (e.g. road crossings and impoundments); work with landowners to develop the best options for improving fish passage while ensuring water diversion capability.
5. **Multi-species fish passage structure**– Investigate the redesign of the existing fish ladder at the Fremont Weir; evaluate the feasibility of constructing a new upstream fish passage structure, operated to ensure continued maintenance of flood capacity; no substantial changes in timing, volume, and/or duration of flow; and minimal disturbance to existing land use and agricultural practices.

Long Term Implementation

A **sixth step** should be added that considers ways to pass juvenile salmon from the river through multiple routes into the Yolo Bypass in a managed scenario to utilize the high productivity of the inundated floodplain. These six measures would improve upstream fish passage and create approximately 6,500 – 10,000 acres of spring floodplain habitat for spawning and rearing of native fishes.

Building a Conservation Strategy from the Ground Up

A Conservation Strategy for the Yolo Bypass should build from these Five Steps which have been locally vetted and integrated into Yolo County conservation efforts. As we integrate the sixth step regarding juvenile salmon, we should utilize existing resources and opportunities while capitalizing on the tremendous on the ground experience of land managers in the Yolo Bypass. We should consider the following factors:

1. Productivity of Existing Land Uses
2. Multiple Conveyance Options
3. Willing Landowners
4. Existing Planning Efforts
5. Local Stakeholder Groups/Non Governmental Organizations

Productivity and Benefits of Existing Land Uses for Wildlife

The current mosaic of agriculture and management wetlands keeps the floodplain clear of dense vegetation that could impede flood flows. The flood plain provides tremendous food resources for birds and fish in the form of seeds and invertebrates. This productivity is most likely a result of the current land uses occurring in the Yolo Bypass. These land uses are dependent upon the existing **infrastructure** used to manage water. This infrastructure could also be utilized to create and manage inundated floodplain habitat for fish. Retaining infrastructure retains the agricultural and habitat value of property, making the possibility of native fish management a palatable option for land owners. The native fish rearing would take place after the field was used for

agricultural production or wetland management. This concept of “double cropping” could be tied to landowner incentive programs.

Multiple Conveyance Options

We should research and model different means of bringing water on and off the flood plain to improve salmon rearing and spawning/rearing habitat for Sacramento Splittail. These flows would also transport increased organic matter to the Delta, increasing general productivity in the Cache Slough area. Each of these options could be implemented in a tiered scenario based on river stage, but must first undergo a thorough technical analysis and subsequent discussions with affected stakeholders. Some possibilities include:

1. Bringing water down the **west side of the Yolo Bypass** to allow land owners to run water (and fish) through flooded wetlands or rice fields in a managed scenario. This may be accomplished through a structure on the west side of the Fremont Weir or through the Knights Landing Ridge Cut Canal. Ultimately, the water and salmon would flow to the Toe Drain or Tule Canal, thence downstream to the Delta. During the appropriate time period, fish laden waters could be delivered through existing managed wetlands to serve as shallow flooded habitat. These fish would then be released into the Toe Drain and sent to the Delta when ponds are drained in the Spring. Flow rates through the wetlands and fields would be managed to avoid exceeding the capacity of the Toe Drain and subsequently flooding property owners downstream.
2. It should be possible to run water from the Sacramento River to the Yolo Bypass just north of Interstate 5. This could be used to inundate land adjacent to the toe drain on the Conaway Ranch.
3. Sacramento River water could possibly be diverted into the Yolo Bypass at a location(s) between the Fremont Weir and the Sacramento Weir for controlled inundation of developed flood plain habitat. Managed diversions should not alter the historic configuration, operation and management criteria of the existing Fremont and Sacramento Weirs.
4. Flows from Putah Creek could be utilized as a water source to flood areas within a created floodplain or adjacent to the toe drain, but there shall be no new required flows beyond the Putah Creek Accord (May, 2000).
5. Water could possibly be made available from the Westside tributaries and drainages (if available) to the Bypass for fish management.
6. The tidal fluctuations of the toe drain south of Lisbon Weir could be used to inundate adjacent low lying areas.
7. It may be necessary to move water off of these inundated areas out of the Bypass to avoid impacts to landowners in the south Bypass. A structure through the east levee could move water into the Deep Water Ship Channel.

Willing Land Owners

There currently exists willing landowners in the Yolo Bypass area who have purchased property for conservation or have proposed projects. Pilot projects should be constructed in order to learn more from these ideas. Examples include:

Private Lands:

- Conaway Ranch – Conaway Preservation Group
- Sacramento River Ranch Project – Wildlands
- Yolo Ranch – Westlands Water District
- Liberty Island Conservation Bank – Wildlands
- Swanston Ranch duck clubs (Must be compatible with Partners for Wildlife Habitat Easements)
- Some duck club owners south of the Yolo Bypass Wildlife Area may be interested.

Public Lands:

- Fremont Weir Wildlife Area – Dept. of Water Resources/ Fish and Game
- Sacramento Bypass Wildlife Area – Dept. of Water Resources/ Fish and Game
- Yolo Bypass Wildlife Area (Putah Creek realignment/ tidal restoration) – Fish and Game

Existing Planning Efforts

Conservation strategies in the Yolo Bypass should work in concert with existing planning efforts including:

- Central Valley Flood Protection Plan
- Yolo Bypass Wildlife Area Land Management Plan
- Land Use and Resource Management Plan for the Primary Zone of the Delta
- Central Valley Joint Venture Implementation Plan
- NCCP/HCP programs underway in Yolo, Solano and adjacent counties
- State and Federal habitat conservation easements (Fish and Game, USFWS, NRCS)
- Putah Creek Action Plan
- Yolo County Integrated Regional Water Management Plan/Yolo Bypass Integrated Project.
- Projects currently being planned for discharge of treated effluent water by Cities of Davis and Woodland for their Water Pollution Control facilities.

Stakeholders/ Non Governmental Organizations

The diverse mix of land uses in the Yolo Bypass is nationally recognized and enjoys tremendous public support in Northern California. The CALFED vision with wildlife habitat being managed in a working landscape while providing tremendous public

educational and recreational opportunities exists in the Yolo Bypass. This is largely a result of the involvement of local stakeholders through participation in the Yolo Bypass Working Group, facilitated by the Yolo Basin Foundation. There are also several other environmental organizations in the area that are actively involved in related projects. These entities should collectively be considered allies and a proven means to forge a broadly supported conservation strategy for the Yolo Bypass.

Larger Aquatic Recovery Efforts

Coordination with larger aquatic recovery efforts to protect and recover species such as Delta smelt, longfin smelt and Sacramento splittail are necessary. This Yolo Bypass Conservation Measure recognizes the need for species recovery, maintains the existing land uses and flood control functions of the Bypass, and recognizes the interests represented in the Lower Yolo Bypass Planning Forum. The Yolo Bypass projects are part of a watershed-wide approach to species recovery that should include (but are not limited to):

- Sacramento River National Wildlife Refuge flood plain habitat efforts
- Current aquatic ecosystem benefits emanating from the Sutter Bypass.

Potential Opportunities of the Proposed Yolo Bypass Conservation Measure

- Protection of valuable agriculture and ranching operations in the Yolo Bypass that contribute in excess of 100 million dollars to the Yolo County economy.
- Procurement of reliable adequate funding source for the management of the Yolo Bypass Wildlife Area and its public use programs, including the construction of a visitor center and Pacific Flyway Education Center.
- Bringing water down the west side of the Yolo Bypass will save hundreds of thousands of dollars in pumping costs and has the added benefit of bringing fish into the Wildlife Area wetlands.
- The Resources Agency could fully recognize and capitalize on the enormous potential of the Yolo Bypass Wildlife Area.
- Protection of waterfowl hunting throughout the season.
- Ability to protect the property between the city of Davis and the Yolo Bypass in a mixed use landscape of agriculture and habitat restoration. This area was recently included in the current 100 year flood plain maps.
- A Federal Section 408 Permit may not be required.

Potential Negatives of Unmanaged Flooding

- Section 408 permits required for large scale modifications
- Interruption of environmental education programs such as the “Discover the Flyway” program, which serves 4,000 K-12 Students, many of who come from underserved schools.
- Increased production of methylmercury through the creation of/conversion to tidal wetlands.
- Increased production of mosquitoes because of:

- Presence of late spring water
 - Inability to implement “Best Management Practices”
- Negative impacts for non and semi-aquatic special status species such as the Giant Garter Snake, Snowy Plover and Swainson’s Hawk.
- Curtailment of hunting activity on public and private lands
- Loss of agricultural and ranching income.
- Negative impact on management of seasonal wetlands and agriculture.
- Adversely affects ground nesting birds.
- New agreements and easements would need to be negotiated with numerous unwilling landowners. Alternately, these landowners would be subject to eminent domain proceedings.
- Increased potential for erosion damage to flood control and navigation levees within and adjacent to the bypass.

Potential Supplemental Funding

- State and Central Valley Water Projects (SWP/CVP)
- Land owner incentive programs should continue to be developed with NRCS
- State and Federal Conservation Programs.
- Wildlife Conservation Board
- Federal stimulus money
- NAWCA Funding (requires local match)
- Central Valley Flood Protection Plan

**ATTACHMENT A:
LOCAL IMPACTS FROM HABITAT DEVELOPMENT AND DELTA
INFRASTRUCTURE PROJECTS AND SUGGESTED SOLUTIONS**

July 15, 2009

Bay Delta Conservation Plan (BDCP) Conservation Measures (and other similar efforts / requirements) will include habitat development projects that may result in a number of economic and physical impacts to local governments, local districts, and landowners. Habitat development projects can include but not be limited to:

- Enhancement of existing private or public habitat
- Restoration of habitat on lands of historic similar habitat type
- Creation of habitat on lands that did not historically have such habitat
- Water delivery and operations

For the purpose of this document, any party(ies) (private or public) assuming the responsibility to design, fund, implement and/or maintain a habitat development project is referred to as the “Implementing Entity”. All Implementing Entities will ensure that any proposed habitat project is consistent with existing and anticipated land use policies, guidelines, and agreements including but not limited to the most current (at the time of parcel-specific design and implementation) versions of the following:

- Delta Protection Commission’s Land Use and Resource Management Plan,
- Department of Fish and Game (DFG) Yolo Bypass Wildlife Area Management Plan,
- Solano County Habitat Conservation Plan (HCP)
- Yolo Natural Heritage HCP and Natural Communities Conservation Plan (NCCP)
- Solano County General Plan
- Yolo County General Plan
- Sacramento County General Plan
- City of West Sacramento General Plan
- City of Davis General Plan
- City of Woodland General Plan
- CALFED Record of Decision
- The existing statutory and regulatory framework between Yolo Bypass Reclamation Districts (RD) and the Department of Water Resources (DWR) and the US. Army Corps of Engineers (USACE) regarding levee maintenance and flood protection.
- Existing flowage, vegetation management, mineral management easement agreements and permits/regulations between private and public landowners and the DWR / Central Valley Flood Protection Board
- Existing conservation easements between private and public landowners and DFG, US Fish and Wildlife Service, the US Natural Resources Conservation Service / Farm Service Agency, local land conservancies, and others

- Central Valley Flood Protection Plan (CVFPP) (pending approval in 2012 and every five years thereafter).
- Delta Methylmercury Total Maximum Daily Load (potential approval in 2010)

As a rule and whenever possible, habitat development projects should avoid impacts first. This document is consistent with and should be considered as a precursor to any Conservation Measure prepared by BDCP or the Lower Yolo Bypass Planning Forum regarding the Yolo Bypass / Lower Yolo Bypass / North Delta region.

Section 1 - Habitat Development on Agricultural Land and Changes to Current Management of Private and Public Managed Wetlands

Implementing Entities of habitat development must not use condemnation to achieve habitat goals. All projects must be with willing landowners only.

Impacts to Private Landowners

For projects where the landowner will continue to hold fee-title on their parcel, Implementing Entities will be responsible for the following:

1. Provide a one-time, easement-type payment (amount to be determined at a later date) to the landowner.
2. Provide a yearly, per-acre fee (amount to be determined at a later date) to the landowner.
3. Design, fund, and implement all initial infrastructure required to successfully manage a habitat project and achieve habitat goals on the project parcel.
4. Design, fund, and implement all physical / structural / regulatory protections for adjacent landowners that are not part of a habitat development agreement.
5. In partnership with the landowner, develop a project-specific "Management Agreement" that will include but not be limited to the following topics:
 - All operations and maintenance agreements including target timeframes and specific responsibilities
 - Hold harmless clauses to protect the landowner and adjacent landowners from impacts related to the presence / introduction of endangered species.
 - The amount and basis for the one-time easement payment, and yearly per-acre fee
 - Description of specific goals and objectives to be achieved with the respective parcel.
 - Parcel-specific restrictions including but not limited to acceptable timeframes to deliver flood waters, conduct onsite preparation and maintenance, and similar topics.
 - Adaptive management provisions to address unforeseen impacts (see below for additional discussion)
 - Vector control methods
 - Management of invasive species and agricultural / managed wetlands pests
 - Monitoring methods

6. For projects that include the delivery of additional flood flows from the upstream portion of the Yolo Bypass the following also apply:
 - Isolate the project parcel such that water can be delivered and managed as per the seasonal willingness of the landowner.
 - Conduct all pre and post-flood field maintenance

Impacts to Yolo Bypass Wildlife Area

In partnership with State Department of Fish and Game land management staff and with outreach to Wildlife Area partners:

1. Design, fund, and implement all initial infrastructure required to successfully manage to achieve goals of the BDCP related habitat project.
2. Design, fund, and implement all necessary physical / structural protections for adjacent landowners that are not part of the habitat project.
3. Develop a plan and procure ongoing operations and maintenance funding.
4. Develop a project-specific “Management Agreement” that recognizes the goals and objectives of the Yolo Bypass Wildlife Area Land Management Plan and that will include but not be limited to the following topics:
 - All operations and maintenance activities including target timeframes and specific responsibilities
 - Description of specific goals and objectives to be achieved with the respective unit.
 - Unit-specific restrictions including but not limited to acceptable timeframes to deliver flood waters, conduct onsite preparation and maintenance, and impacts to surrounding units.
 - Adaptive management provisions to address unforeseen impacts
 - Vector control methods
 - Management of invasive species and agricultural / managed wetlands pests
 - Monitoring methods
 - Conduct of all pre and post-flood field maintenance
 - Hold harmless clauses to protect adjacent landowners from impacts related to the presence / introduction of endangered species.
5. If increased inundation limits or prohibits existing public access and public use programs on the Yolo Bypass Wildlife Area, then additional acreage needs to be provided adjacent to the Yolo Bypass for those uses to continue. This land base should include access infrastructure, habitat development, funding to modify existing programs to fit new lands and ongoing management funds.

Lost Business Opportunity and Income

The Implementing Entity should pay a one time, per acre charge to the affected county to administer programs that help mitigate third party impacts of habitat development projects. Furthermore, funding should be made available to improve agricultural support facilities to maintain a sustainable agricultural infrastructure. Finally, habitat projects should also require offsetting preservation of agricultural land (ratio to be determined) through easements or fee title.

Loss of Property Tax to Local Governments

Parcels where the Implementing Entity acquires fee-title are often taken off property tax rolls if the new owner is a public entity (State, Federal agency or public district such as a Water District). In such cases, the new owner must provide a guaranteed source of “payment in lieu of tax” that is not dependent on State or Federal appropriations or General Fund revenues. Annual lump-sum payments may be preferred by local governments in some cases.

Loss of District Assessment Fees for Public Services

Similar to the loss of property taxes, fee-title acquisition can result in the loss of fees paid to fee assessing districts that support a range of responsibilities (i.e., water delivery, levee maintenance, emergency services, etc.). Prior to implementation of any habitat development project that requires the purchase of an interest in land or easements, the Implementing Entity must demonstrate its ability to pay in perpetuity all assessments, fees and charges due to local districts (unless it is subject to Proposition 218 restrictions).

Road / Transportation Impacts

Habitat development projects may impact local and State roads through one or more of the following scenarios:

- Temporary closure due to construction activities
- Damage due to construction activities
- Increased traffic and exceedance of service levels due to public visitation

If existing roads are impacted due to a habitat development project, the Implementing Entity will be responsible for one or more of the following:

- Provide new road alternatives and detours
- Conduct proper compliance and implementation steps to modify the service level of the road
- Repair all road damages

Adaptive Management

The BDCP as a program, and specific Implementing Entities must design and implement an adaptive process to address and resolve impacts caused by the implementation of habitat development projects. Potential negative impacts that could occur and require modification of a project may include but not be limited to: reduction of Yolo Bypass flood capacity as a result of extensive vegetation; erosion of, or seepage under levees adjacent to a project; human and environmental health risks from increased mosquito populations; increased water salinity impacting agricultural lands, freshwater habitats, and municipal, and industrial uses in the Delta; and reduced water surface elevations in sloughs and channels that might require relocation of Delta water diversion facilities.

Section 2 - Endangered Species Act (ESA) issues

Impacts to Adjacent Lands

As stated in Section 1, Implementing Entities should assume responsibility for all ESA impacts to lands adjacent to habitat developments such that the current landowners and managers are held harmless.

Local agricultural diversions and land management practices not already addressed in existing Federal Biological Opinions (BO) and/or State 2081 permits need ESA take coverage at no cost / impact to the local landowner / manager / agency providing such service. This will be achieved either through expanded inclusion in existing BOs, State assumption of ESA responsibility for local diverters, or agreements by an Implementing Entity to provide all financial coverage for avoidance structures such as fish screens, or the removal, relocation, consolidation of individual in-Delta, non-project diversions. The costs of moving / modifying / screening Delta water users' diversion facilities and the ongoing operation and maintenance costs of fish screens should be fully funded by the Implementing Entity.

If regulatory agencies require stricter water quality regulation due to the presence of new habitat and species, the State and or Implementing Entities shall be responsible for all costs of compliance in the watershed.

Section 3 - Flood Management

Maintenance and Improvements of Delta Levees

The Yolo Bypass does not currently provide capacity for 100-year flood flows. California law requires urban areas to have a minimum of 200-year flood protection. The CFVPP is being developed by DWR, and is likely to identify future improvements to the Yolo Bypass. It is therefore reasonably foreseeable that future flood improvements will be necessary in the Bypass. Habitat development projects proposed in the Yolo Bypass are likely to cause increased vegetation growth that may reduce the flood capacity and functionality of the Bypass and may violate USACE levee vegetation standards, unless

they are properly managed to prevent growth. Vegetation can, over time, change hydraulic roughness which in turn results in higher water surface elevations, which effectively reduce flood capacity and increase flood risk. In other conditions, aquatic habitat may increase open water areas. Such changes increase the energy of waves and the potential for wave induced erosion on existing levees.

In this context, changes in the weirs and associated infrastructure of the Yolo Bypass should not be implemented to establish habitat before the completion of the CVFPP and must comply with the design and capacity needs of the Yolo Bypass identified in the CVFPP. Habitat established in the Yolo Bypass shall not impede or reduce the flood capacity of the Bypass, conflict with USACE levee vegetation standards, or interfere with any reasonably foreseeable flood control improvements to the Bypass.

Further, BDCP and Implementing Entities shall commit to funding long term vegetation management and hydraulic monitoring programs to identify hydraulic changes and prevent vegetation growth that impedes Yolo Bypass flood capacity or violates the vegetation standards of the USACE.

Lastly, the cost of controlling and repairing wave-related erosion damage due to open water habitat shall be paid for by the BDCP and Implementing Entities and as part of the BDCP Adaptive Management Program (previously discussed) any habitat project shall be re-designed to avoid future ongoing damage to levees. BDCP projects shall not redirect hydraulic or other impacts to levees or other flood control facilities. Ecosystem restoration must be secondary to the protection of public safety and private property and only be pursued if the primary public safety objective can be protected and assured.

Emergency Levee Response

Implementing Entities will work with local Delta governments / agencies, RDs, and DWR to develop and fund a comprehensive program to address emergency levee activities associated with habitat development projects.

Impacts to Rio Vista and Reclamation Districts East of the Yolo Bypass

Habitat projects adjacent to and upstream of Rio Vista, and immediately west of RD 999 and 501 pose a particular risk due to the questionable flood retaining capacity of inland Federal Flood Project levees that have no ‘wetted edge’. This is particularly important in areas adjacent to Egbert Tract (near Rio Vista) and the area known as “Five Points” (north of Prospect Island)

Implementing Entities will fully mitigate any impacts associated with increased river stage due to habitat projects. If restricted height levees at Egbert Tract and Prospect Island are removed, currently dry levees must be evaluated and improved to provide adequate flood protection.

Section 4 – Other Impacts

Mosquito & Vectors

Implementing Entities must not increase the population of vector species, such as mosquitoes, that would create increased vector control costs as a result of habitat development activities on adjacent lands. Vector control, including Best Management Practices (BMPs) for managed wetlands, must be described and funded as part of the Management Agreements (see Section

Invasive Species and Agricultural Pests

Management Agreements must address and fund measures such as rapid intervention programs when invasive species are first discovered. Increased flooding could result in a profusion of invasive plants. Funding must be made available to control these plants using BMPs, including (but not limited to) herbicide or mechanical means such as mowing or discing.

Loss of Existing Wildlife

Implementing Entities must provide mitigation for impacts to existing fish and wildlife populations and habitat resulting from developments of habitat for endangered species. Additionally, all habitat development projects must be consistent with existing federal and state habitat easements, many of which are held in perpetuity.

Geographic Habitat Development Limits

BDCP (and related efforts) will determine an upper limit of habitat developments in each County (or part of a county). This limit should be mapped out geographically to clearly show the extent of potential development, including the extent of inundation due to sea level rise on lands not previously subject to flooding. Any developments above that amount will only be done with concurrence of the County. Projects shall internally incorporate buffers sufficient to avoid physical or regulatory impacts on adjacent properties or operations.

Local HCPs/NCCPs

Delta habitat lands must be counted as part of mitigation requirements for the Solano HCP and the Yolo Natural Heritage Program HCP / NCCP. These local HCP / NCCPs can not be impacted and lose species protection credits due to larger geographic efforts being addressed through BDCP.

Monitoring and Management of New Habitats

New habitat development should be accompanied by a thorough monitoring program which will develop measures for success, indicators for problems, and associated

adaptive management techniques (see Section 1). Implementing Entities need to show proof of advance funding for such monitoring to ensure it is implemented properly.

Potential Increases in Delta Water Salinity

No changes may be made to existing North Delta Water Agency (NDWA) Contract criteria and all BDCP projects must not violate NDWA Contract criteria. Agricultural salinity water quality standards should be set through the State Water Resources Control Board. Flows in the Sacramento River and sloughs must be sufficient to maintain or improve current salinity levels, particularly in Cache Slough and Rio Vista reaches.

Methylmercury Production and Control

Habitat development projects should result in no net increase in methylmercury production or transport. Projects and Implementing Entities must be in compliance with the pending Delta Methylmercury Total Maximum Daily Load. If the conceptual BMPs discussed in the CALFED ERP are not sufficient to avoid this threat, additional mitigation must be made available to all impacted parties. Mitigation options for methylmercury production require further definition and should be addressed in Management Agreements.

Water Rights

No changes can be made to existing area of origin and Delta Protection Act laws. Additionally, the existing water rights priority system and NDWA contract must be maintained and honored.

**ATTACHMENT B: List of Lower Yolo Bypass Planning Forum Members in Support
of the Yolo Bypass Conservation Measure**

Kathy	Barnes-Jones	Solano County
Dave	Brown	Sacramento Yolo Mosquito Vector Control District
Regina	Cherovsky	Reclamation District 2035
Rose	Conroy	Davis Fire Department
Gilbert	Cosio	Reclamation District 536
Dave	Feliz	California Department of Fish and Game
Neil	Hamilton	Reclamation District 501
Mike	Hardesty	Reclamation District 2068/2098
Tom	Hester	Ryer Island
Butch	Hodgkins	Central Valley Flood Protection Board
Henry	Kuechler	North Delta Water Agency
Jack	Kuechler	RD 2060
Robin	Kulakow	Yolo Basin Foundation
Barbara	McDonnell	DWR Division of Environmental Services
Julia	McIver	Yolo County Parks and Resources Department
Selby	Mohr	Mound Farms
David	Okita	Solano County Water Agency
Tom	Scheeler	Port of Sacramento
Don	Stevens	Glide In Ranch
Ron	Tadlock	Private Landowner
Melinda	Terry	North Delta Water Agency
Jan	Vick	City of Rio Vista
Erik	Vink	Trust for Public Land
Bob	Webber	Reclamation District 999
Maria	Wong	Yolo County JPA
Linda	Fiack	Delta Protection Commission
Brad	Burkholder	California Department of Fish and Game