

## Chapter 3. Assurances Sought by Stakeholders for Habitat Enhancement Activities

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### INTRODUCTION

As previously described, the Working Group began meeting in autumn 1999 to discuss the future of the Bypass from the perspective of landowners and responsible agencies. Stakeholders have engaged in extensive discussion about issues such as:

- # protection of the current and future flood control function of the Bypass;
- # past, present, and potential future hydrology;
- # existing and potential hydraulic impacts of land use changes in the Bypass;
- # economic impacts of land use changes in the Bypass;
- # impacts associated with introduction, protection, and management of special-status species;
- # historical land management practices in the Bypass, including enforcement of historic and recent state easements; and
- # future involvement of stakeholders in Bypass-related decisions.

As meetings progressed, the landowner stakeholders (including tenants) developed a general consensus that enhancement changes could be implemented in the Bypass with their support if local, state, and federal government representatives could provide them with several assurances. This chapter discusses the assurances identified to date. It is important to note that although these assurances (and associated issues described later) represent a comprehensive list of concerns, it is not the intent of the Working Group to limit itself to only those concerns presented herein. Over time, the Working Group may identify other concerns in addition to those presented in this chapter. Chapter 4 presents several habitat-related ideas that could be feasible over time if the following assurances can be provided.

It is also important to note that the Working Group acknowledges that it is not a formal decision-making body. Such authority exists with the Yolo and Solano County Boards of Supervisors and other bodies of appropriate decision-makers. The Working Group also acknowledges that, as a group, it holds no jurisdictional authority over lands in the Bypass.

Furthermore, it is critically important that the opinions in this chapter (and document) are not construed by any reader as an absolution of private property rights by specific Bypass landowners. Landowner members of the Working Group maintain their private property rights (to the extent allowed by local, state, and federal laws) and contend that those rights should not be subjugated by the actions or desires of adjacent landowners or by the Working Group as a whole. Nonetheless, through a consensus-based process, the stakeholders have established these following assurances and associated issues as vital components of future land use changes in the Bypass.

Lastly, it is important to note that the opinions expressed in this chapter do not necessarily represent the opinions of the Foundation directors or staff.

## ASSURANCES

As Working Group meetings have progressed, the landowner stakeholders in the Bypass have discussed numerous topics of concern. Over the course of the project, these topics have been distilled down to six general categories of assurances that should be provided to landowner stakeholders in the future as part of any proposed habitat enhancement land use changes in the Bypass. These six categories are:

- # maintenance of stakeholder economic viability;
- # protection of stakeholder lifestyles;
- # fair compensation for land use changes;
- # establishment of statutorily authorized, legally binding, and enforceable safe harbor (or similar) agreements regarding the introduction or enhancement of habitat for special-status species;
- # assessment and mitigation of habitat enhancement project impacts related to hydraulic and hydrologic alterations; and
- # acknowledgment by local, state, and federal government representatives that the Working Group is a primary advisory organization for all land management/water use issues in the Bypass.

Bypass stakeholders acknowledge that the concept of assurances can have different meanings to different people. While the above categories can be considered as stand-alone items, they also inherently overlap. The following section provides descriptions of these assurances to ensure clarity for the reader.

## Maintenance of Stakeholder Economic Viability

Future changes to land use in the Bypass may affect a landowner's ability to remain economically viable. Some examples of impacts are listed below.

- # Access issues related to enhanced habitats, such as road closures, culvert and bridge removals, and operations and management restrictions, could create impediments to vehicles and equipment. Such access issues could result in a loss of time efficiency for farmers and field staff, increased fuel consumption as a result of increased detour distances, and increased safety hazards if farm equipment is required to travel on surface roads more often.
- # Water conveyance facilities, such as ditches, swales, pumps, check dams, and canals, could be adversely affected by increased vegetation areas, habitat-oriented buffer zones, conservation easements next to actively farmed land, and other similar conditions. Adverse impacts on water delivery facilities could include altering the timing of water delivery, increasing the operation and maintenance costs associated with water delivery and drainage facilities, increasing postflood maintenance efforts, such as removal of increased sediment and debris loads, and other similar impacts.
- # Water required to support crops and managed wetlands could be affected by diversions for additional habitat-related uses. Managed wetlands and farming operations relying on water deliveries at certain times of the year could find these resources diverted or minimized because of application of these waters on habitat-based lands. Critical timing for spring and summer irrigation of row crops, flood up for rice fields, and similar situations could be impacted.
- # Landowners could be adversely affected by enactment of prohibitions on the application of pesticides, herbicides, and other agricultural amendments. Such prohibitions may result from the presence of special-status species or public land users. Such conditions would minimize a landowner's ability to be competitive with other regional growers that do not have such restrictions.

In general, agricultural interests in the Bypass subsist on relatively small profit margins. The examples of reasonably foreseen impacts discussed above could result in an increased cost of doing business. These increases, coupled with recent agricultural industry surpluses in commodities such as corn and rice and the resulting price decreases of these commodities, could permanently and adversely affect a landowner's (or tenant's) ability to stay economically competitive. Impacts on economic competitiveness could result in a landowner's decision to change from practicing agriculture to fallowing land.

Alternatively, and because of recent state, federal, and nonprofit funding sources, landowners could choose to change from agricultural land uses to habitat-related land uses. In either situation, flowage and clearing easements held by the state (Chapter 2) could be prohibitive to a landowner's

desire to change land uses, even if such changes constituted the landowner's best or only alternative to remain financially stable.

These conditions must be addressed on a parcel-specific basis and cumulatively across the Bypass if landowners are to become willing to implement habitat enhancement changes.

### **Protection of Stakeholder Lifestyles**

Farming and ranching have been the life's work of many Bypass landowners and tenants. In some cases, it is work that their parents and grandparents did. Many of these stakeholders have a bond to the landscape—a bond that transcends economic viability. Some stakeholders in the Bypass choose to remain in agriculture, even with low profit margins, simply because it is a lifestyle they know and enjoy. These stakeholders need assurance that land use changes on adjacent lands or on portions of their lands (potentially in the form of conservation easements or habitat-friendly farming easements) will not impede their lifestyle.

Similarly, duck clubs (privately managed wetlands) have been in the Bypass for many decades. These managed wetlands represent more than just an economic investment to landowners. Rather, these wetlands are a part of landowners' backgrounds as residents of the region and as stewards of the land. Changes in conditions that would threaten the viability of these managed wetlands need to be addressed.

### **Fair Compensation for Land Use Changes**

In some cases, landowners may be willing to sell their land or enter into easement agreements for habitat-related uses. In these cases, potential sellers must be assured that compensation for their land is commensurate with compensation offered elsewhere in the Bypass for similar uses. Additionally, potential sellers need assurance that their land values will be assessed based on the net habitat benefits anticipated to be derived from the future use of the land, rather than on the continuance of agricultural practices. In a potentially depressed agricultural marketplace, such land appraisal based on agricultural uses would be inappropriate and would not reflect fair compensation. Additionally, as part of any compensation package, landowners need to be adequately compensated for any existing habitat values that they have established or preserved on their property.

Lastly, these potential sellers should be assured that the value of their land will not be depressed by their adjacency to land previously purchased or modified for habitat uses by state, federal, or nonprofit organizations. For example, if the USFWS establishes refuge land in the Bypass, properties adjacent to refuge lands should not experience a loss in value and/or utility simply because of that proximity.

## **Establishment of Statutorially Authorized, Legally Binding, and Enforceable Safe Harbor Agreements Regarding Special-Status Species**

The presence, introduction, enhancement, and management of special-status species on lands dedicated to habitat improvements and adjacent to ongoing flood control, water supply, agricultural, and managed wetland practices is a significant concern to public and private landowner stakeholders. Many of these practices are discussed in Chapter 2. Public and private landowners, water users, and associated tenants must be granted statutorially authorized, legally binding, irreversible assurances by state and federal natural resource regulatory agencies. These assurances must state that land use changes resulting in the presence, introduction, enhancement, and management of special-status species will not endanger landowner stakeholders' ability to perform necessary land and water management activities on surrounding and nearby other lands. These lands includes privately managed wetlands (duck clubs) under federal and/or state conservation easements that must maintain certain habitat standards, as specified in easement language. "Necessary land and water management activities" can generally be defined as those activities that must take place to remain economically viable and/or maintain compliance with previously developed legal agreements. For example, operating and maintaining infrastructure, pumping water to irrigate fields, spraying insecticides, applying other amendments, operating field equipment, and managing vegetation cover crops and vegetation distribution are all necessary activities that could be jeopardized by the introduction of and management for special-status species.

Assurances regarding the accommodation of such activities are generally called "safe harbor agreements". The USFWS published general policy language regarding safe harbor agreements in June 1999; however, there has been little resolution of this issue in the Sacramento Valley and Bay-Delta region. Furthermore, the Working Group is acutely aware that the concept of safe harbor agreements has not truly been tested in a court of law, and there is little to no legal precedent as to the ability of such agreements to withstand legal challenges. Therefore, even the application and settlement of safe harbor agreements remains a tenuous proposition to public and private landowners, water users, and associated tenants without the existence of legal precedent from elsewhere in California or the United States. In lieu of such time-tested precedents, private and some public Bypass landowners will require legally binding assurances from appropriate and responsible regulating agencies that if a safe harbor agreement is invalidated, the public and private landowners, water users, and associated tenants are indemnified of all responsibilities associated with the maintenance of special-status species individuals, populations, and habitat conditions. Furthermore, similar indemnifications and assurances need to be provided to public and private landowners, water users, and associated tenants that choose not to participate in habitat-related land use changes. Without such assurances from state and federal agencies, there is little to no incentive for Bypass public and private landowners, water users, and associated tenants to introduce habitat improvements to their lands or to support habitat improvements to neighboring lands.

It must be noted that in response to the above concerns of landowners, water users, and tenants, the federal resource agencies tasked with endangered species regulatory responsibilities (USFWS and National Marine Fisheries Service [NMFS]) assert they have no legal authority to indemnify other parties without specific authorization from Congress. However, Working Group

representatives from the USFWS have stated that they can assist in the defense of safe harbor agreements against legal challenge.

### **Assessment and Mitigation of Hydraulic and Hydrologic Impacts on Stakeholder Lands**

Technical experts generally accept that habitat-related land use changes in the Bypass could have some effect on floodflows. Specifically, the introduction of different types of naturalized vegetation in the Bypass could result in changes to water surface elevations during flood conditions. These changes are caused by friction and back water effects associated with the vegetation and are influenced by the location and extent of such vegetation. The presence, size, and location of naturalized vegetation also may cause other hydraulic effects, such as changes in flow direction and velocities. All of these impacts could occur cumulatively across the Bypass and at a parcel-specific level.

Stakeholders need assurances that any proposed habitat-related land uses will be technically assessed for potential impacts to current and potential future flood control conditions. They further need assurance that any negative impacts are fully mitigated, so that net Bypass-wide and parcel-specific effects are neutral.

Additionally, from a “competing habitats” perspective, some stakeholders are concerned that increased flooding in an attempt to improve habitat conditions for special-status species may adversely impact nesting waterfowl, pheasants, and other ground-nesting birds, as well as other terrestrial species.

### **Acknowledgment of the Working Group as a Primary Yolo Bypass Advisory Organization**

As previously stated, the Working Group is aware of and comfortable with its limited role. The Working Group does not seek to be a decision-making body. However, it is clear to the members of the Working Group that for many years numerous decisions and discussions about Bypass-related issues have occurred without the advice and involvement of the landowners most directly affected by such decisions and discussions. The Working Group seeks to avoid those oversights in the future.

It is important that all elected and appointed decision-makers be aware of the constituent resource available to them in the form of the Working Group. It is critically important that any groups or individuals proposing future activities in the Bypass (as well as activities affecting flood water sources upstream) use the Working Group forum as a means of communicating ideas and gaining affected stakeholder input. The Working Group anticipates a long range and sincere commitment from agency representatives to work together to discuss and solve future management issues.

## ASSURANCE-RELATED TOPICS AND ISSUES

As previously described, stakeholders have held numerous, wide-ranging discussions at each Working Group meeting. In the context of the previously described assurances, the landowner stakeholders have identified specific issues that should also be addressed to further ensure that their interests are protected. Some of these issues are pertinent to the entire Bypass; others are more parcel-specific. As with the previously described assurances, these issues can sometimes be considered as “stand alone issues” and, conversely, sometimes can overlap closely with each other. Although they do not need to be resolved as an immediate result of this Management Strategy, the landowner stakeholders assert that these issues are critical to future implementation of habitat enhancement activities in the Bypass. These issues have been organized under the following topic headings:

- # federal and state resource management and regulatory programs,
- # water and flood management structures,
- # land and flowage easements,
- # water use and availability,
- # economic impacts,
- # public access to bypass lands,
- # flooding and floodflows,
- # upstream storage and river capacity,
- # fisheries,
- # waterfowl and upland game birds,
- # agricultural pests,
- # general habitat conditions,
- # general information needs.

### **Federal and State Resource Management and Regulatory Programs**

- # CALFED (and its natural resource partner agencies NMFS, USFWS, USACE, DWR, and DFG) should not be allowed to mandate land use and land ownership changes in the Bypass. Such changes must remain voluntary.
- # The existing NRCS Water Bank and DFG Presley Programs and the new NRCS CRP focus on waterfowl and do not allow for greater flexibility of land management in the Sacramento Valley. Increased management flexibility would allow landowners to maintain their conservation easement revenues while creating habitat conditions that would support a wider range of species.
- # Public and private landowners and tenants engaged in operations necessary to their continued livelihood, institutional missions, and /or previous legal responsibilities require safe harbor agreements, incidental take permits, and/or enforceable and binding

indemnity clauses for any activities associated with the enhancement of special-status species and habitats (see page 3-5 regarding conflicting positions relative to indemnification issues). These specific stakeholders need to have feasible and acceptable land and water management activities defined, memorialized, and resolved by state and federal agencies.

- # Many issues associated with the proposed USFWS NDNWR remain a concern (several of these issues are described elsewhere in this section). The USFWS must remain an active member of the Working Group and communicate and discuss refuge planning, operations, and management options.
- # Decisions and commitments made by agency representatives need to be backed up by signed documentation, such as memorandums of agreement or formal contracts. There is a general lack of confidence by landowners that decisions and commitments made by such representatives will be honored or maintained in perpetuity by their respective agencies if those specific representatives are reassigned to jobs outside of Bypass jurisdiction.
- # The Sacramento–Yolo Mosquito and Vector Control District (SYMVCD) provides a critical service in the Yolo Bypass and adjacent communities. Any future habitat concepts being considered for implementation must be directed to the SYMVCD for their design input.
- # The recently approved state and federal partnership on CREP easements is supported by the Working Group. Several landowners are eager to determine their potential eligibility for the program. Appropriate agencies need to support inclusion of lands in the Bypass in the CREP. Additionally, these same agencies should make full funding of the CREP a priority in California as a means of effectively implementing habitat enhancement projects and compensating landowners.

### **Water and Flood Management Structures**

- # Potential or proposed changes to the Tule Canal/Toe Drain and the Fremont and Sacramento Weirs need to be fully analyzed and communicated to Yolo Bypass stakeholders.
- # Potential or proposed changes to levees upstream in the Sutter Bypass, along the Feather and Yuba River systems, and along the lower Sacramento and American River systems need to be better analyzed and better communicated to Yolo Bypass stakeholders.
- # Impacts on Bypass capacity from the Ship Channel levee (completed in 1963) need to be assessed. It is unclear whether this issue was analyzed earlier and, if so, by whom (related issues regarding impacts to flowage easements are discussed below).

- # The City of Woodland needs assurances that the agencies responsible for flood conveyance and flood control facilities (i.e., Reclamation Board and USACE) will ensure conveyance of Cache Creek floodflows through and out of the Cache Creek Settling Basin during floodflow conditions in the Bypass.

### **Land and Flowage Easements**

- # From the landowners' perspective, flowage easements held by the state should be assessed against current FCP conditions to see whether physical, financial, and legal assumptions made when easements were first written are still valid and equitable. Should discrepancies be identified, easements should then be updated to account for present and future conditions, such as upstream urban development and inflows, habitat enhancement projects, upstream reservoir operations, and other similar conditions that could alter the flow conditions from those that existed when the easements were first granted.
- # DWR and USACE projects, such as levee raises, in and near the Bypass have raised concern that such projects will increase water surface elevations and flood duration and frequency in the Bypass but will not result in amendments to Bypass flowage easements. Such future proposals need to be more adequately communicated to the Working Group than in the past and have accurate and defensible analyses conducted to determine potential impacts and mitigation for Bypass land parcels.
- # The degree of Reclamation Board control over vegetation management in the Bypass needs to be assessed and possibly revised to accommodate the opportunity for private landowners to change the use of their land in the Bypass (assuming that such changes do not negatively impact flow conveyance and design water surface elevations)
- # Any parcel-specific or Bypass-wide flooding increases caused by proposed habitat enhancement projects in the Bypass should be assessed to determine whether additional flood easement payments should be provided to affected landowners.
- # Any parcel-specific or Bypass-wide flooding increases as a result of upstream changes in land use and the FCP should be assessed to determine whether additional flood easement payments should be provided to affected landowners.
- # Impacts on Bypass capacity created by the construction of the Ship Channel levee need to be assessed in the context of easements developed before the construction of the levee. Changes to water surface elevations, duration, and frequency have never been assessed or accommodated through additional easement payments to affected landowners.

- # Operators of gas pipelines and gas well sites need to be protected from undue hardships to the management of their land and facilities as a result of habitat enhancement. Access rights and facilities such as roads, berms, and other structures need to be maintained.
- # Similarly to the above issue, landowners willing to enter into any type of conservation easements need to maintain their right to also lease and/or sell mineral rights on their properties. Easement language must strike a balance between the enhancement/protection of key habitats and the potential development of mineral resources.

*It must be stated that, with regard to the previous bullets under this issue, the Reclamation Board and some flood control and reclamation districts adjacent to the Bypass have expressed dissent with these opinions. Generally speaking, these dissenting affected and associate stakeholders reject the premise that existing flowage and related easements are inadequate, deficient, or otherwise impaired.*

### **Water Use and Availability**

- # Landowners, water users, and upstream water and flood control districts need assurances regarding who is responsible for the provision of flows necessary to support habitats in the event of a dry spell or drought. Water users not participating in habitat programs and not subject to state and federal water project conditions should not be held accountable for the provision of environmental water.

### **Economic Impacts**

- # Impacts of the proposed NDNWR on the No Mans Land Fire Protection District must be assessed and mitigated to ensure that no revenue loss is incurred by the district as a result of a refuge, particularly in light of the potential for increased vegetation and fire fuels resulting from a refuge.
- # Impacts of the proposed NDNWR on reclamation district assessments and fees, cooperative rental rates, and other economic factors must be fully and adequately assessed and mitigated.
- # The loss of local government tax revenues associated with the development and/or enhancement of habitat in the Bypass should be offset by the state, federal, or nongovernmental entity responsible for the land use change.
- # Stakeholders must be fully compensated for any negative impacts on property values resulting from habitat-related land use changes or water rights restrictions.

- # CALFED and other future state, federal, and private habitat enhancement proponents need to provide assurances or direct compensation for operation and maintenance costs associated with habitat-related land use changes. Most conservation easements do not offer such reimbursement, reducing incentives for landowners to enter into such agreements.

### **Public Access to Bypass Lands**

- # Plans for future public access to lands in the Bypass need to be fully assessed and discussed with potentially affected landowners. Proponents of land use changes that would result in related public access should be required to develop a “public access management plan” that will include the involvement of Working Group members and/or directly affected landowners.
- # Present and future state and federal wildlife areas should create hunting programs for those lands to ensure a balance of hunted and nonhunted waterfowl and game bird habitat. Distribution and location of these additional hunted lands should be discussed on a yearly basis with representatives from existing duck clubs. An overabundance of nonhunted refugia could impact the economic viability of existing duck clubs in the Bypass.
- # Public access for hunting and nonhunting activities must be tightly controlled. Public access roads, trails, parking, and other facilities should not interfere with agricultural and duck club operations. Public access routes should have controlled access points and should be routinely patrolled by enforcement officials. Assurances must be provided by state and federal representatives that trespassers will be prosecuted to the limit of the law.
- # Land use changes that result in public access should be required to include buffer zones as part of their project/site design. Such buffers should be developed on the property that is incorporating the land use change, rather than the adjacent affected land. Such buffers designs could be part of the previously proposed “public access management plan” but, regardless of the format, should include input from affected landowners.
- # Lower Bypass access via Yolo CR 155 is limited by the use of the West Bypass Levee for Bypass ingress and egress. This levee facility is subject to closures for flood control situations and cannot be impeded by additional public access infrastructure.

## **Flooding and Floodflows**

- # Increased floodflows in the Bypass interfere with water supply diversion operations and maintenance by Bypass water users. Better practices need to be developed in cooperation with DWR to accommodate diversion and maintenance needs.
- # Late-season flooding lasts too long, comes with little warning, and adversely affects the farmers' preparations for crop planting. Additionally, late season-impacts adversely affect ground-nesting birds and reduces the production of food plants for waterfowl. Better flow projection and early warning systems need to be implemented to more effectively inform landowners and tenants of potential late-season flooding.
- # The flood capacity in the Bypass needs to be maintained and protected for current and future needs. Potential increases in wildlife habitat need to be studied for the cumulative and parcel-specific effects on floodflows. Changes to flood control structures, such as increased levee height, construction of slurry walls in levees, and similar options, need to be implemented if flood control capacity is to be decreased by habitat or increased upstream inflows.
- # Increased stormwater runoff from all sources in the Sacramento River watershed needs to be accommodated in flood design assessments for the Bypass.

## **Upstream Storage and River Capacity**

- # New offstream water storage facilities or increases in the capacity of existing upstream reservoirs need to be considered and analyzed. Failure to pursue such options needs to be assessed in the context of future impacts on Bypass landowners and the existing flowage easements held by the state.
- # Dredging of the Sacramento River should be considered as a means to maintain or increase capacity in the Bypass. If dredging is not a feasible option, the rationale for its infeasibility, as well as other alternatives to dredging, should be fully assessed and discussed with the Working Group.

## **Fisheries**

- # Land use changes to benefit special-status fish spawning, rearing, and passage must not occur at the expense of economically viable agricultural and privately managed wetland operations. Designs for created fish habitat on private land must be mutually compatible with managed waterfowl habitats and agricultural activities. Landowners must be

adequately, fairly, and fully compensated for changes in land use that would adversely affect economic viability. This compensation also applies to project effects on adjacent properties.

### **Waterfowl and Upland Game Birds**

- # Foraging and nesting habitat for waterfowl and upland game birds must be maintained and/or enhanced.
- # Upland habitat conditions should be considered as part of future flood control and habitat-related proposals in the Bypass. Increased flood duration and frequency and late-season floods affect the quality and quantity of breeding, foraging, and cover habitat for avian species.
- # Potential flight paths for the Sacramento International Airport should be assessed and monitored regarding any potential impacts to waterfowl and other migratory bird populations.

### **Pest and Predator Management**

- # Extensive technical analysis and public outreach needs to be conducted regarding the potential increase of non-native species, such as mitten crab, pepperweed, water hyacinth, and giant reed, caused by enhanced habitat in the Bypass. Operations and maintenance budgets need to be available to projects that develop additional habitat, so that the presence of non-native species can be controlled.
- # Analysis needs to be conducted as part of any increase in habitat area to ensure that mosquito populations do not increase and are controllable. Any potential habitat enhancement projects must be designed to meet criteria set forth for mosquito vector control and must be in compliance with appropriate SYMVCD guidelines regarding related planning, design, and operations and maintenance.
- # Studies need to be conducted to determine the impact of increased habitat on agricultural pests. Habitat areas can provide overwintering areas for crop-damaging and beneficial insects. For instance, the following questions must be answered: What native plants are hosts for key pests? How can areas that are converted to habitat be managed for pest control? How would farmers be compensated for the increased presence of pests and resultant productivity losses?
- # Any habitat-related land use changes must provide for the management of potential avian and mammalian predators of waterfowl and other game birds.

## **General Habitat Conditions**

- # The location of potential habitat should concentrate on areas that will not decrease floodflow capacity or impede future floodflow requirements of the FCP.
- # Habitat options in the Bypass should recognize the habitat needs of upland terrestrial species, not just avian species, and fish and other aquatic species.
- # Enhanced and/or created habitats should have enforceable and funded operations and maintenance criteria and active management of said efforts.
- # The implications and impacts of establishing and/or enhancing wetland and riparian habitats in an area documented to have high mercury levels needs to assessed, documented, and publicized.
- # Landowners participating in wetland and riparian habitat programs need to be indemnified from species protection laws and statues and/or allowed to opt out of said habitat programs if mercury is determined to be present on their lands and exposure to mercury proves to be a detrimental factor to species populations, species reproduction, or similar conditions.

## **General Information Needs**

- # Flow and stage data-collection facilities, such as gage stations, need to be installed or modified on Putah Creek, Cache Creek, the Knights Landing Ridge Cut, and tidally influenced sloughs in the Southern Bypass to better record and assess the impact of flows from these sources on lands in the Bypass.
- # Better hydrologic assessment tools need to be developed to compile better information regarding flows over the Fremont Weir. This improvement needs to be made in order to determine whether the flows that make the weir spill today are the same as the flows that made it spill in the past.
- # The USACE and the Reclamation Board need to confirm and agree on the exact flood conveyance capacity of the Bypass, how close the Bypass has come to meeting or exceeding this capacity, and the future flood conveyance expectations for the Bypass.
- # The Reclamation Board, with support from the USACE, needs to create an equitable, affordable, and programmatic way for parties interested in habitat enhancement to assess their specific impacts on floodflow conveyance. Presently, there are numerous hydraulic

assessment tools used to assess Bypass conditions and numerous examples of variations on enforcement of Reclamation Board policies. Both the tools and enforcement need to be standardized.

- # Landowners and tenants need to know what they can expect from any land use modifications and water management conditions upstream, so that they can make educated business decisions for the future.
- # Communication about public meetings and public comment periods on projects that affect Bypass lands (e.g., levee improvements, size increases) needs to be improved.

### **TOPICS AND ISSUES RELATED TO THE PROPOSED NORTH DELTA NATIONAL WILDLIFE REFUGE**

As previously discussed in this document, the USFWS has proposed to develop the NDNWR in the Southern Bypass. The proposed refuge is of an undetermined size at this time; however, as previously stated, the USFWS is evaluating a preferred alternative consisting of 12,300 acres, focused in the downstream end of the Southern Bypass (Figure 1-3). The USFWS anticipates completing the National Environmental Policy Act process on the proposed refuge by early to mid-2002.

Although the Foundation did not envision the proposed refuge when the Management Strategy project was proposed, funded, and initiated, the refuge became an issue that was dealt with repeatedly in Working Group meetings. As evidenced by previous topics and issues discussed in this chapter, the proposed refuge remains a primary concern of many stakeholders. Therefore, the following discussion is an additional set of topics, issues, and commitments developed by the USFWS refuge planning staff regarding the proposed refuge's effect on the Bypass, its landowners, and other associated stakeholders.

- # *Willing-Seller Basis*—Participation in a refuge will be on a voluntary basis and only by willing landowners.
- # *Compensation at Fair Market Value*—Landowners who choose to participate in the proposed refuge must and will receive just compensation from the USFWS based on the fair market value of their property.
- # *Conservation Easements for Duck Clubs and Privately Managed Wetlands*—Depending on the availability of willing landowners, the USFWS will continue to pursue acquisition of conservation easements in the vicinity of existing duck clubs; fee title purchases will not be pursued in the duck club area.
- # *Exclude Prime Farmland*—USFWS will not pursue nor will it acquire fee title interest in any prime agricultural lands.

- # *Participation in the Working Group*—If a refuge is established, the USFWS will continue to actively participate as a member of the Working Group to communicate and discuss refuge planning, operations, and management options.
- # *Coordination of Refuge Public Use*—Any plans for future public access will be fully assessed, discussed, and developed in coordination with adjacent landowners. Any hunting programs will be designed to ensure a balance of hunted and nonhunted waterfowl and gamebird habitat. Discussions will occur on a yearly basis between the USFWS and representatives from existing duck clubs to ensure that nonhunted refugia are not impacting the economic viability of existing clubs. Public access for hunting and nonhunting activities will be tightly regulated to not interfere with agricultural land and duck club operations.
- # *Compliance with Flood Protection Laws and Policy*—The USFWS will comply with the requirements of both existing state easements attached to properties purchased by the USFWS and with Presidential Executive Order 11988, Floodplain Management. The requirements of Executive Order 11988 are to reduce the risk of flood loss and minimize the impacts of floods on human safety, health, and welfare. The USFWS must also comply with its own floodplain management policy, including:
  - avoiding the long- and short-term adverse effects caused by the human occupancy and modification of floodplains;
  - reducing the risk of flood loss and minimizing the impacts of floods on human health, safety and welfare;
  - incorporating the concepts, strategies, and management tools of the Unified National Program for Floodplains Management into the USFWS’s programs and actions; and
  - using an integrated process to involve the public in the planning of all actions and decisions.
- # *Participation in the Yolo Bypass TAC* —The USFWS will continue to participate in the TAC and use their recommendations to assess refuge management actions that may impact the floodplain. Any modifications of the floodplain proposed by the refuge will be subject to TAC review.
- # *Minimization of economic effects* —Any potential or real economic impacts associated with the development of the refuge will be fully and adequately assessed and mitigated.

In response to these commitments, two associated stakeholders provided the following comments.

*Reclamation District 2068 with additional support and guidance from other private landowners has stated that the USFWS must clearly and affirmatively waive refuge primacy*

*requirements and, the USFWS must pursue an agreement or Memorandum of Understanding (MOU) that subordinates the operation of the refuge to the paramount flood control use of the Bypass. No land or easement should be accepted for ownership by the USFWS within the proposed refuge until such an MOU or agreement is completed between the USFWS, the USACE, and the Reclamation Board that clearly defines the primacy of the flood control purpose within the Bypass. This agreement must include preservation of the existing capacity and provide for the possibility of increased future demands on the flood control system as a result of upstream development and altered hydrology. Such changes could require flood control improvements within the Bypass to accommodate those future demands. Any agreement or MOU must also ensure that the USACE and Reclamation Board (and its maintaining agencies) will not be required to mitigate for present or future flood control activities and impacts as a result of this subordinate use as an operation of a refuge. It must be clear that as a condition of the establishment of the refuge, the state and federal governments will provide clear and legal confirmation that all lands in the Bypass, including the refuge land, have flood control as their primary function, unimpaired by the operation of the refuge.*

*The Delta Protection Commission has stated that as a part of the USFWS's commitment to "exclude prime farmland" (as listed above), such prime agricultural land needs to be defined, mapped, reviewed, and approved by the Working Group.*