

6 OPERATIONS AND MAINTENANCE

The purpose of this Chapter is to indicate staffing, funding and other resources to operate and maintain the Yolo Bypass Wildlife Area (Wildlife Area). Implementation of this Land Management Plan (LMP) will require additional staffing and resources than are currently allocated to the Yolo Bypass Wildlife Area, to accomplish the tasks indicated in Chapter 5. This LMP proposes proactive application of an ecosystem approach to the management of the multiple natural communities and habitats present at the Yolo Bypass Wildlife Area at a more intensive level than in the past. This will require a commitment of additional budgetary resources if the goals of this LMP are to be achieved.

In addition to financial resources, this LMP will require periodic revision to ensure that it is kept current, reflecting goals met, and changing needs and understanding. It is fully expected that the ongoing, adaptive management of the Yolo Bypass Wildlife Area and advancement of scientific knowledge regarding the area will result in new techniques and opportunities for more effective management of habitat. Suggested procedures to help keep this LMP current and relevant are included in this chapter.

6.1 OPERATIONS AND MAINTENANCE TASKS TO IMPLEMENT PLAN

Table 6.1-1 summarizes and synthesizes operations and maintenance requirements (i.e., tasks identified in Chapter 5, “Management Goals”) to implement the LMP. Estimated hours by staff position is also included in the table.

6.2 EXISTING STAFF AND ADDITIONAL PERSONNEL NEEDS

The Yolo Bypass Wildlife Area is currently staffed by four permanent employees and five part time temporary employees. Their duties are described below:

Position	Duties
Wildlife Habitat Supervisor II	Give direction to maintenance staff, California Department of Fish and Game’s (DFG’s) principle representative at Working Group meetings; Coordination of scientific research; Management of agricultural leases; Budget planning and management; Grant proposal preparation; Contract Management; Representative for Wildlife Area for media exposure; Writing articles for newsletter and local media; Presentation of public programs to a variety of audiences; Communication with local elected officials; Representative of Wildlife Area working with various governmental agencies and non governmental organizations; Creation of annual habitat management plans; Grant application writer; Permit application writer; Presentations to local schools; Occasional operation of heavy equipment; Maintains compliance with various agreements for management; Author of land management plans; Wildlife Area photographer.
Wildlife Habitat Supervisor I	Lead person for field staff; operation of heavy equipment; Surveys of local wildlife populations; Procurement of supplies and equipment; Maintenance of Wildlife Area electronic equipment; Assists in planning of field activities; Coordination with farmers sharing irrigation system; Operation of Wildlife Area irrigation system; Lead person for hunter check station.
Tractor Operator Laborer	Lead for operation and maintenance of heavy equipment and implements; Construction and fabrication of equipment utilizing metal and wood technologies; Lead for operation of shop facility; Lead for hunter check station;
Fish and Wildlife Technician	Construction and fabrication of equipment utilizing metal and wood technologies; Lead for maintenance of vehicles and residences; Operation and maintenance of heavy equipment; Lead for application of herbicides; Liaison for adjacent duck hunting clubs and Tule Ranch operations; Lead for hunter check station; Installation and maintenance of water control structures.
Scientific Aids Total of 3 personnel years	Greeting visitors to administrative facility; Administration of procurement procedures; Tracking of expenditures; Maintenance of office records; Maintenance of Demonstration Wetlands area; Operation of heavy equipment; General construction activities; Application of herbicides; Operation of hunter check station; Volunteer coordinator; Instructor for Wildlife Area education program; Coordinator of teacher workshops.

To ensure appropriate support of the Yolo Bypass Wildlife Area and performance of the tasks identified in this LMP, a combination of additional site management, maintenance, interpretive and administrative staffing is required. The staffing team developed here includes all permanent personnel needed to operate the Yolo Wildlife Area and implement the land management plan. The staffing program proposed in this LMP incorporates permanent staffing augmented by seasonal labor although seasonal labor tasks are not itemized. It is anticipated that an additional 6 personnel years of seasonal employee time (Scientific Aids, Seasonal Aids) will be needed in order to implement this plan.

DFG standard staffing levels for wildlife areas varies according to the intensity of management undertaken. Intensely managed areas should be staffed with one field person per 1,000 acres for the first 10,000 acres. Approximately 10,000 of the 16,770 acre Yolo Bypass Wildlife Area will be intensely managed. Application of the standard indicates that 10 field staff personnel are justified. These ten field staff positions will consist of 1 Wildlife Habitat Supervisor II, 1 Wildlife Biologist, 1 Wildlife Habitat Supervisor I, 2 Wildlife Habitat Assistants, 3 Tractor Operator Laborers, and 2 Fish and Wildlife Technicians.

Additional staff will include an Interpreter II, an Interpreter I, and an Office Technician. All of the personnel will be supervised by a Senior Biologist Supervisor (Wildlife). The duties of the proposed staff will consist of the following:

Title	Duties
Senior Biologist Supervisor (Wildlife)	Representative for Wildlife Area with elected officials, local events and media, procurement of funding for future activities, supervision of all Wildlife Area employees, DFG's principle representative at Working Group meetings; Management of agricultural leases; Budget planning and management; Grant proposal preparation; Contract Management; Representative for Wildlife Area for media exposure; Writing articles for newsletter and local media; Presentation of public programs to a variety of audiences; Representative of Wildlife Area working with various governmental agencies and non governmental organizations. This person will have the principal responsibility for implementation of this LMP.
Wildlife Habitat Supervisor II	Planning and implementation of wildlife habitat management activities. Supervise field staff. Oversee procurement of equipment and supplies. Coordination with other land management entities in the Yolo Bypass.
Wildlife Biologist	Plant and wildlife surveys, analysis of biological benefits of management, assist in planning of habitat construction and maintenance activities, coordination of scientific research on Wildlife Area.
Wildlife Habitat Supervisor I	Lead person for field staff, procurement of supplies for habitat management activities, planning of field work
Wildlife Habitat Assistant	Water management, habitat management activities, operation of heavy equipment, check station operation.
Tractor Operator Laborer	Operation and maintenance of heavy equipment, vehicles, and various tools and machinery, check station operation.
Fish and Wildlife Technician	Assist wildlife habitat management activities, check station operation, vehicle and equipment maintenance.
Fish and Wildlife Interpreter II	Administration and supervision of Wildlife Area volunteer program. Lead DFG representative for development of new curriculum, interpretive programs and public use management. Coordinate public use programs with outdoor recreation and interpretive programs developed by other groups.
Fish and Wildlife Interpreter I	Participate in Wildlife Area interpretive and education programs, represent Wildlife Area in public festivals and special events.
Office Technician	Administration of procurement activities, budget tracking, communication with visitors over the phone, via email and in person.

Implementation of the LMP involves completing the tasks described in Chapter 5. The duties of each position translate into hours spent towards each of these tasks. The following chart distributes hours towards each of the above positions to complete the described tasks. These tasks are summarized and synthesized from the detailed descriptions provided in Chapter 5.

6.3 ESTIMATED OPERATIONS AND MAINTENANCE COST AND FUNDING SOURCES

6.3.1 ESTIMATED COSTS

The proposed staffing of the Yolo Bypass Wildlife Area required in order to fully implement this land management plan (e.g., salary [not including benefits]), is estimated to be approximately \$801,000 in 2006 dollars.

STAFFING

The annual cost of the proposed staffing program is provided in Table 6.3-1.

6.3.2 FUNDING SOURCES

OPERATIONS AND MAINTENANCE

Current funding sources for operation and maintenance include:

- ▶ Federal Aid in Wildlife Restoration Act (Pittman-Robertson Act),
- ▶ Agricultural lease revenues,
- ▶ The Tobacco Tax and Health Initiative (Proposition 99),
- ▶ The Environmental License Plate Fund,
- ▶ Mitigation funds,
- ▶ Funding under CALFED Bay-Delta Program, and
- ▶ The Central Valley Project Improvement Act.

Additionally, substantial in kind contributions are received from the Yolo Basin Foundation.

CAPITAL IMPROVEMENTS / RESTORATION AND ENHANCEMENT

On a project basis, funding sources for capital improvements / restoration and enhancement could include:

- ▶ North American Wetlands Conservation Act (NAWCA) funding (approximately \$8 million in NAWCA funding is currently available for restoration activities in the Yolo Bypass Wildlife Area);
- ▶ California Endangered Species Tax Check-Off Fund;
- ▶ U.S. Fish and Wildlife Service support under the Federal Endangered Species Act Section 6 provisions for cooperation with the states;
- ▶ Wetlands Conservation Fund;
- ▶ IRWMP-DWR Bond fund;
- ▶ State Duck Stamp Program;
- ▶ Upland Game Stamp Program;

- ▶ U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Farm Bill Programs;
- ▶ USFWS State Wildlife Grant Program, Federal Aid in Wildlife Restoration Program;
- ▶ Central Valley Project, Wildlife Habitat Augmentation Plan;
- ▶ Neotropical Migratory Bird Conservation Act Grants Program;
- ▶ Riparian Habitat Joint Venture;
- ▶ Ducks Unlimited, Wetland Restoration Program;
- ▶ Department of Fish and Game Minor/Major Capital Outlay proposals;
- ▶ DFG Comprehensive Wetlands Program;
- ▶ Wildlife Conservation Board Inland Wetlands Conservation Program;
- ▶ Other programs authorized under future bond acts;
- ▶ DWR grants available for mitigation of water projects and levee maintenance activities;
- ▶ Funding available through Yolo County Integrated Regional Water Management Plan;
- ▶ Funding available through the Sacramento River Watershed Program;
- ▶ Funding from grant programs administered by U.S. Environmental Protection Agency;
- ▶ Funding from grant programs administered by National Oceanic and Atmospheric Administration;
- ▶ Funding from grant programs administered by the National Fish and Wildlife Foundation;
- ▶ Funding from grant programs administered by US Bureau of Reclamation;
- ▶ Funding that becomes available as a result of programs to improve the Sacramento River Flood Control System by expanding the Yolo Bypass (including Sacramento Area Flood Control Agency);
- ▶ Funding from the Yolo County NCCP;
- ▶ Farm Service Agency payments to tenants;
- ▶ AB 1982 : Funding to implement mosquito best management practices; and
- ▶ DFG deferred maintenance fund.

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
5.2.1 BIOLOGICAL ELEMENT												
5.2.1.1 Management for Species Guilds	Species Guilds Goal 1 (SG-1): <i>Manage and maintain habitat communities for waterfowl species.</i>	1. Manage seasonal and permanent wetlands and other communities to provide habitat for resident waterfowl species.	22	4	4	135	283	308	205			
		2. Manage upland vegetation to provide desired nesting habitat.	16	16	11	42	100	206	115			6
		3. Maintain a sanctuary area where public access is prohibited in order to provide safe haven for migratory waterfowl.	8		5	6	5					
		4. Monitor waterfowl populations periodically to assess management techniques and species response; apply adaptive management techniques as appropriate.	4	5	70	10						15
	Species Guilds Goal 2 (SG-2): <i>Manage and maintain habitat communities for shorebird and wading bird species.</i>	1. Manage seasonal wetlands for shorebird species.	16	6		20	75		40			
		2. Manage agriculture for shorebird species through newly developed shorebird/rice rotation.	16			13	30	90				
		3. Monitor shorebird populations periodically to assess management techniques and species response; apply adaptive management techniques as appropriate.			24							
		4. Perform field preparation of some agricultural fields in the fall in order to present disced field habitat for species that utilize this habitat such as horned larks, longspurs, and mountain plover.				6	20	60				
		5. Provide staggered timing of rice shore bird rotation so that there are always some fields in the shorebird rotation.				2	5					
	Species Guilds Goal 3 (SG-3): <i>Maintain and enhance habitat for upland game species.</i>	1. On an experimental basis, dedicate two fields to provide all habitat requirements within discrete areas in accordance with Diverse Upland Habitat Unit (DUHU) techniques being developed on several state wildlife areas.	8	5	8	16	10	16				
		2. Annually plant nesting cover including legumes that will improve nesting habitat for upland game species.				24	25	60				5

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Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

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		3. Provide nesting structures for mourning dove.				5	16		20	10		
		4. Annually plant grain field to provide foraging areas for upland game and hunting opportunities for upland game hunters.		5		36	50	85	45			5
		5. Control invasive weeds such as perennial pepperweed and starthistle.		4		16	85	20	60			5
		6. Perform scattered irrigations in upland areas to increase humidity and subsequent invertebrate numbers for the benefit of ground nesting birds such as mallard and ring-necked pheasant. These irrigations must be conducted quickly and drained thoroughly to prevent production of large numbers of mosquitoes.	4	4	5	14	20		20			
		7. Continue to enhance upland areas with the construction of topographic features such as swales to create micro habitats and more effectively move water on and off the field.	4	6		24	25	60	20			
	Species Guilds Goal 4 (SG-4): <i>Manage and maintain habitat communities for raptors.</i>	1. Manage for rodents and large insects to provide adequate prey items in order to benefit foraging raptor species.	8	12	75	44	70	100	80			
		2. Monitor populations of raptors and to assess management techniques and species response; apply adaptive management techniques as appropriate.	4	2	20	5						
	Species Guilds Goal 5 (SG-5): <i>Manage and maintain habitat communities for cavity-nesting bird species.</i>	1. Provide and maintain nesting boxes for cavity nesters such as American kestrels, tree swallows, barn owls, and wood ducks in appropriate habitats.			5	8	10		60		12	
		2. Restore and enhance riparian vegetation for cavity nesters where compatible with flood management.			5	8	10		9			
		3. Monitor populations of cavity-nesting bird species periodically to assess management techniques and species response; apply adaptive management techniques as appropriate.			14	5			10			
	Species Guilds Goal 6 (SG-6): <i>Manage and maintain communities for neotropical bird species.</i>	1. Maintain and enhance riparian vegetation along Putah Creek and the East Toe Drain to serve as corridors for resident and migratory songbirds and	8	6	16	24	6		15			

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		nest sites for a variety of species.										
		2. Pursue approval and establishment of appropriate tree line.	2		2							
		3. Manage upland habitat to include variations in height, density of vegetation, food crops, and water to benefit a diverse array of resident ground nesting shorebirds, songbirds, raptors and owls as well as game species such as ring-necked pheasant.	6	4	6	32	8	5	16			
		4. Monitor populations of neotropical bird species periodically to assess management techniques and species response; apply adaptive management techniques as appropriate.		4	24		5					
	Species Guilds Goal 7 (SG-7): <i>Manage and maintain communities for a variety of other waterbird species including grebes, rails, and songbirds associated with emergent marsh vegetation.</i>	1. Maintain appropriate and consistent water levels to maintain high quality habitat for floating nest builders such as pied-billed grebe.				36	10					
		2. Maintain varying amounts of thatch within emergent marsh vegetation in order to attract such nesting species as white-faced ibis, black-crowned night herons, tri-colored blackbirds, and yellow headed blackbirds.			5	4		10	5			
		3. Time spring drawdown in some ponds so young grebes, moorhens, coots, and ibis are not stranded.			2	2		2	2			
	Species Guilds Goal 8 (SG-8): <i>Maintain and enhance foraging opportunities for the presence of breeding colonies of bats roosting under the Yolo Causeway.</i>	1. Establish baseline data on roosting bat species and population density under the Yolo Causeway.	4	5	30	9	25				5	
		2. Support bat diversity.		5	12	8	24		8			
		3. Protect existing bat maternity roost sites under the I-80 Causeway against unauthorized public disturbance by maintaining existing conditions that make it difficult for the public to gain access to these roosting areas.				4	8		8			
		4. Coordinate with Caltrans to ensure that their inspections, other bridge maintenance activities, and bat colony management actions are consistent with Yolo Bypass Wildlife Area management goals and tasks regarding the maternity roosts under the I-80		8	4	8						

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Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

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		Causeway, and to ensure that Yolo Wildlife Area management activities are consistent with Caltrans bat colony management policies.										
		5. Encourage preservation of bat colonies as a beneficial natural resource by maintaining and enhancing existing education and outreach programs.							25		80	
		6. Monitor bat population species and density periodically to track population trends and assess management techniques and species response; apply adaptive management techniques as appropriate.		2	20				20			
5.2.1.2 Special-Status Species	Special Species Goal 1 (SS-1): <i>Without specifically managing for special-status species, the communities at the Yolo Wildlife Area should be managed in a way that generally improves overall habitat quality and diversity while not discouraging the establishment of special-status species.</i>	1. Conduct surveys of wildlife and vegetation communities. The highest priority is to survey for special-status animals and plants that could be present in wetland ecosystems at the Yolo Wildlife Area but that are not yet known to occur, such as California tiger salamander, western spadefoot toad, Colusa grass, Crampton's tuctoria, and Bogg's Lake hedge-hyssop. It is also important to survey for other special-status species known to occur in wetland ecosystems at the Yolo Wildlife Area but for which much information is lacking, such as giant garter snake and vernal pool crustaceans. Submit observation records to the CNDDB.	8		32	20			40			
		2. Monitor populations of special-status species periodically to assess overall habitat integrity, detect changes in distribution and abundance, and detect positive and adverse effects of management activities, human use, and/or nonnative species.		6	40				50			
		3. Monitor special-status species use of the floodway in the face of rising and receding floodwaters.		2	10				10			
		4. Evaluate management in light of MOU between DFG, State Reclamation Board, USFWS, and DWR regarding threatened and endangered species.	8	18	16							

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Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

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		5. Upon certification of the operations and maintenance manual for the project modifications (as updated in supplement, U.S. Army Corps of Engineers 2003) to the Sacramento River Flood Control Project, fulfill reporting requirement described within.	36	32	16	20						
5.2.1.3 Nonnative Invasive Species	Invasive Species Goal 1 (IS-1): <i>Prevent the introduction and spread of invasive nonnative species that have no benefit to wildlife.</i>	1. Inventory habitats within the Yolo Wildlife Area for infestations of invasive plants not beneficial to wildlife.		4		56	20					
		2. Prioritize infestations for treatment based on the risks that individual infestations pose to ecosystem services, public infrastructure, and other resources within the Yolo Bypass Wildlife Area, and based on the likelihood that the infestation can be treated and maintained in a cost-effective manner.	2	6	8	12	12	40	12			
		3. Manage and control invasive and other nonnative species through specified grazing practices, controlled flood-up and drawdown procedures, use of pesticides, and other conventional agricultural practices.	34	65	60	130	175	77	153			10
5.2.1.4 Seasonal and Permanent Wetland Communities	Seasonal and Permanent Wetland Ecosystems Goal 1 (SPW-1): <i>Restore, enhance and manage wetlands to conditions that provide desired ecological functions.</i>	1. Evaluate opportunities, constraints, and potential restoration benefits to identify feasible wetland restoration projects that would support the goals of this LMP.	80	32	16	24						
		2. Pursue funding and develop plans for identified restoration projects that include goals, techniques, costs, monitoring, an adaptive management process, and a schedule.	180	32	12							
		3. Cooperate with development and implementation of existing restoration plans for wetland ecosystems by the CALFED ERP, North American Waterfowl Management Plan, Partners in Flight, United States Shorebird Conservation Plan, Waterbird Conservation for the Americas, Yolo County NCCP and other programs that	38	24	12	12						

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Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

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		are consistent with the goals of this LMP.											
		4. Coordinate habitat restoration acreages with goals developed for the Yolo Basin component of the Central Valley Joint Venture.	2	12	12	16							
5.2.1.5 Riparian Communities	Riparian Goal 1 (R-1): <i>Maintain and enhance riparian communities for native species diversity and abundance (including special-status species).</i>	1. Conduct surveys for wildlife and vegetation of riparian communities. The highest priority is to survey for special-status animals and plants that could be present in riparian ecosystems at the Yolo Wildlife Area but that are not yet known to occur, such as Northern California black walnut, California hibiscus, yellow-billed cuckoo, Mason's lilaeopsis, and Delta mudwort.	6		24				10				
		2. Monitor populations of special-status species periodically to assess overall habitat integrity, detect changes in distribution and abundance, and detect positive and adverse effects of management activities, human use, and/or nonnative species.	8	32	24	32	14	80	30				
		3. After appropriate hydraulic analysis and receipt of Reclamation Board approval, improve habitat in the riparian ecosystems at the Yolo Bypass Wildlife Area through enhancement of existing riparian areas and establishment of new riparian habitats as permitted. Maintain and enhance riparian vegetation along Putah Creek and the East Toe Drain to provide nest trees and brush for resident and migratory songbirds, wading birds, and raptors.	2	14	20	60	60	60					
		4. Manage habitats in accordance with the operations and maintenance manual for the project modifications (as updated in supplement, U.S. Army Corps of Engineers 2003) to the Sacramento River Flood Control Project, pursuant to the MOU between DFG, State Reclamation Board, USFWS, and DWR regarding threatened and endangered species.			10	10	40	40	40	20			

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	Riparian Goal 2 (R-2): <i>Restore and enhance riparian communities to conditions that provide desired ecological functions.</i>	1. Evaluate opportunities, constraints, and potential restoration benefits to identify feasible riparian restoration projects that would support the goals of this LMP. Riparian restoration projects may include new restoration areas or enhancement of existing restoration areas (e.g., seasonal and permanent wetlands) with riparian vegetation.		5	4	20	24	24				
		2. Pursue funding and develop plans for identified restoration projects that include goals, techniques, costs, monitoring, an adaptive management process, and a schedule.		6	12	20						
		3. Cooperate with development and implementation of restoration plans for riparian ecosystems by the CALFED ERP and other programs that are consistent with the goals of this LMP.		20	20	20						
		4. Design and manage riparian restoration and enhancement projects that would not conflict with necessary flood flow conveyance requirements of the Yolo Bypass. Ensure that proposed projects would not result in adverse effects on local or downstream flood hydrology and would comply with the requirements of the State Reclamation Board. Project planning will include necessary hydraulic modeling to guide design and confirm achievement of performance criteria. A work plan for hydraulic modeling is provided in Appendix C.		10	20	20	40					
5.2.1.6 Grassland and Upland Communities	Grassland and Upland Goal 1 (GU-1): <i>Maintain and enhance grassland and upland communities for diversity and abundance of native species (including special-status species).</i>	1. Conduct surveys for wildlife and vegetation in grassland and upland communities. The highest priority is to surveys for special-status animals and plants that could be present in grassland and upland communities at the Yolo Wildlife Area but that are not yet known to occur, such as heartscale, San Joaquin spearscale, and Carquinez goldenbush. It is also important to survey for other special-status species known to occur in grassland and upland			36	20	20		25			

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Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		a. Create a new realigned Putah Creek channel through the Tule Ranch Unit (Putah Creek from above the Los Rios Check Dam to the East Toe Drain below the Lisbon Weir).	36	32	70	48	40	80	35			
		b. Explore the potential for restoration of intertidal marsh habitat and/or seasonal managed floodplain habitat at the southeast portion of Tule Ranch adjacent to the East Toe Drain for the benefit of native fish species such as splittail. Certain bird species such as black rail may also benefit.	40	25	38	36	25	120	75			
		c. Independent of Goal AE-1, consider improving coordination and enhancement of spring passage of chinook salmon smolts emigrating from Putah Creek through the Los Rios Check Dam to the East Toe Drain.	16		25							
		i. Coordinate annual replacement of the check dam after the arrival of spring water releases from the Solano Diversion Dam intended to move salmon smolts from Putah Creek into the toe drain.	4	8	5	13			25			
		ii. Consider the construction of a fish passage facility at the check dam to move adult salmon upstream and smolts downstream.	8		16	8						
		d. Restore native fish to Green's Lake and permanent ponds including Sacramento perch. Stocking of this fish species may also serve as a biological control agent for mosquitoes.	4	8	16	16			20			
		2. Continue coordination and/or timing of fall passage of chinook salmon immigrating from the East Toe Drain through the Los Rios Check Dam to Putah Creek.	4	4	8	10			8			
		a. Consider the construction of a fish passage facility at the Los Rios Check Dam to allow passage of adult salmon upstream and juveniles	8	16	25	10	15		12			

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		downstream while still maintaining the Los Rios Check Dam in place.										
		3. Pursue funding and develop plans for identified aquatic ecosystem restoration projects that include goals, techniques, costs, monitoring, an adaptive management process, public outreach, and a schedule.	60	30	31	20						
		4. Design and manage restoration and enhancement projects that would not conflict with necessary flood flow conveyance requirements of the Yolo Bypass, as determined through the application of hydraulic analysis.	2	12	12	20	20					
		5. Ensure that actions comply with the ESA and CESA and other regulations aimed at the protection of special-status species and/or sensitive habitats.	8		4							
		6. Design and operate restoration and enhancement projects in coordination with the SYMVCD. Project design and operation shall include technical BMPs for mosquito control in managed wetlands developed by the CVHJV (Kwasny et al. 2004).	16	8	8	16						
5.2.2 AGRICULTURAL RESOURCES ELEMENT												
	Agricultural Resources Goal 1 (AR-1): <i>Manage agricultural lands to maintain and enhance habitat for native wildlife and plants.</i>	1. Manage and control invasive and other nonnative species through specified grazing practices, controlled flood-up and drawdown procedures, use of pesticides, and other conventional agricultural practices.	8	4		40	10	60	81			
		2. Enhance grasslands and uplands through grazing, native grass plantings, and other management techniques.		25	8	30	25	40	50			
		3. Work with adjacent property owners to limit aerial seeding of Italian ryegrass in areas that would support native alkali grassland under natural conditions.		18		20	20					
		4. Improve habitat for special-status species in the grassland ecosystems at the Yolo Bypass Wildlife Area through the adaptive management of livestock grazing, limited herbicide application,					10	20	60	60		

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		native grass plantings, and other management techniques.										
		5. Manage for rodents and large insects to provide adequate prey items in order to benefit foraging raptor species.										
		6. Annually plant grain field to provide foraging areas for upland game and hunting opportunities for upland game hunters.	4			24	25	80	20			5
		7. Manage seasonal and permanent wetlands and other communities to provide habitat for resident waterfowl species.										
		8. Manage upland vegetation to provide desired nesting habitat.				16	25	60	16			
		9. Manage agriculture for shorebird species through newly developed shorebird/rice rotation.		16	8	40	41	43	41			
		10. Perform field preparation of some agricultural fields in the fall in order to present disced field habitat for species that utilize this habitat such as horned larks, longspurs, and mountain plover.			4	36	10	65	28			
	Agricultural Resources Goal 1 (AR-2): <i>Manage agricultural lands to contribute to the agricultural community, to maintain agriculture as a viable economic activity in Yolo County, and to provide revenue for continued operation of the Wildlife Area.</i>	1. Work with local farmers to grow agricultural crops that mutually benefit the farmer lease tenants, the agricultural community, and the Wildlife Area.	24	26	4	35	40	40	15			
		2. Manage agricultural lands to provide an income source for DFG management and operations of the Wildlife Area.				40	20	20				
		3. Administer agricultural leases as necessary in cooperation with staff from the Dixon RCD.	56	90	12	60	10					81
		4. Maintenance of water management infrastructure including pumps, water control gates, and water distribution system performed by DFG, agricultural lease tenants, and cooperatively by members of the Mace Ranch Irrigation System.	16	21	10	80	40		16			16
		5. Meet or correspond with adjacent landowners and tenants as needed individually or through the Yolo Bypass Working Group to maintain communication about regional	36	14	6	16						

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		agricultural issues, management needs of the Yolo Wildlife Area, determine adjacent landowners' access and management needs, and convey useful information regarding activities.										
		6. Work with local agriculture community to provide information on wildlife friendly farming approaches used in the Wildlife Area.					20				20	
		7. Collaborate with adjacent landowners and tenants regarding DFG management activities that may affect their operations. Resolve potential issues by proactively working with adjacent landowners and tenants.	24	6	4	8	4	8	4			
		8. Collaborate with adjacent special districts including Dixon RCD and Yolo RCD.	48	25								
5.2.3 CULTURAL RESOURCES ELEMENT												
	Cultural Resources Goal 1 (CR-1): <i>Catalog and preserve all cultural resources that have yielded or have the potential to yield information important to the prehistory or history of the Yolo Wildlife Area or that otherwise would meet significance criteria according to the California Register of Historical Resources (CRHR).</i>	1. Maintain library of printed cultural resource reports from the vicinity.		8								
		2. Conduct cultural resource surveys as necessary before significant ground-disturbing activities (e.g., excavations below normal plow depths) at undisturbed sites.		8								
		3. Complete and submit site records to the State Historic Preservation Officer (SHPO) to establish and submit culturally significant resources that may be eligible for inclusion in the National Register of Historic Places (NRHP) or the CRHR.	8	4								
		4. When facility improvements or restoration efforts are proposed and may affect historical or archaeological resources, consult the State CEQA Guidelines for guidance on compliance with regulations.			4							
		5. Maintain historic structures present on site including the Tule Ranch main residence and the umbrella barn.			8	8	16			35		

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
5.2.4 AUTHORIZED-PUBLIC-USE ELEMENT												
	Public-Use Goal 1 (PU-1): <i>Increase existing and provide new long-term opportunities for appropriate wildlife-dependent activities by the public.</i>	Tasks for maintaining and improving wildlife observation:										
		1. Expand existing northern auto tour route to encompass portions of the Causeway Ranch and 1,000 Acre units.		35	16	80	35	160	40	2	2	
		2. Evaluate potential to develop a new southern auto tour route in the same manner for the Tule Ranch Unit as funding permits.		16	16	100	160	300	40	12	2	
		3. Designate about half of the length of each tour route for vehicle access only while encouraging out of vehicle wildlife viewing from parking lots and turnouts on at least half the length of the tour routes.		4	8		10	10		2	2	
		4. For all wildlife viewing areas, manage existing routes and design future habitat enhancements to provide adequate vegetative screening to protect wildlife while providing viewing areas into created openings, highlighting slough channels, islands, and wildlife resting areas.		8		20	20	20		2	2	
		5. Develop interpretive signage for wildlife viewing roads and trails.		8		8	25		4		100	
		6. Develop viewing blinds, observation towers, and board walks where appropriate.		8		16	20	45			40	
		Tasks for maintaining and improving angling:										
		7. Develop maps and signs that indicate fishing access points.				20	4				18	4
		8. Post fishing regulations in appropriate locations.				4			8		10	
		9. Build access points for anglers with limited mobility along East Toe Drain.		21		24	20	75	32		16	
		10. Coordinate with DFG fishing in the city program to provide additional angling opportunities.			4				8		25	
		11. Expand spring bow fishing program to include the designated hunting area during non hunting seasons.		4	4				8		6	
		Tasks for maintaining and improving hunting:										
12. Continue current waterfowl hunting program operating a staffed hunter	24	60	60	250	375	110	300		32	24		

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		check station on all available waterfowl hunting days.										
		13. Expand hunting opportunities as habitat and access is improved on the Tule Ranch and Causeway Ranch units.		16	24	45	75	45	16			
		14. Consider use of boats in specified areas.		8	8				16		2	
		15. In the interest of maintaining a historical use of the Yolo Bypass, consider means of allowing boat access from the Yolo Wildlife Area to the Bypass during flooding periods, without incurring any liability to the State of California.	16	8	8						4	
		16. Continue to work with local farmers to grow agricultural food plots in order to provide improved hunting opportunities.		8		16	15		4			
		17. Locate waterfowl sanctuary areas to enhance hunting experience while providing adequate resting areas.		4		16	16		4			
		18. Maintain physical separation of hunting areas from non-hunting areas during hunting season. Open hunting areas to other uses following end of hunting season.		8	8		20	24	24			
		19. Evaluate feasibility of moving all hunting to Tule Ranch area with potential check station at the Tule Ranch Headquarters. This would separate wildlife viewing areas from hunting areas in a north-south direction rather than the current east-west situation.	3	8	8	8						
		20. Communicate with neighboring duck clubs to identify Yolo Wildlife Area management strategies that may affect waterfowl hunting opportunities on their properties. Coordinate Yolo Wildlife Area management strategies to provide mutual benefits (e.g., managed movement and spread of local bird densities) for the Yolo Wildlife Area and neighboring lands.	8	16		35			16			

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)	
		21. Continue recruitment of new hunters by providing hunter safety instruction on a regular basis at the Wildlife Area headquarters.		8		8				5	10	16	
		22. Continue encouragement of young hunters through participation in junior hunt programs for waterfowl and pheasants.		8		16	16	24	16		8		
		23. Conduct late summer “clean up day” to ready the Wildlife Area for the upcoming hunting season and maintain good relationship with our hunters.	8	12	12	35	24	20	24	16	16	16	
		24. Consider providing falconry opportunities for the purpose of taking upland game and waterfowl on the Yolo Bypass Wildlife Area in accordance with falconry regulations and season dates adopted by the State Fish and Game Commission.	1	4	12	12							
		Tasks applicable to all uses include:											
		25. Evaluate use levels and visitor satisfaction periodically.		4	8							16	16
		26. Evaluate the hunting, angling, and wildlife viewing programs and Wildlife Area regulations periodically to identify changes that are warranted to maintain consistency with the goals of this LMP.		8	4	8					16	8	8
		Public-Use Goal 2 (PU-2): Support and expanded public use of the Yolo Wildlife Area for environmental education and interpretation.											
		Tasks to support kindergarten through 12th grade environmental education:											
		1. Provide Teacher Training Workshops at least four times a year.		4							25	80	16
2. Maintain Wild About Wetlands kits for pre and post trip activities.								8		40	8		
3. Provide and maintain curriculum materials and field equipment.								8		35	8		
4. Provide other workshops and educational activities:									5	25	8		
a. Project Wet: This is a K–12 teacher workshop on water topics offered in cooperation with DFG.									16	36	16		
b. Salmonids in the Classroom: This project sponsored by DFG and local fly-fisher groups, offers teachers curriculum and aquarium supplies to									12	16	4		

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		grow salmon eggs to the fry stage and release them in the Sacramento River.										
		c. Introduction to Watershed Education: This is a workshop co-hosted with the Water Education Foundation to teach 8th–12th grade teachers how to measure and monitor for parameters of water quality, including nutrients, and bioassessment.								8	25	4
		d. Nature Bowl: This is an event for 3rd–6th graders held at the Yolo Wildlife Area to promote learning about natural systems and the local environment. The event is co-sponsored with DFG and Yolo County Office of Education.							16	8	24	35
		e. Marsh Madness: The Foundation works with CWA to target under served schools twice a year for a full day of field activities. Bus transportation and a wetlands lunch buffet are provided. CWA provides the lunch, tables and chairs, and volunteers for the day.							16	16	16	8
		5. Working with the Yolo Basin Foundation, creation and maintenance of curriculum workbook with activities adapted to the State science framework and environmental education guidelines. The Foundation is also implementing a new curriculum that meets state social studies standards for 4th–6th grade.								30	80	16
		Tasks to support environmental education for people of all ages:										
		6. Monthly public field trips to the Yolo Wildlife Area.									8	4
		7. Monthly Flyway Nights Lecture Series.								8	16	10
		8. Facilitate California Duck Days hosted by DFG and YBF, the annual California Duck Days Wetlands Festival in partnership with a volunteer steering committee.		12	12	12	12	20	16	36	65	40

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		descriptions and directions in printed materials and on the web.										
		Roads										
		5. Maintain access routes to all open facilities and parking lots.						80	20			
		6. Maintain and improve existing tour loop.				20	20	80	20			
		7. Develop a new southern auto tour route.	2		20	60	60	100				
		8. Construct all roads with natural/gravel surface with minimal maintenance requirements.						80				
		Trails										
		9. Coordinate with the City of Davis to complete a walking trail along Putah Creek on Yolo Wildlife Area property that could join a similar trail coming from Mace Blvd.		8							8	4
		10. Continue to allow off-season, walking access to hunting areas and consider expanding these opportunities to new hunt areas.		4		4	25		8		8	4
		11. Expand trail network with signage				16	25		24		16	
		12. Evaluate the feasibility of connecting the Causeway Ranch with the Davis Wetlands through a trail system.	16								8	
		Bicycling										
		13. Continue to allow bicycle access to the Causeway Unit.					24		20			
		14. Evaluate, develop, and implement a plan for allowing bicycle use on specified parts of the tour routes.	16	8							16	
		15. Continue to monitor bicycle use in the hunting area during hunting season.					4					
		16. Cooperate with regional trail development efforts to create bicycle access across the Yolo Bypass through the Causeway Unit at ground level.	8	4							4	
		17. Evaluate efforts to provide bicycle access to the Pacific Flyway Center and develop facilities as time and funding permits.	8	4							4	
		Signage: Compatible public uses of the Yolo Wildlife Area are facilitated by signage that informs the public of the boundaries, laws, and regulations applicable at Yolo Wildlife Area; encourages public use; reduces conflicts among uses; increases the safety of users; and discourages unauthorized uses. The tasks listed below are intended to promote the use of such signage.										

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		18. Maintain signs and bulletin boards at the Yolo Wildlife Area Headquarters, parking lot A and any other entrances that may be developed in the future with wildlife area maps and regulations, interpretive materials, and safety information.		4		4			6		16	16
		19. Work with California Department of Transportation (Caltrans) to install signage on I-80 to direct visitors to the entrance of the Yolo Wildlife Area.	4								8	
		20. Start a monitoring and maintenance schedule for all signage.				8	8				4	4
		21. Inventory existing boundary signage and fencing, and install new signs and fencing where necessary.				8	25		65			4
		22. Provide sign board in parking lot A that provides a comprehensive display of public use opportunities at the Yolo Wildlife Area. This will include a map showing currently available public use areas.				16	4		4		8	4
		23. Provide signs marking tour routes, trails, and bicycle access areas				8	16		16		8	
		24. Provide signs marking areas that are temporarily closed for nesting, maintenance, or other reasons.							8		4	
		25. Develop a plan for interpretive features including signs, blinds, and board walks.	8	8						50	45	8
		26. Develop, construct, install and maintain interpretive signs.				8	15		24		20	
Operations												
		27. Rent and maintain portable toilets.				32						16
		28. Provide garbage cans.							4			
		29. Provide picnic tables in some visitor areas.				4			8			
		30. Provide for the opening and closing of gates to control access.				8	100		300			
		31. Improve ditch and creek crossings as needed for public use.		8		36	16	45	16			
		32. Continue to open entrance gates at sunrise (except on hunting days) and closing gates at sunset.					100		100			

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)	
	Public-Use Goal 5 (PU-5): <i>Continue and expand the volunteer program.</i>	1. Use the existing DFG volunteer handbook and YBF volunteer materials to conduct volunteer program.	4	6		16				1440	160	87	
		2. Expand existing volunteer materials.				20	20				3	12	
		3. Sign up all volunteers as DFG volunteers to take advantage of the benefits of being a volunteer for the state including workers compensation coverage and the ability to count these volunteer efforts as “in kind” contributions on grant applications.				20							20
		4. Continue to coordinate with the Foundation to jointly plan use of volunteers including the development of volunteer job descriptions.				20	20						20
		5. Recruit new volunteers through regional media, community organizations, local colleges, professional associations, conservation organizations, and at public events.				20							20
		6. Expand volunteer training opportunities.				20	20						8
		7. Expand volunteer recognition program.				20	20						2
		8. Continue tracking of volunteer hours for use as in-kind labor contribution for state and federal grant programs.											
	Public Use Goal 6 (PU-6): <i>Minimize competition and conflicts among users and facilitate compatibility between public uses.</i>	1. Encourage hunter safety through monitoring and modification of Wildlife Area regulations.			8		6						8
		2. Inform the public of Wildlife Area use designations and use restrictions through outreach, signage, and DFG’s web site.						16		8		8	16
		3. Periodically evaluate management of access locations, tour routes, parking areas, and associated regulations to identify changes that are warranted to maintain consistency with the goals of this LMP.	4	6	4								
		4. Identify potential conflicts with other recreational uses and resolve such conflicts.		6	8								
		5. Inform the public of times and locations where hunting is allowed and of all other restrictions and applicable					12	20		10	16	6	16

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		regulations through outreach, signage, and DFG's web site.										
		6. Have DFG, YBF personnel and volunteers available on-site during high use times to monitor visitor activities and provide information as needed to visitors.		8	20		35		20	10	40	100
		7. Provide information about the Wildlife Area while responding to phone inquiries and visitors to administrative area and Pacific Flyway Center.	8	24								80
		8. Conduct periodic reviews of public uses of the Yolo Wildlife Area; evaluate rules, regulations, guidelines, and materials to ensure compatibility of public uses.		8	8							8
	Public-Use Goal 7 (PU-7): <i>Support use of the Yolo Bypass Wildlife Area by Native Americans for activities such as gathering native plant materials for cultural purposes.</i>	1. Develop access plans for and issue permits to native peoples whose activities are compatible with the goals of the LMP. Any authorization for access would include standard liability clauses.	4	4						4	4	
		2. Allow limited gathering of materials for educational and craft purposes by the public.			12	12	12					
	Public-Use Goal 8 (PU-8): <i>Facilitate safe use of the Yolo Wildlife Area by informing the public of potential risks, and also develop an emergency response plan.</i>	1. Continue to close the Yolo Wildlife Area when the Yolo Bypass is flooding and communicate the status of the Wildlife Area to the public.				8						8
		2. Identify areas where warning signs are needed.				20	20		20			
		3. Post warning signs at identified locations and indicate on these signs whom to contact during an emergency.						80	60			
		4. Coordinate with the SYMVCD regarding timing of pesticide applications.		8	4	16				4		
		5. Restrict access to unsafe areas such as construction zones and at times, active farming areas.				4	8		4			
		6. Develop an emergency response plan with cooperation of local fire districts and Yolo County.	8	8		40						24

**Table 6.1-1
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5.2.5 UNAUTHORIZED-PUBLIC-USE ELEMENT													
	Unauthorized-Public-Use Goal 1 (UPU-1): Prevent unauthorized use of the Yolo Wildlife Area.	1. Prohibit activities that are inconsistent with the Yolo Wildlife Area mission in the Wildlife Area regulations.		4		4							
		2. Require CEQA analysis and surface agreements for access to the area for mineral extraction.		6									
		3. Discourage dumping of trash or waste within the Yolo Bypass Wildlife Area by providing and servicing trash receptacle.		12			39	45		128			4
		4. Patrol the Yolo Bypass Wildlife Area and enforce regulations that prohibit unauthorized uses.					40	80					
		5. Maintain adequate signage on boundaries to satisfy lawful enforcement of Wildlife Area regulations.					4	20		32			
		6. Use signage and written notifications to foster cooperation.					20		20				
		7. Issue citations and/or pursue legal action when voluntary cooperation cannot be obtained.						40					
		8. Enforce laws through DFG Wildlife Protection personnel and request assistance from the Yolo County Sheriff's Department as necessary to enforce laws.						40					
		9. Issue citations to violators illegally using the Yolo Bypass Wildlife Area and seek remediation from unauthorized users.						12					
		10. Restore ecosystems damaged by unauthorized uses as necessary.				8	4	25	16				
5.2.6 FACILITIES ELEMENT													
	Facilities Goal 1 (F-1): Management and operation of the Yolo Wildlife Area in coordination with state and federal flood operations in the Yolo Bypass.	1. Upon notification call by DWR Division of Flood Management, implement and follow agreed upon flood response protocol.	16	8		53	71	40	65		4	4	
		Facilities Goal 2 (F-2): Construction, maintenance, and removal of facilities.				16	50	8	25				
		2. Maintenance of water management			16		75	55		20			16

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		3. Construction of the shooting range shall conform to standards and guidelines established by the Occupational Safety and Health Administration, the National Association of Shooting Ranges and the Sporting Arms and Ammunition Manufacturers' Institute, with the intention of controlling hazards and prevention of exposures to hazardous substances in shooting range facilities.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
		4. Maintenance of the shooting range shall be the responsibility of the Wildlife Protection Branch.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
5.2.7 ADMINISTRATION ELEMENT												
	Administration Goal 1 (A-1): <i>Maintain current data on the management and resources of the Yolo Wildlife Area.</i>	1. Regularly update geographic information system (GIS) data sources as information becomes available			72	40	25					
		2. Maintain accurate financial records regarding expenditures, staff, maintenance, and other administrative duties.	80	30		25						386
		3. Develop and maintain Wildlife Area operating budget	40	20		10						30
		4. Administer agricultural leases as necessary in cooperation with staff from the Dixon Resource Conservation District (RCD).		25								120
		5. Document facilities needs in a DFG maintenance and capital outlay database.		8		8						8
		6. Prepare annual and periodic status reports as defined in Chapter 6.	8	8		8						36
		7. Perform scheduling function for conference room.										16
		8. Participate in habitat planning efforts for public habitat areas close to the Wildlife Area.	25	8	8	8						
		9. Supervise permanent and seasonal staff.	74	35								
		10. Actively pursue funding to help facilitate implementation of the LMP.	100	24		16						4

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

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5.2.8 FIRE MANAGEMENT ELEMENT												
	Fire Management Goal 1 (FM-1): <i>Develop and implement a wildfire plan for the Yolo Wildlife Area.</i>	1. Meet biannually if necessary with CDF representatives to discuss fire-related issues relevant to the Yolo Wildlife Area, including vegetation management, recent fires in the Yolo Wildlife Area, current contact information, and procedures.	6	10	8	22	8	12	10			
		2. Coordinate with CDF to develop a wildland fire response plan for the Yolo Bypass Wildlife Area.	4	6		10	8	12	6			
		3. Design and implement vegetation management activities at fire breaks along existing roads and parking lots.			10				10			
		4. Train a DFG biologist to serve the role of resource specialist or agency representative through the Incident Command System (ICS).			8							
		6. Coordinate fire suppression activities and cooperate with local fire districts.	4	4		24						
5.2.9 SCIENTIFIC RESEARCH AND MONITORING ELEMENT												
	Scientific Research and Monitoring Goal 1 (SRM-1): <i>Support appropriate scientific research and monitoring and encourage or conduct research that contributes to adaptive management strategies and management goals of the Yolo Wildlife Area.</i>	1. Prepare annual Wildlife Area Habitat Management Work Plan Summaries and submit summaries to DFG Wildlife Area Habitat Committee (WAHC) for evaluation.	6	10	6	12						16
		a. Implement recommendations for habitat improvement provided by the WAHC.				24	65	85	20			
		2. Develop a prioritized list of research needs.	4	6		4						
		3. Review, evaluate and administer approved research projects.	16		40	8						8
		4. Provide letters or permits to researchers specifying dates and times of authorized access, and information on regulations and area restrictions.		4	2							2
		5. Require that researchers provide copies of data and/or published papers, and contact researchers to ensure that this requirement is fulfilled.		4								
6. Encourage long-term studies that benefit management.	1	2	2									

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)	
		7. Conduct high-priority surveys, including surveys for special-status species, as time and budget permit.	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	
		8. Investigate public use patterns and effectiveness of public use programs.	4								24	15	
		9. Investigate effectiveness of environmental education programs.	6								16	8	
5.2.10 MANAGEMENT COORDINATION ELEMENT													
	Management Coordination Goal 1 (MC-1): <i>Coordinate with federal, state, and local agencies regarding plans and projects that may affect habitats and/or management at the Yolo Wildlife Area.</i>	1. Review, coordinate, and provide comments and recommendations on federal, state, and local government plans and proposed projects as appropriate for the purpose of determining the consistency of such plans with the goals of DFG's LMP.	93	36	50	8	25					16	
		2. Coordinate with Yolo County NCCP proponents to make them aware of habitat restoration efforts at the Wildlife Area and coordinate proposed actions to compliment each other's efforts.				12							
		3. Coordinate with the Yolo County program to survey, control, and monitor invasive plant species.				12		6					
		4. Collaborate with or submit proposals for CALFED-funded projects that could contribute both to the attainment of the goals of this LMP and to the attainment of CALFED goals, objectives, targets, and milestones.		12	12	12							
		5. Support the implementation of research, monitoring, and restoration actions compatible with the goals of this LMP by the California Bay-Delta Authority and other CALFED implementing agencies.		12	12	12							2
	Management Coordination Goal 2 (MC-2): <i>Coordinate with flood control agencies regarding flood control and management in the Yolo Bypass.</i>	1. Review, coordinate, and provide comments and recommendations on regional plans and proposed projects such as the Yolo County Integrated Regional Water Management Plan as appropriate.	20		25								
	2. Coordinate with DWR, and the State Reclamation Board, USACE, and, where appropriate, local flood control agencies, reclamation districts, and	4	25	8	16								

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		SAFCA regarding the design and operation of restoration and enhancement projects that have the potential to conflict with necessary flood flow conveyance requirements. All hydraulic modeling will be conducted in coordination with appropriate flood control and management agencies. A work plan for hydraulic modeling is provided in Appendix C.										
		3. Participate in ecosystem restoration components of any overall improvements to the Lower Sacramento Flood Control System.		20		20						
		4. Continue public outreach programs which describe the compatible nature of appropriate wetland management activities with flood protection efforts.	6	8	8	8					8	6
	Management Coordination Goal 3 (MC-3): <i>Coordinate with other law enforcement agencies.</i>	1. Meet on an annual basis with local Wildlife Protection squad prior to waterfowl hunting season to review Wildlife Area regulations, work schedules, exchange contact information and intricacies of public hunting program.	4	4	4	4	4	4	4		4	4
		2. Continue ongoing communication with Wildlife Protection staff throughout the year.		8		8						8
		3. Meet regularly with law enforcement staff from the California Highway Patrol and Yolo County Sheriff's Department and other agencies as appropriate to coordinate law enforcement activities and explore options for cooperative programs.	4									
		4. Pursue joint funding requests with other law enforcement entities to address law enforcement concerns.	8									
	Management Coordination Goal 4 (MC-4): <i>Coordinate with local public-service agencies including the SYMVCD and the Yolo County Health Department.</i>	1. In consultation with SYMVCD, continue to implement a mosquito control plan that applies BMPs and any other necessary management practices as identified in the Central Valley Habitat Joint Venture, Technical Guide to Best Management Practices for	6	8	8	16						

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		Mosquito Control in Managed Wetlands (Kwasny et al. 2004) and the California Rice Commission's BMPs for mosquito control.										
		2. Communicate regularly with SYMVCD. Coordinate mosquito and vector control activities. Meet annually with mosquito abatement agencies to discuss needed infrastructure improvements, identify areas of high mosquito productivity, schedules of summer irrigations and fall flood up, and scheduling of public use activities.		10	8	20						
		3. Conduct annual meeting with private wetland managers in the Yolo Bypass and SYMVCD staff to coordinate fall flooding of wetlands, target habitat infrastructure improvements and firm up contact information.	10	6	6	8						
		4. Coordinate with Yolo County Health Department as necessary.	4	7								8
		5. Apply for grants and matching funds with SYMVCD to implement BMPs.	2		12	12						
		6. Jointly conduct research to measure land management effects on mosquito production.			12	8			16			
	Management Coordination Goal 5 (MC-5): <i>Maintain relationships with neighbors and tenants to address management issues.</i>	1. Meet or correspond with adjacent landowners and tenants as needed individually or through the Yolo Bypass Working Group to maintain communication about management needs of the Yolo Wildlife Area, determine adjacent landowners' access and management needs, and convey useful information regarding activities.	16	20		16						
		2. Collaborate with adjacent landowners and tenants regarding DFG management activities that may affect their operations. Resolve potential issues by proactively working with adjacent landowners and tenants.										
		3. Collaborate with adjacent special districts including Reclamation District 2068, Dixon RCD, Yolo RCD, No Man's Land Fire District, East Davis Fire District, South Davis Drainage	8	8		16						

**Table 6.1-1
Operations and Maintenance Requirements (hours by staff position) to Implement Plan**

Element / Sub-element	Goal	Tasks	Senior Biologist Super (Wildlife) (1)	Wildlife Habitat Super II (1)	Wildlife Biologist (1)	Wildlife Habitat Super I (2)	Wildlife Habitat Assist (2)	Tractor Operator Laborer (2)	Fish and Wildlife Tech (2)	Fish and Wildlife Interpret II (1)	Fish and Wildlife Interpret I (1)	Office Tech (1)
		District, and other neighboring special districts.										
		4. Area Manager and appropriate staff should attend annual site visits to duck hunting clubs conducted by DFG headquarters staff as part of the implementation of various wetland easement programs.	8			8						
		5. Meet at least annually with duck club owners and SYMVCD to discuss fall flood-up schedule and summer irrigations.	8	8	4	4						
		6. Meet annually with SYMVCD to target field work in areas that have a high propensity to produce large numbers of mosquitoes to prevent abatement issues later during flood up.	8	8	4	8						
		7. Coordinate flooding of duck clubs through the Tule Ranch Irrigation System.		16		8			16			14
	Management Coordination Goal 6 (MC-6): <i>Coordinate activities associated with managing cholera, avian flu, and other disease outbreaks.</i>	1. Conduct regular visual monitoring of birds for the presence of botulism in the summer and avian cholera in the winter.		12	12							
		2. Conduct regular monitoring of harvested birds at the hunter check station for the presence of avian flu.		12	12							
		3. Participate in disease related work groups.		12	12							
		4. Coordinate with county and state public health agencies, and UC Davis.		6	6							
		5. Participate in Incident Command System activities.		6	6	8						
TOTAL HOURS (by staff position)			2040	2040	2040	4080	4080	4080	4080	2040	2040	2040

**Table 6.3-1
 Proposed Staffing Program for the Yolo Bypass Wildlife Area**

Position	Senior Biologist Supervisor (Wildlife)	Wildlife Habitat Supervisor II	Wildlife Biologist	Wildlife Habitat Supervisor I	Wildlife Habitat Assistant	Tractor Operator Laborer	Fish and Wildlife Technician	Fish and Wildlife Interpreter I	Fish and Wildlife Interpreter II	Office Technician	Total
Number	1	1	1	1	2	3	2	1	1	1.5	
Top Salary	\$5,864	\$4,896	\$3,908	\$4,073	\$3,558	\$3,763	\$3,276	\$3,908	\$4,969	\$2,998	
Total Monthly Salary	\$5,864	\$4,896	\$3,908	\$4,073	\$7,116	\$11,289	\$6,552	\$3,908	\$4,969	\$4,497	\$57,072
Total Annual Salary	\$70,368	\$58,752	\$46,896	\$48,877	\$85,393	\$135,469	\$78,631	\$46,896	\$59,628	\$53,964	\$684,874
Total Annual Salaries											\$801,303
Equipment Needed											
Vehicle	1	1	1	1	1	1	1	1	1	1	10
Office Space	1	1	1	1				1	1	1	7
Computer	1	1	1	1				1	1	1	7