



# County of Yolo

## PARKS AND RESOURCES DEPARTMENT

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### Water Resources Association of Yolo County Project Funds – Fiscal Year 2008-09

#### **PROJECT TITLE: Correll-Rodgers Wetlands Enhancement Project (IRWMP-AR21) 2008 Implementation Timeline and Budget**

Presented by Kevin Schwartz, Yolo County Resource Specialist

**Project Description:** The goals of this project are to improve hydrologic connections to Cache Creek and water quality, enhance terrestrial and aquatic habitats, protect private property values/rights, preserve public safety, and create a common vision for the site with public input. The budget year 2008-2009 WRA funds will be used for the next phase of the project. Funds will help pay for the analysis of the berm material, designating limited public access options, preparing CEQA documents, improving Off-Highway Vehicle (OHV) control on site, repairing the Yolo County Flood Control and Water Conservation District Magnolia pipe drain, installation of irrigation and irrigation pond/water storage, installation of hedgerow between Rodgers' and County's property, creation of interconnections of Cache Creek, Rodgers, and Correll Pits, Weed Management, and beginning implementation. At the April 3, 2008 WRA meeting, it was requested that the Parks and Resources Department prepare a timeline for implementation of the Correll-Rodgers Enhancement Project. This timeline was presented at the May 1, 2008 Technical Advisory Committee (TAC) meeting for the WRA, but has been modified since given the Cache Creek Resource Management Plan's (CCRMP) own TAC recommendations and new opportunities that have presented themselves. Below I will present both a timeline and budget for 2008-2009 using WRA funds matched with Yolo County Parks and Resources funds.

#### **Scope of Work**

##### **OHV control**

OHV trespassing and illegal riding in Cache Creek are of the highest concern to private landowners from the Capay Dam to I-5. Illegal OHV riding has caused many other issues including introducing waste, erosion, and other water quality and natural resource issues in Cache Creek. At the Correll-Rodgers site, illegal OHV use of the site directly conflicts with the final use of the site, has created major trespassing issues with neighboring landowners, and threatens the ability to restore the habitat of the site. For this reason, the County has been creating natural barriers to OHVs between the Correll property and the Harrison property. Boulders 3' in diameter have been shown at Capay Open Space Park to prevent access by 4-wheelers, the primary OHV user of Cache Creek. Ten >3' diameter boulders will be moved from our property on Highway 16 to the Correll-Rodgers property.

## **Repair of Yolo County Flood Control and Water Conservation District (YCFCWCD) Magnolia pipe drain into Correll-Rodgers**

As part of the groundwater recharge pilot project for the Rodgers' pond, water overflow was piped from the YCFCWCD's Magnolia Canal to the ponds with the use of underground ADS pipe. In 2006, the pipe failed at the west end of the site and substantially eroded the bank and changed the water dynamics on site. Water supply on site will be instrumental in providing irrigation water for restoration efforts and will continue to act as groundwater recharge. The pipe will be repaired, the slope recontoured, and the outflow repaired.

### **Installation of Hedgerow between Rodgers' and County's property**

Currently the fence line between the Rodgers' property and the County property serves as a major weed source for both the Rodgers' agricultural fields and for the County property. Planting a hedgerow will not only suppress the weeds, but hedgerows also have enormous benefits to native wildlife by providing habitat and corridors and major benefits to surrounding agricultural areas by providing year round habitat for pollinators and crop pest predators. From a farmer's perspective, hedgerows planted will also provide a natural boundary more aesthetically pleasing and impassible to OHV's. Using native plantings in a hedgerow will increase water infiltration into the soil particularly into deeper soil layers, will decrease soil erosion during flood events, and will protect farmland from large woody debris during large flood events.

The Rodgers' family and the County have already been working close together in order to build a hedgerow between our properties. We have met a number of times and gone to Hedgerow Farms to discuss and look at hedgerow options. Based on these meetings we have determined what will be ideal for both of us. Weed management has already begun in order to be able to begin establishment of the hedgerow during the 2008-2009 planting season. On May 1, the Woodland Community College Fire Academy perform a controlled Burn of >10 acres of non-native invasive grassland along the property line with the Rodgers' family. This killed weeds with seed currently maturing. The Perennial Pepperweed on site was also treated by the Rodgers' family and the Cache Creek Conservancy (CCC).

In order to implement the plan for the Hedgerow, we will work closely with our partners on Cache Creek: the CCC, the Yolo Resource Conservation District (Yolo RCD), and the Center for Land Based Learning Student and Landowner Education and Watershed Stewardship program (SLEWS). Thus, for this budget, the costs for the use of labor from these groups are included for the implementation of this plan. The labor costs from Yolo County employees affiliated with this project are not necessary for this budget.

### **Creation of interconnections of Cache Creek, Rodgers, and Correll Pits**

The Rodgers' pit currently only is connected to Cache Creek at the 5-yr flood level. The pits are flat bottomed and lack good wildlife habitat. By reconnecting the Rodgers' pit to Cache Creek at the 2-yr level and recontouring the pit bottoms in the manner we have designed, we will allow both coarse and fine sediment and native riparian propagules to come onto the site that will improve native wildlife habitat on the site. Work will involve

opening a 50' gap in the berm between Cache Creek and the Rodgers' pit and providing toe stabilization and barriers to OHVs. Ponds will be deepened and soil removed will be recontoured and regraded. Soil will be ripped in order to loosen compacted soil and that soil will be overlaid with topsoil to facilitate revegetation. A scraper will transport topsoil on site, while a bulldozer will recontour the pit bottoms and spread and rip soil. A backhoe will move boulders into place in order to armor the toe of the slopes in between Cache Creek and the site and block entrance to the site by OHV'ers. Bare soil will be drill seeded and planting days will occur in order to put in plugs. Newly planted plants will be irrigated.

**Weed management**

Yolo County Parks and Resources has met with the Yolo RCD and the CCC to develop a more comprehensive weed management implementation plan. We currently have an MOU with the CCC for work on the Correll site and are in the process of adopting an MOU with the Yolo RCD. Attention is focused on intensive weed management, planting, and native plant establishment. Perennial Pepperweed (*Lepidium latifolium*) will continue to be herbicide sprayed. Grasses and broad-leaved weeds will be mowed.

**Budget**

<b>OHV control</b>				
	<b>Unit of Measure</b>	<b>Units</b>	<b>\$/unit</b>	<b>Cost</b>
Cost to move 10 boulders	1 boulder	10	150	\$1,500
Tractor/Backhoe	Day	1	\$216	\$216
4x4 Rental				
Backhoe operator	Hour	4	\$50	\$200
<b>OHV control Costs</b>				<b>\$1,916</b>
<b>Repair of YCFCWCD Magnolia pipe drain into Correll-Rodgers</b>				
	<b>Unit of Measure</b>	<b>Units</b>	<b>\$/unit</b>	<b>Cost</b>
Tractor/Backhoe	Day	1	\$216	\$216
4x4 Rental				
Dump truck Rental	Day	1	\$213	\$213
Dump Truck operator	Hour	4	\$50	
Backhoe operator	Hour	4	\$50	\$200
Materials for repair				\$1,500
<b>Total Repair Costs</b>				<b>\$2,129</b>

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**Installation of Hedgerow between Rodgers' and County's property**

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**Implementation Costs**

	<b>Unit of Measure</b>	<b>Units</b>	<b>\$/unit</b>	<b>Cost</b>
Native Trees	5 gal.	50	30	\$1,500
Native Shrubs	1 gal.	200	8	\$1,600
Weed Blanket (3'x3')	1	250	0.62	\$155
Stakes for trees	Pack of 50	2	34.5	\$69
Native Grass Straw Mulch	80 lb bale	30	9	\$270
Organic pre-emergent		1	215.5	\$216
Grass plugs	1 plug	6000	0.22	\$1,320
Fertilizer tablets		1	40	\$40
Staples	Pack of 100	5	31.5	\$158
Tree tubes (3')	Pack of 50	1	159	\$159
Shrub tubes (2')	Pack of 30	7	117.72	\$824
Roundup	2.5 gallon	2	150	\$300
Broadleaf herbicides	2.5 gallon	2	250	\$500
Miscellaneous Field Supplies		1	600	\$600
<b>TOTAL COST</b>				<b>\$7,710</b>

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**Installation of irrigation and irrigation pond/water storage**

	<b>Unit of Measure</b>	<b>Units</b>	<b>\$/unit</b>	<b>Cost</b>
2" Sch 40	l.f.	10	\$12.00	\$120
1" Sch 40	l.f.	30	\$5.80	\$174
Rainbird Landscape Dripline	500 l.f.	16	\$268.65	\$4,298
Miscellaneous parts				\$400
<b>Total Irrigation Costs</b>				<b>\$4,992</b>

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**Creation of interconnections of Cache Creek,  
Rodgers, and Correll Pits**

	<b>Unit of Measure</b>	<b>Units</b>	<b>\$/unit</b>	<b>Cost</b>
CEQA compliance				895.00
Grading permit				895.00
Excavator	days	2	695	\$1,390
Excavator operator	hours	16	50	\$800
Dozer	days	5	395	\$1,975
Dozer operator	Hours	40	50	\$2,000
Scraper	Days	5	299	\$1,495
Scraper operator	Hours	40	50	\$2,000
Cost to move 10 boulders	1 boulder	50	150	\$7,500
Tractor/Backhoe	Day	2	\$216	\$432
4x4 Rental				
Backhoe operator	Hour	8	\$50	\$400
<b>TOTAL COST</b>				<b>19,782.00</b>

**Pond Revegetation**

	<b>Unit of Measure</b>	<b>Units</b>	<b>\$/unit</b>	<b>Cost</b>
Tractor with drill-seed attachment	day	2	216	432.00
Tractor operator	hour	16	33	528.00
Native Grass, Sedge Seed	lb	200	40	8,000.00
Rush and Sedge Plugs	1 plug	12000	0.3	\$3,600
Total Cost				12,560.00

**Weed Management**

	<b>Unit of Measure</b>	<b>Units</b>	<b>\$/unit</b>	<b>Cost</b>
Herbicide Treatments	2.5 gallon	4	150	\$600
Mowing	day	3	40	\$120
Flame	day	2	40	\$80
Tractor with disc + mower	day	5	216	\$1,080
Tractor operator	hours	40	43	\$1,720
				3,600.00

**Labor Costs**

	<b>Unit of Measure</b>	<b>Units</b>	<b>\$/unit</b>	<b>Cost</b>
SLEWS program	1 day	2	3500	\$7,000
Yolo RCD Vegetation Specialist	hours	200	43	\$8,600
CCC Habitat Restoration Manager	hours	200	43	\$8,600
<b>TOTAL COST</b>				<b>24,200.00</b>

<b>Water Resources Association of Yolo County</b>	<b>35,000.00</b>
<b>Yolo County Parks and Resources</b>	<b>39,973.44</b>
<b>Total Budget</b>	<b>74,973.44</b>

**Project Timeline**

<b>Task</b>	<b>Date of Completion</b>
OHV control	August 2008
Repair of YCFCWCD Magnolia pipe and slope	August 2008
Implementation of Hedgerow + maintenance	October 2008 – June 2009
Creation of Cache Creek, Rodgers, and Correll Pit connections	September-October 2008
Implementation of Pond Planting	October-November 2008