

*Pajaro River*

# **Pajaro River Levee Bench Excavation Project**

**Santa Cruz County Flood Control & Water  
Conservation District Zone 7 Board of Directors  
September 20, 2011 7:30 PM**

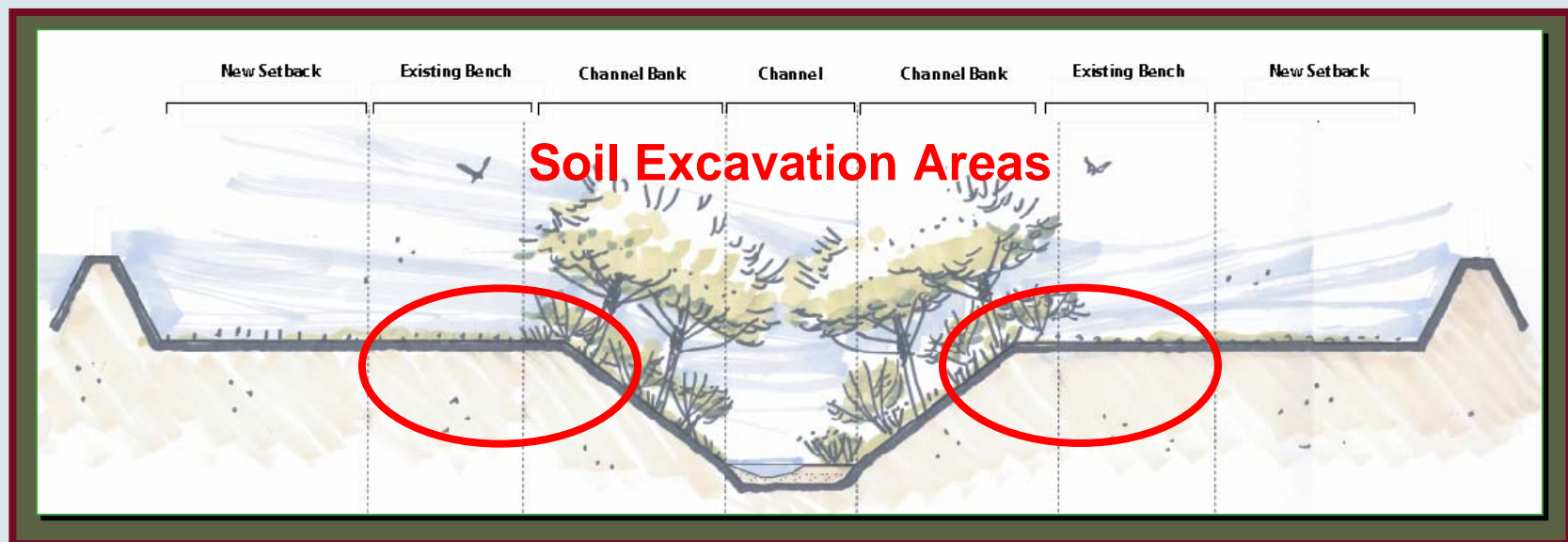
**John Presleigh, Director  
Bruce Laclergue, Flood Control Program Manager**

**County of Santa Cruz  
Department of Public Works**



## Local Sponsors Continue Bench Excavation

- Conveys 10% more water
- Reduces water surface elevation up to 1.2 feet
- Reduces maintenance
- Supported by State grant – Half of projected costs



## Change in Channel Capacity

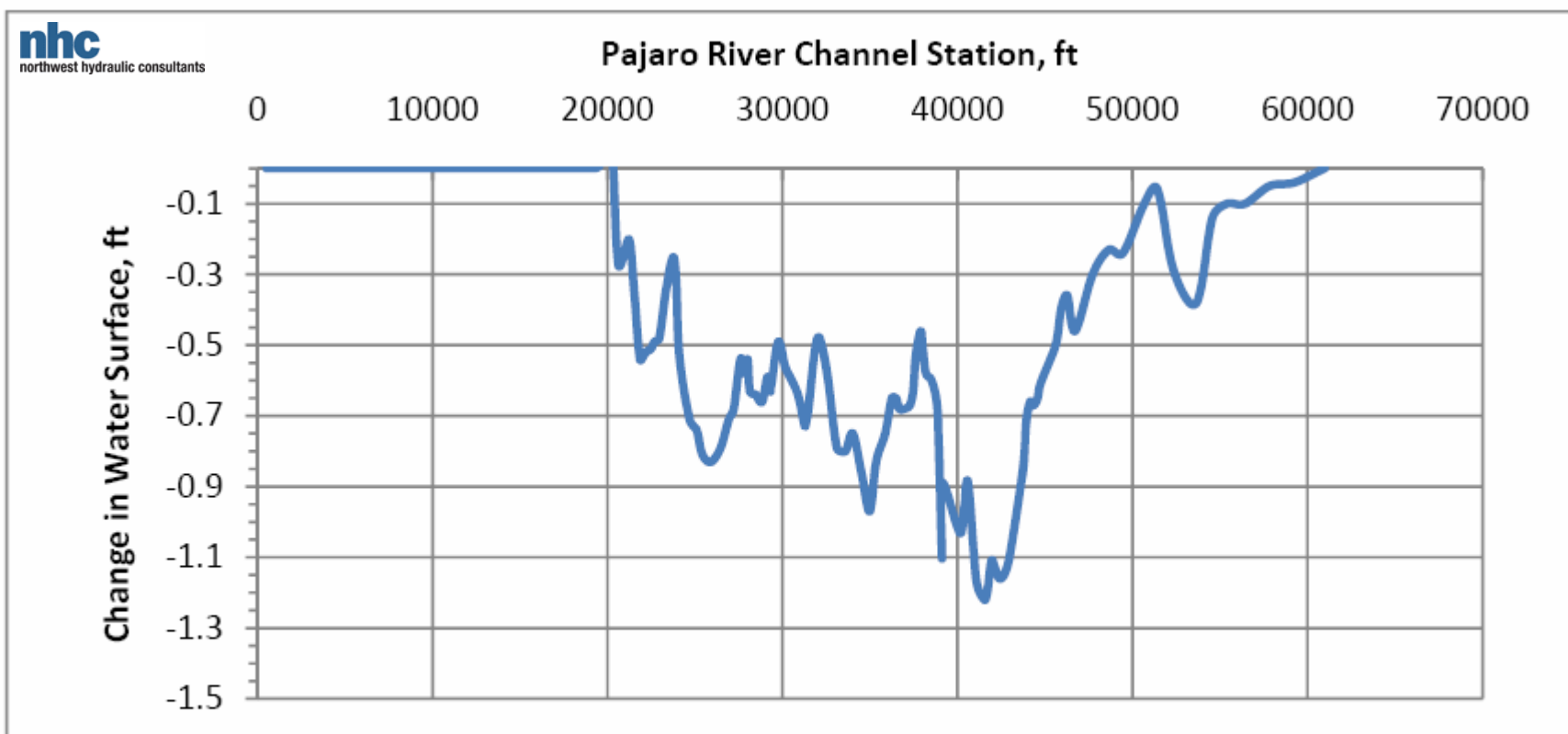


Figure 1. Change in capacity flow ( $Q = 28000$  cfs) water surface level with 65% design bench excavation sites (1R to 8R, 2L, 4L). Note: station 0 is at the outlet to Ocean, upstream boundary of model is at Murphy's Crossing.

# Pajaro River

## Engineer's Cost Estimate

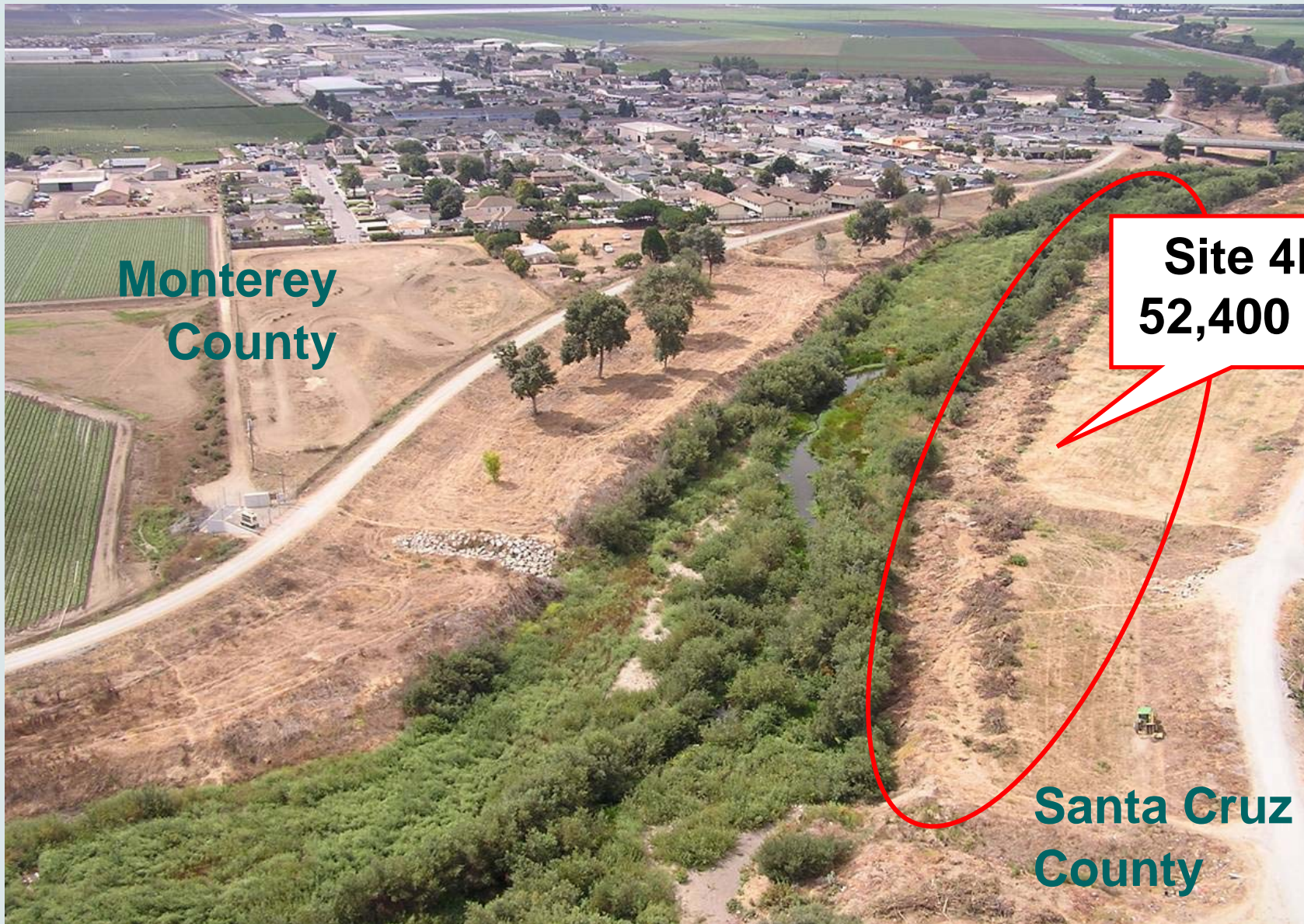
Northwest Hydraulic Consultants					DATE CREATED:	5/12/2011	
PROJECT: PAJARO RIVER BENCH CUT EXCAVATION PROJECT					DATE UPDATED:	5/31/2011	
JOB NUMBER: 50617					PREPARED BY:	JP, JH	
DESCRIPTION: ENGINEER'S (66% DESIGN PHASE) OPINION OF PROBABLE CONSTRUCTION COSTS					CHECKED BY:		
					CURRENT ENR <sup>(2)</sup> :	8,641	
					CONSTRUCTION YEAR:	2011	
					ADJUSTED ENR <sup>(3)</sup> :	8,641	
ITEM NO.	DESCRIPTION	QTY.	UNIT	UNIT PRICE	PROJECTED PRICE <sup>(4)</sup>	INSTALL ADJ. <sup>(1)</sup>	TOTAL
1	Storm Water Pollution Prevention Plan	1	LS	\$15,000	\$15,000	1.00	\$15,000
2	Mobilization and Demobilization	1	LS	\$490,794	\$490,794	1.00	\$490,794
3	Dust Prevention	1	LS	\$20,000	\$20,000	1.00	\$20,000
4	Utility Preservation (2 Pipe Crossing at Station 411+00)	1	LS	\$5,000	\$5,000	1.00	\$5,000
5	Clearing and Grubbing (not including Vegetation salvage)	4.2	AC	\$25,000	\$25,000	1.00	\$105,000
6	Temporary Drainage Crossings	3	EA	\$1,764	\$1,764	1.00	\$5,292
7	Temporary Access Ramp	3	EA	\$2,494	\$2,494	1.00	\$7,482
8	Floodplain Bench Excavation						
	R1 (197+00 to 219+00)	26248	CY	\$6	\$6.18	1.00	\$162,321
	R2 (230+00 to 257+00)	37949	CY	\$6	\$6.18	1.00	\$234,502
	R3 (273+00 to 287+00) by Rail	15389	CY	\$7	\$7.37	1.00	\$113,433
	R4 (288+00 to 313+00) by Rail	53236	CY	\$7	\$7.35	1.00	\$391,427
	R5 (320+00 to 350+50)	36354	CY	\$6	\$6.18	1.00	\$224,661
	R5.5 (360+50 to 371+00)	7500	CY	\$6	\$6.22	1.00	\$46,667
	R6 (377+50 to 426+00)	85024	CY	\$6	\$6.17	1.00	\$524,904
	R7 (452+00 to 471+00)	6021	CY	\$6	\$6.24	1.00	\$37,542
	R8 (500+50 to 534+00)	25688	CY	\$6	\$6.18	1.00	\$160,100
	L2 (282+00 to 291+00) by Rail	7992	CY	\$6	\$6.22	1.00	\$49,702
	L4 (372+00 to 394+00)	17531	CY	\$6	\$6.19	1.00	\$108,548
9	Material Transport and Disposal (Assume 10% Swelling)						
	R1 (197+00 to 219+00)	28873	CY	\$11	\$11	1.00	\$315,203
	R2 (230+00 to 257+00)	41744	CY	\$11	\$11	1.00	\$468,348
	R3 (273+00 to 287+00) by Rail	16928	CY	\$7	\$7	1.00	\$114,600
	R4 (288+00 to 313+00) by Rail	58560	CY	\$7	\$7	1.00	\$396,448
	R5 (320+00 to 350+50)	39989	CY	\$8	\$8	1.00	\$314,313
	R5.5 (360+50 to 371+00)	8250	CY	\$11	\$11	1.00	\$89,513
	R6 (377+50 to 426+00)	93526	CY	\$11	\$11	1.00	\$1,021,308
	R7 (452+00 to 471+00)	6823	CY	\$15	\$15	1.00	\$96,098
	R8 (500+50 to 534+00)	28477	CY	\$15	\$15	1.00	\$418,039
	L2 (282+00 to 291+00) by Rail	8791	CY	\$7	\$7	1.00	\$61,363
	L4 (372+00 to 394+00)	19284	CY	\$15	\$15	1.00	\$286,601
10	Single rootwad	6	EA	\$1,774	\$1,774	1.00	\$10,844
11	Multiple rootwad	6	EA	\$3,544	\$3,544	1.00	\$21,264
12	Erosion Control	1	LS	\$90,000	\$90,000	1.00	\$90,000
13	Tree Salvage and Removal	35	EA	\$700	\$700	1.00	\$24,500
14	Levee Resurfacing (assume 25% of levee require resurfacing post project)	4084	LF	\$30	\$30	1.00	\$122,520
15	Hydroseeding	41.4	AC	\$2,500	\$2,500	1.00	\$103,500
16	Revegetation						
	<b>SUBTOTAL</b>						<b>\$6,645,725</b>
	<b>CONTINGENCY (20 %)</b>						<b>\$1,329,145</b>
					<b>TOTAL CONSTRUCTION COSTS</b>		<b>\$7,974,900</b>

Notes:  
1. Unit costs include installation if value equals 1.00  
2. Adjusted ENRCCI is projected (assuming 4% annual inflation for construction costs) to the midpoint of construction scheduled for 2011.  
3. Projected Price is the unit price multiplied by the ratio of the adjusted and the current ENRCCI.

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**Monterey  
County**

**Site 4R:  
52,400 CY**

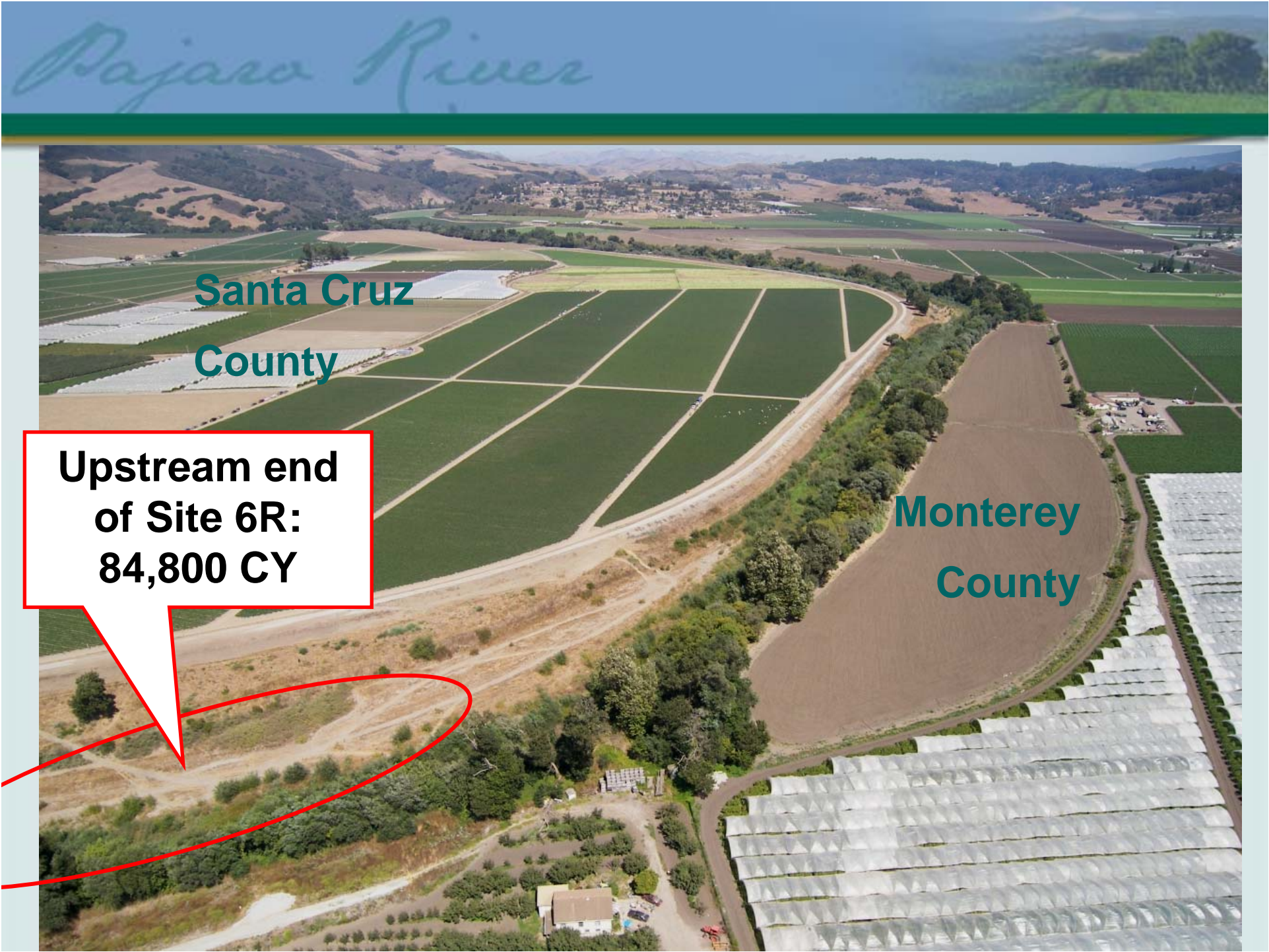
**Santa Cruz  
County**

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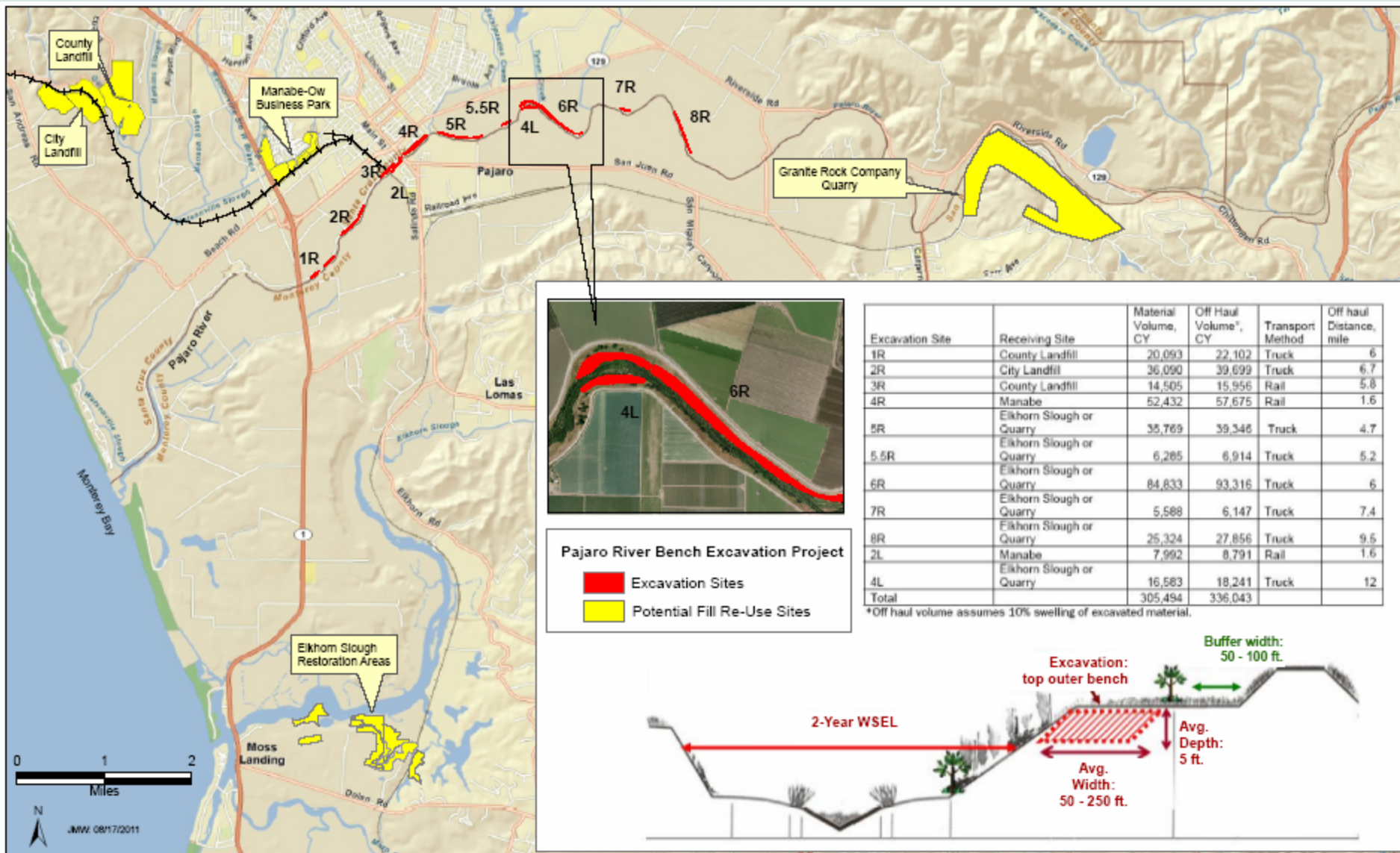
Santa Cruz  
County

Monterey  
County

**Upstream end  
of Site 6R:  
84,800 CY**



# Pajaro River



N  
JMW 08/17/2011



## **Pajaro River Bench Excavation Project Planning & Design – Milestones Completed to date**

<b>August</b>	<b>2010</b>	<b>Received USACE Section 208 Maintenance Variance</b>	<b>DPW</b>
<b>October</b>	<b>2010</b>	<b>Begin Traffic Study (Consultant- Fehr &amp; Peers)</b>	<b>F&amp;P</b>
<b>November</b>	<b>2010</b>	<b>Begin Plans &amp; Specifications (Consultant- NHC)</b>	<b>NHC</b>
<b>January</b>	<b>2011</b>	<b>Complete Traffic Study- DRAFT 1</b>	<b>F&amp;P</b>
<b>March</b>	<b>2011</b>	<b>Complete Plans &amp; Specs- 35%</b>	<b>NHC</b>
<b>March</b>	<b>2011</b>	<b>Begin Re-vegetation Plans (Consultant- Kittleson)</b>	<b>KEC</b>
<b>May</b>	<b>2011</b>	<b>Complete Cost Estimate, and Plans &amp; Specs- 65% DRAFT 1</b>	<b>NHC</b>
<b>July</b>	<b>2011</b>	<b>Complete Cost Estimate, and Plans &amp; Specs- 65% DRAFT 2</b>	<b>NHC</b>
<b>August</b>	<b>2011</b>	<b>Complete Traffic Study- DRAFT 2</b>	<b>F&amp;P</b>
<b>August</b>	<b>2011</b>	<b>Complete Plans &amp; Specs- 65% DRAFT 2 + Re-Vegetation Plan</b>	<b>NHC</b>

## Milestones: Pajaro River Bench Excavation Project Planning & Design – Milestones Remaining

September	2011	Refine Plans & Specifications – 65% DRAFT 3	DPW, NHC
September	2011	Begin CEQA Initial Study	PLN
September	2011	File Federal and State permit applications	DPW
November	2011	Begin Initial Study* 30-day public review period	PLN
December	2011	End Initial Study 30-day public review period	PLN
January	2012	Begin Plans & Specs- 100% DRAFT	NHC
January	2012	Issue Notice of Determination	PLN
January	2012	Secure completed permits- State	DPW
February	2012	Complete Plans & Specs- 100% DRAFT	NHC
March	2012	Secure completed permits- Federal	DPW
April	2012	Complete Plans & Specs- 100% FINAL	NHC
April	2012	Approve Plans & Specs 100%; Project Advertisement	Zone 7 Board
May	2012	Open Project Bid; and Award	DPW
June/July	2012	Begin construction	DPW

\* Assumes Mitigated Neg. Declaration. If EIR, then schedule will lengthen.