

MEMORANDUM

TO: Finance, Expenditures and Legal Subcommittee

SUBJECT: Papio Creek Watershed Structure W-3 Rehabilitation Project
Construction Change Order and Account over 110% Approval

DATE: November 29, 2010 Updated: December 3, 2010

FROM: Martin P. Cleveland

The referenced project (W-3) is located near Hwy 30 and County Road 28, southwest of Blair, as shown on the enclosed location map. Construction activity started on this project May 17, 2010 by the District's contractor, Pruss Excavating. The project is 53% complete as of October 21, 2010 and 62% of the work period has been used. The principal spillway (30 inch diameter) pipe has been installed and 54,000 cubic yards of earth fill has been placed. The project was designed by the Natural Resources Conservation Service (NRCS) and construction observation is being handled without any District cost share. The NRCS is cost sharing 65% and the District 35% of the project construction and land rights cost. As of November 10, 2010 the District has paid Pruss Excavating \$308,831.71 of the original contract amount of \$604,927.90. Contract modification no. 1 in the amount of \$36,000 was approved by Management and issued July 19, 2010 to remove 8,000 cubic yards of unsuitable material (soil mixed with broken concrete, wood and fence wire) from the foundation of the new structure. Enclosed is a location map that shows where the unsuitable material is stockpiled and where it is proposed to be relocated to. The landowners had apparently filled in a gully with this material over 20 years ago. This material was not anticipated by the contractor nor was it identified in the project plans, so the removal and relocation of this material is work that was not included in project contract.

Since the contract modification no. 1 was issued it was discovered that additional unsuitable material was located in the foundation of the dam and it needed to be removed in order to provide a stable foundation for the dam. The contractor removed about 27,000 cubic yards of unsuitable material this summer and stock piled it in non-dam area for a decision on its reuse and placement location. Enclosed is a proposed contract modification no. 2 to account for the additional 19,000 cubic yards of unsuitable material removed with a total cost of \$144,073.08. The change order also includes some drain fill and drain pipe changes due to shifting the principal spillway pipe location to allow for easier constructability.

Contract modification no. 2 exceeds Managements authority to issue contract modifications (change orders) on construction projects, the total of which is limited to 10% of the contract amount (\$60,492 for this contract). Management recommends Board approval of contract modification no. 2. It is also recommended that Management be given the authority to issue additional future contract modifications up to 10% (\$60,492.79) of the original project bid of \$604,927.90 to allow for unforeseen minor construction adjustments that may be needed without further Board action.

In addition, the contract modification no. 2 will also eventually cause the Budget No. 510-4479 – W-3 Rehabilitation contract work to exceed 110% of Budget (\$690,000). Board action is required

to exceed 110% of Budget as per Board Policy 7.5 – Finance, Expenditure and Legal Subcommittee – Budgetary Oversight.

It is recommended by Management that the Subcommittee recommend to the Board that the Assistant General Manager (as per agreement with NRCS) be authorized to execute Contract Modification No. 2 in the amount of \$144,073.08 with Pruss Excavation for the Papio W-3 Rehabilitation Project, that the Assistant General Manager be authorized to execute future contract modifications totaling a maximum of 10% of the original construction contract amount and that Account No. 510-4479-W-3 Rehabilitation Project be allowed to exceed 110% of the budgeted amount.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Papio-Missouri River Natural Resources District

NRCS-ADS-050
02-85

8901 S. 154th Street Omaha, NE 68138

CONTRACT MODIFICATION NO. 2

Papillion Creek Site W-3 Rehabilitation

PMRNRD-502

(Name of Watershed or other Project)

(Contract No.)

To: Pruss Excavation

648 A Road, Dodge NE 68633

(Name of Contractor)

(Address)

You are hereby requested to comply with the following:

Item No.	Applicable General Provision	CHANGE	Increase in Contract Cost	Decrease in Contract Cost
		SEE ATTACHED SHEET AND DRAWINGS FOR ITEMIZED CHANGES		
TOTAL			\$ 397,764.48	\$ 253,691.40

Net ☒ (Increase) ☐ (Decrease) in Contract Cost

\$ 144,073.08

The Completion Date of the contract is ☐ (not changed) ☒ (extended) ☐ (reduced) by 56 Calendar days

Revised Completion Date: June 20th 20 11

List of Attachments: (If none, so state) Continuation Sheet, Justification Statement by Government Representative, Revised Drawings

Original Contract Price \$ 640,927.90 Revised Contract Price \$ 785,000.98

THIS MODIFICATION IS HEREBY MADE A PART OF THE CONTRACT.

ACCEPTED:

(CONTRACTING OFFICER OR AUTHORIZED REPRESENTATIVE)

(CONTRACTOR)

(DATE)

(DATE)

CONTRACT MODIFICATION CONTINUATION

Item No.	Applicable General Provision	Change	Increase in Contract Cost	Decrease in Contract Cost
9a	10.01	Remove Bid Item 9a; 8000 CY of Excavation, Foundation at \$4.50 per CY		(36,000.00)
9b	10.01	Add Bid Item 9b; 26,811 CY of Excavation, Foundation at \$4.50 per CY	\$120,649.50	
9c	10.01	Add Bid Item 9b; 2,365 CY of Excavation, Disposal of Unsuitable Material at \$4.44 per CY	\$10,500.60	
10	10.01	Remove Bid Item 10; 82,121 CY of Earthfill at \$1.82 per CY		(149,460.22)
10a	10.01	Add Bid Item 10a; 103,750 CY of Earthfill at \$1.82 per CY	\$188,825.00	
10b	10.01	Add Bid Item 10a; 817 CY of Earthfill Disposal at \$1.50 per CY	\$1,225.50	
10c	10.01	Add Bid Item 10a; 2,400 CY of Earthfill Disposal 3 Feet Cover at \$1.50 per CY	\$3,600.00	
11	10.01	Remove Bid Item 11; 1,104 CY of Drainfill, Coarse Type at \$35.60 per CY		(39,302.40)
11a	10.01	Add Bid Item 11a; 1,170 CY of Drainfill, Coarse Type at \$35.60 per CY	\$41,652.00	
12	10.01	Remove Bid Item 12; 156 CY of Drainfill, Fine Type at \$25.17 per CY		(3,926.52)
12a	10.01	Add Bid Item 12a; 204 CY of Drainfill, Fine Type at \$25.17 per CY	\$5,134.68	
18	10.01	Remove Bid Item 18; 856 LF of PVC Pipe, 4" diam. Slotted at \$27.32 per LF		(23,385.92)
18a	10.01	Add Bid Item 18a; 920 LF of PVC Pipe, 4" diam. Slotted at \$27.32 per LF	\$25,134.40	
19	10.01	Remove Bid Item 19; 62 LF of PVC Pipe, 4" diam. Solid at \$26.07 per LF		(1,616.34)
19a	10.01	Add Bid Item 19a; 40 LF of PVC Pipe, 4" diam. Solid at \$26.07 per LF	\$1,042.80	
NA	NA	Increase performance time by 56 calender days due to the changes in work changing the contract end date from April 25th 2011 to June 20th 2011.	NA	NA
			\$397,764.48	-\$253,691.40

Justification Statement for Contract Modification

By: Jason Sall (COTR) and Chuck Leinen (Alternate COTR)
Project Agreement No. 69-6526-9-579
Modification (Change Order) No. 2
November 17, 2010

Papillion Creek Watershed
Site #W-3 Rehabilitation

It has been determined that the principal spillway should be moved 50 feet to the right of its current alignment. The contractor has requested the change for constructability reasons. Along with making the structure easier to build, it will also put the pipe on a more stable foundation (making the structure safer) and result in a better outlet channel alignment (greatly reducing the potential for erosion of the downstream channel banks). Moving the principal spillway to the right will affect the quantities for the coarse drainfill, fine drainfill, 4" slotted PVC, and 4" solid PVC.

Modification 1 added Bid Item 9a (Excavation, Foundation). It has been discovered that the area of unsuitable material is larger and deeper than was estimated in that modification. It has also been discovered that there is more debris (such as concrete chunks, wire, woody debris, etc) in the soil. Bid Item 9a must be modified to account for this increased excavation. The justification for the addition of the Excavation, Foundation bid item is the same as in Modification 1, the quantity is just larger than anticipated.

Modification #1 has been deleted because of the exceeding amount of excavation and was replaced with Item 9b which quantifies to 26,811 cubic yards of excavation and approximately the same amount of earthfill. This item was negotiated during the meeting held November 18, 2010 with all parties. In addition there was unsuitable earthfill material as part of the excavation that was removed and has been piled in three areas. This material is not suitable for Class A Earthfill. The material will be replaced in the downstream toe on the left streambank embankment and covered with 3 foot of suitable earthfill material. The remaining excavated material will be placed on designated areas as shown on the attached drawings.

The modifications to the bid items due to moving the principal spillway, encountering more unsuitable material than expected, and disposal of unsuitable fill material are as follows:

Bid Item 9a – Excavation, Foundation

Remove Bid Item 9a – Excavation, Foundation. This is for 8,000 cubic yards at \$4.50 per cubic yard. Quantity calculations and a plan view of the excavation area are attached.

During construction it was discovered that the design did not adequately address a large volume of unsuitable foundation material in the left side of the structure's foundation.

Bid Item 9b – Excavation, Foundation

Add Bid Item 9b – Excavation, Foundation. This is for 26,811 cubic yards at \$4.50 per cubic yard. Quantity calculations and a plan view of the excavation area are attached. During construction it was discovered that the design did not adequately address a large volume of unsuitable foundation material in the left side of the structure's foundation. The design should have called for a large foundation excavation in this area to remove the material. After consulting with NRCS Geologists, a NRCS Soil Mechanics Engineer, and the State Conservation Engineer, it was determined that the material must be removed. If it is not removed, differential settlement may occur in the foundation leading to failure of this high hazard structure. Due to the excessive amount the item was negotiated at November 18, 2010 meeting with all parties present.

Bid Item 9c – Excavation, Disposal of Unsuitable Material

Add Bid Item 9c – Excavation, Foundation. This is for 2,365 cubic yards at \$4.44 per cubic yard. Quantity calculations and a plan view of the excavation area are attached. During construction it was discovered that the design did not adequately address a large volume of unsuitable foundation material in the left side of the structure's foundation. This material was designated unsuitable for Class A Earthfill, therefore was designated to be disposed in the left abutment of the downstream toe of the dam above the 3:1 slope as shown on the attached drawing. The unit cost was negotiated at the November 23, 2010 conference call with sponsor and contractor with NRCS alternative COTR present.

Bid Item 10 – Earthfill

Remove Bid Item 10 – Earthfill. This is for 82,121 cubic yards at \$1.82 per cubic yard. During construction it was discovered that the design did not adequately address a large volume of unsuitable foundation material in the left side of the structure's foundation that will add volume to the earthfill. Due to the excessive amount the item was negotiated at November 18, 2010 meeting with all parties present.

Bid Item 10a – Earthfill

Add Bid Item 10a – Earthfill. This is for 103,750 cubic yards at \$1.82 per cubic yard. The original volume of 82,121 yards plus 26,111 yards equals 108,750 cubic yards. There is an additional 2000 yards of material that does not quantify for Class A earthfill material from quantity calculations. There are 3182 yards of unsuitable material shown on attached drawings as Unsuitable Soils Piles 1, 2, and 3. The total earthfill reduction

equals 5182 yards of earthfill to be subtracted. See attached drawings and volume calculations for verification. During construction it was discovered that the design did not adequately address a large volume of unsuitable foundation material in the left side of the structure's foundation that will add volume to the earthfill. Due to the excessive amount the item was negotiated at November 18, 2010 meeting and November 23, 2010 conference call with all parties present.

Bid Item 10b – Earthfill Disposal

Add Bid Item 10b– Earthfill. This is for 2,400 cubic yards of earthfill cover at \$1.50 per cubic yard. During construction it was discovered that the design did not adequately address a large volume of unsuitable foundation material in the left side of the structure's foundation that will add volume to the earthfill. The disposal of Unsuitable Piles 1 & 2 shown will be placed in Disposal Area 1 on the attached drawings that will require a 3 foot cover on an 0.5 acre area of suitable earthfill over the unsuitable material located on the left abutment of the downstream toe of the dam above the 3:1 slope as shown on the attached drawings. This item was negotiated at November 23, 2010 conference call with all parties present.

Bid Item 10c – Earthfill Disposal

Add Bid Item 10c– Earthfill. This is for 817 cubic yards at \$1.50 per cubic yard. During construction it was discovered that the design did not adequately address a large volume of unsuitable foundation material in the left side of the structure's which foundation. The disposal of the unsuitable material shown on the attached drawings as Unsuitable Soil Pile 3 will be placed on the area designated Disposal Area 2 as shown on the attached drawings. This item was negotiated at November 23, 2010 conference call with all parties present.

Bid Item 11 – Drainfill, Coarse Type

Remove Bid Item 11 – Drainfill Coarse Type. This is for 1,104 cubic yards at \$35.60 per cubic yard. It has been determined that the principal spillway should be moved 50 feet to the right of its current alignment. The contractor has requested the change for constructability reasons. Moving the principal spillway to the right will affect the quantities for the coarse drainfill, fine drainfill, 4" slotted PVC, and 4" solid PVC. Due to the excessive amount this item the quantity was changed and was negotiated at November 18, 2010 meeting with all parties present.

Bid Item 11a – Drainfill, Coarse Type

Add Bid Item 11a – Drainfill Coarse Type. This is for 1,170 cubic yards at \$35.60 per cubic yard. It has been determined that the principal spillway should be moved 50 feet to the right of its current alignment. The contractor has requested the change for constructability reasons. Moving the principal spillway to the right will affect the quantities for the coarse drainfill, fine drainfill, 4" slotted PVC, and 4" solid PVC. Due

to the excessive amount this item the quantity was changed and was negotiated at November 18, 2010 meeting with all parties present.

Bid Item 12 – Drainfill, Fine Type

Remove Bid Item 12– Drainfill Fine Type. This is for 156 cubic yards at \$25.17 per cubic yard. It has been determined that the principal spillway should be moved 50 feet to the right of its current alignment. The contractor has requested the change for constructability reasons. Moving the principal spillway to the right will affect the quantities for the coarse drainfill, fine drainfill, 4" slotted PVC, and 4" solid PVC. Due to the excessive amount this item the quantity was changed and was negotiated at November 18, 2010 meeting with all parties present.

Bid Item 12a – Drainfill, Fine Type

Add Bid Item 12a – Drainfill Coarse Type. This is for 204 cubic yards at \$25.17 per cubic yard. It has been determined that the principal spillway should be moved 50 feet to the right of its current alignment. The contractor has requested the change for constructability reasons. Moving the principal spillway to the right will affect the quantities for the coarse drainfill, fine drainfill, 4" slotted PVC, and 4" solid PVC. Due to the excessive amount this item the quantity was changed and was negotiated at November 18, 2010 meeting with all parties present.

Bid Item 18 – PVC Pipe, 4" diam. Slotted

Remove Bid Item 18– PVC Pipe, 4" diam. Slotted. This is for 856 feet at \$27.32 per foot. It has been determined that the principal spillway should be moved 50 feet to the right of its current alignment. The contractor has requested the change for constructability reasons. Moving the principal spillway to the right will affect the quantities for the coarse drainfill, fine drainfill, 4" slotted PVC, and 4" solid PVC. Due to the excessive amount this item the quantity was changed and was negotiated at November 18, 2010 meeting with all parties present.

Bid Item 18a – PVC Pipe, 4" diam. Slotted

Add Bid Item 18a– PVC Pipe, 4" diam. Slotted. This is for 920 feet at \$27.32 per foot. It has been determined that the principal spillway should be moved 50 feet to the right of its current alignment. The contractor has requested the change for constructability reasons. Moving the principal spillway to the right will affect the quantities for the coarse drainfill, fine drainfill, 4" slotted PVC, and 4" solid PVC. Due to the excessive amount this item the quantity was changed and was negotiated at November 18, 2010 meeting with all parties present.

Bid Item 19 – PVC Pipe, 4" diam. Solid

Remove Bid Item 19– PVC Pipe, 4" diam. Solid. This is for 62 feet at \$26.07 per foot. It has been determined that the principal spillway should be moved 50 feet to the right of

its current alignment. The contractor has requested the change for constructability reasons. Moving the principal spillway to the right will affect the quantities for the coarse drainfill, fine drainfill, 4" slotted PVC, and 4" solid PVC. Due to the excessive amount this item the quantity was changed and was negotiated at November 18, 2010 meeting with all parties present

Bid Item 19a – PVC Pipe, 4" diam. Solid

Add Bid Item 19a– PVC Pipe, 4" diam. Solid. This is for 40 feet at \$26.07 per foot. It has been determined that the principal spillway should be moved 50 feet to the right of its current alignment. The contractor has requested the change for constructability reasons. Moving the principal spillway to the right will affect the quantities for the coarse drainfill, fine drainfill, 4" slotted PVC, and 4" solid PVC. Due to the excessive amount this item the quantity was changed and was negotiated at November 18, 2010 meeting with all parties present.

Performance Time

The original contract end date stated in the bidding documents was April 25, 2011 (which was based on Modification #1. Modification #1 has been deleted because of the exceeding amount of excavation and was replaced with Item 9b which quantifies to 26,811 cubic yards of excavation and approximately the same amount of earthfill. During the meeting held November 18, 2010 with all parties and a conference call with sponsor and contractor held on November 23, 2010 the performance time increase of 53 work days was negotiated for Modification #2. Deleting Modification #1 decreases the 53 days by 14 days to a total of 39 days. **The performance time is hereby modified from 467 work days plus 39 work days to equal 506 days. An additional 39 work days and 17 calendar days for a total of 56 calendar days will be added to the April 25, 2011 and the end calendar date is June 20th, 2011.**

Total Change in Contract Price = +144,073.08

Total Change in Contract Time = +56 days with a contract completion date of June 20th, 2011

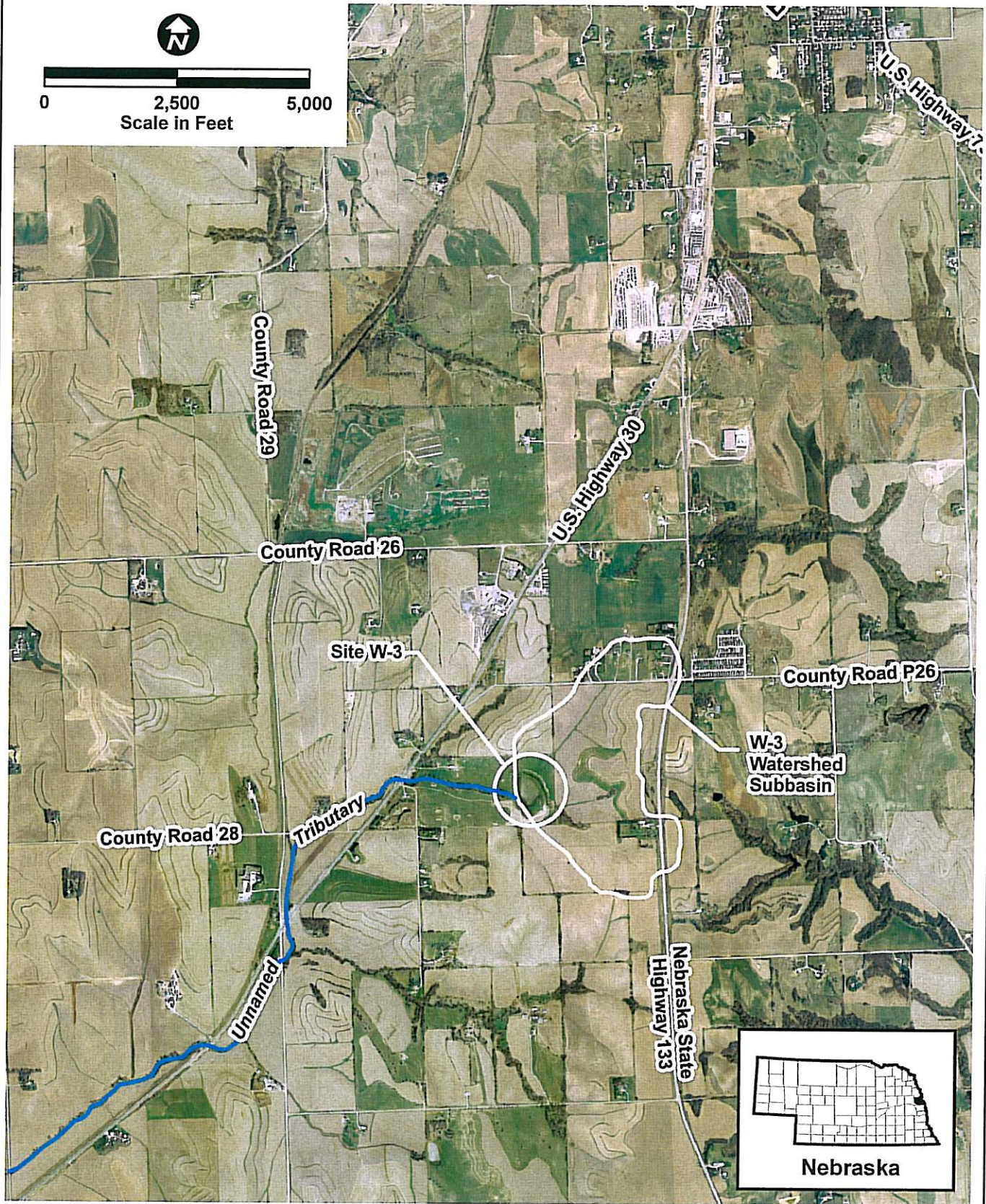
Jason Sall,
Charles Leinen, Alternative

Government Representative

Approved: _____ Date: _____

Concur: _____ Date: _____

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Source: Aerial Photography, Metropolitan Area Planning Agency, flown by Horizons Inc. in April 2004.



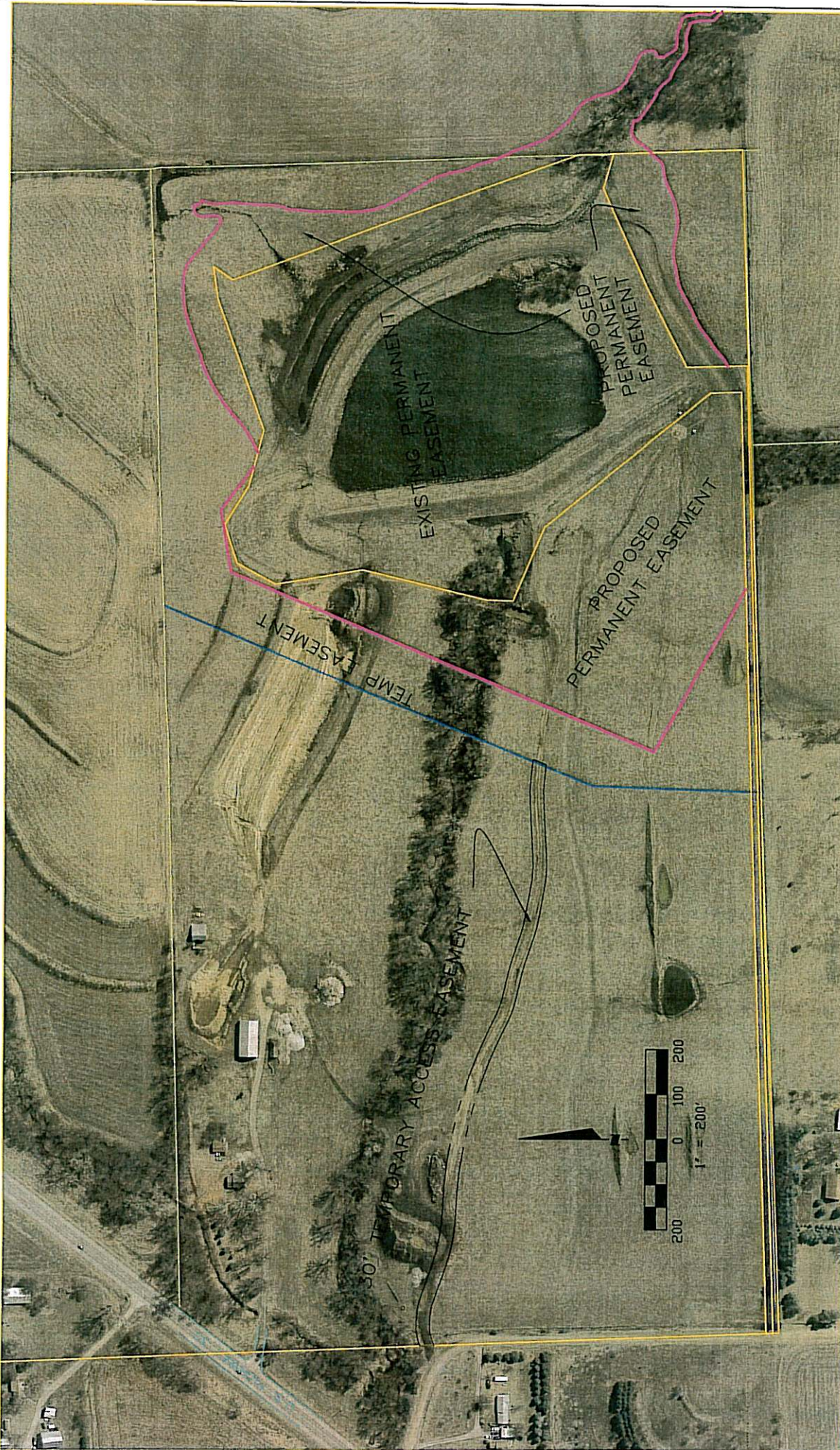
**Papillion Creek Watershed
Site W-3
Project Location Map**

DATE

Sept 2005

FIGURE

1



DESIGNED BY: MPC		PROJECT NO.:	
DRAWN BY: JLM		DATE: 6/22/2009	
CHECKED BY: MPC		SCALE: 1" = 200'	
APPROVED BY:		SHEET NO. 1 OF 1	



PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

PROPOSED AND EXISTING EASEMENTS FOR W-3

S. 1/2 OF THE S.W. 1/4
SECTION 27, T18N, R11E

DISPOSAL AREA 2

UNSUITABLE SOIL PILE 3

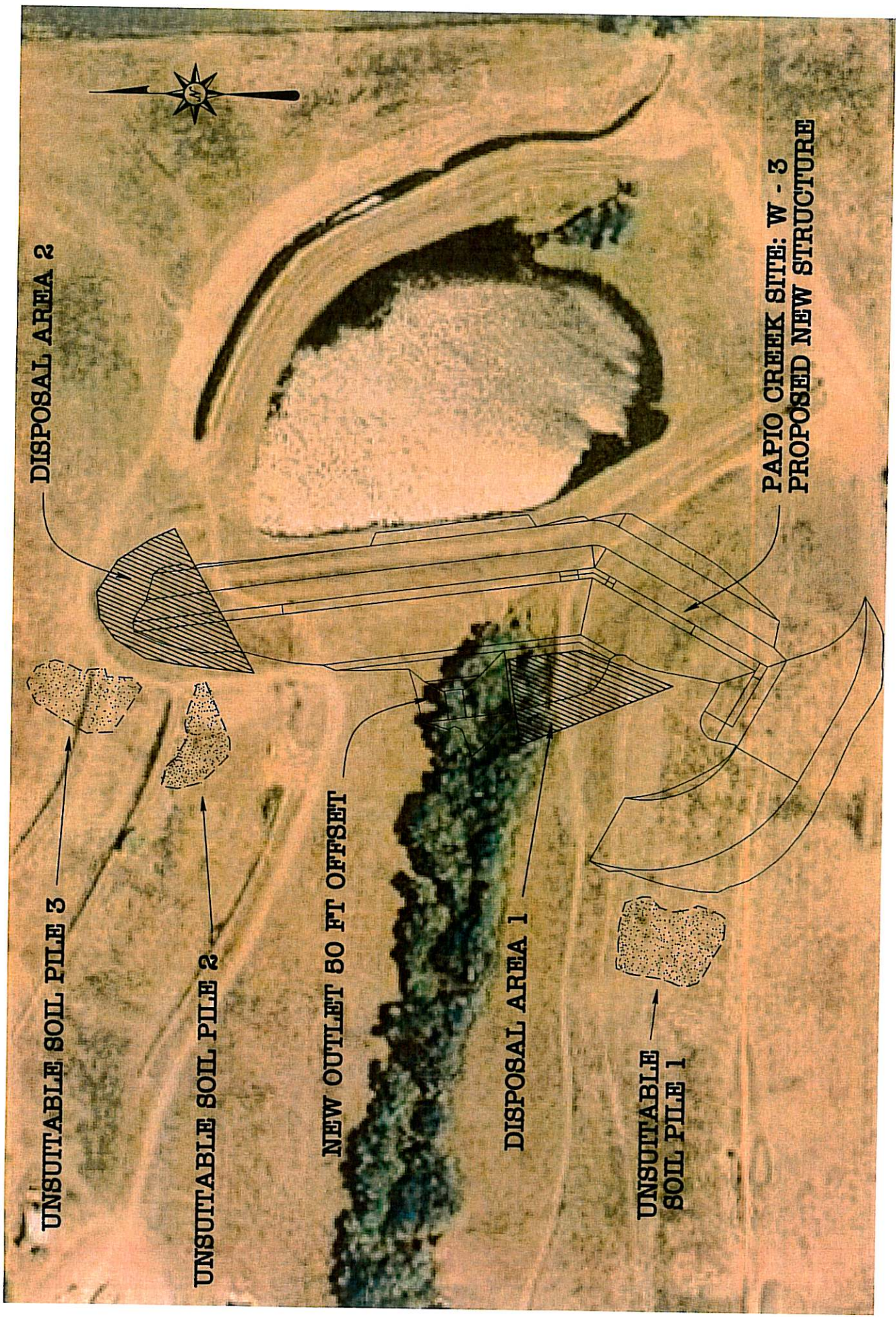
UNSUITABLE SOIL PILE 2

NEW OUTLET 50 FT OFFSET

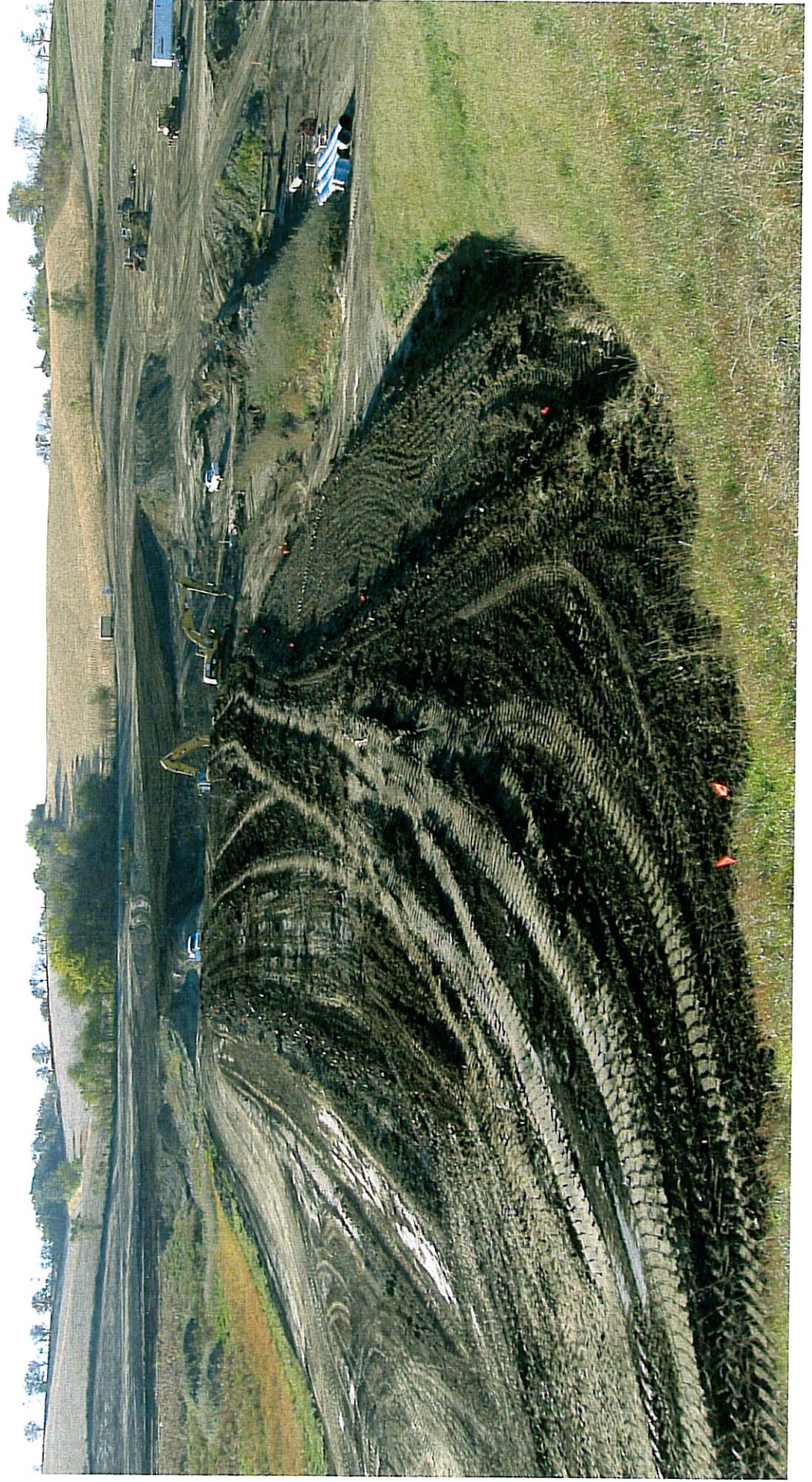
DISPOSAL AREA 1

UNSUITABLE SOIL PILE 1

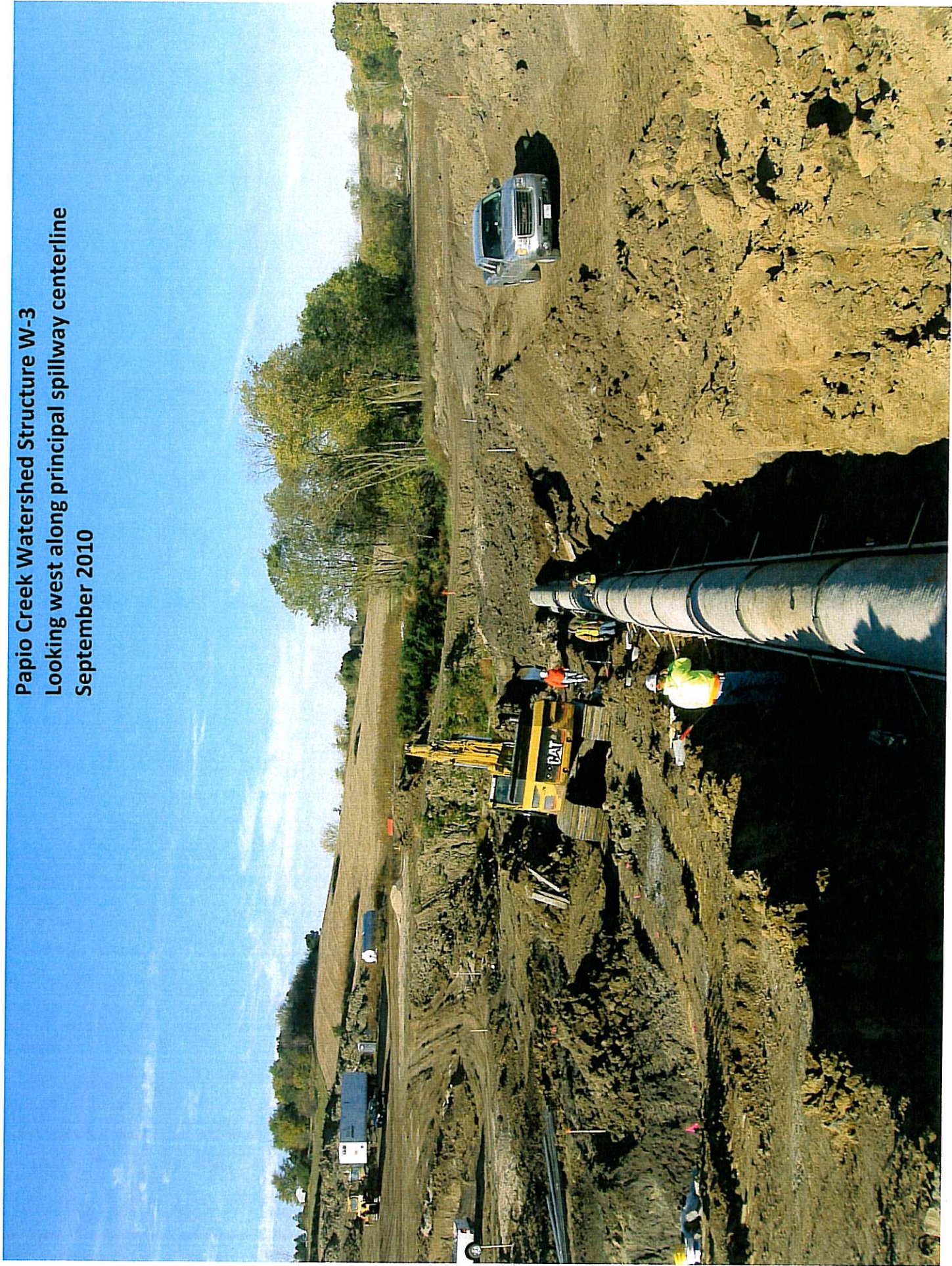
PAPIO CREEK SITE: W - 3
PROPOSED NEW STRUCTURE



Papio Creek Watershed Structure W-3 Rehabilitation Project Construction
Looking south along structure centerline
September 2010



Papio Creek Watershed Structure W-3
Looking west along principal spillway centerline
September 2010



Papio Creek Watershed Structure W-3 Rehabilitation Project Construction
Looking south at Unsuitable Soil Pile No. 1
September 2010



Papio Creek Watershed Structure W-3 Rehabilitation Project Construction
Looking west at unsuitable soil pile no. 1

September 2010



Papio Creek Watershed Structure W-3 Rehabilitation Project Construction
Looking north at unsuitable soil pile no. 2
September 2010

