

**Former Fort Ord
Agency Meeting Schedules and Agendas**

August 2005

August 25 at 1:00 p.m.
MR BCT Meeting
BRAC Conference Room

August 26 at 9:00 a.m.
HTW BCT Meeting
BRAC Conference Room

HTW BCT Meeting
BRAC Conf. Room

Item	Action	Comment
FFA Schedules	Status Update	
OUCTP RI/FS	Status Update	
OU2 and 2/12 Treatment Systems	Status Update	
Groundwater Treatment System Optimization	Status Update	
University Villages Development	Presentation	Provided by developers
Fort Ord Supply Wells	Status Report	
OU2 Landfill Gas	Status Update	
Site 3 Post Remediation Monitoring	Workplan Status	
Basewide Range Assessment	Status Update	
Site 39 Eco risk Work	Status Update	
Range 36A Closure Activities	Status Update	
East Garrison Ranges Interim Action	Status Update	
FOST/FOSL/FOSET Issues	Status Update	
Calendar Update	Update	
OUI Groundwater Remediation	Status Update	HGL

SUBJECT: HTW - BCT Meeting

August 26, 2005

9:00 a.m.

BRAC Conference Room

Check

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SUBJECT: HTW - BCT Meeting

August 26, 2005

9:00 a.m.

BRAC Conference Room

Check

(✓)	Name	Organization	Phone	E-mail address
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<i>WP</i>	Wayne S. Mcnamara	Shaw	925-288-2003	Wayne.McNamara@Shawgrp.com
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Former Fort Ord Groundwater Treatment Systems Operational Data

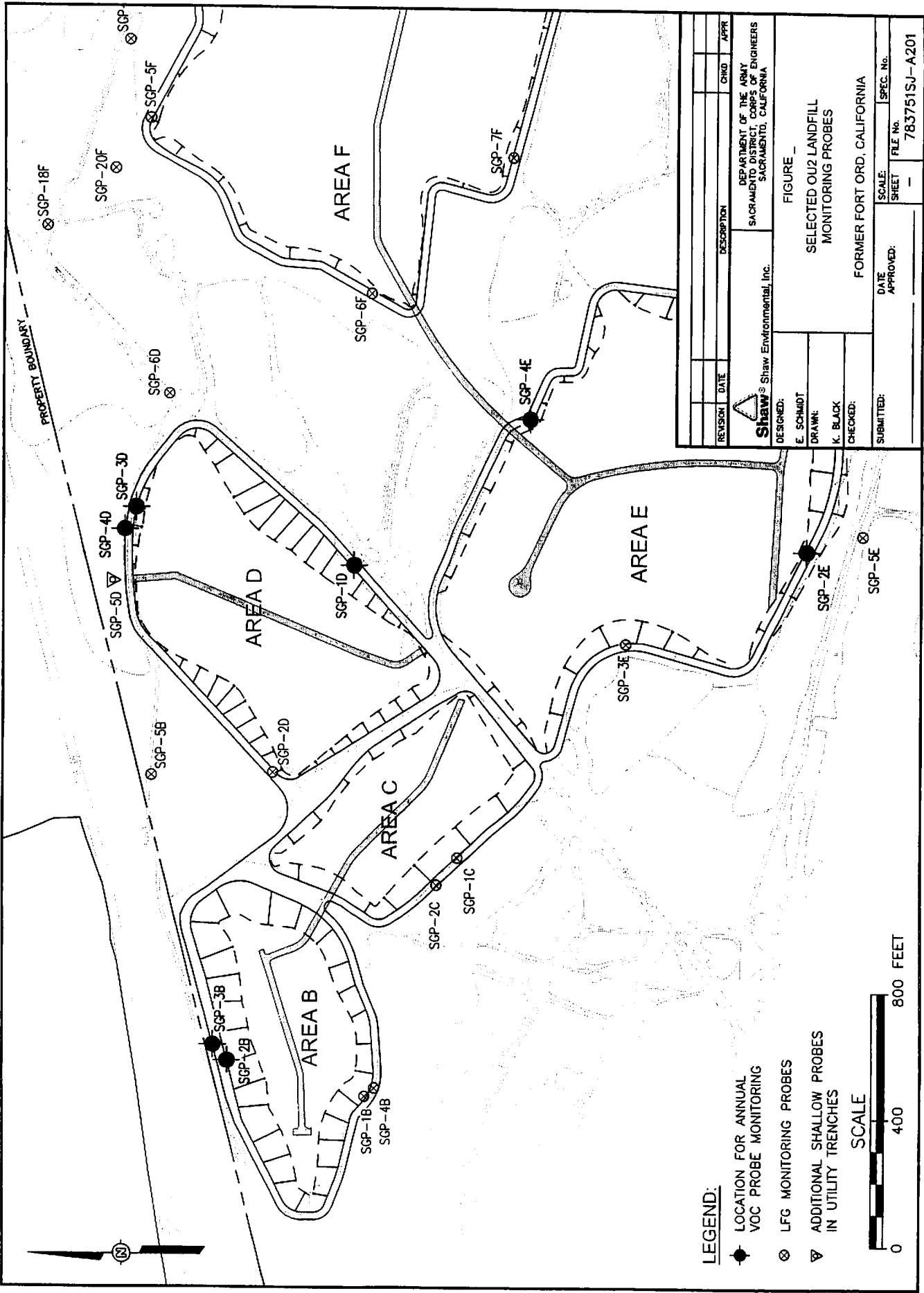
Project	Status/Update
OU-2	<p><u>O & M</u> <u>Stats for the month of July (6/25/05-7/29/05)</u></p> <p>Plant operating at 744gpm (avg.) Average influent concentration of 10.0 ppb (TCE) 37.52 million gallons treated.</p> <p><u>Cumulative Stats:</u> 3.189 billion gallons of water treated</p>
Sites 2/12	<p><u>O & M</u> <u>Stats for the month of July (6/25/05-7/29/05)</u></p> <p>Plant operating at 253gpm (avg.) Average influent concentration of 13.5 ppb (TCE) 12.76 million gallons treated</p> <p><u>Cumulative Stats:</u> 825 million gallons of water treated</p>

Operational Issues:

- 1) The 2/12 and OU2 GWTP's were shut down for maintenance issues twice in the month of July.
- 2) EW-12-03-180M (212 GWTS) remains off pending electrical trouble shooting.
- 3) Stats are for a five week period.
- 4) Trenching work to infiltration galleries to happen some end of next week, and connection and completion of work will happen 9/12 - 14

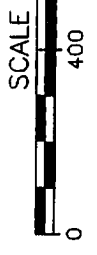
Document Issues:

- 1) Review period of OU2 and 2/12 Annual Reports complete. Working on RTC.
- 2) Update of OU2 and 2/12 O&M Manuals in progress.



LEGEND:

- LOCATION FOR ANNUAL VOC PROBE MONITORING
- ⊗ LFG MONITORING PROBES
- ▽ ADDITIONAL SHALLOW PROBES IN UTILITY TRENCHES



REVISION	DATE	DESCRIPTION	CHG	APPR

Shaw's Shaw Environmental, Inc.
 DESIGNED: E. SCHMIDT
 DRAWN: K. BLACK
 CHECKED: _____
 SUBMITTED: _____

DEPARTMENT OF THE ARMY
 SACRAMENTO DISTRICT CORPS OF ENGINEERS
 SACRAMENTO, CALIFORNIA

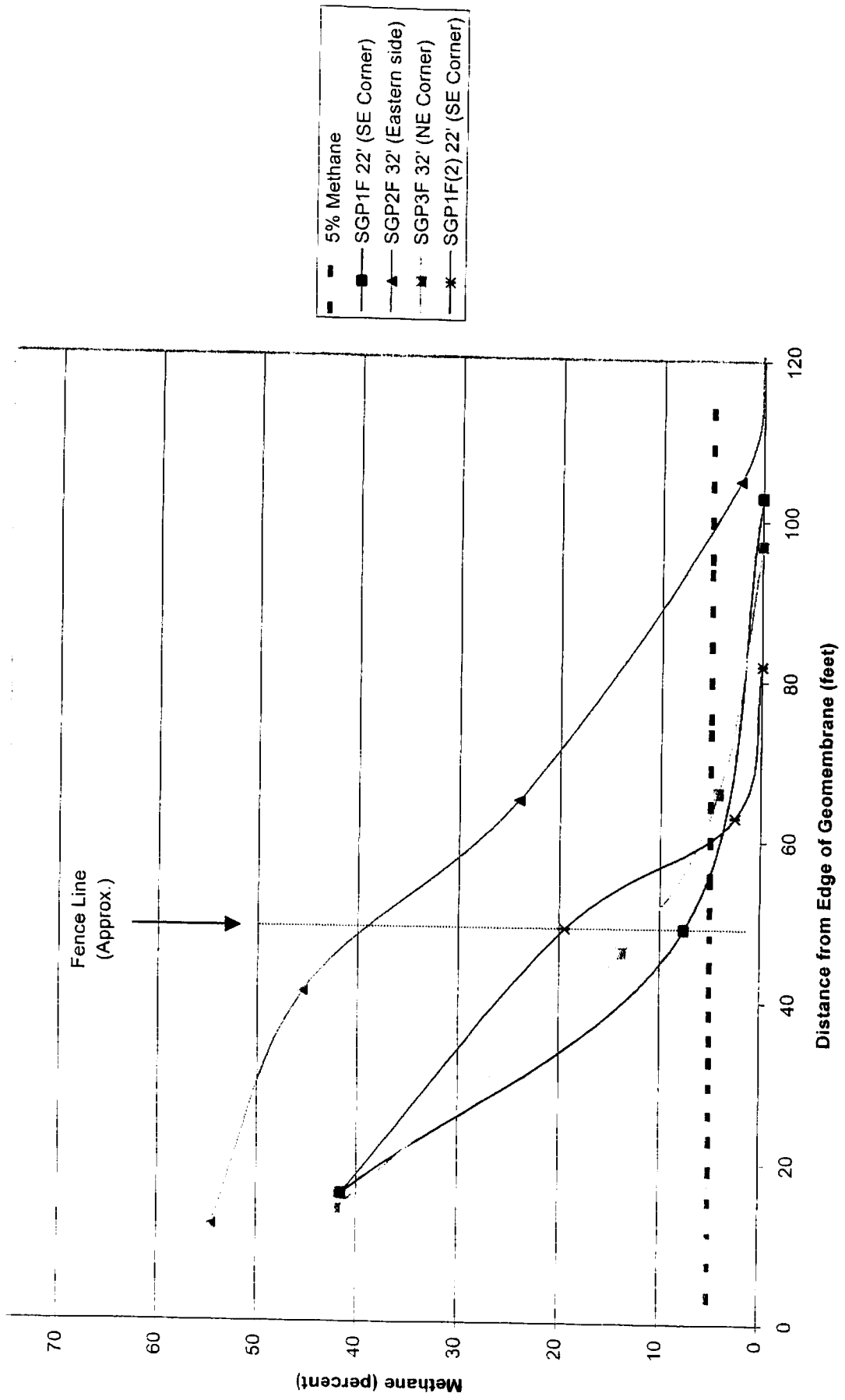
FIGURE -
 SELECTED OU2 LANDFILL
 MONITORING PROBES
 FORMER FORT ORD, CALIFORNIA

SCALE: _____
 SHEET: _____
 FILE No. 783751SU-A201

Perimeter Probe Data

		Date	VC (ppb)	Methane
SGP-2B-12'	Edge of LF	30-Mar-05	5.7	15%
SGP-3B-12'	Compliance	30-Mar-05	<0.82	0%
SGP-3D-12'	Edge of LF	30-Mar-05	520	18%
SGP-3D-22'	Edge of LF	30-Mar-05	420	18%
SGP-4D-12'	Compliance	30-Mar-05	<0.82	0%
SGP-4D-22'	Compliance	30-Mar-05	0.69J	0%
SGP-1D-12'	Edge of LF	30-Mar-05	65	22%
SGP-1D-22'	Edge of LF	30-Mar-05	99	19%
SGP-2E-12'	Edge of LF	30-Mar-05	<0.7	23%
SGP-4E-12'	Edge of LF	30-Mar-05	300	39%
Area F	INFLUENT	4/11/2005	220	16%

Figure 3-2
Graph Showing Methane Concentration Declining as a Function of Distance from the Edge of the Landfill
August 2000





***Groundwater Remediation System Modifications
Required for the
University Villages Development***

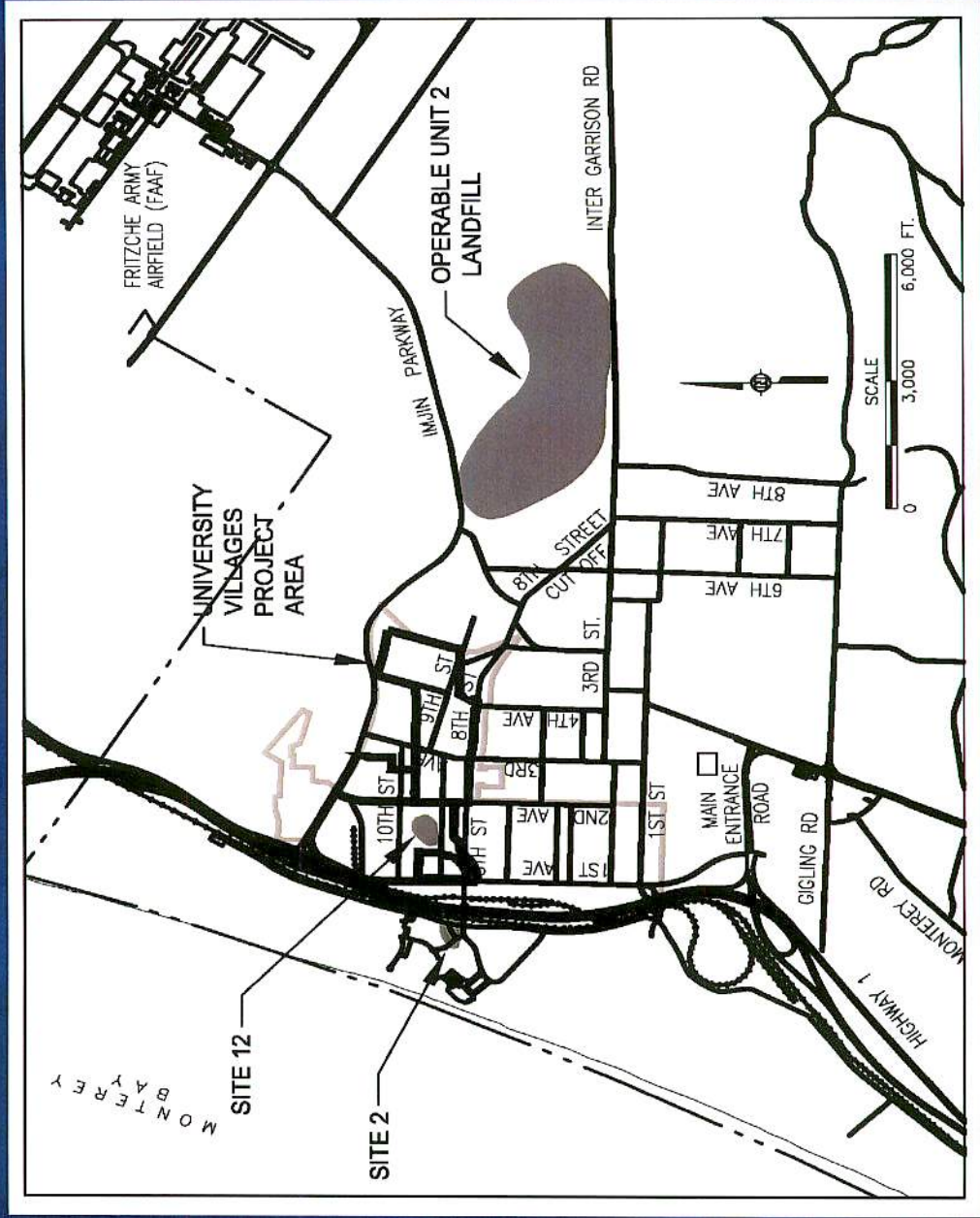
Former Fort Ord, Marina, CA

Prepared for the Marina Community Partners, Inc.

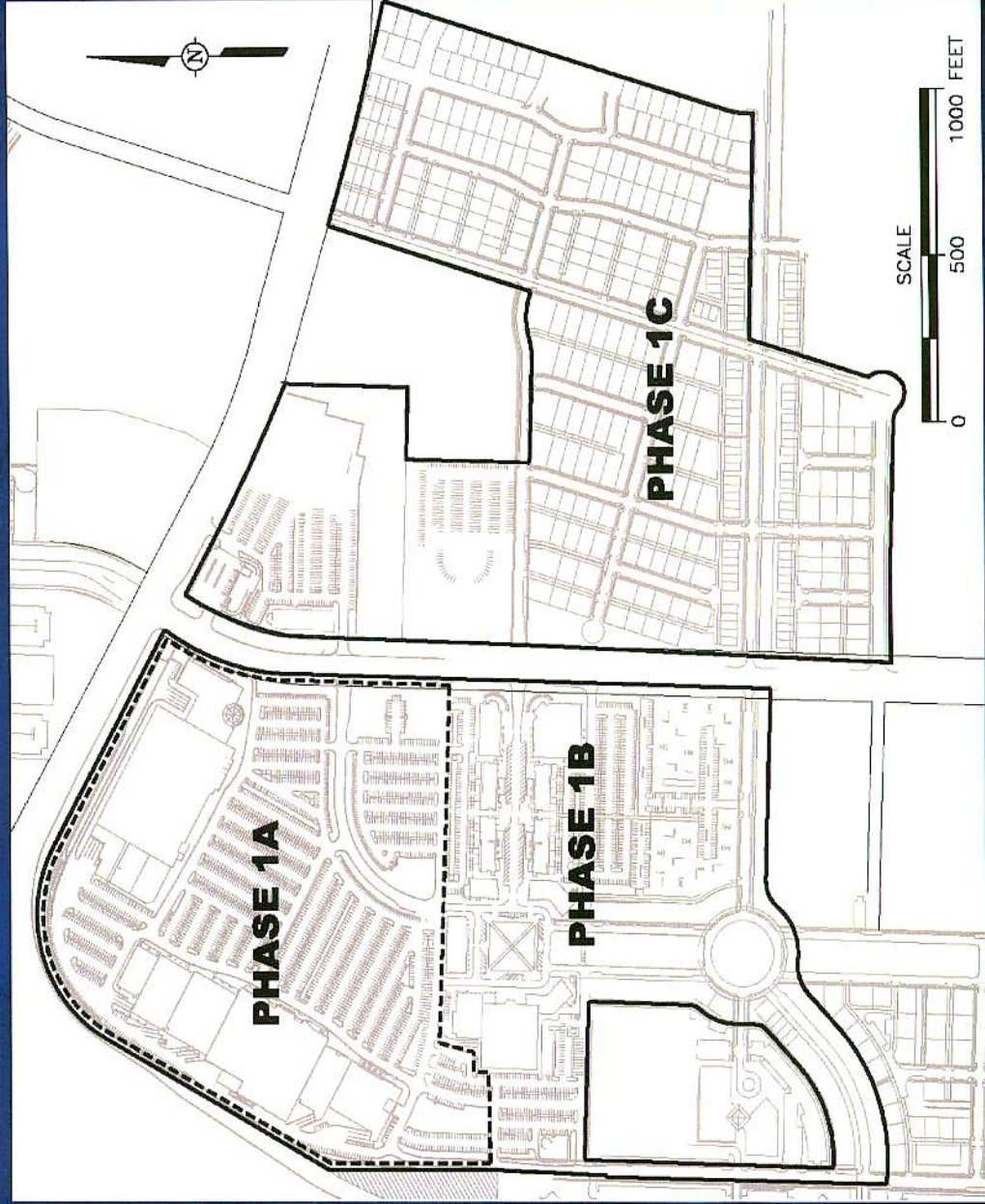
Shaw Environmental, Inc.

August 26, 2005

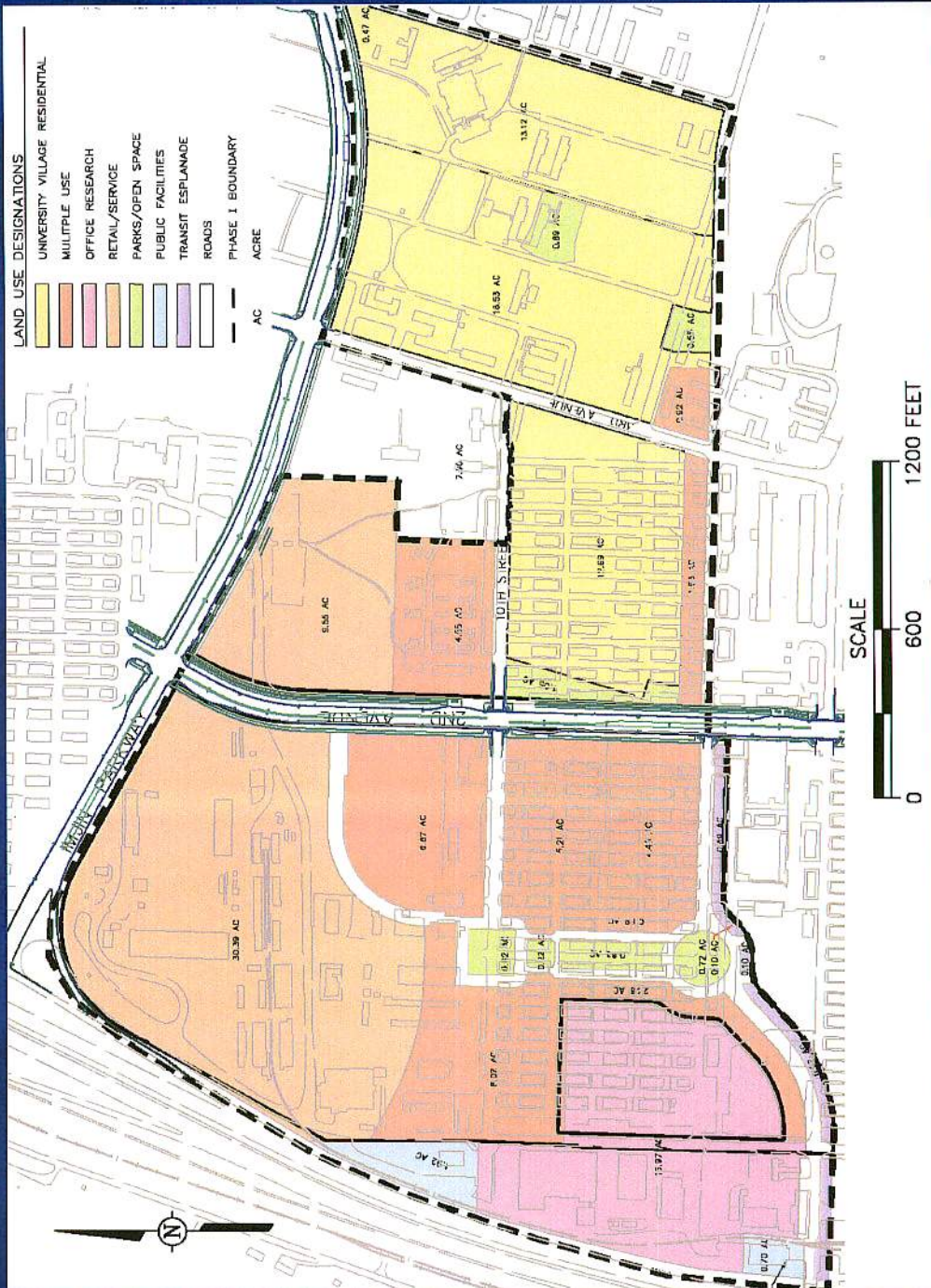
University Villages - Project Area



Phase I Development: 2006 - 2008



Phase I Land Use



Goals of Modification Program

MCP Objectives

Reposition parts of the P & T system to enable redevelopment

Realign pipelines with UV infrastructure

Relocate extraction wells to allow development

Adjust certain wellheads and pipelines to developed grade

Remove system components that are no longer needed

Remove or close Army components that are replaced

Decommission and dispose of wells and pipelines

ARMY Objectives

Maintain or accelerate the rate of remediation, using existing GWTPs

Keep the GWTPs operating throughout construction

Upgrade wells, pipelines and other system components

Improve extraction, as part of greater system optimization work

Replace old and possibly inefficient extraction wells

Relocate extraction well intakes in an aquifer zone with higher concentration COCs

Maintain or increase the current recharge rate at Site 2

Maintain the location of the Site 2/12 groundwater plume

Complete work with no negative impacts

Task List

Task 1: Relocate the northern extraction network for 2/12 GWTP

Task 2: Adjust/abandon selected MWs between the OU2 and 2/12 plumes

Task 3: Treated water pipeline between the OU2 GWTP and the 2/12 GWTP

Task 4: Add backup infiltration gallery at 2nd Avenue and 10th Street

Task 5: Realign TW pipe between the OU2 GWTP and SW infiltration gallery

Task 6: Untreated water pipeline from EW-OU2-06A to the OU2 GWTP

Task 1: Relocate the Northern Extraction Network for 2/12 GWTP

Actions

Move northern network segment roughly 50 feet west
Install new system to developed grade

Reason

Footprints for UV buildings overlie current wells
Developed grade will add 2-15 ft to present

Well changes

Abandon : EW-12-01-180U, EW-12-02-180U
Abandon: EW-12-01-180M, EW-12-02-180M
Reinstall: 3 EWs (X-1,X-2,X-3) ~ 140 ft completion, with MWs

Pipeline changes

Reinstall new pipeline at finished grade, in drive aisle

Key design concepts

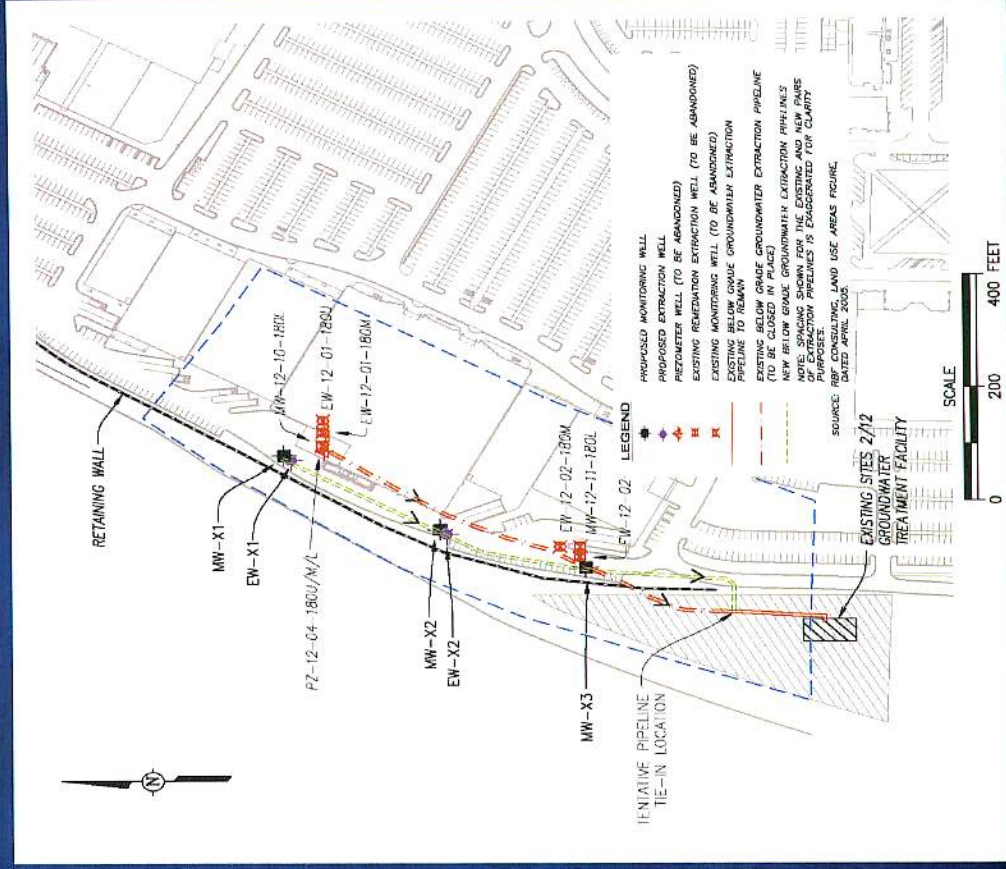
Operate existing EWs and MWs until switch-over
Install stacked vaults to protect EWs during backfilling
Clean-close the existing conveyance in-place

Operational impacts

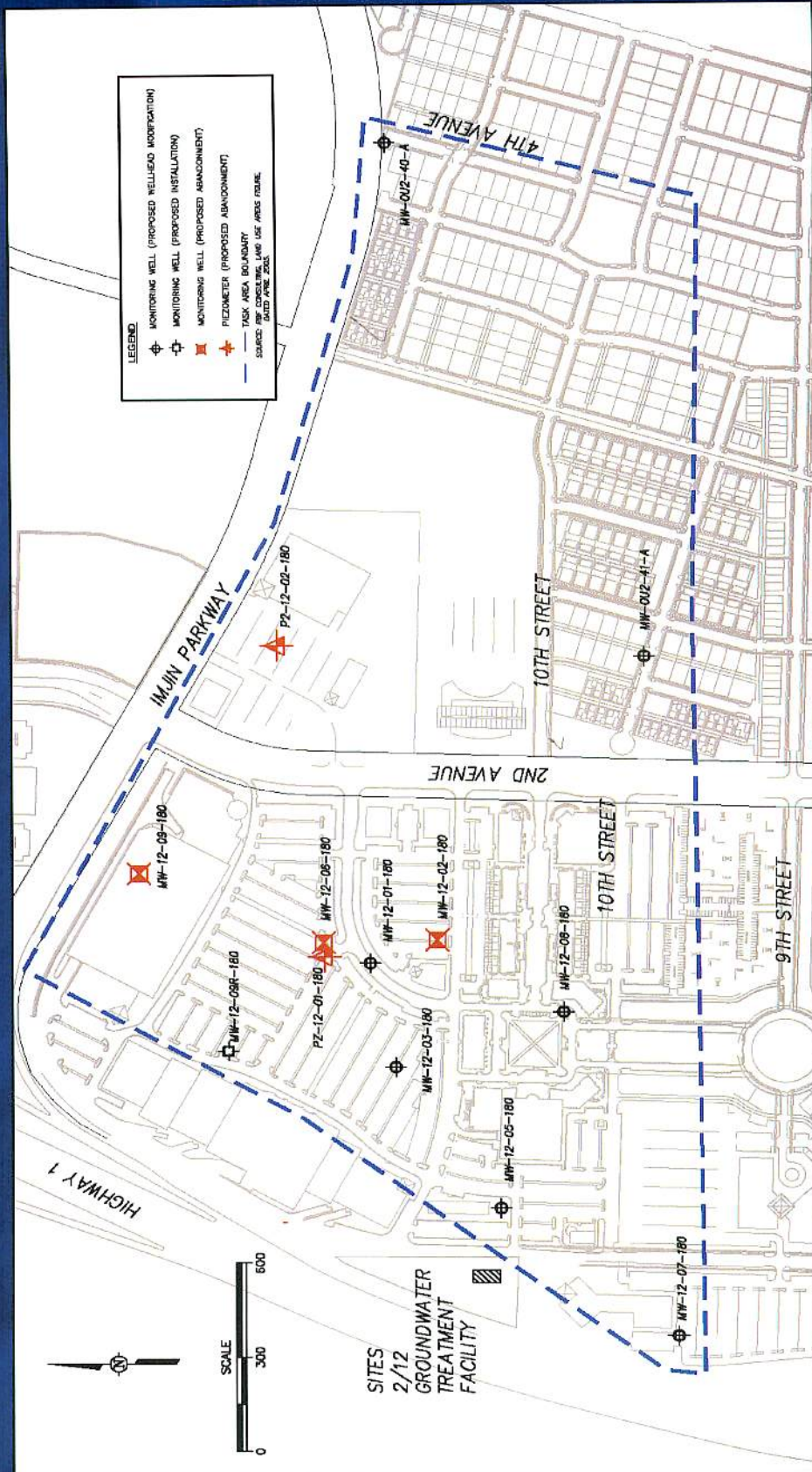
Reduced flow to the Sites 2/12 GWTP during switch-over. ~ 1 wk

Modification benefits

New well configuration cuts cleanup time in half



Task 2 Work Area



Task 2: Adjust/Abandon Selected MWs Between the OU2 and 2/12 Plumes

Actions

Adjust MW array to meet future monitoring needs
Modify MW elevations to meet the development plan

Reasons

Footprints for UV buildings overlie current wells
Development cut / fill will require well box adjustments
Some MWs can be shut down, based on groundwater monitoring protocol

Well changes

Raise / lower well boxes: 7 MWs
Reinstall: 1 MW, closer to the Sites 2/12 plume
Abandon: 3 MWs and 2 piezometers

Pipeline changes

None

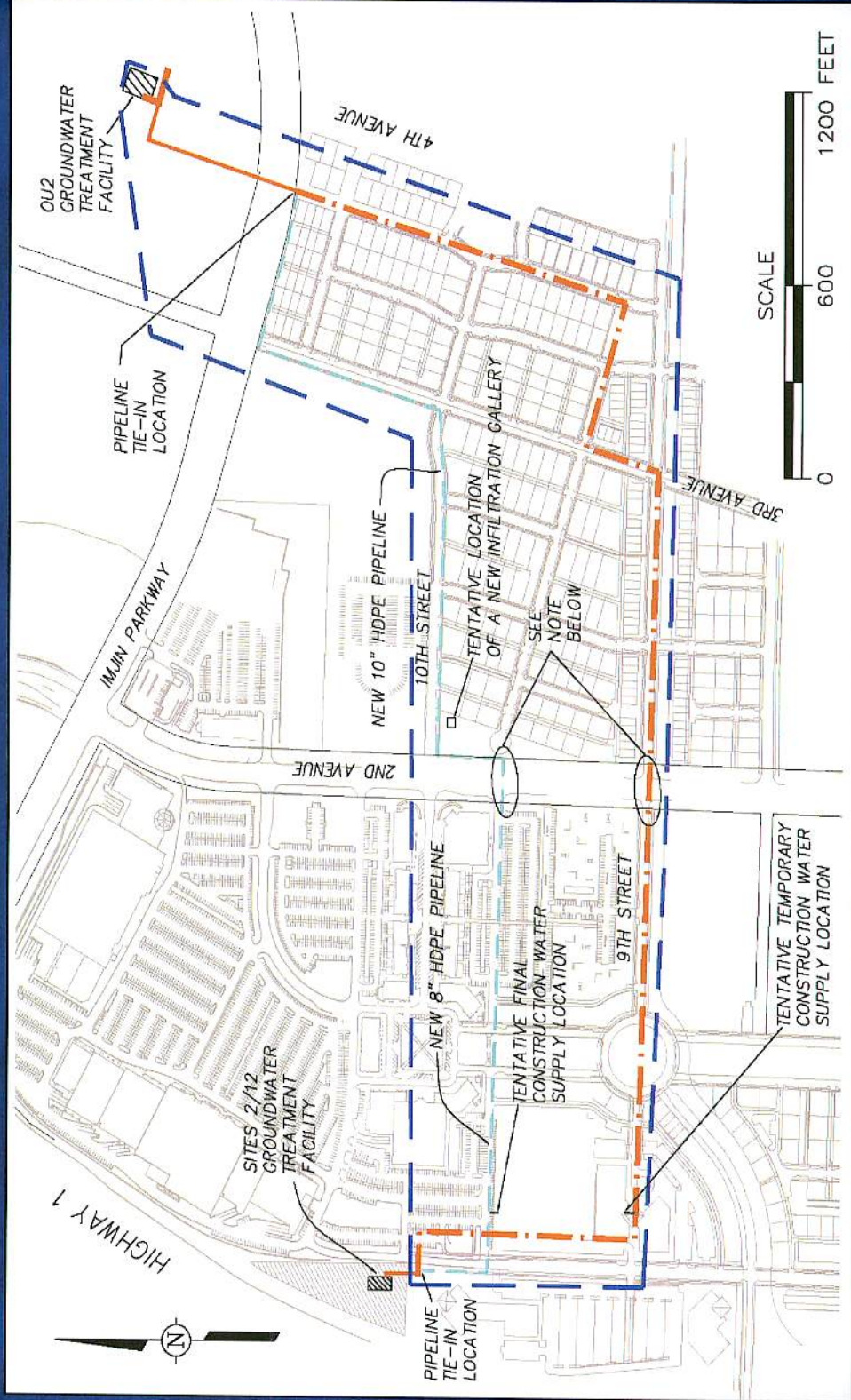
Design Concepts

Raise wellheads before backfilling
Maintain monitoring program throughout

Operational Impacts

None

Task 3 Work Area



Task 3: Treated Water Pipeline Between the OU2 GWTP and the 2/12 GWTP

Actions

Install 4,400 feet of new treated water pipeline to developed grade
Align pipelines with new UV infrastructure

Reasons

Provide for future access to treated water pipelines
Provide manifold access to treated water, for construction use

Well changes

None

Pipeline changes

Install construction water manifolds
Realign 2,200 feet of 8" diameter pipeline from 9th St. to 10th St., west of 2nd Ave.
Install a new 10" diameter pipeline from Imjin at 4th Ave. to 2nd Ave. at 10th St.
Increase maximum flow capacity to 1,000 gpm, east of 2nd Avenue

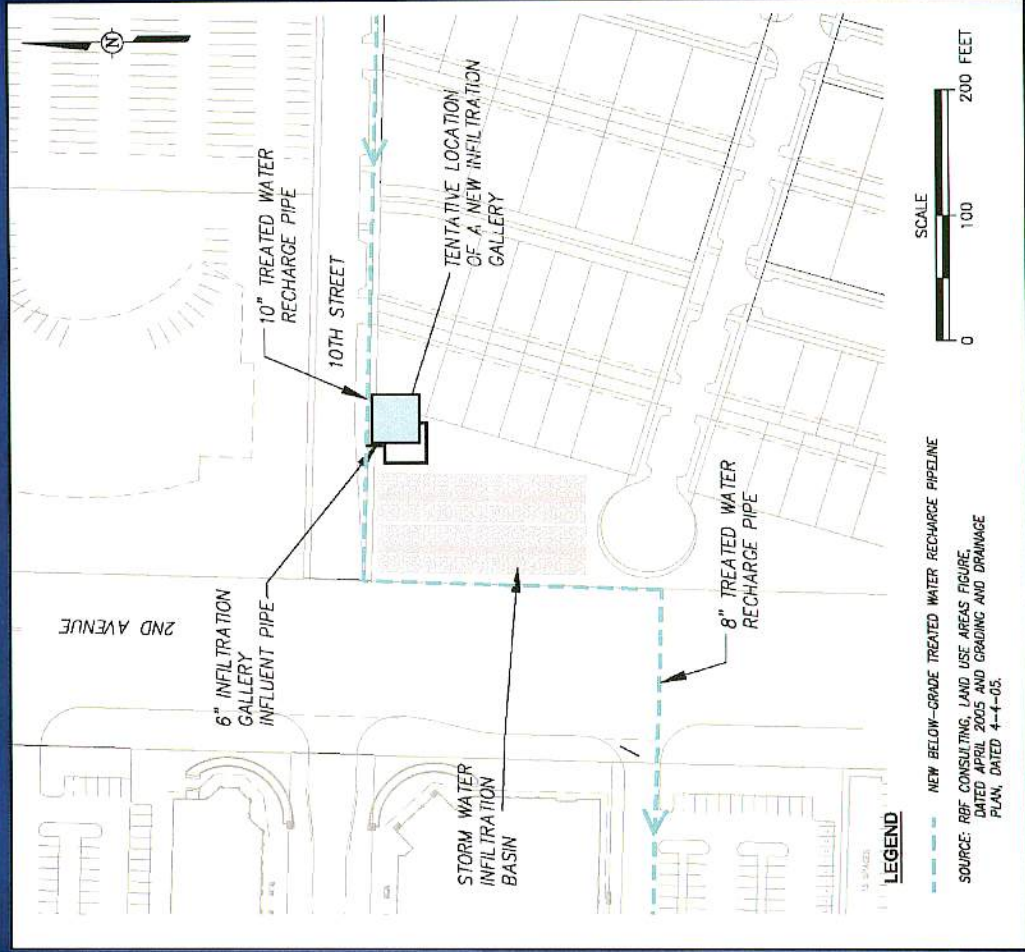
Key design concepts

Upgrade flow capacity to meet expected future discharge from OU2 GWTP
Add manifold near 1st Avenue, to enable the use of treated water for construction purposes

Operational impacts

Reduced flow to the Site 2 infiltration gallery, during switch-over. ~ 1week

Task 4 Work Area



Task 4: Add Backup Infiltration Gallery at 2nd Avenue and 10th Street

Actions

Add ~400 gpm of treated water recharge capacity upstream of the Sites 2/12 GWTP

Reasons

Add treated water recharge capacity for OU2 GWTP, south of Imjin Parkway
Provide capacity that will enable future decommissioning of the northwest infiltration gallery

Pipeline changes

Install a 6" diameter lateral to connect the 10th St. pipeline to the new gallery
Install a 32' x 32' infiltration gallery, with four 16" infiltration borings to the water table

Key design concepts

Position UV percolation facilities sufficiently far from this infiltration gallery (development plan evolving)
Draw from the new 10th St. pipeline, which is reinstalled with increased flow capacity allowance
Install as a back-up, for later use if needed

Operational impacts

None until the system is activated

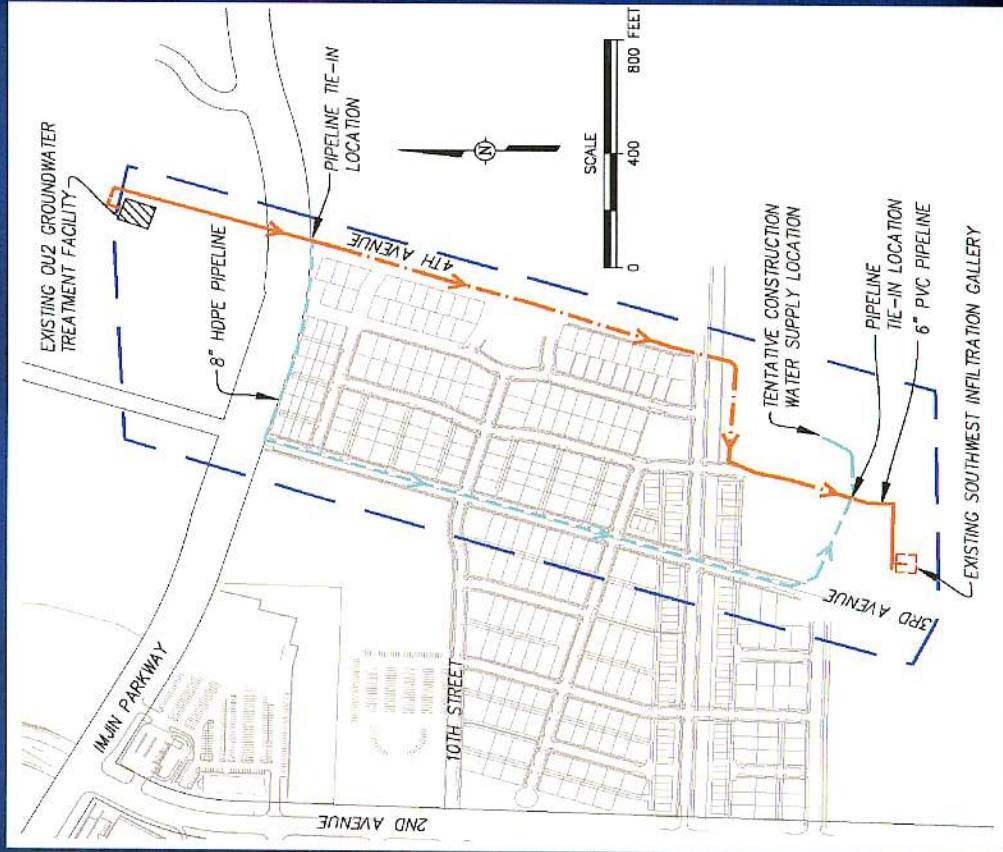
Modification risks

Once this gallery is activated, increased recharge could impact the Sites 2/12 groundwater plume control

Modification benefits

Increase the recharge capacity for treated water from the OU2 GWTP by ~400 gpm (~40%)

Task 5 Work Area



LEGEND

- EXISTING TREATED WATER RECHARGE PIPELINE TO REMAIN
- · - EXISTING TREATED WATER RECHARGE PIPELINE TO BE REMOVED
- · - NEW TREATED WATER RECHARGE PIPELINE

SOURCE: RBF CONSULTING, LAND USE AREAS FIGURE, DATED APRIL 2005.

Task 5: Realign TW Pipe Between the OU2 GWTP and SW Infiltration Gallery

Actions

Install 3,000 feet of new treated water pipeline to developed grade
Align pipelines with new UV infrastructure

Reasons

Provide for future access to treated water pipelines
Provide manifold access to treated water, for construction use

Well changes

None

Pipeline changes

Move the pipeline segment between Imjin Parkway and 8th St. from 4th Ave to 3rd Ave.
Install a construction water manifold on the new pipeline
Upgrade the pipeline material and increase the diameter of the pipeline from 6 inches to 8 inches

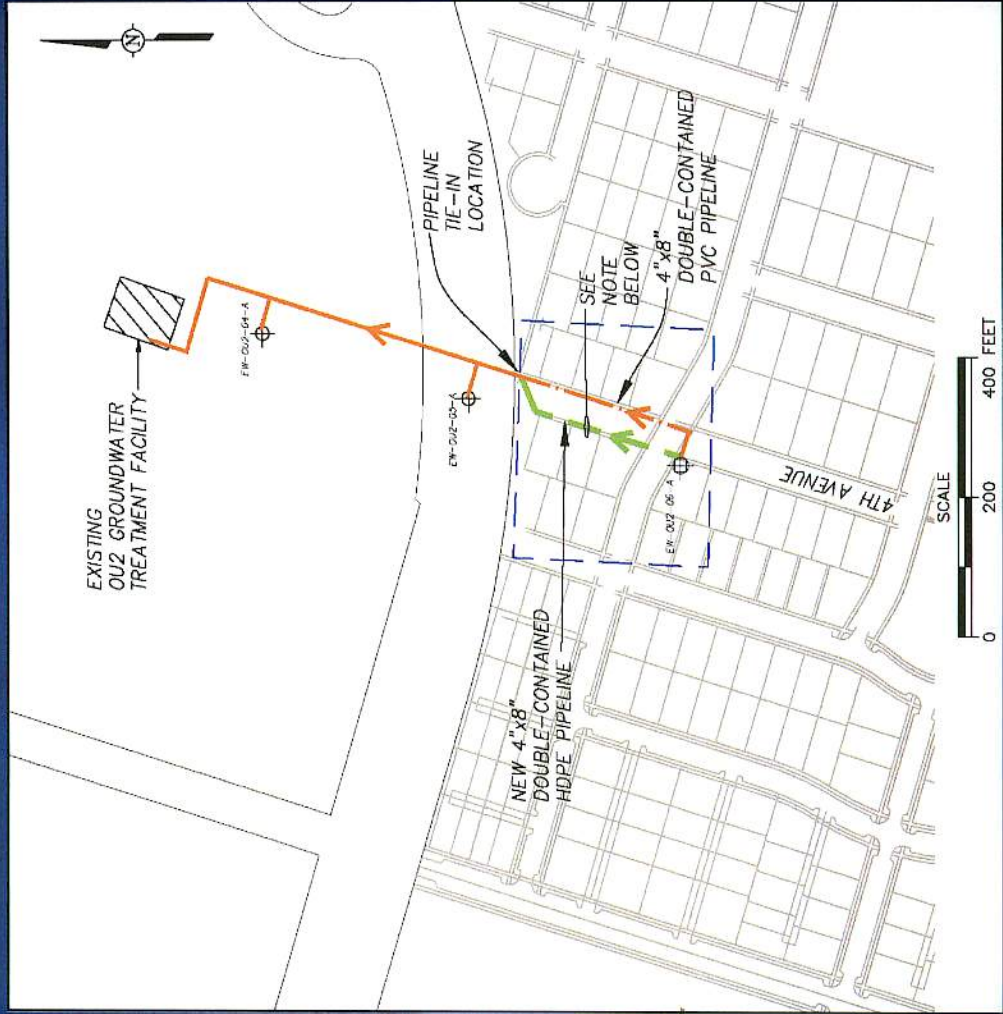
Key design concepts

Upgrade materials from PVC to HDPE to conform with most of the groundwater remediation system conveyances
Add manifold near 8st Street, to enable the use of treated water for construction purposes

Operational impacts

Reduced flow to the Site 2 infiltration gallery, during switch-over. ~ 1week

Task 6 Work Area



LEGEND

- ⊕ EXISTING EXTRACTION WELL
- ⊕ EXISTING EXTRACTION WELL TO BE MODIFIED
- EXISTING BELOW-GRADE GROUNDWATER EXTRACTION PIPELINE TO BE REMOVED
- EXISTING BELOW-GRADE GROUNDWATER EXTRACTION PIPELINE TO REMAIN
- NEW BELOW-GRADE GROUNDWATER EXTRACTION PIPELINE

NOTE: THE NEW EXTRACTION PIPELINE WILL BE INSTALLED ABOVE EXISTING GRADE TO ACCOMMODATE NEW DEVELOPED GRADE IN THE AREA. REFER TO FIGURE 9-1 FOR CONCEPTUAL INSTALLATION DETAILS.

SOURCE: RBF CONSULTING, LAND USE AREAS FIGURE, DATED APRIL 2005.



Task 6: Untreated Water Pipeline from EW-OU2-06A to the OU2 GWTP

Actions

Relocate 300 feet of untreated water pipeline to accommodate development

Reasons

Align pipelines with UV infrastructure and developed grade

Well changes

Raise the wellhead roughly 5 feet

Pipeline changes

Move the pipeline segment roughly 50 feet west, off of 4th Ave.

Upgrade the pipeline material from PVC to HDPE

Key design concepts

Install the new pipeline in an above-ground trench, before grading

Raise the wellhead while the EW is shut off

Sequence work to minimize the time required for system switch-over

Operational impacts

Reduced flow to the OU2 GWTP during switch-over. ~ 1week ~ 50 gpm

MODIFICATIONS TO THE GROUNDWATER REMEDIATION SYSTEM
University Villages Development

Summary of Impacts

Shaw Environmental Inc.
26-Aug-05

TABLE 1	Overview							
	2/12 Extraction Rate	OU2 Extraction Rate	Cleanup Duration	Infiltration Capacity	OU2 TW Pipeline Capacity	OU2 GWTP Reduced Rate	2/12 GWTP Reduced Rate	OU2 Excess TW
CHANGES	+120 gpm	No Change	-4 years	+400 gpm	+400 gpm	50% reduction for -1 week three times	30% reduction for -1 week once	-70 gpm (construction use)

TABLE 2	Northern Network for 2/12 GWTP							
	Upper-180 EWs	Middle-180 EWs	Total Extraction Rate	Est. Cleanup Time 2/12 Plume	Lower-180 MWs	Piezometer	Conveyance	Switch-Over Time
Current	EW-12-01-180U EW-12-02-180U	EW-12-01-180M EW-12-02-180M	105 gpm for four wells	~8 years	MW-12-10-180L MW-12-11-180L	PZ-12-04-180U/MIL	1400 ft 2" to 4" double-walled HDPE	0
Modified	Abandoned	EX-1*, EX-2*, EX-3* moved ~50 feet west	225 gpm for three wells	~4 years	MX-1*, MX-2*, MX-3* (next to new EWs)	Abandoned	1800 ft* 2" to 4" double-walled HDPE moved ~50 ft west	1 week

TABLE 3	MWs and Piezometers Between the Plumes				
	MWs to Adjust	MWs to Abandon	PZs to Abandon	MWs to Install	Switch-Over Time
Current	MW-12-01-180 MW-12-03-180 MW-12-05-180 MW-12-07-180 MW-12-08-180 MW-12-01-180 MW-OU2-40-180 MW-OU2-41-180	MW-12-02-180 MW-12-06-180 MW-12-09-180	PZ-12-01-180U/MIL PZ-12-02-180U/MIL	MW-12-09R-180	N/A
Modified	MW-12-01-180* MW-12-03-180* MW-12-05-180* MW-12-07-180* MW-12-08-180* MW-12-01-180* MW-OU2-40-180* MW-OU2-41-180*	Abandoned	Abandoned	MW-12-09R-180* (relocated 210 ft SSW)	

TABLE 4	OU2 to 2/12 TW Pipeline					
	Imjin to 2nd Ave	2nd Ave to 2/12 GWTP	Construction H2O	Infiltration Gallery Lateral	Max Capacity	Switch-Over Time
Current	2700 ft 8" single-walled HDPE	2300 ft 8" single-walled HDPE	None	0	600 gpm	0
Modified	2900 ft* 10" double-walled HDPE moved to 10th St	1300 ft* 8" single-walled HDPE moved to 10th St	One at 1st Avenue*	~400 gpm	~1000 gpm	1 week

TABLE 5	OU2 to Southwest Infiltration Gallery TW Pipeline			
	Imjin to 8th Street	Construction H2O	Max Capacity	Switch-Over Time
Current	2100 ft 8" single-walled PVC	None	No Change	0
Modified	3000 ft* 8" single-walled HDPE moved to 3rd St	One at 8th Street*		1 week

TABLE 6	Southern Network for OU2 GWTP			
	Upper-180 EWs	Total Extraction Rate	Conveyance	Switch-Over Time
Current	EW-OU2-06A	No Change	300 ft 4" double-walled PVC	0
Modified	EW-OU2-06A*		300 ft* 4" double-walled HDPE moved ~50 feet east	1 week

* = Installed to developed grade

Former Fort Ord Property Transfer Update

August 25, 2005

FOST 8

- Track 0 and Track 0 Plug-in Group B Parcels (29 Parcels ~234 acres)
- Agencies have concurred and FOST signed.
- One Groundwater Protection CRUP for three parcels within the Prohibition Zone.
- CRUP language finalized with DTSC, in review by Army. Cost issue remains.

FOST 9

- Track 0 Plug-in Group C, Track 1 and Track 1 Plug-in Parcels (29 Parcels ~1,894 acres)
- Agencies have concurred and FOST signed.
- Five Groundwater Protection CRUPs (one per jurisdiction) for 15 parcels within the Prohibition Zone.
- CRUP language finalized with DTSC, in review by Army. Cost issue remains.

FOST 10

- Track 0 Plug-in and Track 1 Plug-in Parcels (29 Parcels ~800 acres)
- Track 0 Plug-in parcels dropped from FOST 8 and FOST 9. Will require approval memo.
- Track 1 Plug-in parcels associated with MRS-2 (8 of 10 parcels ~45 acres). Will require approval memo.
- Parcels moved from FOSET 5 after further evaluation and splitting.
- Two Groundwater Protection CRUPs, one CRUP for residential restriction.
- Schedule for FOST is being developed, signature of FOST estimated to be May 2006.

FOSL 12

- Military Operations on Urbanized Terrain (MOUT) Site (1 Parcel ~54 acres)
- Comments received from USEPA and DTSC and Clifford Doyle. Comments expressed concern that intended reuse given in FOSL (for MPC's public safety programs) is too vague. FOSL being revised to provide specifics based on like use scenario.
- Has received low priority status due to issues with FOST 8, FOST 9 and FOSET 5.

FOSET 5

- ESCA (49 Parcels ~3,500 acres)
- Draft FOSET complete, submitted to HFO on June 28, 2005
- Internal Army review and revision completion dependent on ESCA progress.
- OU2 Landfills parcels require ESD addressing potential presence of MEC in the Landfills. 30-day comment period ended August 22, 2005. Comments received from USEPA.
- FOSET “scrubbed” to assess parcels that may be transferred by FOST.