

Vernal Pool Information Network
January 19, 2016
Site Visit to the Jackson County Urban Renewal Agency's
Vernal Pool Mitigation Site
Summary

Attendees: Sam Friedman, U. S. Fish and Wildlife Service (USFWS); Jim Thraikill, USFWS; Greg Swenson, consultant; Craig Tuss, Rogue Valley Council of Governments (RVCOG); Paul Benton, Oregon Department of Transportation (ODOT); Clint Nichols, Jackson Soil and Water Conservation District (SWCD), Shane Latimer, consultant; Steve Lambert, Jackson County Parks; James Philp, Jackson County; David Monnin, consultant; Jud Parsons, landowner; Stuart Lahtinen, landowner; Omar Ortiz, Corps of Engineers.

Objective of meeting and visit: The objective of the visit was to see and hear about the vernal pool restoration work accomplished by Jackson County. Steve Lambert and David Monnin presented information regarding site history, permitting processes, pre-construction conditions, construction methods, monitoring results and tour of the restored complex.

Background: This 10.9 acre mitigation area is owned by Jackson County and is managed by the Jackson County Parks Department as part of the larger 710-acre Jackson County Sports Park. It is a mitigation site for a 2.31-acre wetland impact site for the White City Community Park (Park), approximately one mile to the north (See map and Exhibit 1). The Park site is situated within the heart of the former Camp White military base and was historically leveled. The Park site had one documented occurrence of three vernal pool fairy shrimp in one remnant depression; no plants were impacted for the Park project.

The Park was constructed by the Jackson County Urban Renewal Agency in 2011 and the restoration of the mitigation site was started in June of 2011.

The mitigation site had been leveled during historic Camp White actions and construction of adjacent Highway 140 bordering the north side of the area (Exhibit 2). Major mitigation efforts included:

- Re-contouring of the pools and mounds complex based on a 1939 aerial photograph and wetland delineation results (Exhibit 3 and 4);
- Pouring engineered slurry to restore a portion of the duripan layer breached during installation of a Medford Water Commission 36 inch pipeline several decades ago;
- Native seed broadcast throughout the mitigation (including sensitive plant materials);
- Placing soil inoculum in the restored vernal pools from donor pools known to support shrimp.

The restored pool complex now supports populations of vernal pool fairy shrimp and the two listed plants, Cook's lomatium and Large-flowered wooly meadowfoam.

Other restoration activities include:

- The mitigation is routinely mowed and vacuumed to remove non-native upland plant materials;
- Supplemental upland seeding occurs on an annual basis;
- Select herbicide application of invasive species (especially Starthistle) occurs annually;
- Collected soil inoculum from nearby areas observed to contain shrimp was introduced in 2012, 2013 and 2014;
- Sheep were introduced in 2014 in attempt to reduce the nonnative vegetation on the mounds;
- Upland mounds were mowed, tined and native seed broadcast in fall 2015.

Vernal Pool Information Network, January 19, 2016 Site Visit Summary



Photo: Large, restored vernal pool containing vernal pool fairy shrimp at the JCURA mitigation site January 19, 2016. Photo taken by Sam Friedman.



Photo: JCURA mitigation area, January 19, 2016. Pools in right and left of photo observed to contain vernal pool fairy shrimp. Photo taken by Sam Friedman.



Photo: Vernal pool on the JCURA mitigation site in April 2015. Photo taken by Sam Friedman.

Summary and lessons learned:

- This project was permitted prior to finalization of the USFWS's programmatic biological opinion (VP BO) for the vernal pool fairy shrimp and the two list plants. Because of that timing this project received an independent Biological Opinion outlining a (slightly) different set of standards than projects undertaken under the VP BO.
- Five individual pools were observed to support vernal pool fairy during the January 19 tour.
- Vernal pool plots are documented to meet native vegetation standards.
- Plots containing both listed plants are established.
- Despite ongoing efforts, upland permit conditions are not being met in terms of native / non-native coverage.
- Hydrology monitoring documents the use of slurry to repair the duripan layer has been effective.
- Due to the timing of the permits and work window for this project, pre-construction / vegetation site preparation was abbreviated to two months. The contractor utilized a thermal treatment on the area to reduce the seed bank but prescribed secondary treatments were not realized.
- The need for a “clean” phase prior to introducing native vegetation to the area is very important. The clean phase is a period of time to allow invasive plants to germinate, thus depleting the seed bank and allowing removal and control of invasive plants. It would be optimal to clean a site for (at least) one year prior to native seed / sensitive species introductions.
- Long term management funding of the site may be a financial issue for Jackson County. While funding may be available for onsite efforts, management of offsite lands providing a wind-blown seed source are fiscally unrealistic.
- This area could be a valuable public information project due to the location and should be discussed to see if something can be worked out to provide information signage and public access to the site. This opportunity could assist with the long term management issue above.

Future VPIN Site Visits

In July 2014, The Service provided funding (\$5,000) to RVCOG to convene several more VPIN site visits. RVCOG also has applied for education and outreach funding (\$2,500) from the Jackson Soil and Water Conservation District to augment the Service funding for the site visits. This funding, along with in-kind staff time from RVCOG (\$500) and TNC (\$600) will allow the VPIN to continue site visits and landowner outreach into the fall of 2016.

- ODOT Vernal Pool Mitigation/Conservation Bank (VPMCB) Expansion area: April, 2016
- Table Rocks (BLM): late spring 2016
- The ODOT VPMCB in fall 2016. This visit would focus on the planned summer 2016 vernal pool restoration activities by ODOT.



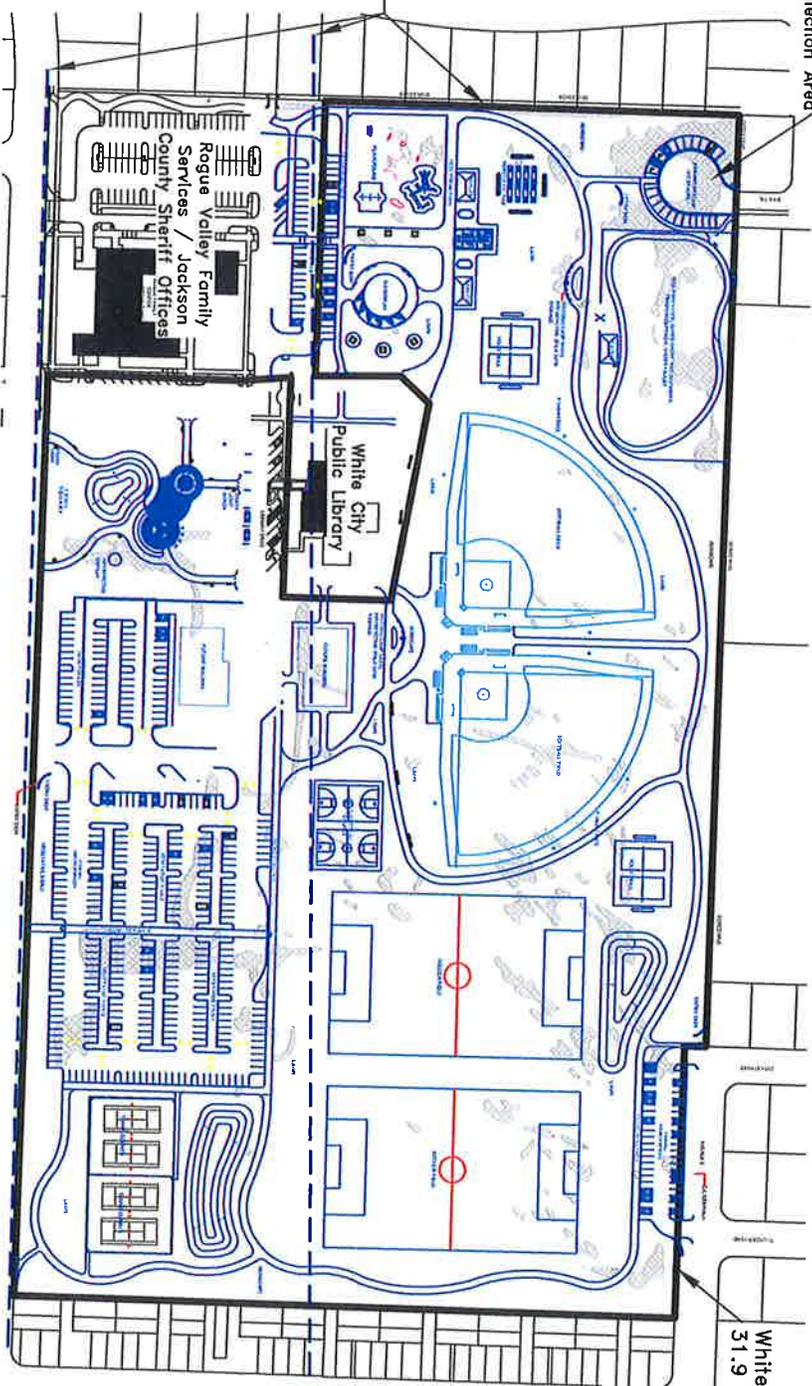
LEGEND

- Authorized Wetland Impact (2.13 acres)
- Corps Defined Drainage Impacts (3693± Linear Feet)

Soil Inoculum Collection Area

White City Community Park
31.9 Acres±

Corps Defined
Drainages
(NWP 2008-564)



NOTE: All wetland impacts occurred in August 2011 upon issuance of DSL Permit 45984-FP and Corps Permit NWP 2008-564/1.

Source: Adapted from Hardey Engineering & Associates, Inc. civil files, DSL Permit 45984-FP & Corps Permit NWP 2008-564/1.

Terra Science, Inc.
Soil, Water, & Wetland Consultants

**VERNAL POOL INFORMATION NETWORK PRESENTATION
OF THE WHITE CITY COMMUNITY PARK OFFSITE
VERNAL POOL MITIGATION PROJECT**
(DSL 45984-FP & Corps NWP 2008-564/1)
White City, Jackson County, Oregon

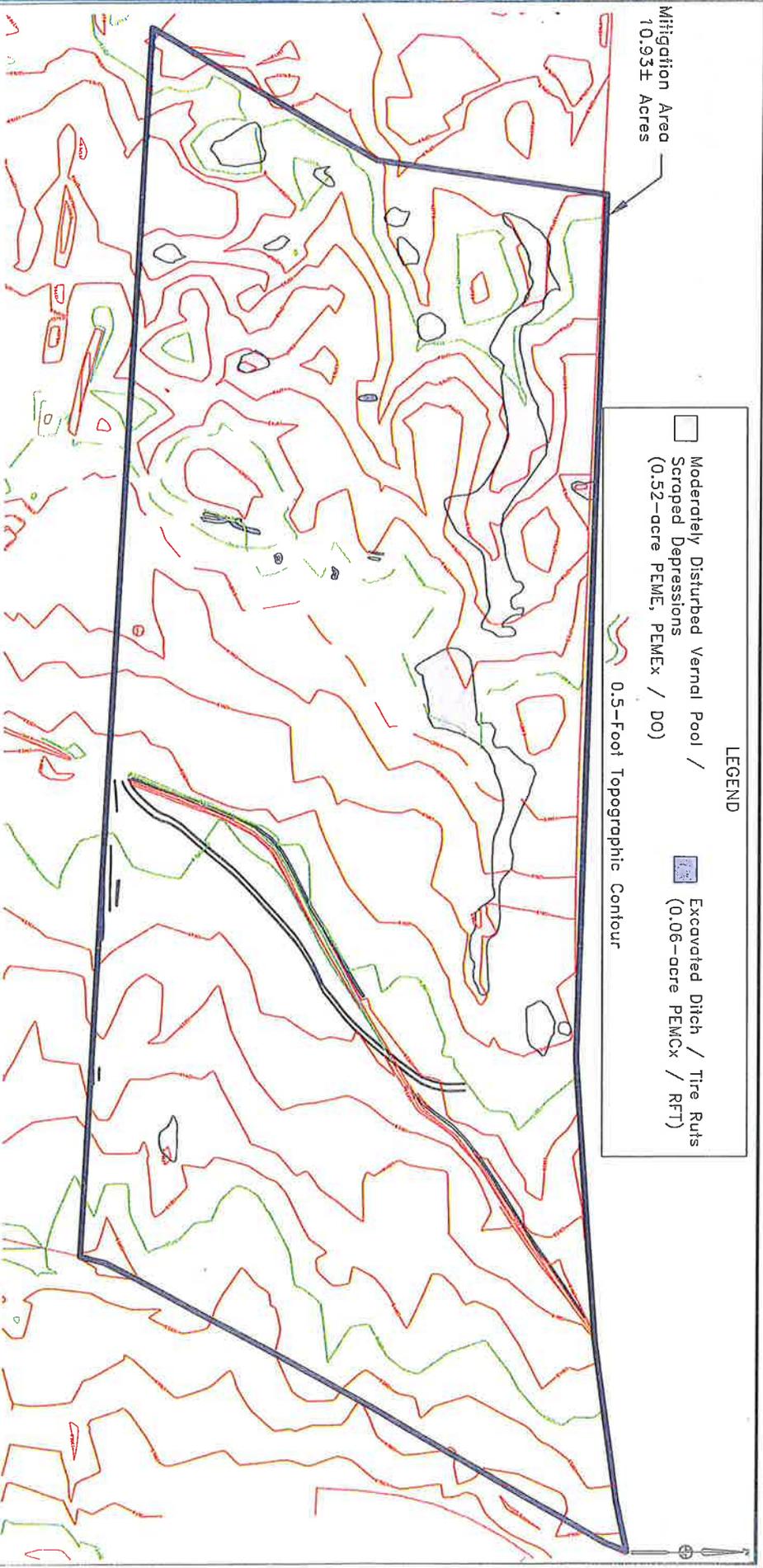
**AUTHORIZED DEVELOPMENT
AND ASSOCIATED IMPACTS**



January 2016

LEGEND

-  Moderately Disturbed Vernal Pool / Scraped Depressions (0.52-acre PEME, PEMEx / DO)
-  Excavated Ditch / Tire Ruts (0.06-acre PEMCx / RFT)
-  0.5-Foot Topographic Contour



NOTE: Mitigation Action Area consists of effectively leveled terrace through eastern third which lacks characteristic patterned ground topography associated with the Agate Desert fan terrace. The western portion consists of moderately disturbed fan terrace with weakly expressed vernal pool topography. No individuals or populations of large-flowered woolly meadowfoam (*Limonanthus floccosa* ssp. *grandiflora*) or Cook's lomatium (*Lomatium cookii*) were identified during the delineation or sensitive plant surveys. Similarly, no individuals or populations of Agate Desert vernal pool fairy shrimp (*Brachinecta lynchi*) were identified during sensitive species surveys.

Wetland delineation report for Mitigation Action Area received Corps Jurisdictional determination NWP 2010-343 on December 02, 2010 and DSL concurrence WD#2010-0218 on December 16, 2010.

Source: Adapted from Jackson County GIS files, Hardey Engineering & Associates, Inc. topographic survey and TSI GPS files.

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White City, Jackson County, Oregon

MITIGATION AREA
PRE-CONSTRUCTION
CONDITIONS



January 2016

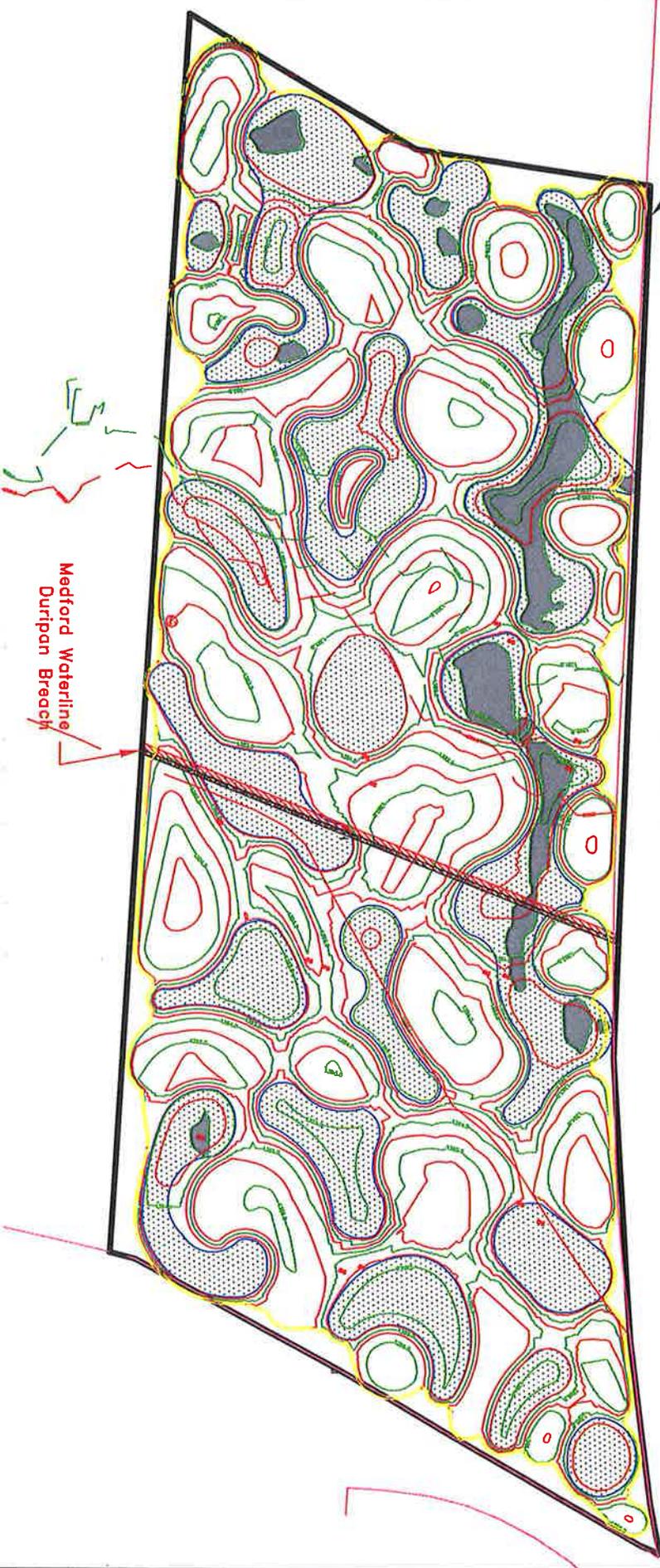


LEGEND

	Acreage	Acre-Credits
 Proposed Enhancement Area	0.52-acre	0.17-ac.-credit
 Proposed Restoration Area	2.98 acres	2.98 ac.-credits
 Mound Restoration	7.43 acres	No Credits
 Community Park Mitigation	10.93± Acres	3.15± ac.-credits

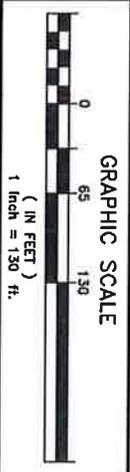
Mitigation Area
10.93± Acres

Oregon Highway 140



Source: Adapted from Jackson County GIS files, Hardey Engineering & Associates, Inc. topographic survey and TSI GPS files.

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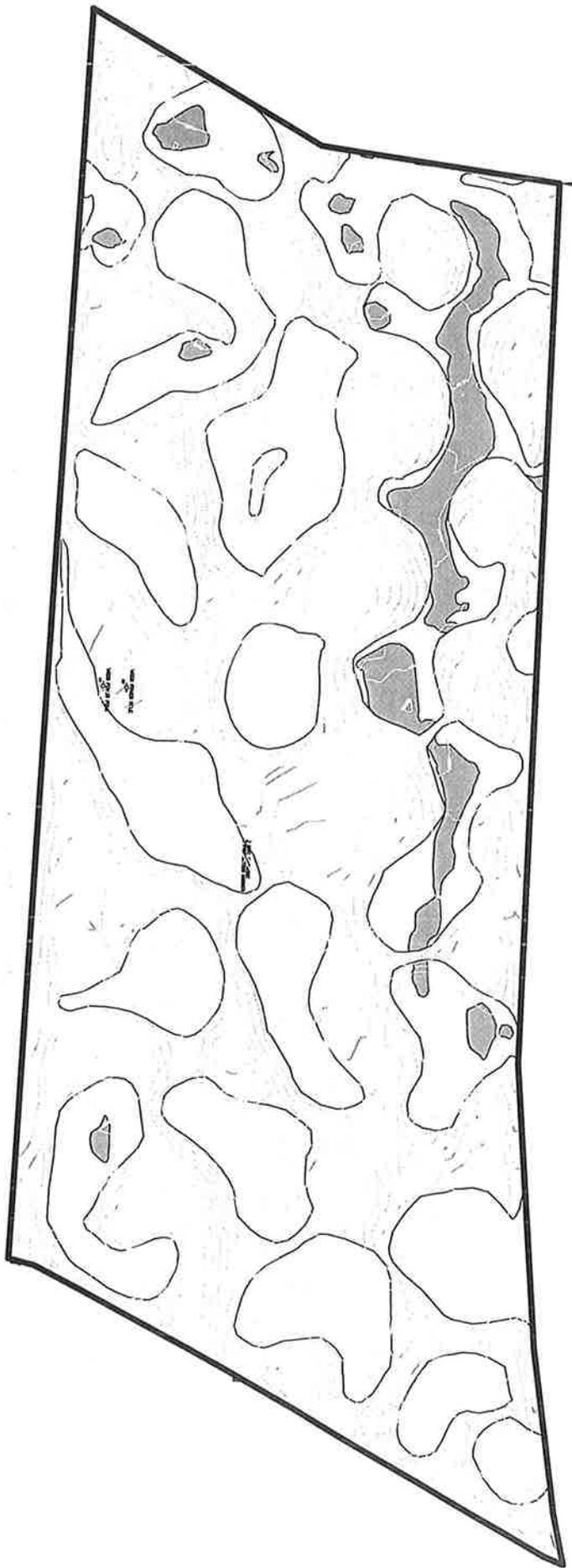
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VERNAL POOL MITIGATION PROJECT**
(DSL 45984-FP & Corps NWP 2008-564/1)
White City, Jackson County, Oregon

**VERNAL POOL COMPLEX
MITIGATION CONCEPT
& PROPOSED CONTOURS**

January 2016

Mitigation Area
10.93 Acres

LEGEND		
	Acreage	Acre-Credits
	0.49-acre	0.16-ac.-credits
	4.15 acres	4.15 ac.-credits
	6.29 acres	No Credits
Community Park Mitigation		10.93± Acres
		4.31 ac.-credits



Source: Adapted from Jackson County GIS files, Hardey Engineering & Associates, Inc. topographic survey and TSI GPS files.

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White City, Jackson County, Oregon

AS-BUILT MITIGATION
TOPOGRAPHY AND
MITIGATION ACREAGES

January 2016

EXHIBIT 4