

Section A: Redevelopment Plan
Part II: Assessment Results

2.1: Land Use and Cultural Resources
Background Information & Analysis

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EXECUTIVE SUMMARY

Site Selection and Military Land Use History: In total, the UMCD currently occupies 17,054.41 acres acquired either through purchase or Federal land transfer. In addition to fee simple land acquisition and transfers from the Public Domain, the Army also acquired by direct purchase and condemnation a number of restrictive easements for an additional 2,673.61 acres for a total of 19,728.02 acres. There are 1,411 Army owned structures encompassing approximately 3.6M square feet. Past activities at UMCD consist of materials storage, ammunition demolition, maintenance, ammunition renovation, Defense Reutilization and Marketing Office activities, waste disposal, and firing range operations.

Depot Land Use Characteristics: The Depot can be divided into 15 specific land use sub-areas. The storage and demolition of ordnance, and buffer zone land uses account for more than three-quarters of the Depot's acres of ownership and restrictive easements.

Adjacent Land Uses and County Land Use Regulations: Every county and city in the state is required to have comprehensive plans and associated implementation ordinances (zoning ordinances, subdivision regulations, and transportation system plans) that comply with rigorous State standards. The state review and approval authority for these documents is the Oregon Land Conservation and Development Commission (LCDDC). The Depot has been beyond the land use planning authority of both local and state government. As a result there is no enforceable local zoning currently for the Depot. However, local governments in their land planning efforts have anticipated federal property transfers in the future. Morrow County has done so in both their Comprehensive Plan and zoning code as regards the Depot. Umatilla County has established language in its Comprehensive Plan regarding the Depot, but has no tentative zoning for the area. The lands adjacent to the Depot have been predominantly zoned "exclusive farm use" (EFU) by both counties.

Oregon Planning Compliance: Both counties also have detailed, approved planning provisions in place for areas surrounding the Depot lands. The most appropriate and efficient approach to accommodate the transfer of the Depot site with respect to Oregon's land planning requirements is through the use of a "post acknowledgment plan and ordinance amendment". The land use designations suggested in the LRA Master Plan can be incorporated into the respective Morrow and Umatilla county comprehensive plans, following the "post acknowledgement amendment process" and approved by LCDDC. If the planned uses are similar to the surrounding uses or similar to the current uses at the site this process would likely be sufficient. If significant changes in zoning are required under the LRA's Master Plan then a "Goal 13# exception request" may be required in the amendment process. The consensus of state and local planning officials is that there will be no requirement to consider potential off-sets from existing inventories of industrial or commercial lands already designated in the Morrow County, Umatilla County, Hermiston, Umatilla, or Irrigon urban growth boundaries.

Cultural Resources: The landmass in the area of the UMCD was inhabited by the Sahaptin-speaking Umatilla Indians during the ethno historic period (Risk Directorate - Environmental Office, 2007). The Umatilla people occupied villages from Umatilla Rapids to Roosevelt Washington along the Columbia River taking advantage of abundant Salmon resources as a primary food source (CTUIR, 2009). To date, no evidence has been found of Indian settlements on the UMCD - a land area completely devoid of any surface water resources.

The landmass occupied by the Depot is part of a far larger region that constituted the historic homeland of the Cayuse, Umatilla, and Walla Walla Tribes. At the Walla Walla Treaty Council on

June 9, 1855, representatives of the Tribes united and signed a Treaty [12 Stat. 945] with representatives of the United States of America. The treaty has now routinely come to be called the Confederated Tribes Treaty of 1855, and it has undergone a number of modifications and interpretations over the years. As part of the negotiations of the original Treaty, the Confederated Tribes ceded 6.4 million acres of land, which are now commonly referred to as “ceded lands”.

To date the only prehistoric and historic resources that have identified and/or documented on the UMCD, including resources identified through National Park Service survey include:

- Discovery of a “large bone” during Depot construction that was “turned over to an unknown natural history society”;
- Presence of “minor lithic scatter” and “isolated finds (a mussel shell fragment and a basalt flake)” at sites along the west rim of Coyote Coulee that did not meet the definition of prehistoric sites;
- Remnants of the historic Oregon Trail (i.e. wagon wheel ruts) in southeastern and northeastern parts of the Depot, and
- Eligibility of the Administration and Firehouse buildings for inclusion on the National Register of Historic Places as considered Category III properties of minor importance.

No formal consultations have been held on Traditional Cultural Properties (TCPs) or sacred sites on the Depot. The USACE/Mobil District is contracting for a site-wide tribal cultural properties/sacred sites survey. The U.S. Army’s compliance with Section 106 of the National Historic Preservation Act (16 U.S.C. “470) plus implementing regulations (36 CFR 800) and appropriate National Register Bulletins will occur during the final stages of UMCD decommissioning. Finally, historical/archaeological clearance by Oregon’s State Historic Preservation Office will probably be needed during planning of any site-specific reuse activity on the Depot.

Water Rights: The existing Water Rights on the Depot represent a potential “limiting factor” in terms of reuse for intensive agriculture or industrial land uses. If all the current Water Rights on the Depot were applied exclusively for irrigated agriculture it is estimated that only 450 to 700 acres of the Depot’s 17,041 acres could be brought into production depending upon the crop type. It should be anticipated that no further groundwater Water Rights of any significance could be issued under the “critical ground water areas” designation currently imposed by the State of Oregon. The Port of Umatilla currently holds a water right to draw water from the Columbia River and retains substantial Water Rights equal to 80,000 gallons per minute of which less than 25% is currently allocated. The Port had an appraisal on the value of the water right conducted in 2000, where the value of water right was estimated at between \$39 million - \$51 million. Providing water to the site could be utilized as “matching funds” for development projects.

Mineral Rights: A review of BLM records has affirmed that formerly withdrawn lands from the public domain that includes 18 of 20 separate parcels have mineral rights retained by the BLM. Generally, the owner of the surface (fee less minerals) can use aggregate for his or her own purpose on site, but cannot commercially sell aggregate for off-site use without acquiring those rights from the BLM. There are two Sections of land from the formerly withdrawn lands where mineral rights were not retained.

The other “non-withdrawn” tracts acquired by the Army when the Depot was first established were primarily Sections of land that were initially railroad grants in 1896 and 1906. These grants were for the fee estate including minerals and would have included mineral rights at the time of acquisition. Later tracts acquired through condemnation would have also included mineral rights. Further clarification is expected from BLM research in the future, but was not available at the time this report section was prepared.

Summary: While UMCD has excellent transportation access, it harbors a number of significant limitations restricting certain realignment options in the short-term. Those limitations include:

- Isolation from a larger metropolitan population. The estimated Morrow County population in 2009 was 11,533 individuals with only 5.4 persons per square mile. Umatilla County's estimated population in 2009 was 73,347 with its primary population centers of Hermiston (population 13,000) and Pendleton (population 17,000) 12 and 35 miles from the UMCD. The nearest population concentration is the small community of Irrigon with a population of 1,702;
- A facilities and infrastructure base that was largely created 70 years ago with limited capacity and generally in poor repair;
- Facility and land use configurations that are unique in their military application, restricting easy application to civilian uses; and
- Environmental limitations that will require remediation before reuse.



The above limitations impact the ability to replace job losses associated with Base closure with alternative high wage positions in a quick enough fashion to be effective if the plan strategy restricts itself to the only a narrow UMCD focus without considering more comprehensive alternatives. If both short-term and long-term optimization of potential benefits is to be achieved for local, regional, and national interests, the final Redevelopment Plan must creatively integrate the Depot's strategic limitations and potential opportunities.



OVERVIEW

The historical mission of the Umatilla Chemical Depot (UMCD) has been that of ammunition and chemical weapons storage, shipment, and demilitarization. No weapons manufacturing has ever occurred on the site, but ammunition demolition and minor renovation activities have taken place, as has the destruction (incineration) of chemical weapons. The UMCD is located in northeastern Oregon approximately 25 miles south of the Tri-Cities areas of Washington State, 188 miles east of Portland, Oregon, and 3 miles south of the Columbia River. The closest urban concentrations to the Depot are Hermiston (5.8 miles – pop. 14,953), Umatilla (11.5 miles – pop. 6,280), and Irrigon (2 miles – pop. 1,755). The Depot is bisected by Umatilla County and Morrow County.

The Depot encompasses 17,054.41 acres of fee simple ownership. In addition there are 2,673.61 acres of land that serve as a buffer to the Depot to the north and east where restrictive easements were acquired by the Army in the late 1950s. In total, the UMCD has interests in 19,728.02 acres (Seattle District Army Corp of Engineers, 2008).

The UMCD has 1,411 structures, most of which were built between 1941 and the end of WWII. In total there are 1,222 buildings with approximately 3.6M square feet of Army owned facilities on the Base. The Base also contains 5 fully inactive landfills and one semi-closed landfill used only for clean or remediated soil. All have been studied and certified by the Army, USEPA, and Oregon Department of Environmental Quality as posing no unacceptable risk to human health or the environment. In addition, the Base has 7 water wells with established water rights. Only the administration area is served by a piped sanitary sewer system.

The land area is a semi-arid desert. The land cover outside of the administrative area is largely a drought-adapted steppe with a native shrub-steppe vegetation type. Elevations on the Depot range from 400 to 677 feet above sea level. The topography, with the exception of Coyote Coulee that cuts across the facility along a north 30-degree east axis, is largely flat to gently rolling terrain with slopes ranging from 0% to 7%. In general, topography does not represent a land use constraint on the Depot for any major land use with the exception of Coyote Coulee. The slopes in Coyote Coulee range from 5% to 10% along the western edge to 30% to 45% along the eastern edge of the escarpment.

The UMCD has excellent access to road, rail, and river transport. The Base contains approximately 196 miles of internal roadway, of which 160 miles are paved. The northeastern corner of the UMCD is adjacent to the intersection of Interstate 84 and Interstate 82. Immediately adjacent to the Depot, the Union Pacific Railroad operates one of the principle east-west rail line networks - a major factor in base location in 1941. The Depot, itself, has an internal rail network of approximately 50 miles of railroad track. Rail car loading facilities are available to and from Columbia River barges.

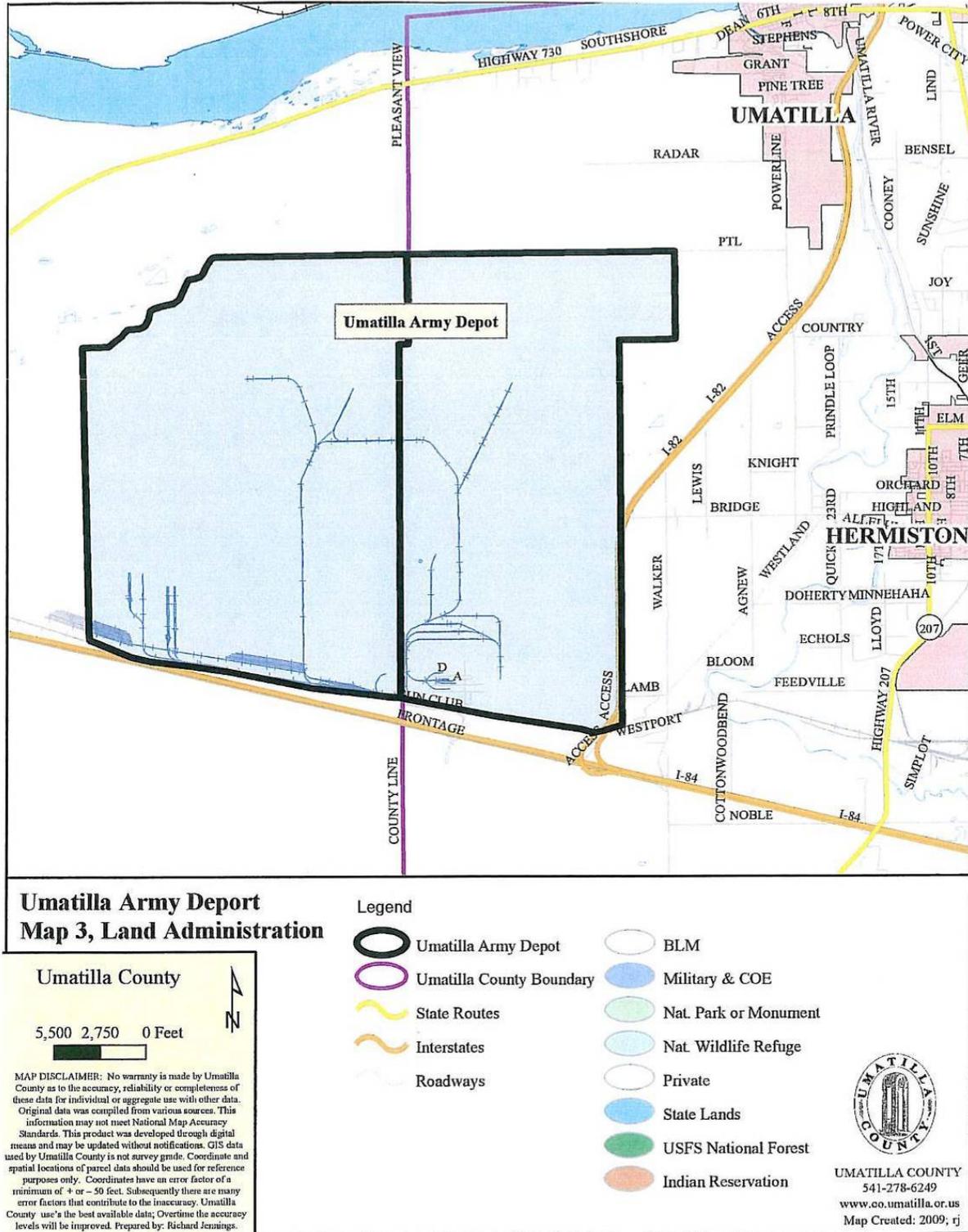


Figure 1: General Overview of Property

PRE-MILITARY LAND USE

The landmass in the area of the UMCD was inhabited by the Sahaptin-speaking Umatilla Indians during the ethno historic period (Risk Directorate - Environmental Office, 2007). The Umatilla people occupied villages from Umatilla Rapids to Roosevelt Washington along the Columbia River taking advantage of abundant Salmon resources as a primary food source (CTUIR, 2009). To date, no evidence had been found of Indian settlements on the UMCD - a land area completely devoid of any surface water resources.

The landmass occupied by the Depot is part of a far larger region that constituted the historic homeland of the Cayuse, Umatilla, and Walla Walla Tribes. At the Walla Walla Treaty Council on June 9, 1855, representatives of the Tribes united and signed a Treaty [12 Stat. 945] with representatives of the United States of America. The treaty has now routinely come to be called the Confederated Tribes Treaty of 1855, and it has undergone a number of modifications and interpretations over the years. As part of the negotiations of the original Treaty, the Confederated Tribes ceded 6.4 million acres of land, which are now commonly referred to as “ceded lands”.

When the depot site was acquired from Umatilla and Morrow Counties, Western Irrigation Company, Northern Pacific Railroad, private landowners, and the Department of Interior in 1940, it was generally devoid of man-made structures with the exception of a reported sheepherders shack in the vicinity of the current airport landing strip. A 1941 aerial photograph shows no man-made structures on the Base (Interior, 1984). Prior to acquisition, the lands were primarily used for open grazing or were idle. A comparison of historical aerial photographs from 1939 through 1987 reveal that in 1939 very little agricultural or urban development had occurred in the vicinity of UMCD, however, the irrigation canal along the southeast boundary of UMCD was present (Army, 1991).



SITE SELECTION AND MILITARY LAND USE HISTORY

During World War II, the UMCD was one of the first Army ammunition supply depots created. Initial plans called for placing depots in the four corners of the country to support forces repelling mainland attacks from any direction (Interior, 1984). Location criteria included a reasonably safe distance from the Pacific Northwest coast, a sparsely settled location, low humidity and dry climate ideal for the storage of ammunition, and excellent rail transportation links. The Umatilla site met all the requirements and the basic installation was built in 1941-1942 after the acquisition of approximately 16,000 acres that had been used for open range grazing.

Of the initial 16,000 acres, the United States acquired 8,774.55 acres in fee simple estate from private owners by direct purchase and condemnation (See Table and Appendix Track Record). The Army also obtained rights by Executive Order to a combination of 7,159.86 acres that were in the public domain, managed by the Department of Interior, Bureau of Land Management (BLM). Land ownership patterns in the area pre-acquisition reflected the classic “checker board pattern” of alternating Sections of land in private ownership and the public domain (See Map illustration next page).

A number of smaller land withdrawals and relinquishments by Executive Order occurred between 1941 and 1972 with the BLM. By 1972 the total area of withdrawn lands (i.e. transfers from the BLM to the Army) was 8,279.86 acres (Seattle District Army Corp of Engineers, 2008). Initial reversion rights existed for the original BLM lands should the Army close UMCD. However, under Public Law 108-375, Section 2846, on October 28, 2004, it was established that the nearly 8,300 acres of withdrawn lands within the Depot were no longer suitable for return to the public domain. The law established that withdrawn lands shall remain under the administrative jurisdiction of the Army for purposes of management and fee disposal pursuant to the Base Realignment and Closure Act of 1988. In total, the UMCD currently retains 17,054.41 acres in fee simple estate acquired either through purchase or Federal land transfer. (See *Appendix A: References* for Legal Description).

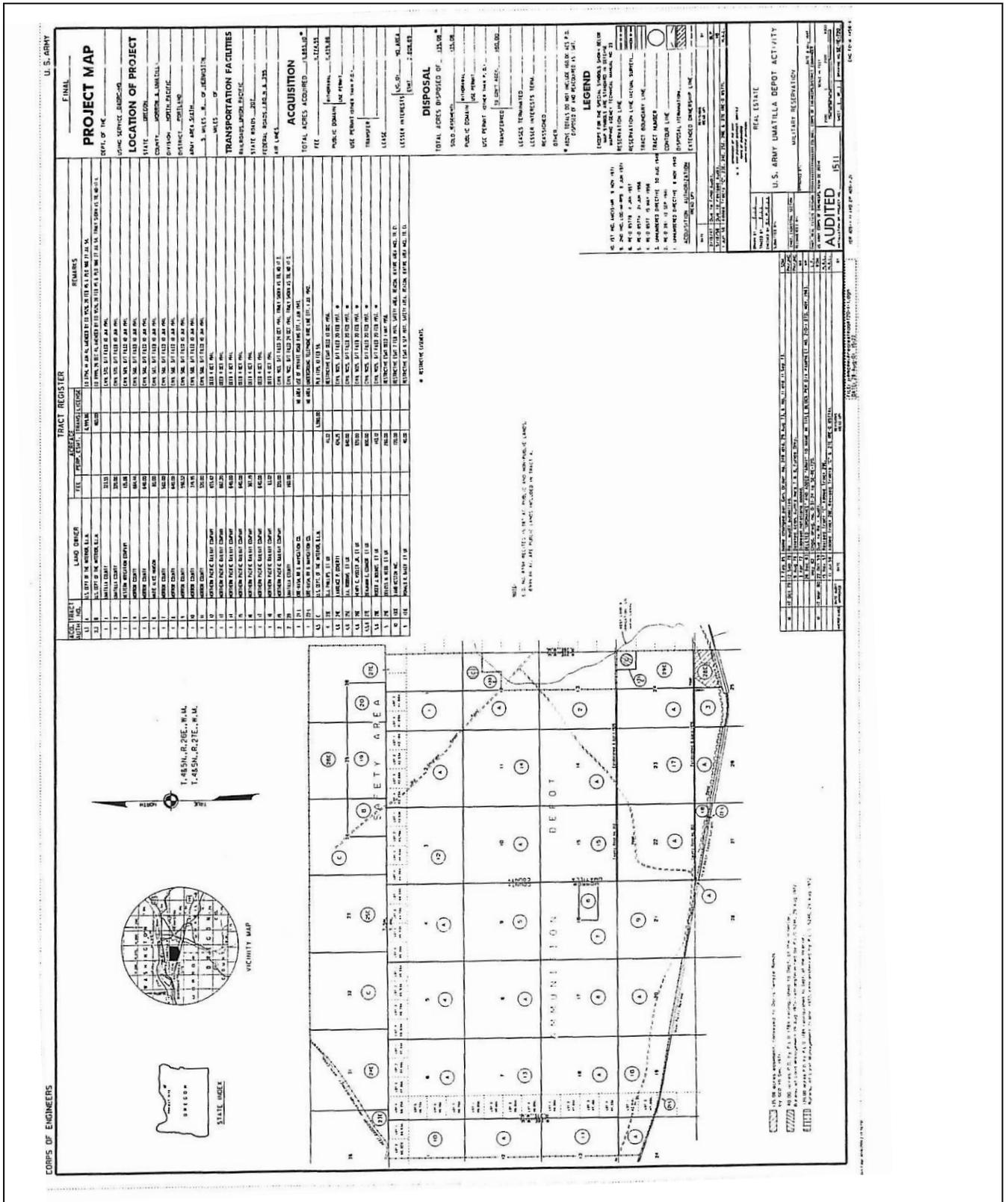


Figure 2: USACE Tract Information



In addition to fee simple land acquisition and transfers from the Public Domain, the Army also acquired by direct purchase and condemnation a number of restrictive easements starting in 1956. The restrictive easements were for the establishment of safety areas north and east of the Depot boundaries. The majority of the restrictive easements were acquired between 1956 and 1958, but adjustments and transfers continued up to 1984. The net restrictive easement area is 2,673,61 acres.

The restrictive easements are perpetual in nature and will transfer upon Army disposition of the Base. While there have been some reported requests by land owners to reacquire the rights previously sold, the Army has indicated that they will not take any action regarding the easements, deferring any such deliberations to future owners. See **Table 2: Property Acquisition Summary**. The restrictive easements consist of the following rights:

- a. The right to prohibit human habitation and remove buildings presently or hereafter used therefore.
- b. The right to prohibit occupation or erection of buildings or roofed structures, including barns and shed, as well as dwellings, which would be occupied by persons either usually or intermittently.
- c. The right to prohibit gatherings of more than 25 persons.
- d. The right to post signs indicating the nature and extent of United States control.
- e. The right and easement of access for ingress and egress over the across the said lands for the purpose of exercising the above rights.
- f. Owners retain all other rights including but not limited to the right to graze livestock and right to farm subject to transportation and utilities easements.

Development of the Depot was initiated immediately after the initial land transfers and acquisitions. By the end of World War II, 1,268 of the installation's 1,411 structures had been erected. These included administration, maintenance, and housing facilities, ammunition storage igloos and warehouses. Past activities at UMCD consist of materials storage, ammunition demolition, maintenance, ammunition renovation, Defense Reutilization and Marketing Office activities, waste disposal, and firing range operations.

In 1945, ammunition demolition began at the Depot and in 1947 an ammunition renovation complex was constructed. Two ammunition maintenance buildings were added in 1955 and 1958. The explosive washout plant, located in the central portion of UMCD, was active from the mid-1950s through the mid-1960s.

Chemical agent-filled munitions and one-ton containers of chemical agents stored in the K block igloos and Building 659 began in 1962. No chemical weapons have ever been used, manufactured, or tested at the Depot. Missiles and missile fuel components were also stored at the Depot from the mid-1950s to the early 1960s.

Period	Type of Operation
Pre- 1941	Private, county, and BLM Land
1941-1945	Conventional ordnance storage
1945-1947	Conventional ordnance storage and demolition
1947-1962	Conventional ordnance storage, demolition, Renovation, and maintenance
1962-1994	Conventional ordnance storage and Demolition; chemical munitions storage and maintenance
Present	Depot realignment. Storage and incineration Of chemical munitions only

Table 1: History of Use



Today the UMCD consists of the following land interests:

Fee Estate	17,054.41 acres
Restrictive Easements	2,673.61 acres
Water Rights Certificates	8

Property Acquisition Summary

Track Number	Previous Land Owner	Fee Land Acreage	Transfer Land Acreage	Easement Land Acreage	Acquisition Date
A	DOI, BLM		6,999.86		June 14, 1941
B	DOI, BLM		160.00		December 26, 1971
C	DOI, BLM		1,280.00		February 10, 1959
1	Umatilla County	323.55			January 10, 1941
2	Umatilla County	320.00			January 10, 1941
20	Umatilla County	160.00			October 24, 1941
4	Morrow County	664.44			January 10, 1941
5	Morrow County	640.00			January 10, 1941
7	Morrow County	560.00			January 10, 1941
8	Morrow County	640.00			January 10, 1941
10	Morrow County	319.95			January 10, 1941
11	Morrow County	320.00			January 10, 1941
13	Northern Pacific Railway Company	667.20			October 4, 1941
14	Northern Pacific Railway Company	640.00			October 4, 1941
15	Northern Pacific Railway Company	640.00			October 4, 1941
16	Northern Pacific Railway Company	367.19			October 4, 1941
17	Northern Pacific Railway Company	640.00			October 4, 1941
18	Northern Pacific Railway Company	83.02			October 4, 1941
19	Northern Pacific Railway Company	320.00			October 4, 1941
3	Western Irrigation Company	135.06			January 10, 1941
6	Marie Alice Hanson	80.00			January 10, 1941
23E	D.J. Phillips, et ux.			41.32	December 13, 1956
24E	Lawrence P. Doherty			424.25	February 20, 1957
25E	J.A. Robbins et ux.			640.00	February 20, 1957
26E	Henry C. Vogler, Jr. et ux.			320.00	February 20, 1957
27E	Benjamin E. Conner et ux.			800.00	February 20, 1957
28E	Roger J. Bounds et ux.			143.12	February 20, 1957
29E	Deloss M. Webb, et ux.			280.00	May 1, 1958
130E	Lamb-Weston, Inc.			120.00	February 7, 1974
131E	Ronald R. Baker et ux.			40.00	September 6, 1977

Table 2: Property Acquisition Summary

In 1988, the Commission on Base Closures recommended the Depot for realignment. Under BRAC, the storage of conventional ordnance was moved from the Depot to Hawthorne Army Depot, Nevada or destroyed. The Depot's current, realigned mission is the ongoing destruction of chemical munitions that had been stored on site. The Depot began destroying chemical munitions in 2004, a process that is expected to be complete in 2011.



DEPOT LAND USE CHARACTERISTICS

Distinct land use activity areas can be described at UMCD, reflecting the Depot's historic mission of storage, maintenance and shipping of ordnance. Several previous planning, environmental remediation, and natural resource management studies have characterized the Depot's land use (Benkendorf Associates, 1993; Risk Directorate - Environmental Office, 2007; Earth Tech, 1995). The data and characterizations from those reports remain accurate and are summarized in this section.

As demonstrated in **Table 3: Significant Land Use Areas** the Depot can be divided into 15 specific land use sub-areas. The largest acreage of land use is committed to the storage and demolition of ordnance segregated by type at 7,568 acres. Buffer zones, which supply security and safety, are the second largest comment of land at 7,525 acres. Together, these two land uses account for more than three-quarters of the Depot's 19,729 acres of ownership and restrictive easements.

Significant Land Use Areas

Area	Acreage	Area	Acreage	Area	Acreage
Ammunition Storage	5,933	Standard Magazines	140	Utilities Service	7
Ammunition Demolition	1,716	Former/Current Firing Range and tank testing area	1,380	Airfield (Closed)	293
Open Space Buffer	4,851	Spoil Areas	32	Administrative	136
Chemical Storage	646	Abandoned Landfills	20	Facilities Maintenance	40
Housing	15	Active Landfill	15	Union Pacific Railroad (former leased rail yard)	140

Table 3: Significant Land Use Areas

Cantonment Area

The cantonment area of the Depot includes the administrative, facilities maintenance, and housing functions. This complex of buildings is adjacent to the south boundary of the site with direct access to Interstate 84 via a nearby interchange. The entire cantonment area is approximately 151 acres of which the headquarters and administrative support functions occupy 136 acres.

Approximately 57 buildings are located within the area, including offices, security stations, maintenance shops, medical facilities, housing, communal food service facilities (mess hall), community center and pool, warehouses, and transportation service buildings. The majority of these buildings were constructed in 1941 and 1942. The administrative area is the only area of the Depot that is landscaped and irrigated (24 acres).



Figure 3: BRAC General Information Map

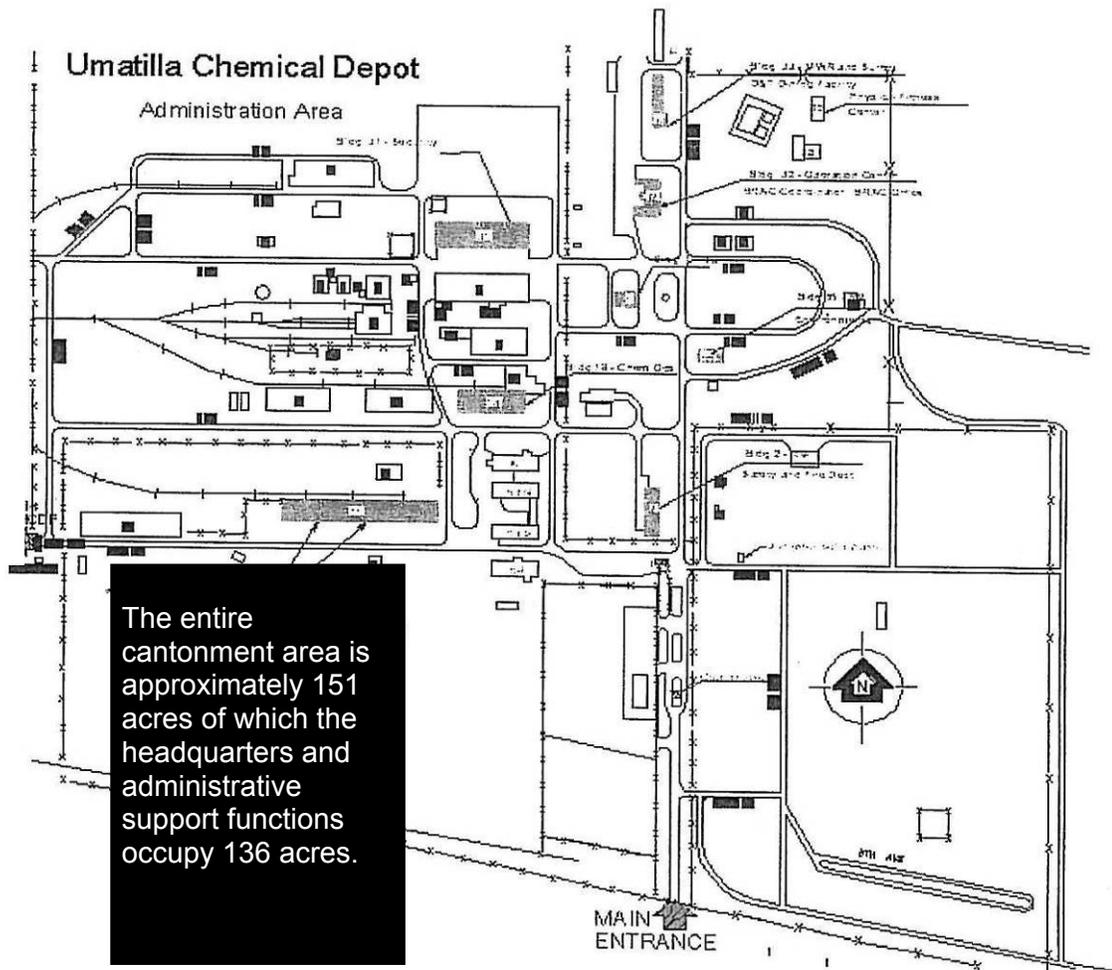


Figure 4: Cantonment Area

A breakdown of buildings in the area is as follows:

- Over 10,000 square feet..... 6 buildings
- 5,000 to 9,999 square feet.....6 buildings
- Under 5,000 square feet.....35 buildings

Ammunition Storage

At 5,933 acres, the area dedicated in the past to various forms of ammunition storage is the largest land use category at the Depot. This area description does not include an additional 646 acres of high security chemical storage. The Depot contains three basic building types that serve or served this function: standard magazines, bunkers, and miscellaneous buildings and structures. The 14 standard magazine buildings, situated immediately behind the headquarters complex, have an aggregate area of 157,178 square feet (11,227 square feet each).



The Depot contains 1,001 ammunition storage bunkers (igloos). Each is located so as to provide a safety perimeter from adjacent igloos. The floor area of each igloo is 2,147 square feet with an aggregate area of igloo storage on the Depot of 2,147,000 square feet. Conventional munitions have been removed from more than 900 igloos that now lie empty. In the “A” Block portion of the Depot igloos have been leased to various interests such as the American Red Cross for storage.

There are twenty miscellaneous buildings within the ammunition supply and storage area of the Depot. The largest of these buildings (18,400 sq.ft. and 16,500 sq.ft.) were employed for decommissioning ammunition.

Ammunition Demolition

A 1,750 acre ammunition demolition area is located on the northwestern portion of the Depot. The area was used for demilitarizing conventional munitions and burning defective or expired propellants. A portion of the area has been used by the Oregon National Guard for a firing range and training area (see description next paragraph.)

Training and Testing Areas

For many years the Oregon National Guard (ONG) has utilized two parcels of land within the Depot covering approximately 1,380 acres – an area which is located in the former ammunition demolition area of the Depot. The ONG has used two firing ranges. An active small arms range and a former firing range of 621 acres suitable for larger weapons up to 50 caliber if reconfigured. The larger of the two ranges, which was abandoned and is presently restricted due to safety, has undergone shallow surface cleaning of unexploded ordnance. Subsurface investigations, however, have indicated substantial undiscovered and unexploded ordnance at deeper depths (potentially thousands or rounds) that represent a major safety hazard for any land use requiring land disturbance below the surface such as intensive agriculture or foundation construction. The remediation cost to insure complete safety for more intensive land uses in this area is judged to be uneconomic at this time.

Within this area the Oregon National Guard has also utilized an area for tank maintenance quality and assurance testing. It is for tanks that have been repaired or refurbished. They also have employed a tank simulator to conduct operations training exercises.

Airfield

An unused airfield of 293 acres, most of which are buffer easements for air traffic, exists in the southeastern corner of the Depot. The site, presently inactive, contains a runway.

Railroad Yard and Storage

There is a 140-acre railcar storage facility along the southern border of the Depot. The area contains approximately 8 miles of railroad car classification/storage areas. The facility has historically been leased to the Union Pacific Railroad, but is currently unused. A railroad switch would have to be re-installed to collect the Union Pacific mainline with the storage car area.

Warehouse and Storage

Located on the Southwest corner of the Depot are two warehouse storage complexes – the 100 series and 200 series areas. There are 30 series 100 buildings with an aggregate area of 455,210 square feet. There are six (6) series 200 buildings with a total aggregate area of 518,400 square feet. Both complexes are served by rail access but limitations exist in this capacity. The rail spur line leading to the 100 series buildings was damaged by wild land fires and may not be serviceable at present. The rail spur line leading to the 200 series buildings was removed in the mid 1990's and would need to be replaced for access to the 200 series building rail network.

ADJACENT LAND USES AND COUNTY LAND USE REGULATIONS

Beginning in the mid-1970s the State of Oregon established and has continually refined a land planning program that is unique among all fifty states. Every county and city in the state is required to have adopted comprehensive plans and associated implementation ordinances (zoning ordinances, subdivision regulations, and transportation system plans) that comply with extensive and rigorous State standards. Comprehensive plans and the associated implementation ordinances, including potential amendments, are subject to State review and approval through the Oregon Land Conservation and Development Commission (LCDC). Oregon's regulatory land use planning system is particularly sensitive to the retention of high value agricultural lands.

The Depot is essentially split by the Morrow County – Umatilla County boundary. The western portion of the Depot is located in Morrow County and the eastern portion of the Depot lies within Umatilla County. In conformance with Oregon requirements both Morrow and Umatilla counties have adopted, and the State has “acknowledged”, comprehensive land use plans and zoning codes. As such, all lands immediately outside of the Depot fee simple ownership boundary, including those lands upon which restrictive covenants have been obtained by the Army, are zoned under county ordinances in accordance with State approved plans and ordinance standards.

The Depot, due to its federal ownership, is beyond the land use planning authority of both local and state government. As such, no enforceable local zoning currently exists on the Depot. However, local governments in their land planning efforts may anticipate federal property transfers in the future. Morrow County has done so in both their Comprehensive Plan and zoning code as regards the Depot. Umatilla County has established language in its Comprehensive Plan regarding the Depot, but has no tentative zoning for the area.

Morrow County – Surrounding Area Planning and Zoning

Almost without exception, lands adjacent to the Depot within Morrow County have been zoned “exclusive farm use” (EFU). Most of this land area is currently supported by pivot irrigation (see illustrations). The EFU zoning district is designed to preserve and support the continuance of commercial farming operations. The minimum lot size in the Morrow County EFU district is 160 acres. In accordance with Oregon standards, uses other than those directly associated with commercial agriculture (i.e. growing – not processing) tend to be highly restricted within the zone.

Extending somewhat beyond the northwest corner of the Depot, the rural residential boundary of the town of Irrigon is encountered. Zoning in the area transitions from EFU to Rural Residential (RR1), recognizing an existing land development pattern of large lot, rural residences outside of the Irrigon Urban Growth Boundary (UGB). Oregon State planning practice discourages large lot residential development outside of designated UGBs, but permits said zoning in areas where the land use pattern is already established. The RR1 zone designation allows for single-family residences with a minimum lot size of two acres.

The only other exception to the predominantly EFU zoning around the Depot in Morrow County is a small strip of Farm Residential (FR2) zoning south of the Union Pacific Line along the southern boundary of the Depot. The zoning designation was established to accommodate a small residential subdivision that had been created illegally years earlier. The provisions of the zoning district are similar in nature to the RR1 zone with a two-acre minimum lot size requirement.

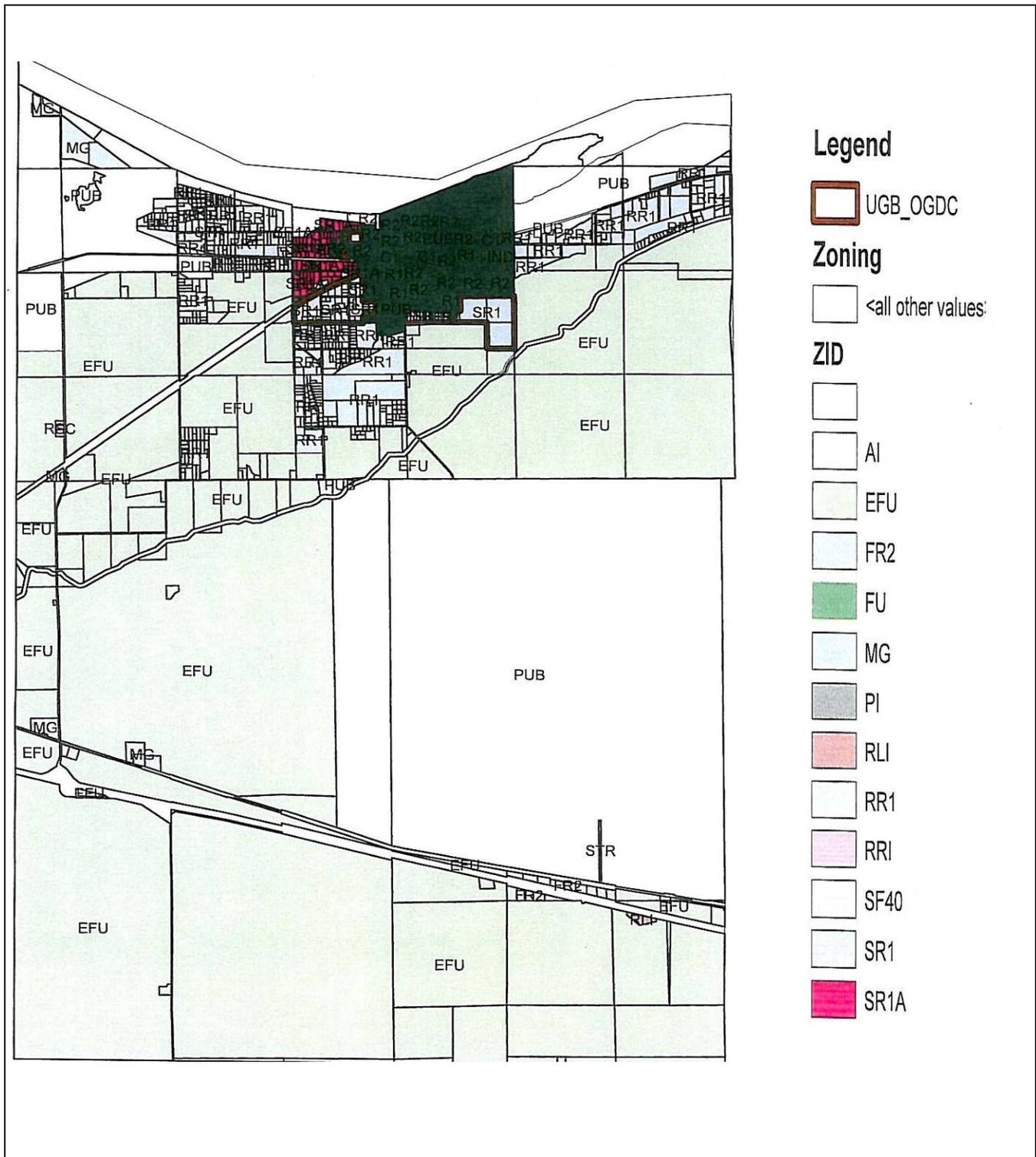


Figure 5: UMCD Morrow County Adjacent Lands primarily EFU

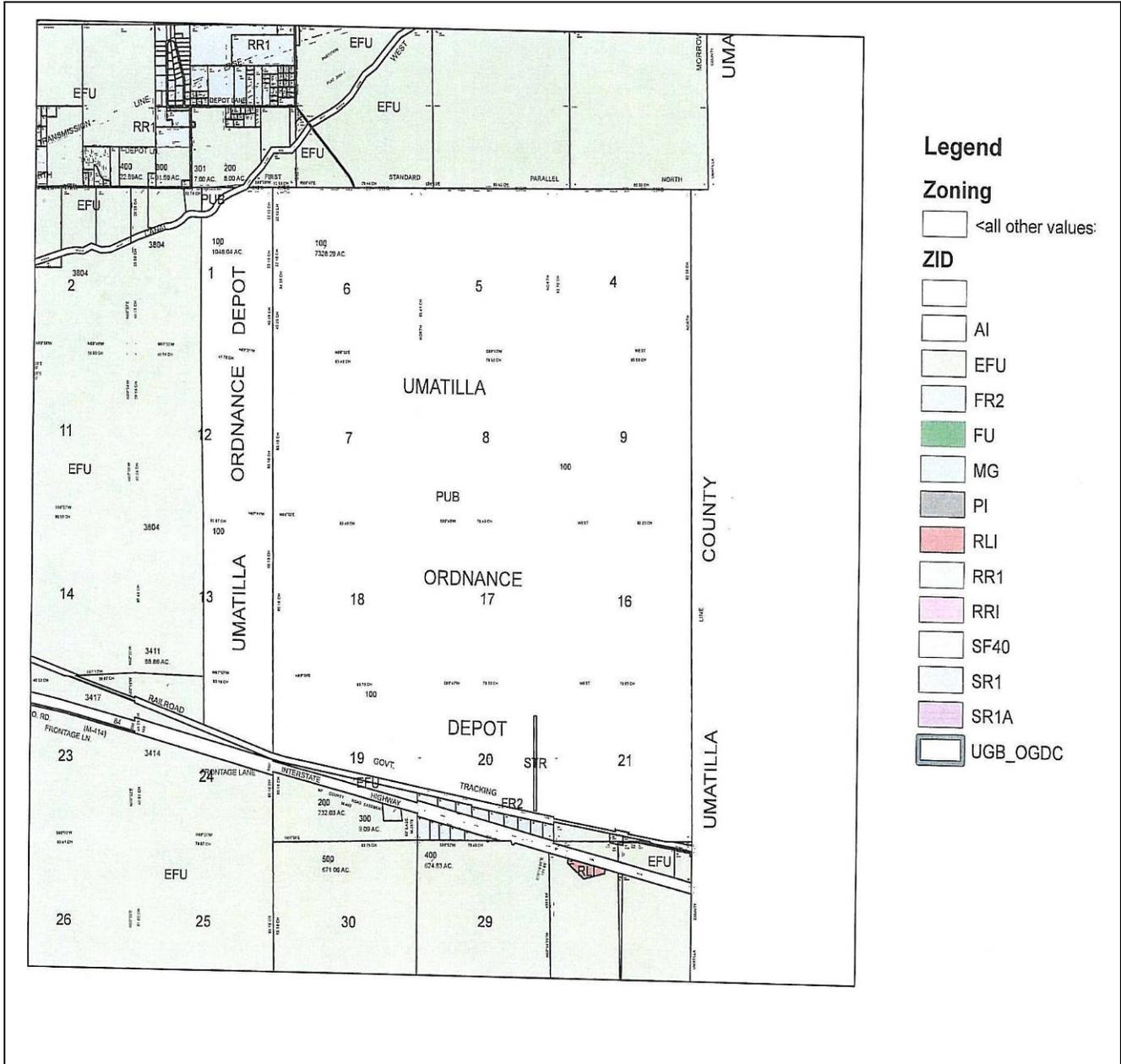


Figure 6: UMCD Morrow County Adjacent Lands support by Pivot Irrigation

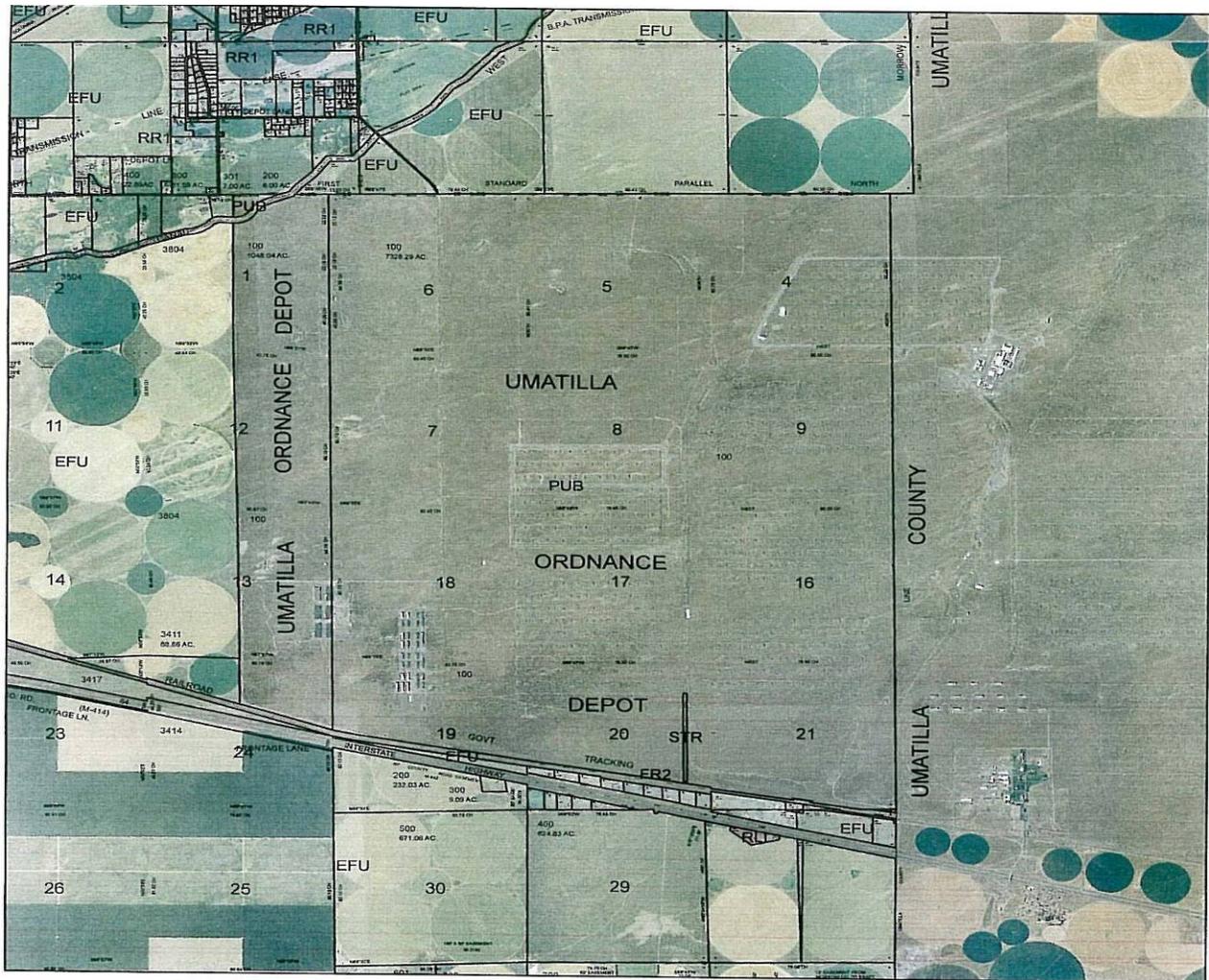


Figure 7: UMCD Morrow County Adjacent Lands Overview

Morrow County - Depot Specific Planning

In 1990 Oregon Governor Goldschmidt appointed a task force to examine the impacts of demilitarization of the Depot. The “Umatilla Task Force” and Oregon Economic Development Department jointly sponsored the preparation of a comprehensive development plan for the Depot that, in essence, provided the foundation for potential amendments to the Morrow County and Umatilla County comprehensive plans and zoning codes (Benkenfort Associates 1993). The plan as developed was intended as a first step – a general concept plan – to guide land use over the ensuing decades as demilitarization progressed. It was based on ten specific objectives that the Task Force developed as follows:

Create as much employment as possible;

- ▶ Maximize the long-term potential for reuse by carefully evaluating shorter term proposals and reuse;
- ▶ Ensure that Morrow and Umatilla counties share in the benefit of reuse;
- ▶ Identify a clear understanding of the location and condition of the existing infrastructure;
- ▶ Create a “vision” for the future;
- ▶ Ensure, to the extent possible, the economic viability of the plan;
- ▶ Ensure the implementability of the reuse strategy;
- ▶ Communicate the plan as a positive long-term opportunity for the region;
- ▶ Encourage interim or phased reuse of the Depot properties; and
- ▶ Ensure that reuse proposals for the Depot are responsive to the regional resource base.

The concept plan called for the general allocation of the 17,055 acres into fifteen (15) different land use categories (See **Table 4: Land Use Categories** below.)

Land Use Categories

Proposed Land Use	Acreage	Location
Agriculture	2,600	Existing buffer zones along north and east perimeter
Police and Fire Training Center	N.A.	Southwest quadrant
Oregon National Guard Training	1,600	ADA area (existing and former firing ranges/tank testing area)
Industrial Short-Term	700	Warehouse sections of administration areas and southeastern area
Education, Training and Research	80	Administration area
Heavy and Light Industrial	960	Southern perimeter
Commercial/recreation uses	540	North of Administration area
Highway- related Retail	90	Southeastern corner of Depot
Highway-related Commercial and Industrial	210	Southern boundary
Wildlife reserve	2,500	Coyote Coulee
Wildlife/agriculture habitat (holding zone)	4,700	Central core of the Depot
Regional Interpretive Center	20	Administrative area
Depot Visitor’s Center		Administrative area
Land Bank	500	Southeastern section including Block A
Roadways and Misc.	1,520	

Table 4: Land Use Categories

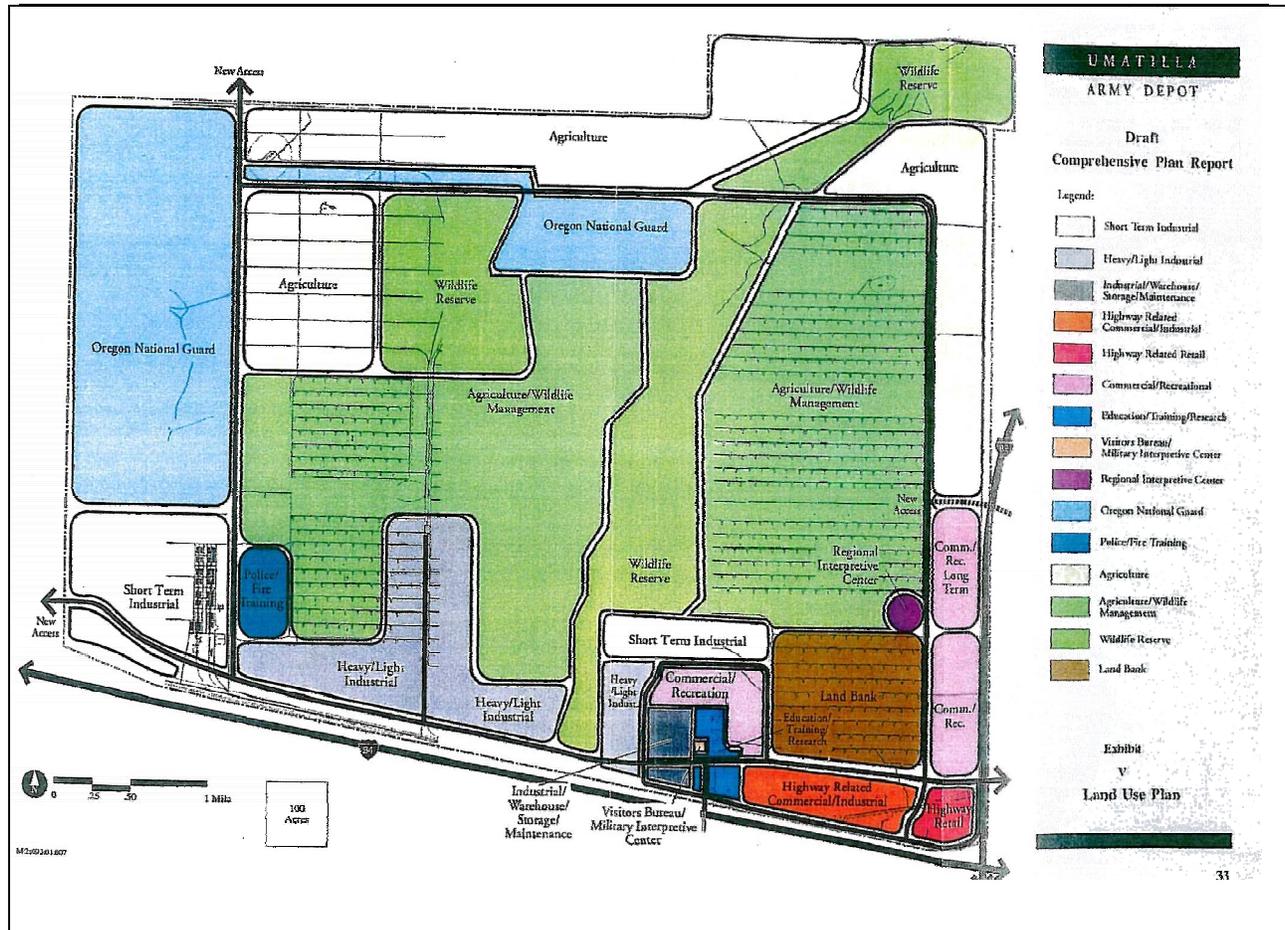


Figure 8: Morrow County Amended Depot Specific Plan

Upon completion of the Umatilla Task Force Comprehensive Development Plan, Morrow County in 1994 amended its official Comprehensive Plan, zoning code, and zoning map to reflect the Task Force recommendations (See Figure 8). These amendments were approved by the Oregon LCDC under a notice of adoption procedure. While the amendments had no legal land use regulatory effect within the Depot so long as the lands were held in federal ownership, they were intended to provide planning guidance and regulatory control at such time as any federal lands were converted in ownership. Those regulations continue to exist today and will apply unless amended to reflect the new plan under development. The Morrow County Plan and zoning code amendments established a Umatilla Army Depot Transition Zone (UADTZ). The UADTZ establishes broad permitted uses and conditional uses that reflect existing structures on the Depot and general use categories as detailed in the 1993 Task Force plan.

Umatilla County – Surrounding Area Planning and Zoning

The Umatilla County Comprehensive Plan designates the immediate areas around the Depot into two separate designations. The lands to the north, northeast, and south of the Depot fall within the “North & South County Agricultural Plan Designation.” It is an area of commercial farming operations that is dominated by pivot irrigation field systems. The entire area within this designation around the perimeter of the Depot is zoned Exclusive Farm Use (EFU). As with the case of Morrow County, the zoning district establishes a minimum lot size of 160 acres and largely restricts permitted uses to agriculture and associated accessory buildings with the issuance of a zoning permit.

Lands directly to the east of the Depot fall within the “West County Irrigation District” designation of the Umatilla County Comprehensive Plan. The area is characterized by pivot irrigation agricultural



operations on parcels of 45 to 90 acres in size. The area zoning designation is EFU 40 with a 40-acre minimum lot size requirement. Uses within the zoning district are largely restricted to agriculture and associated accessory buildings with the issuance of a zoning permit.

Adjacent to the southeast corner of the Depot between I-84 and I-82 lies an area designed Industrial under the Umatilla Comprehensive Plan with associated industrial zoning. Industrial operations exist within the designation.

Umatilla County – Depot Specific Planning

Unlike Morrow County, Umatilla County has not established highly specific comprehensive plan or zoning provisions for the Depot to take effect should parcels transfer out of federal ownership. Instead the County has in place the following language in its Comprehensive Plan:

“Although the county has little jurisdiction over federal lands, a mechanism must be developed to insure immediate and proper land and zoning designation of any former federal land that comes under county jurisdiction due to land exchange, sale or consolidation activities. Therefore, all federal lands shall be assigned the plan and zoning classification common to the area in which the property is located and shall be subject to said regulations immediately upon removal from federal jurisdiction.

However, due to the size of the areas involved, the Forest Service land (National Forest) and the Umatilla Army Depot shall not be “overlaid” by county plan and zoning classifications, but shall be subject to the above policy should any land be removed from federal jurisdiction.”

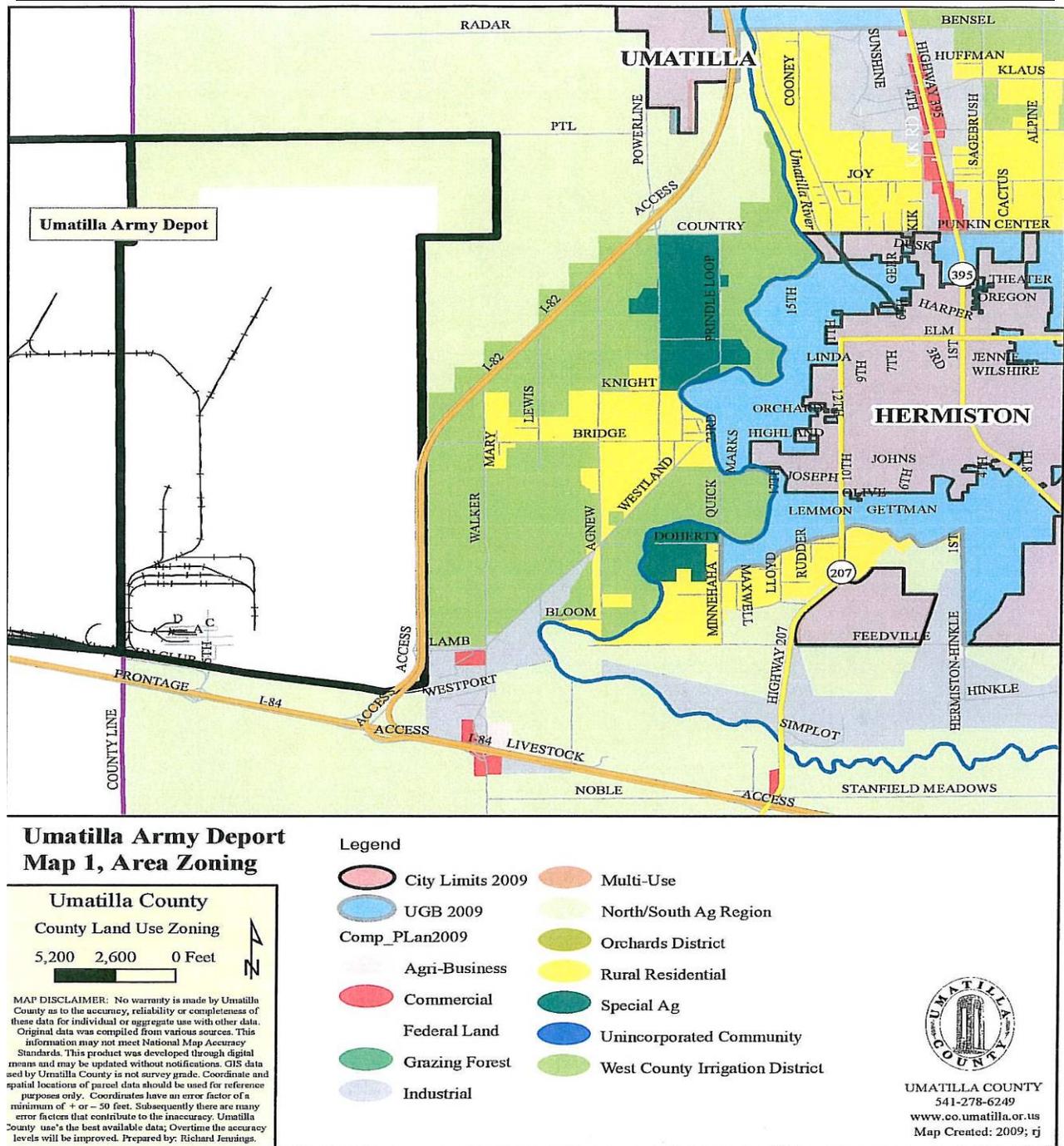


Figure 9: Umatilla County Planning Map 1

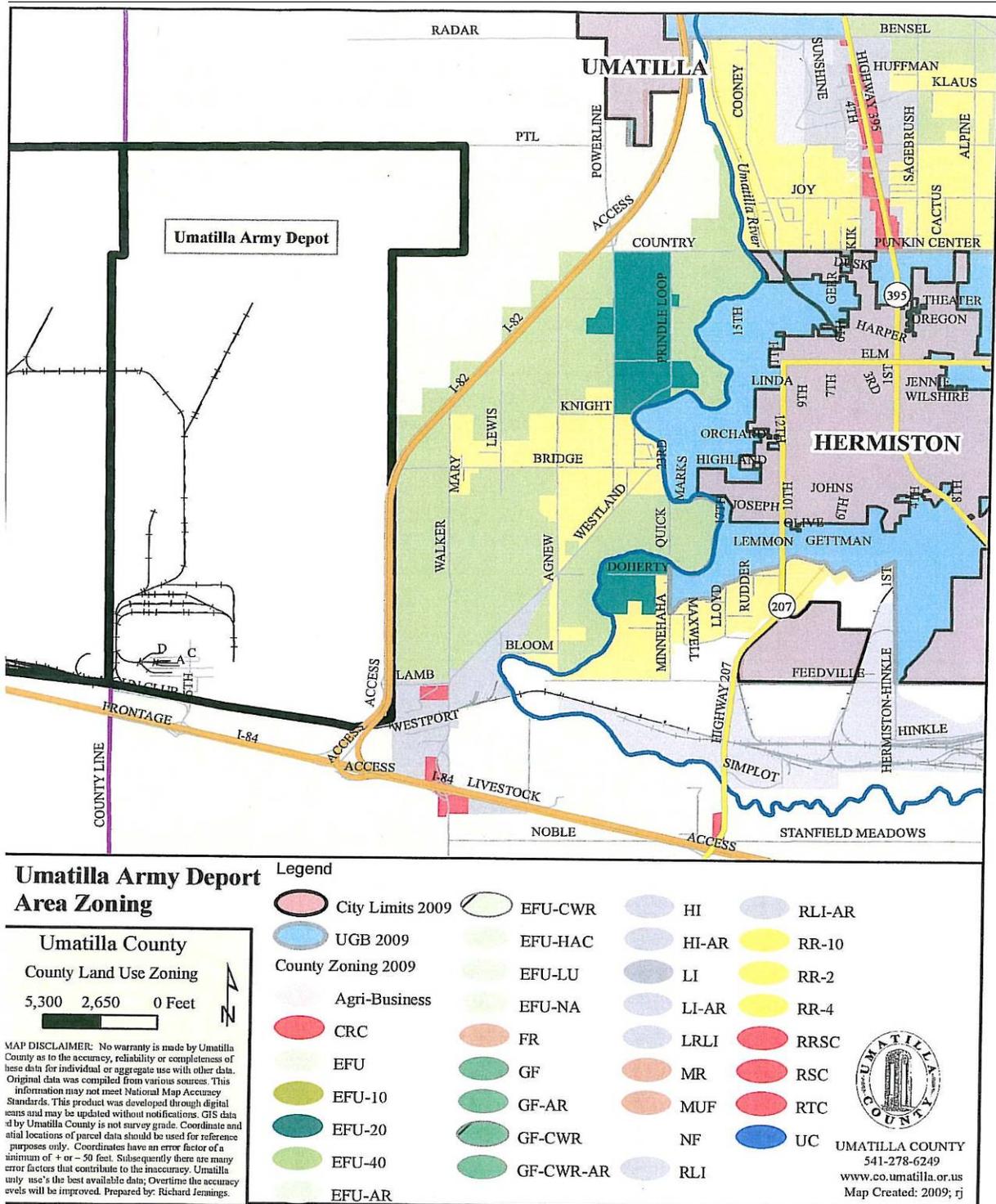


Figure 10: Umatilla County Depot Area Zoning

OREGON PLANNING COMPLIANCE

The demilitarization of the Depot with the potential transfer of ownership from the federal government to other entities represents a unique situation under Oregon planning procedures and requirements. All non-federal lands in the state of Oregon are subject to state “acknowledged” local government comprehensive land use plans and associated implementation ordinances.

Two fundamental questions regarding state planning procedures arise in the demilitarization of the Depot. The first question is the appropriate state planning procedure for Morrow and Umatilla counties to utilize in accounting for Depot lands upon transfer of ownership. Both counties have state “acknowledged” plans and ordinances that recognize the Depot in some planning capacity with general provisions recognizing ownership status and potential conversion. Both counties also have detailed planning provisions in place for surrounding Depot lands.

As such, it is suggested that the most appropriate and efficient approach to accommodate the demilitarization process for the Depot as regards Oregon’s land planning requirements is through the use of a “post acknowledgment plan and ordinance amendment”. As the LAR completes and adopts a master land use plan for the demilitarized Depot, the land use designations suggested in the plan would be incorporated into the respective Morrow and Umatilla county comprehensive plans, utilizing the “post acknowledgement amendment process”. Under this process county plans would be amended and appropriate existing zoning classifications that already exist in the respective county zoning codes would be applied under LCDC review and approval.

If the LAR land use master plan reflects redevelopment, conversion, or intensive uses in areas of the Depot where development or intensive uses have already occurred, then the standard post acknowledgment amendments process would likely be sufficient. However, if new significant development is proposed in the LAR plan in areas of the Depot where development doesn’t currently exist, a “Goal 13# exception request” may be required in the amendment process.

The second issue regarding Oregon’s planning system deals with the developable lands inventory for residential, commercial, and industrial uses associated with designated urban growth areas in the vicinity of the Depot. The question was posed if acreage off-sets would be required from existing inventories of industrial or commercial lands already designated in the Morrow County, Umatilla County, Hermiston, Umatilla, or Irrigon UGBs. Upon review with State and local planning officials it is the consensus that due to the Depot’s stand-alone location in relationship to area UGBs and its already developed state, there is no direct nexus or relationship in a planning context. Hence, there is no issue regarding having to consider potential off-sets. In short, these are stand-alone UGBs that the Depot is unrelated to.

CULTURAL RESOURCES

Prehistoric and historic cultural Resources

The archaeological history of the Depot region dates back to various Indian tribes that resided in the area, and to the early passage of settlers along the Oregon Trail. Prehistoric hunting, gathering, and fishing peoples lived in seasonal camps along the Columbia River for at least 3,000 years. A major village site at the mouth of the Umatilla River was occupied for at least three millennia by the Cayuse and Umatilla Indians.

In 1987, the National Park Service completed an archeological overview and management plan for UMCD that included a limited archaeological survey (Interior, 1987). A general cultural resource inventory was not recommended for the Depot in the National Park Service study as a result of the

initial survey. It was recommended, however, that archaeological clearance surveys be conducted at the time of construction for specific future projects.

In addition to the National Park Service report, in 2002 Earth Tech developed the *Final Integrated Cultural Resources Management Plan* for the Depot (Pumphrey, 2002). The key findings of the surveys reported in that study found respectively in Sections 3.5 and 3.2 include:

- Discovery of a “large bone” during Depot construction that was “turned over to an unknown natural history society” (ibid., p.3-20);
- Presence of “minor lithic scatter” and “isolated finds (a mussel shell fragment and a basalt flake)” at sites along the west rim of Coyote Coulee that did not meet the definition of prehistoric sites (ibid., p.4-1);
- Remnants of the historic Oregon Trail (i.e. wagon wheel ruts) in southeastern and northeastern parts of the Depot (ibid., p.4-1) plus West Extension Injection Canal (and potential lateral canals located in the northwest corner of the Depot (ibid., pp 3-41, 42); and
- Eligibility of the Administration and Firehouse buildings for inclusion on the National Register of Historic Places (ibid., p.4-3), while the Depot as a whole exhibits potential designation as an Historic District (ibid. , p.3-44).

No formal consultations have been held on Traditional Cultural Properties (TCPs) or sacred sites on the Depot, although Earth Tech acknowledged in the *Final Cultural Resources Management Plan* that such areas have not been completely ruled out on the Depot (Pumphrey, 2002).

The only identified historic sites on the Depot at this time are what are believed to be remnants (wagon ruts) of the Old Emigrant Wagon Road. From 1843 to the 1860s, the Oregon Trail was located in the region. A spur road of the Trail, the Old Emigrant Wagon Road, cut from Pendleton north and west across the interior or the plateau region to reconnect with the Columbia River to avoid conflicts with Indian fishing encampments in the vicinity of Umatilla. Early Land Survey information and aerial photographs show this road crossing the northeastern corner of UMCD. Representatives of the Oregon Historic Trails Advisory Council toured the ruts that run northwesterly from the abandoned airfield and also ruts located toward the western boundary of the Depot in 2008, requesting preservation of the remaining wagon ruts.

Historic Buildings

In 1984 the National Park Service conducted a historic buildings survey of the Depot (Interior, 1984). The headquarters building (Building 1) and the firehouse (Building 2), both of which are located in the administrative areas of the Depot, were considered in that survey to be historic properties of minor importance. They both represent examples of early WWII construction, considered Category III properties of minor importance. The State Historic Preservation Office (SHPO) declared both buildings eligible for inclusion on the National Register of Historic Places. Neither building has been listed.

Current Status and Path Forward of Historic Resources (Cornish, 2009)

Current status and path forward regarding protection of on-site cultural-historic resources are discussed below.

The U.S. Army’s compliance with Section 106 of the National Historic Preservation Act (16 U.S.C. “470) plus implementing regulations (36 CFR 800) and appropriate National Register Bulletins (e.g., Parker and King, 1998) will occur during the final stages of UMCD decommissioning (Stein, 2009). The USACE/Mobil District is contracting for a site-wide tribal cultural properties/sacred sites survey. No further action has occurred regarding formal listing of the Administration and Firehouse buildings,

or Depot as a whole, on the National Register (Gillis, 2009b). However, protection of all properties, “found to be potentially eligible, or eligible to the National Register of Historic Places will be addressed in a future programmatic agreement”, with the State of Oregon (Stein, 2009). Such evaluations will include the Oregon Trail (i.e. Old Emigrant Wagon Road), which has been nominated to the Register by the USFS (OHTAC, 2009; p.2).

Finally, historical/archaeological clearance by Oregon’s State Historic Preservation Office will probably be needed during planning of any site-specific reuse activity on the Depot. Each survey’s level of effort will be determined by:

- Current and project-specific degrees of site disturbance (as judged by a certified archaeologist and/or historian); and
- Surface/subsurface cultural resources values potentially affected by project implementation (Pumphrey, 2002; Section 5.9).

Thus, impact to cultural resources will be anticipated and mitigated to the extent possible during the project planning phase. Unexpected discoveries-disturbances during project implementation (e.g., site excavation) will be documented and mitigated to the extent practicable by the cultural resource professional.

WATER RIGHTS

The Depot’s operational water needs have been supplied by seven on-site wells that draw from a basalt aquifer whose minimum depth is approximately 200 feet. Groundwater in the immediate region exists in two separate aquifers. The upper aquifer, the Ordinance Gravel Aquifer, exists in unconfined, overlying alluvial deposits. As an aquifer that is unprotected by geologic barriers, it has been significantly affected by Depot activities and agricultural operations in the region. The lower aquifer, the Ordinance Basalt Aquifer, is a vertical sequence of confined aquifers in the Columbia River Basalt.

Both aquifers have been over allocated in terms of Water Rights in an area of extensive irrigated agriculture. Significant drops in the water table of both aquifers obligated the State of Oregon to establish “critical ground water area” designations for both aquifers to protect senior water rights holders. New water rights permits will not be issued in either aquifer under the state designation.

During the establishment of the Depot the Army recorded Water Rights for seven wells with the State of Oregon. In Oregon, water rights are “appurtenant” or attached to the specific property where the water use is authorized. Unless the Oregon Water Resources Department approves an application to transfer the water right to a different parcel of land, the water right may be exercised only on the specific land identified in the water right certificate and only for the uses recognized on that certificate. When a landowner sells or conveys land, the water right associated with that land is also conveyed unless specifically excluded.

A history of the established water rights for the Depot, as shown in **Table 5: Active Water Rights**, allows withdrawals of up to 4,407.2 gallons per minute – 9.82 CFS + 10gpm (See appendix for Certificates documentation). Actual tested capacity reported in 1993 was 3,525 gpm (Benkenforf Associates, 1993). Three wells have undergone a transfer of use application dated 2002 (number T-6800). Final Water Right Certificates have not yet been issued for these use transfers – a process that can take from five to ten years. Of the Depot’s seven wells, three are in active use, three are on reserve, and one is inactive.

Table of Active Water Rights

WR Permit #	Certificate #	Priority Date	Amt. of Water	Use
G-2825	#33778	1/5/1965	0.78 cfs	Domestic
G-2826	#33779	1/5/1965	2.00 cfs (fp) 0.34 cfs (IR)	Fire Protection 27.0 acres of Irrigation
G-2827	#33988	1/5/1965	1.11 cfs	Fire Protection
G-2828	#33765	1/5/1965	1.11 cfs	Fire Protection
G-2830	#33989	1/5/1965	10 gpm	Fire Protection
TOTAL : 5.34 CFS + 10GPM				
T-6800 (Per U-522 (Per G-1017 (Per G - 2829	30524 (canc.) 30525 (canc.) 33776 (canc.)	1/19/1952 1/27/1958 1/5/1965	2.26 cfs 0.50 cfs 1.72.cf	Umatilla Army Depot Activity
TOTAL 4.48 cfs				
GRAND TOTAL 9.82 cfs + 10 gpm (4,407.2 gpm)				

Table 5: Active Water Rights

The existing Water Rights on the Depot represent a potential “limiting factor” in terms of reuse for intensive agriculture or industrial land uses. If all the current Water Rights on the Depot were applied exclusively for irrigated agriculture it is estimated that only 450 to 700 acres of the Depot’s 17,041 acres could be brought into production depending upon the crop type. It should be anticipated that no further groundwater Water Rights of any significance could be issued under the “critical ground water areas” designation currently imposed by the State of Oregon.

Moreover, it is unlikely that any new significant consumptive Water Rights could be obtained for direct withdrawals from Columbia River between the dates of April 15th and September 30th due to endangered species considerations. There are potential alternatives, particularly for industrial related land uses, that could create high levels of economic value and employment benefits.

The Port of Umatilla currently holds a water right to draw water from the Columbia River and retains substantial Water Rights of 155 cfs of which only 30 to 35 cfs are currently allocated. The total capacity of the water right is 155 cubic feet per second (equal to 80,000 gallons per minute). About 60 cfs (27,000 gallons per minute) currently goes through the Regional Water System.

According to the Port of Umatilla, about 5.6 cfs (2,500 gallons per minute) is allocated to the Simplot plants. As such, approximately 4.5 cfs (2,000 gallons per minute) goes all the way to the gas fired power plant. The uses for this water right are for municipal and industrial uses. The water cannot be used for agricultural purposes. The Port had an appraisal on the value of the water right conducted in 2000, where the value of water right was estimated at between \$39 million - \$51 million; further stating that value of the water right could be utilized as “matching funds” for development projects.



Some portion of these Water Rights may be transferable if attractive alternatives exist. Other options that could be investigated include water transfers from the Port of Morrow, Hermiston Development Corporation, and adjacent area landowners who may retain more senior Water Rights.

MINERAL RIGHTS

While there is no mention of mineral rights in the Depot Title Report by the Army Corps of Engineers dated August, 2008, recent research and correspondence between the Department of Interior Bureau of Land Management and Army Corps of Engineers to clarify issues regarding the disposition of mineral rights indicates a more complicated situation (BLM, July 2009).

A review of BLM records has affirmed that formerly withdrawn lands from the public domain that includes 18 of 20 separate parcels shown as Tracts A, B, and C on the Real Estate Tract Map, have mineral rights retained by the BLM (See Table 2 and Figure 2). The use and sale of mineral rights regarding the transfer of BLM lands is stipulated in 43 CFR 3600. Generally, the owner of the surface (fee less minerals) can use aggregate for his or her own purpose on site, but cannot commercially sell aggregate for off-site use without acquiring those rights from the BLM.

The two parcels from the formerly withdrawn lands, Tracts A, B, and C, that hold a somewhat different status include Tract C: T4N, R27E, Section 12. Minerals rights on that parcel were not retained and may be conveyed along with the surface estate. On Tract C; T4N, R27E, Section 24, an oil and gas lease (OR63342) exists. All minerals on this parcel may be conveyed other than oil and gas. No other oil and gas leases exist on the other formerly withdrawn lands.

The other "non-withdrawn" tracts acquired by the Army when the Depot was first established, shown as Tracts 1-20 in Table 2 and Figure 2, were primarily sections of land that were initially railroad grants in 1896 and 1906. These grants were for the fee estate including minerals and would have included mineral rights at the time of acquisition. Later tracts acquired through condemnation would have also included mineral rights. Further clarification is expected from BLM research in the future, but was not available at the time this report section was prepared.



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