

Umatilla Chemical Depot



Presentation for **Army Basing Study Group**





Umatilla Chemical Depot

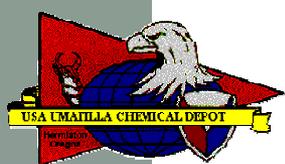




History & Background



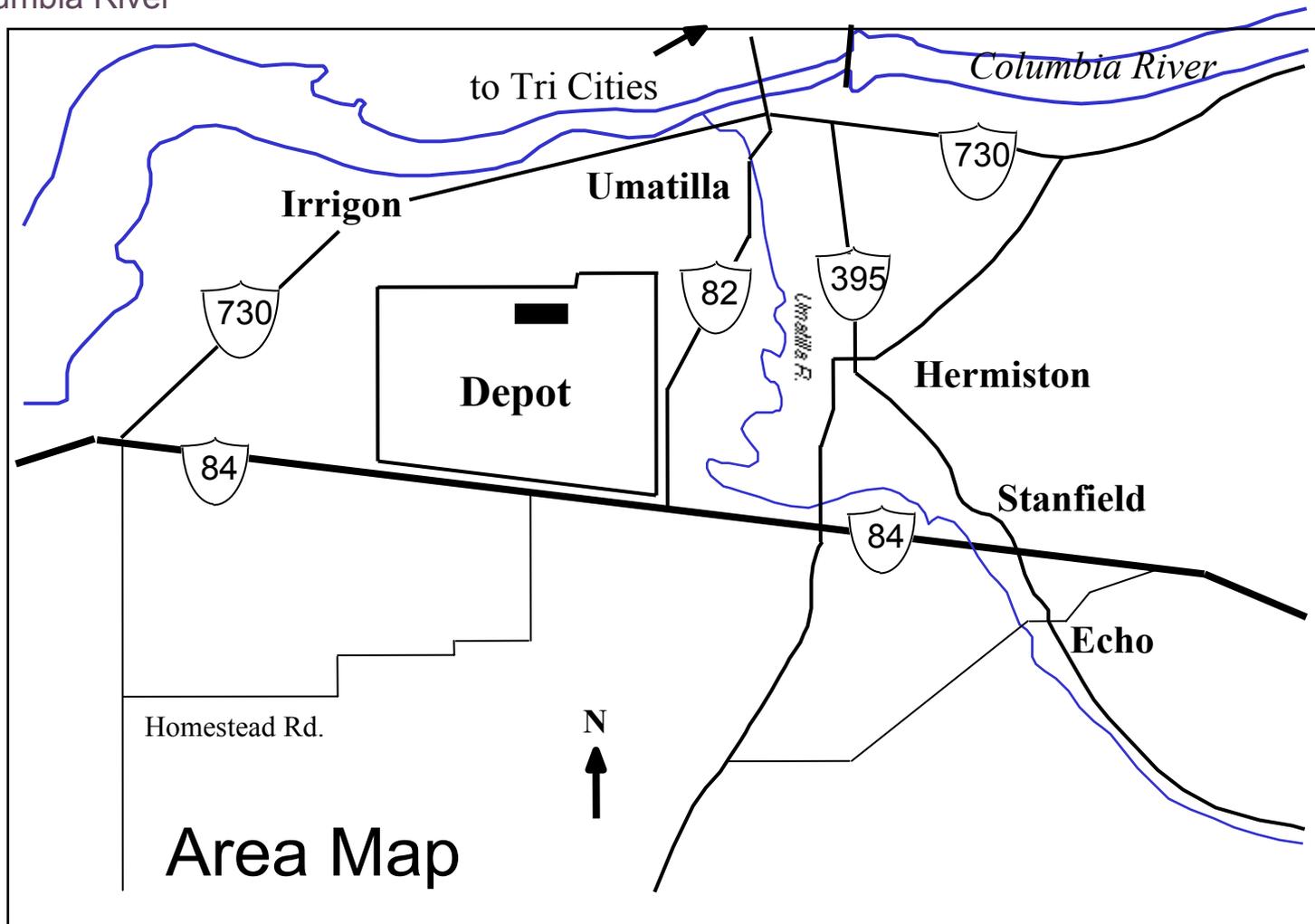
- Constructed in 1941 for conventional ammunition and general supply
- Assumed chemical stockpile mission in 1962
- 1989-1994 BRAC Realignment
 - Conventional Ammunition & Supply Missions lost
- 1001 igloo structures
 - 114 with chemical agents
- Munitions inventory: 3,717 tons of agent
- Nerve and blister chemical agents
 - Several munitions types (mines, bombs, rockets, projectiles)



UMCD Location



UMCD is located in northeastern Oregon in Morrow and Umatilla Counties, approximately 5 miles west of Hermiston, Oregon and 3 miles south of the Columbia River



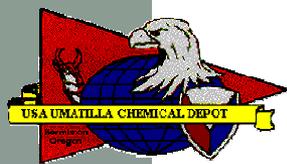


Mission



- Store Chemical Munitions and Bulk Agent
- Disposal of Chemical Munitions and Bulk Agent
- Support to Chemical Weapon Convention Treaty
- Conduct Base Operations
- Protect the Environment

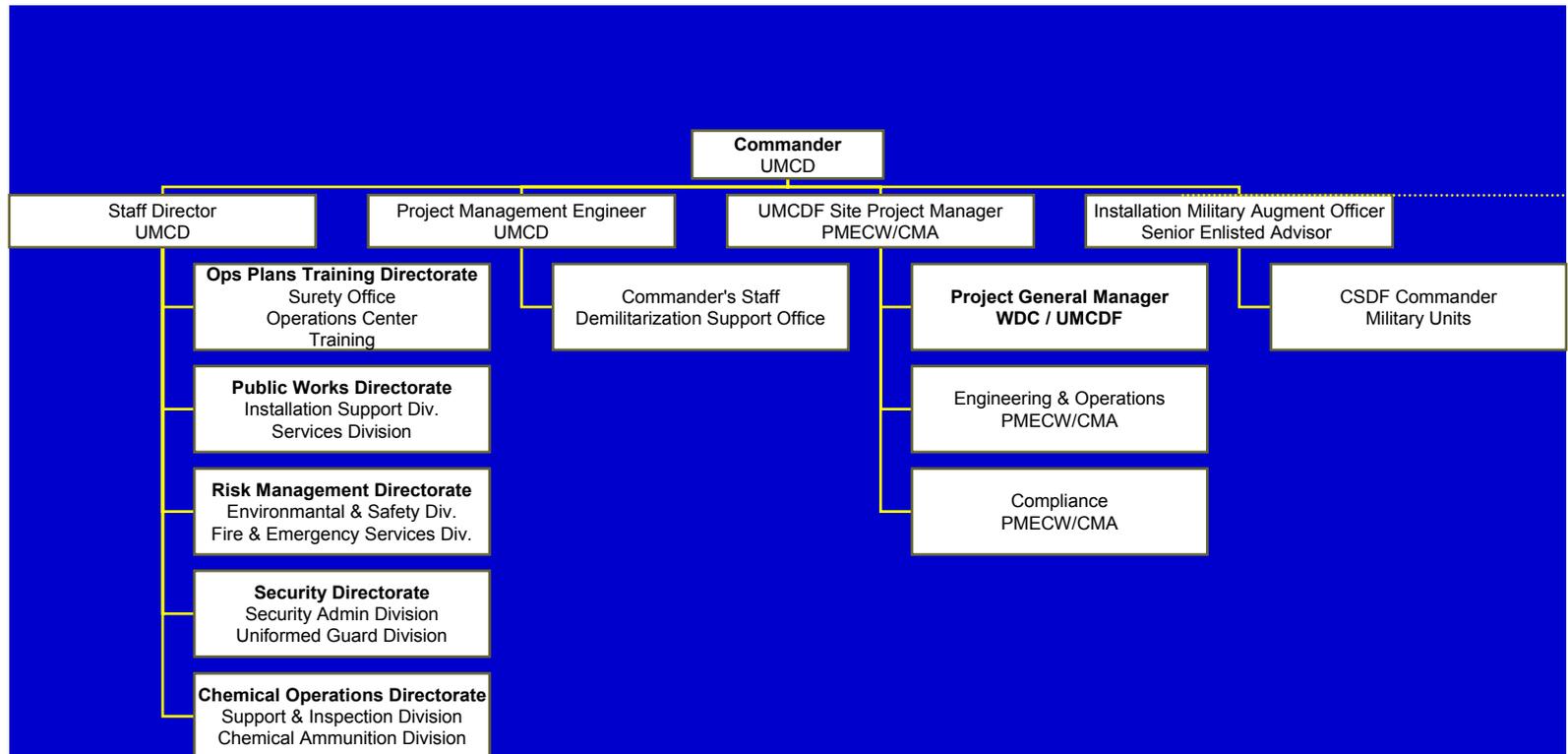


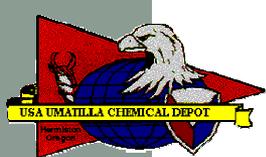


Organization and Population



- Government Employees – 400
- Contactor Employee – 700
- Military Personnel (CSDF) - 88





UMCD Overview / Infrastructure



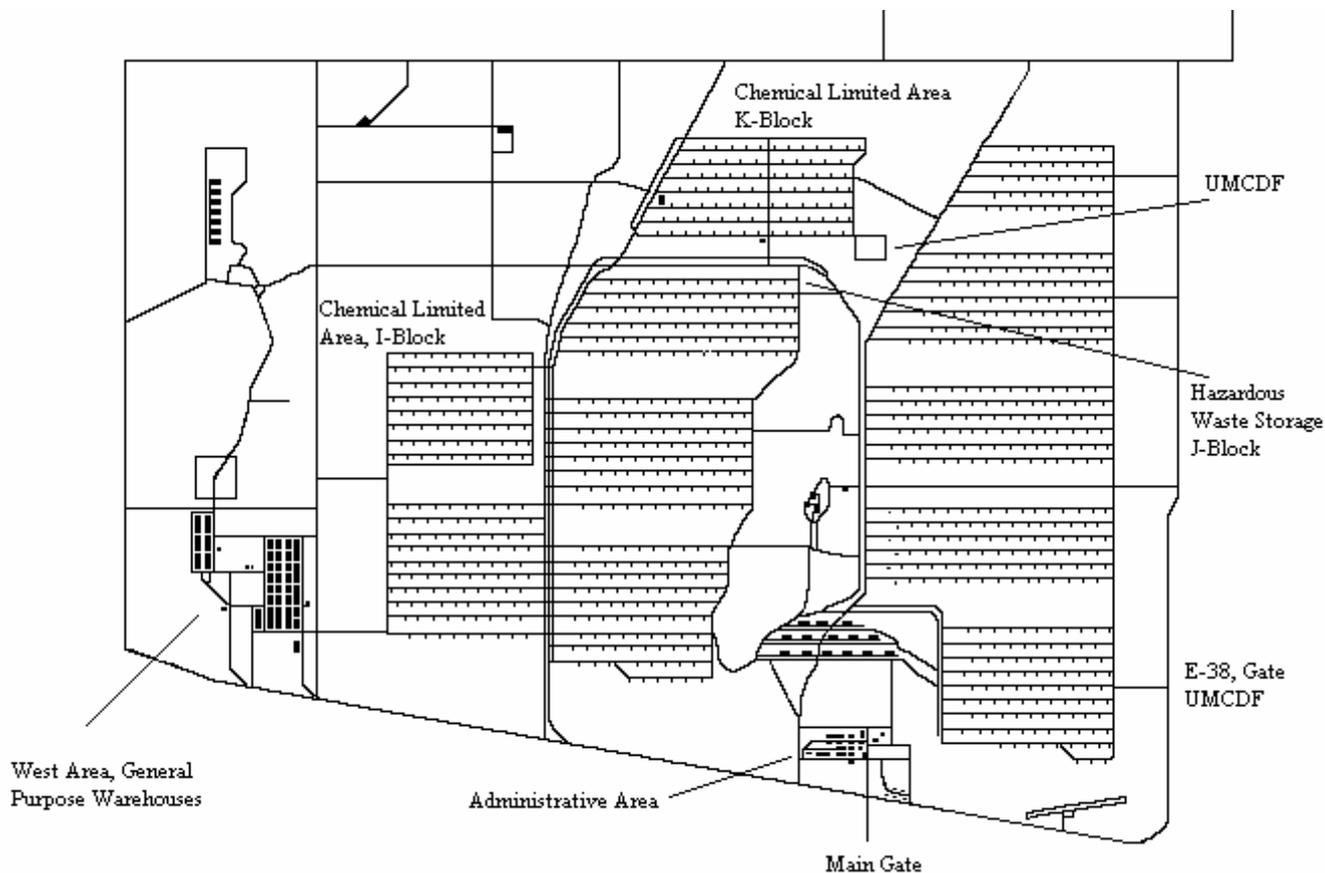
- Infrastructure maintenance
- Equipment
- Communications
- Supply
- Logistics
- Base support and management
- Protect the environment
- Quality of Life / MWR



UMCD Overview



- LAND MASS - 19,728 acres
- ROADS, HIGHWAYS, and RAILWAYS
 - 167 miles of paved roads
 - 2.7 miles of un-improved roads
 - 51 miles of railroad track - One (1) railroad engine shop (inactive)





UMCD Infrastructure



- ADMINISTRATION, MAINTENANCE and SUPPORT BUILDINGS
 - 57 Active Office, Maintenance and Utility type buildings for 280,420 Sq. Ft. Total
 - 18 Active General Purpose Warehouses for 480,016 Sq. Ft. Total
 - 31 In-active Warehouses for 679,833 Sq. Ft. Total
 - 18 In-active Maintenance and Utility type buildings for 102,872 Sq. Ft. Total
 - 1001 'Igloo' Munitions Storage Facilities

- HOUSING and BARRACKS
 - 9 Accompanied/un-accompanied houses, apartment, duplexes and barracks for 57,413 Sq. Ft. Total
 - Two (2) duplexes (4 units) and two (2) houses for family housing
 - Four (4) barracks (not open bay) approximately 250 person capacity total
 - One (1) open bay barracks, approximately 300 person total capacity





UMCD Infrastructure (con't)



- UTILITIES

- WATER SUPPLY

- Seven (7) water wells - chlorine treatment systems at each wellhead
 - Two (2) wells averaging 1 to 4 hours pumping each day
 - Water Supply to UMCDF Disposal Facility
- Four (4) active water reservoirs, three (3) are elevated. 28 backflow assemblies
- 16.25 miles water distribution main line

- SEWAGE TREATMENT

- Sewage treatment plant with 2 IMHOFF tanks
- 11 septic tank/drain field systems
- 1.5 miles storm main line
- 2.9 miles sewer main line

- ELECTRICAL SUPPLY

- ~ 25 miles of three phase overhead electrical distribution system
- 3 miles of three phase underground electrical distribution system
- Ten (10) stationary generators (seven actively in use)
- Six (6) mobile generators
- Additional Electrical Substation built, maintained and owned by local electric company (UEC) supporting UMCDF



UMCD Infrastructure (con't)



• COMMUNICATION SYSTEMS

- 58 total cable miles for communication systems (24 miles of fiber optic)
- 477 Main Lines for telephone sets
- TELEPHONE POLES
 - Total number of telephone poles: 750
 - Number of joint use poles: 750
 - Number of poles dedicated to telephone cabling: 6
 - Number of pedestals: 29
- MANHOLES
 - Total number of manholes: 15
- COMMUNICATION SWITCHES
 - Host Switch - AT&T Definity G3siV8
 - Secondary AT&T Definity G3siV8
 - Equipped - 800
 - In use: 457

• INTRUSION DETECTION SYSTEMS (IDS)

- ~ 11 miles IDS fence sensors
- 80 microwave zones plus 48 microwaves at the UMCDP
- 3 miles of ported cable
- 223 IDS boxes
- 23 alarm boxes





UMCD Infrastructure (con't)



- HEATING and AIR CONDITIONING
 - 19 heating boilers (Propane / Natural Gas / Fuel Oil)
 - 80 air conditioning systems
 - 46 heat pumping systems
- LIFTING DEVICES (forklifts and specialized equipment)
 - 67 chemical lifting devices
 - 148 non chemical lifting devices



Umatilla Chemical Agent Disposal Facility



- Construction
 - Began June 1997
 - Concluded August 2001

- Systemization
 - Began April 2000
 - Scheduled to conclude 3rd quarter 04

- Operations
 - Scheduled to begin Summer 04
 - Scheduled to conclude mid 2009





Umatilla Chemical Agent Disposal Facility (UMCDF)



- The Umatilla stockpile consists of blister and nerve agent in several configurations.
- Construction of the Umatilla facility was completed August 2001.
- Umatilla is scheduled (based on PM current estimate) to begin chemical agent disposal operations in 2004.



Original Stockpile: 3,717 agent tons (11.8% of U.S. total)

Construction: completed in 2003

*Systemization: to be completed in 2004**

*Operations: to be completed in 2011**

*Closure: to be completed in 2014**

Systems Contractor: Washington Group International

*Dates based on O&PT submission Oct 03

UMCDF Statistics



UMCDF Schedule	Utilities & Resources	Construction Resources & Systems	Construction Milestones
<p>Feb. 1997: Contract awarded; state permits issued</p> <p>June 1997: Construction begins</p> <p>Oct. 2000: Systemization begins Aug. 2001: Construction ends</p> <p>Feb. 2002: Liquid Incinerator 1 lit</p> <p>Aug. 2002: Deactivation Furnace lit</p> <p>Sept. 2002: Liquid Incinerator 2 lit</p> <p>Feb. 2003: Liquid Incinerator 1 Surrogate Trial Burn</p> <p>Feb. 2003: Metal Parts Furnace lit</p> <p>Jan. 2004: Metal Parts Furnace Surrogate Trial Burn</p> <p>Mid 2004: Agent disposal operations begin</p> <p>2004/2009: Agent operations</p> <p>2009/TBD: Closure activities</p>	<p>Electricity:</p> <p>Natural gas: An estimated 4.3 million cubic feet for the peak daily rate; an estimated 886 million cubic feet for the average annual rate.</p> <p>Process water: Up to 141,755 gallons a day from two wells</p> <p>Propane: 53,000 gallons per year</p> <p>Diesel fuel: 28,000 gallons per year</p> <p>Sodium hydroxide: 2.4 million gallons per year</p> <p>Bleach: 558,000 gallons per year</p> <p>HCl: 55,800 gallons per year</p> <p>Gasoline: 15,000 gallons per year</p> <p>DPE suits: 4,200 per year</p>	<p>Number of systems: 111 (359 subsystems)</p> <p>Electrical conduit: 152 miles</p> <p>Electrical wire: 819 miles</p> <p>Concrete: 25,237 cubic yards</p> <p>Concrete placements: 1,643</p> <p>Concrete tests: 2,920</p> <p>Concrete mixtures: 13 types</p> <p>Concrete reinforcing steel: 2,655 tons</p> <p>Concrete formwork: 510,000 square feet</p> <p>Structural steel: 2,600 tons</p> <p>Excavated earth: 300,000 cubic yards</p> <p>Piping: 33 miles</p> <p>Equipment: 2,800 major pieces</p> <p>Instruments: 18,000</p>	<p>Systems contract awarded: February 10, 1997</p> <p>Groundbreaking: May 1, 1997</p> <p>Construction began: June 10, 1997</p> <p>First incinerator installed: April 14, 1998 (Deactivation Furnace)</p> <p>Second incinerator installed: June 10, 1998 (Liquid Incinerators)</p> <p>Last steel installed: March 12, 1999</p> <p>Third incinerator installed: May 1, 1999 (Metal Parts Furnace)</p> <p>Construction peak: July 1999 (1,149 workers)</p> <p>First testing activity: March 2000</p> <p>Substantial End of Construction: May 10, 2001</p> <p>Official End of Construction: August 20, 2001</p>

UMCDF Statistics (Continued)



Costs	UMCDF Milestones	Systems Contractor	Economic Impact
<p>UMCDF Costs: Construction, \$395.4 million; operations \$519.7 million; total \$915 million (Aug. 2002)</p> <p>Overall UMCDF lifecycle cost: \$2 billion</p> <p>UMCDF original contract: \$567 million (construction \$262 million; operations, \$305 million)</p>	<p>Resource Conservation and Recovery Act application made: 1986</p> <p>RCRA permits issued: February 12, 1997; expires February 2007</p> <p>Sampling began on Perimeter Monitoring Program: May 9, 2000</p> <p>CWC disposal deadline: April 29, 2007; with five-year extension</p>	<p>Contractor: Washington Group International; Washington Demilitarization Co.</p> <p>Total UMCDF employees: WDC hired 693 of 750 operations employees (UMCD 250 of 325; with 100-200 National Guard)</p> <p>Place of residence: 52 percent in Washington state; 48 percent in Oregon</p> <p>Experience: 12 percent chem demil</p> <p>Safety: Achieved 2 million hours w/o lost time injury, Jan. 22, 2003</p>	<p>WDC payroll: \$25 million for operations; \$10 million for craft work (in 2002) UMCD payroll: \$14 million (in 2002)</p> <p>WDC Subcontracts from project inception (Aug. 2002) Small Businesses: \$89.5 million Large Businesses: \$112.6 million Small Disadvantaged Businesses: \$10.9 million Women-Owned Businesses: \$9 million Total: \$222 million</p> <p>UMCD contracts: \$6.1 million (in 2002)</p>

UMCDF Statistics (Continued)



Economic impact	Equipment	UMCDF Project Size
<p>UMCDF economic impact: Net effect, \$3.5 million core counties (Umatilla and Morrow), \$4.7 million region, \$77 million state</p> <p>Extended schedule economic impact: \$3 million core counties, \$4.5 million region and \$97.3 million, state</p> <p><i>(Institute for Defense Analysis)</i></p>	<p>Equipment: \$140 million (\$95 million Government Furnished Equipment; \$45 million in contractor-furnished equipment)</p>	<p>Total project: 33 acres UMCDF square footage: Approximately 200,000 square feet</p> <p>Main Buildings Entry Control Facility: 1,252 square feet Personnel and Maintenance Building: 18,605 square feet Pollution Abatement System: 11,697 square feet Munitions Demilitarization Building: 82,466 square feet Process and Utility Building: 23,925 square feet Container Handling Building: 30,740 square feet Process Support Building: 12,767 square feet Laboratory: 7,748 square feet</p>

UMCD - ACCOMPLISHMENTS



- Successful storage of Chemical Weapons since 1962
- UMCD Demilitarization Facility
 - Construction Completed – August 2001
 - Systemization Started - 2002
 - Operations Forecast – July 2004
- Successful BRAC Realignment 1989-1994
 - Transfer of Conventional Ammunition storage and maintenance
 - Transfer of General Supply Mission
- Force Protection and Readiness
 - Barracks Construction and family quarters upgrades
 - Improvement in quality of life MWR programs
 - Operation Roving Osprey 2002
 - Successful Transition Nobel Eagle 3.5
 - Successful 2004 AMC AT/AP inspection
 - Successful joint integration of CSDF with DoD security
- Successful Chemical Weapons Convention Inspections
- Successful Environmental Inspections and Partnering
- Integrated Real-World CAIRA implementation and Off-post Coordination
 - CSEPP MOUs with off post community