Irrigation at Rocky Mountain Arsenal – Restoration/Mitigation of More Than 8,000 Acres

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Rocky Mountain Arsenal Location Map
Brief

- Pearl Harbor and WWII
- The Cold War Years
- Demilitarization Role
- CERCLA Investigations
- ROD and Refuge Act
Remedy Execution

- Remediation Venture Office
- FWENC Awarded Program Management Contractor
- $1 Billion Program Cost – 31 ROD Implementation Sites
- Award Winning Performance
Terrestrial Revegetation Plan

- Approximately 8000 Acres Restoration/Mitigation
- Goal 700-800 Acres per year
- Semi-Arid Climate Requires Irrigation
Water Supply

<table>
<thead>
<tr>
<th>Schedule Dates</th>
<th>Quantity &amp; Frequency</th>
<th>Number of Applications</th>
<th>Total (Inches)</th>
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</thead>
<tbody>
<tr>
<td>June 3 - June 28</td>
<td>½-inch once per week</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>July 1 – Aug. 9</td>
<td>1-inch every other week</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Aug. 12 – Aug. 30</td>
<td>½-inch every other week</td>
<td>2</td>
<td>1</td>
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- **Water Requirements**
  - **Sources of Water**
  - **Distribution System**
SOLID SET - 175 GPM per Valve
SIDEROLL – 200 GPM Each
LINEAR – 950 GPM
Irrigation System Layout

- Mainline Piping 8 to 12 inch, 500 to 1600 GPM
- Total Flow Requirement about 3000 GPM
- Operating Pressure 30 – 45 PSI
- Distance (3-4 Miles) from Water Source
- Booster Pump
Installation and Operations

- Safety and Quality
- Wildlife Concerns
- Testing
- 4 or 5 Two-Man Crews
- Automation vs. Installation Cost
Conclusions

- Nearly 3,000 Acres Restored
- Irrigation Cost: $1,500 per Acre
- Effective Establishment of Native Species
- Required in Semi-Arid Climate

Photo by Rick Keen, DPRA
Rocky Mountain Arsenal Future Wildlife Refuge

Photo By Joshua Barclers, DPRA