

Office of Environmental Management – Grand Junction



Moab UTR A Project Revegetation Plan

Revision 2

July 2014



U.S. Department
of Energy

Office of Environmental Management

**Moab UMTRA Project
Revegetation Plan**

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Review and Approval


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Revision History

| Revision No. | Date | Reason/Basis for Revision |
|---------------------|----------------|---|
| 0 | April 2009 | Initial issue. |
| 1 | September 2010 | Update includes 2010 areas and future planning. |
| 2 | July 2014 | Update includes 2014 areas and activities. |

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1.0 Introduction

1.1 General

The U.S. Department of Energy (DOE) Uranium Mill Tailings Remedial Action (UMTRA) Project includes the Moab site and the Crescent Junction disposal site, both in Utah. The Moab site includes 439 acres of property owned by DOE, of which 130 acres are covered by a uranium mill tailings pile. In 2003, DOE began cleaning up radiologically contaminated soil in non-pile (off-pile) areas of the Moab site. The material was staged on top of the tailings pile until cleanup of the pile began in April 2009. This non-pile soils remediation has resulted in a reduction of the contaminated footprint by 135 acres. As non-pile areas are cleaned up, they have been revegetated with a variety of native plant species. In addition, unwanted plants and weeds, such as tamarisk trees, have been removed in some uncontaminated areas of the site and replaced with desirable vegetation.

1.2 Purpose and Scope

This Revegetation Plan describes activities for developing and maintaining a healthy native plant species on disturbed areas at the Moab site. Revegetation activities include pole planting, watering, weeding, and monitoring. The Technical Assistance Contractor (TAC) is responsible maintaining and promoting vegetation on about 135 acres of the Moab site that is outside of the contaminated area. The purpose of revegetation is to help control of erosion and to encourage a healthy ecosystem.

This Plan augments the *Moab UMTRA Project Weed Control Plan* (DOE-EM/GJ1406), which identifies noxious and undesirable plants and presents control methodology.

1.3 Revegetation Areas

Revegetation areas at the Moab site are identified as plots A, B, C, D, E, and F (Figure 1). These areas are actively irrigated. Other areas including the banks of the Moab Wash, U.S. Highway 191 rights-of-way, and the hillside east of State Route 279 have been revegetated with upland vegetation species that do not require irrigation. Additional areas, including the well field, are not irrigated but are actively weeded.

2.0 Planning

The TAC will coordinate with DOE and the Remedial Action Contractor (RAC) on revegetation activities of additional remedial action areas that may require revegetation. Coordination will be directly among the DOE, TAC management, TAC Revegetation personnel, and RAC Environmental Compliance personnel, if appropriate. Coordination will allow sharing knowledge regarding revegetation techniques, best management practices, and planting and weeding priorities, as applicable. As areas of the Moab site with surface contamination are identified for remediation, planning for the appropriate revegetation will be performed. Review of area location related to a master plan for site cleanup will be considered along with the most recent discussions with possible future land users.

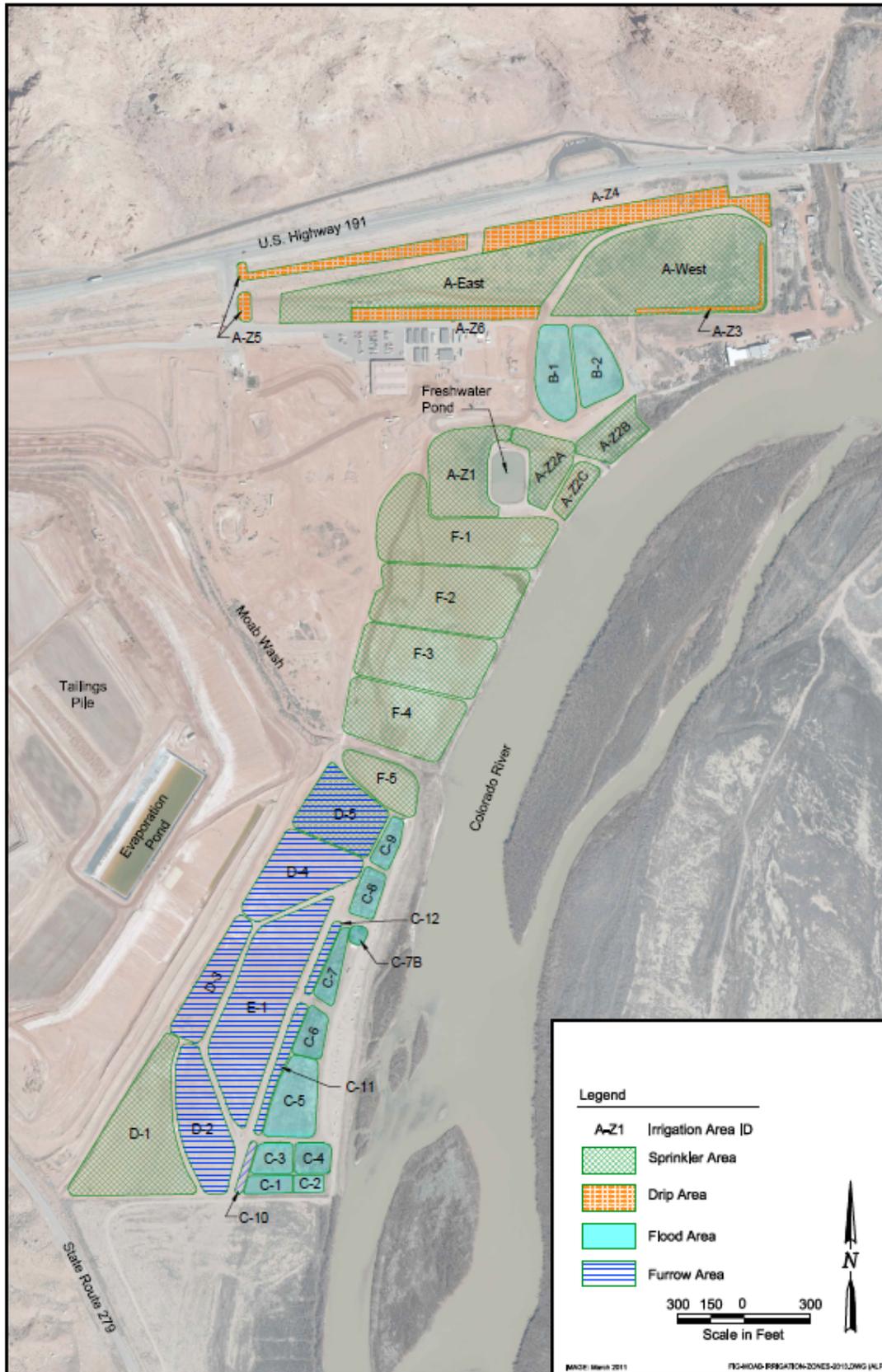


Figure 1. Moab Site TAC Active Irrigation Areas

Routine or requested activities originating from the RAC may be coordinated through Project Integration Meetings, Plan-of-the-Day Meetings, and special meetings, as needed. Planned activities include annual evaluation of the revegetated areas and adjustment of watering and weeding schedules and priorities as required.

3.0 Revegetation Activities

3.1 Planting

Planting includes establishing vegetation in areas that have been newly disturbed and augmenting vegetation in areas previously planted, but where success has been limited. Depending on the location and purpose, planting may consist of seeding or planting poles or saplings.

3.2 Watering

A watering schedule is prepared annually that delineates the schedule for use of different watering methods, such as flooding, hose reels, and sprinklers.

3.3 Weed Control

Weed control includes using herbicides, physically removing weeds by cutting or pulling, or a combination of both activities. The *Weed Control Plan* makes area-specific recommendations for controlling weeds.

3.4 Annual Assessments

Annual assessments of vegetation coverage and soil nutrients will be documented in letter reports. The content of the report will include the current year data as compared to the previous year's data, a description of the methodology used, and a map showing the areas surveyed. A recommended course of action for these areas will be made based on this data.

3.5 Future Restoration Projects Associated with Revegetation

A plant nursery/greenhouse was added to the Moab site in 2010. The purpose of the greenhouse is to raise native seedlings and root poles that will be transplanted into various under-performing revegetation plots.

4.0 References

DOE (U.S. Department of Energy), *Moab UMTRA Project Weed Control Plan* (DOE-EM/GJTAC1406).