



A Profile in Using Green Remediation Strategies

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Former Carswell Air Force Base
Fort Worth, TX

Federal Facility

Cleanup Objectives: Biodegrade subsurface volatile organic compounds (VOCs) through reductive dechlorination and control contaminant migration

Green Remediation Strategy: Planted 660 cottonwood trees across 4,000 square meters in 1996 to:

- Establish root biomass promoting activity of indigenous microbes
- Enhance transpiration of ground water through the trees, helping to control hydraulic gradient and downgradient migration of VOCs

Results:

- Produced virtually no process residuals
- Reduced VOC concentrations in ground water approximately 65% within first four years
- Increases treatment efficacy over time according to plant growth
- Incurred \$193,200 in capital costs including \$2,100 for plants, \$10,000 for irrigation, and \$90,000 for monitoring wells
- Incurred average annual maintenance costs of \$252,000 for extensive monitoring of ground water (plume control), vegetation, climate and other site parameters affecting the (federal interagency) demonstration
- Supported transfer of property to community as part of base realignment and closure, without disruption to ongoing activities
- Provided remediated land for use as a community golf course

Property End Use: Recreation

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http://www.clu-in.org/greenremediation/profiles/subtab_d5.cfm



United States Environmental Protection Agency
Office of Solid Waste and Emergency Response (5202P)

For more information:
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