

Hennessey Tract Acquisition

Missouri Natural Resource Trustee Proposal

Igneous glades and the short-statured oak woodlands, where scenic vistas open across Missouri's rugged and forested St. Francois Mountains are among the proposed acquisition's highlights.



Missouri
Department of
Natural Resources

PROJECT FRAMING AND APPLICABILITY

The Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) prescribes that the President and governors of each state shall designate natural resource Trustees. The state and federal Trustees act on behalf of the public interest for natural resources, including supporting ecosystems, within the boundary of a state, or belonging to, managed by, controlled by or appertaining to such state, or by the United States. Under this authority, the Governor of the State of Missouri has appointed the director of the Department of Natural Resources as the designated state trustee.

This Proposal for the purchase of compensatory natural resources relates to funds received from a Natural Resource Damage Assessment and Restoration (NRDAR) settlement with the American Smelting and Refining Company LLC (ASARCO).

Monies recovered from the ASARCO NRDAR settlement are available to fund proposals submitted by the Missouri Trustee Council in accordance with the Southeast Missouri Ozarks Regional Restoration Plan (SEMORRP). The Missouri Trustee Council (hereafter referred to as "Trustees") is comprised of the Missouri Department of Natural Resources and U.S. Department of the Interior represented by the U.S. Fish & Wildlife Service. The SEMORRP provides a process framework that governs the approach for restoration project identification, evaluation, selection and implementation including direct submittal of proposals by the Trustees

In its role as Trustee, the Department submits the following proposal related to the purchase of natural resources which are substantially similar to those injured by the mining activities of ASARCO. The Departments' intent, outlined within, is to acquire compensatory restoration property to compensate the public for lost resources due to the release of hazardous materials by ASARCO from the Sweetwater mine and mill complex and Glover smelter site.

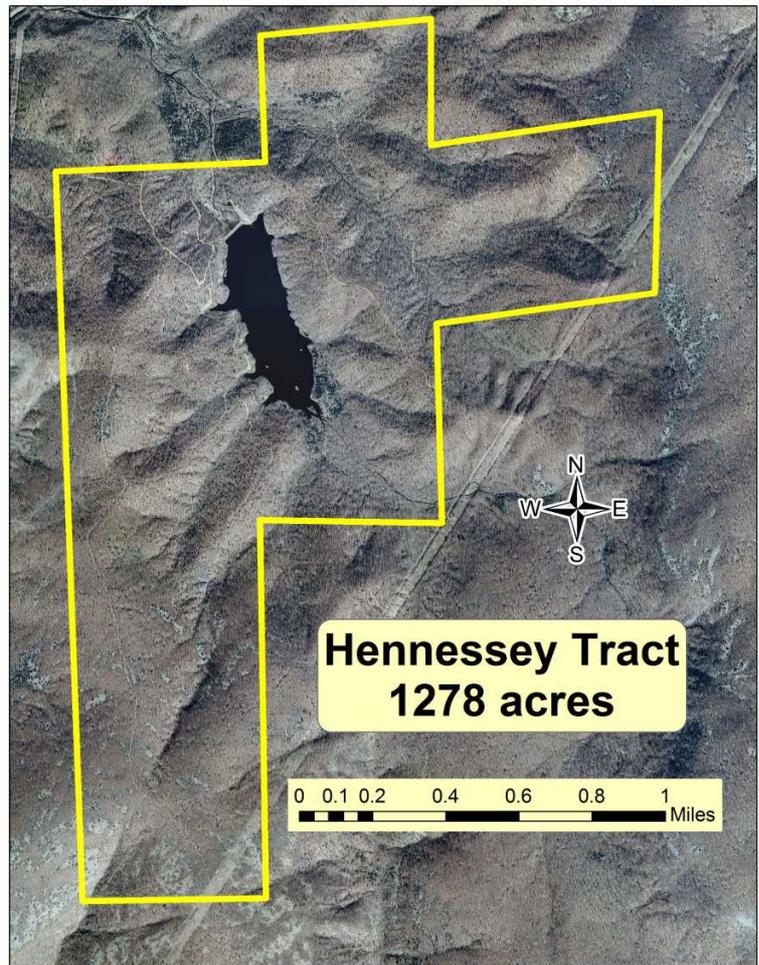
PROJECT DESCRIPTION

The proposed compensatory property acquisition, identified as the Hennessey Tract, is located in the nucleus of the St. Francois Mountains in the eastern reaches of the Ozark Highlands. The Hennessey tract represents a unique natural resource conservation and restoration opportunity from the perspective of both its high quality dry igneous woodland-glade habitat, which represent the unique ecoregion of the St. Francois Mountains Knobs and Basins, and its ability to provide connectivity on an ecosystem level with existing areas of natural resource conservation. See attached Figure 1.

The Hennessey Tract (1278 acres) is contiguous to the Ketcherside Mountain Conservation Area (4877 acres) and Taum Sauk Mountain State Park (5348 Acres), encompassing the highest point in Missouri at 1,772 feet and the greatest conglomeration of igneous glades in Missouri. The steep and rugged landscape of the adjacent 5300 acre

St. Francois Mountains Natural Area, the largest state natural area, comprises seven igneous knobs across multiple ownerships, and inclusive of the proposed purchase offers an outstanding opportunity for expansion. This significant geologic area hosts a high degree of native integrity with over 800 native plant species, seven state-listed species documented from the region, including habitat for the largest known and most genetically diverse populations of the federally listed Mead's milkweed and the state listed eastern collared lizard. The adjacent Missouri Department of Conservation property that includes Proffit Mountain and the Hennessey tract itself possess a great degree of diversity. All are included within an Audubon important Bird area because of the extensive habitat for conservation priority birds requiring large areas of forest and glades.

The Proposals goals include the acquisition, restoration and preservation in perpetuity of substantially similar natural resources, including the unique igneous natural communities found within the Hennessey Tract, which will compensate for the injury to natural resources sustained at the Glover smelter and the Sweetwater mine and mill complex. Incorporation of the Hennessey Tract into the Missouri State Parks System will contribute markedly to the overall restoration goals of the Trustees and mission of Taum Sauk Mountain State Park which targets landscape-scale conservation through preservation of natural landscapes, the implementation of



prescribed fire, re-establishment of native vegetation and invasive/non-indigenous vegetation removal projects. Of significance is the extent of high quality existing natural communities on the Hennessey tract, the potential for discovery of Mead's milkweed populations, and the opportunity for inclusion in the larger St. Francois Mountains Natural Area. The St. Francois Mountains Knobs and Basins Land Type Associations are identified by the Audubon Society as a globally significant region for the conservation of woodland and grassland-shrub land bird species including significant migratory songbird populations. The Nature Conservancy identified the area as a Conservation Portfolio Area in the Ozarks Eco-regional Conservation Assessment for its high level of endemism and contiguity of the restricted landscape types.

Taum Sauk Mountain State Park and the surrounding St. Francois Mountains Natural Area contain the best remaining examples of dry, dry-mesic igneous woodlands and igneous glades high on the geologic profile in the central United States. The area's geologic features include some of the best examples of the following:

- Wet Weather Cataract (Mina Sauk Falls)
- Volcanic Rock Cliff (Devil's Wall)
- Volcanic Rock Knob
- Volcanic Rock Barren
- Volcanic Rock Pile (Igneous Talus)

The rugged, forested hills of the St. Francois Mountains represent the best potential for natural area expansion due to the low degree of development in the uplands and the rugged nature of the landscape. Attributes of the site include:

- Over 70 species of woodland birds have been documented from Taum Sauk Mountain State Park
- Largest exposed areas of explosive volcanic rocks in the central United States with ash-flow tuffs of six igneous formations
- Intact Dry and Dry Mesic Igneous Woodlands of significant integrity of forb-dominance with little exotic species noted
- Taum Sauk Mountain harbors deep soil igneous glades and igneous rock outcrops composed of microhabitats that support lichens as well as warm season grasses and perennial forbs
- Designated as a globally significant Important Bird Area (St. Francois Knobs IBA), and a Portfolio Site by The Nature Conservancy
- Taum Sauk Mountain is the nucleus of the St. Francois Mountains Natural Area (designated September, 1996)
- Taum Sauk Creek is recognized as a State Outstanding Resource Water; the entire watershed for Taum Sauk Creek is protected by Missouri State Parks
- Over 800 vascular plant species are found on the adjacent natural area, with similar diversity and floristic richness expected from the Hennessey tract.

PROJECT BENEFITS

The proposed Hennessey tract property will become part of Missouri's state park system, which on multiple occasions has been ranked as one of the top four state park systems in the nation, and contains 87 state parks and historic sites plus the Roger Pryor Pioneer Backcountry. The mission of the state park system is to preserve and interpret the state's most outstanding natural landscapes and cultural landmarks, and to provide outstanding recreational opportunities compatible with those resources. Within more than 200,000 acres available to the public, the state park system stands in a unique position to secure lands for conservation and provide the opportunity for landscape-scale restoration efforts. The Trustees goals mirror the overall preservation mission of the state park's system.

1. Geographic Nexus

This project lies within the restoration boundaries of the Southeast Missouri Restoration Plan. The Hennessey tract is located 7 miles from the Glover Smelter and approximately 29 miles from the Sweetwater Mine and Mill Complex natural resource injury sites. Its proximity provides a conservation and restoration opportunity with a direct nexus to the ASARCO injuries from which the current proposed restoration project funds are derived. The close proximity of the Hennessey Tract to the site of injury provides direct compensation to the public for those lost resources. See attached Figure 2 for the proximity of the Proposal to the area of injury.

2. Ecological Nexus and Benefit

This project will allow preservation of high quality dry igneous woodland-glade complex as represented in the St. Francois Mountains Natural Area and allow parks to restore these resources' for the public trust. The acquisition of this property will protect 1278 acres of quality woodland and dry igneous glades to be managed by professional restoration staff. A park management plan, aimed to increase the ecological services provided by the property toward baseline conditions, where required, will be implemented following acquisition.

The addition of this property adds connectivity of large tracts within St. Francois Mountains Knobs and Basins Conservation Opportunity Areas and Missouri Natural Area to the park and increases the habitat for migratory birds and may harbor Meads Milkweed, a federally endangered species. Finally, acquisition of this property protects existing resources on the Hennessy property from deforestation or forest fragmentation by development or conversion to non-conservation purposes. The Highway 67 corridor including Farmington/Park Hills urban centers are rapidly expanding with housing and other developments into rural areas in and around the St. Francois Mountains.

PROJECT GOALS/OBJECTIVES

The primary goal of the proposed acquisition is the purchase and long term preservation of high quality natural resources which are substantially similar to those injured by the mining activities of ASARCO. Following purchase, an Ecological Assessment is planned which will capture information on habitat types, species inventories including the presence of threatened and endanger species and species of conservation concern

The management and long term stewardship goals and objectives for the property include the adoption of the preservation goals and natural community management objectives currently in place for the adjacent St. Francois Mountains Natural Area and the contiguous Taum Sauk Mountain State Park. This goal is to protect, maintain and restore the native natural communities representing the St. Francois Mountains. The objectives include but are not limited to:

- Focus on the maintenance of existing areas of high quality habitat
- Development and implementation of a management plan to address areas of species and restoration concern including monitoring of the success of restoration
- Restore natural processes by implementing prescribed fire and selective thinning of woody vegetation, with special emphasis on the extensive igneous glades and woodlands which are the most abundant natural vegetation across this property
- Protect plant and animal species of conservation concern, especially the Federally endangered Mead’s milkweed
- Control invasive exotic plants and animals
- Monitor vegetation responses to management, and populations of sensitive plant or animal species
- Provide for public access and use, through trails and other compatible backcountry recreation
- Nomination as an addition to the St. Francois Mountains Natural Area within Missouri’s Natural Area System

PROPOSED BUDGET

The proposed budget including restoration implementation and long term monitoring for this acquisition encompasses the following:

Land Purchase Price (estimated)	\$1,500,000
Land Transaction Fees Land Appraisal	\$4,200

Title Insurance	\$2,300
Closing Costs	<u>\$800</u>
Total	\$7,300
Restoration Implementation Salary	
Natural Resource Steward(0.12 FTE for 5 years)	\$40,412.50
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Salary Total	\$80,825.00
Equipment & Materials	\$14,750
Monitoring and Diversity Inventory (10yrs)	\$55,000
Outreach Materials	\$1,500
Total	\$1,659,375

PERMANENCE: OWNERSHIP AND LONG TERM MANAGEMENT

The Hennessey Tract will be owned and operated by the Missouri Department of Natural Resources, Missouri State Parks. The property will become a permanent part of Taum Sauk Mountain State Park and given the unique long term protections that are unique to the State Park Systems. Most areas will be nominated as an addition to the St. Francois Mountains Natural Area. The management will be guided by a natural resource management plan and the area included in state park natural resource management programs that are designed to zone and emphasize natural landscape preservation as the highest priority.

SURROUNDING LAND USE

Land use in the immediate vicinity is private forest and public conservation lands managed by the Missouri Departments of Natural Resources and Conservation, and the US Forest Service. These are extensive, totaling several thousand acres. The local public lands include two state parks and one large federal wilderness area. Small residential tracts interrupt some nearby forest land, and the nearby valleys. These valleys also contain dispersed private pasture lands, and some housing developments. Ameren’s pump storage facility is located just south of the property. See Attachment 1 Public Lands and Forest Cover Map.

QUALIFICATIONS OF SPONSOR

The project sponsor is the lead regulatory environmental and resource agency for the State of Missouri, which will also own and operate the Hennessey Tract as part of Taum Sauk Mountain State Park.

The Department's Division of State Parks manages large native landscapes with a mission to restore, preserve and protect the natural systems and elements that represent Missouri's natural heritage. Natural landscape preservation and management as that proposed for the Hennessy Tract already exists for the adjacent Taum Sauk Mountain and Johnson Shut-Ins state parks, where a twenty-five year program of resource inventory, scientific research, prescribed fire, ecosystem restoration and natural community and endangered species management continues.

Missouri State Parks is equipped with professional administrative, operations and natural history staff. They are assisted by a Natural Resource Steward and natural resource stewardship crews and resource stewardship project funds from the Eastern Parks District. Missouri State Parks staffing includes a centrally administered natural resource management program that will provide:

- Trained natural community ecologists with experience and background in prescribed fire management and ecosystem restoration to restore and manage these systems
- Administrative and financial support throughout the system to achieve management goals and objectives, including annual resource stewardship project allocations to support restoration and active landscape management.
- A legacy of landscape-scale restoration in the St. Francois Mountains and the signature examples of igneous natural communities at Taum Sauk Mountain State Park
- Science-based research and monitoring that will accompany any and all restoration activities
- An understanding of the significance of the St. Francois Mountains landscape and the threats of exotic invasion with the ability to mitigate threats of non-native plants and feral hogs

PROJECT PARTNERS

Project partners may include the Missouri Department of Conservation, who in the past have cooperated on adjoining Missouri Department of Conservation/Department of Natural Resource property management for ecosystems. Cooperative management of ecosystems on these lands includes prescribed burns and natural area planning. Wildlife Diversity Grant funds are used for restoration and prescribed burn implementation, wildfire control and technical assistance in biological surveys and Mead's milkweed management at Taum Sauk Mountain State Park and for the St. Francois Mountains Natural Area.

Feral hog control will continue to be a management issue, with continuing partnering with the Missouri Department of Conservation and U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS). Office space and temporary housing is currently provided for the APHIS agent at nearby Johnson's Shut-Ins State Park.

Missouri State Parks provides annual operating funds for AmeriCorps, their crews assisting with restoration, fire line construction and prescribed burns at Taum Sauk, Johnsons' Shut-Ins and other area state parks. They will likely assist in these projects on the Hennessey Tract.

COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS

The Department's Division of State Parks pursues property acquisition within the legal framework provided by the Office of Administration and the purchase authority granted to it by the State of Missouri. Future restoration activities will be conducted within the scope of any applicable environmental permitting and regulatory requirements.

TIMELINE

The proposed Hennessey Tract purchase is anticipated in late 2014 or early 2015 contingent on proposal and funding approval. Resource inventory and a management plan drafting will take place in one year following the purchase. Prescribed fire may be initiated as early as fall 2015, with fire management units burned on a 3-7 year rotation. Thinning and other restoration projects will be planned and funded according to the management plan and availability of funds. Recreational amenities such as trails, trailhead, or other visitor use features will be developed in a conceptual plan. The planning process will include public input opportunity, following normal Missouri State Park procedure.

PERMANENCE

Land acquired by these funds will remain in State Parks ownership in perpetuity. This tract of land will be maintained as the native ecosystem(s) and will be maintained as outlined in a Natural Resource Management Plan to be developed for this land. Development will be limited to features or amenities that provide for low-impact visitor access and use that is compatible with the Project's natural ecosystem restoration and preservation goal. Examples of project-compatible visitor amenities include trails, backcountry or primitive camping, access roads, picnic areas, fishing access and parking for the public's enjoyment of the resource.

MEASURES OF SUCCESS

Before restoration efforts begin, Missouri State Parks will author an Ecological Stewardship Management Plan (ESMP) that will outline restoration activities, timelines, metrics for determining successful preservation and restoration efforts and monitoring protocols. The Natural Resource Management Section in Missouri State Parks possesses long-tenured institutional knowledge and expertise regarding restoration efforts in the Ozark Highlands

Collaboration with the dedicated longtime partners, such as the Audubon Society of Missouri, will source expertise for activities like tracking bird occupancy in the woodlands and glades throughout the restoration and maintenance phases on the Hennessey property. The ESMP will also identify methods, such as comparisons of benchmark examples of these landscape types as identified in *The Terrestrial Natural Communities of Missouri* (Nelson, 2010) and the

St. Francois Mountains Natural Area nomination to site ground cover response and open canopy cover density measurement as an indicator of preservation or restoration progress.

Figure 1. Hennessey Tract Location

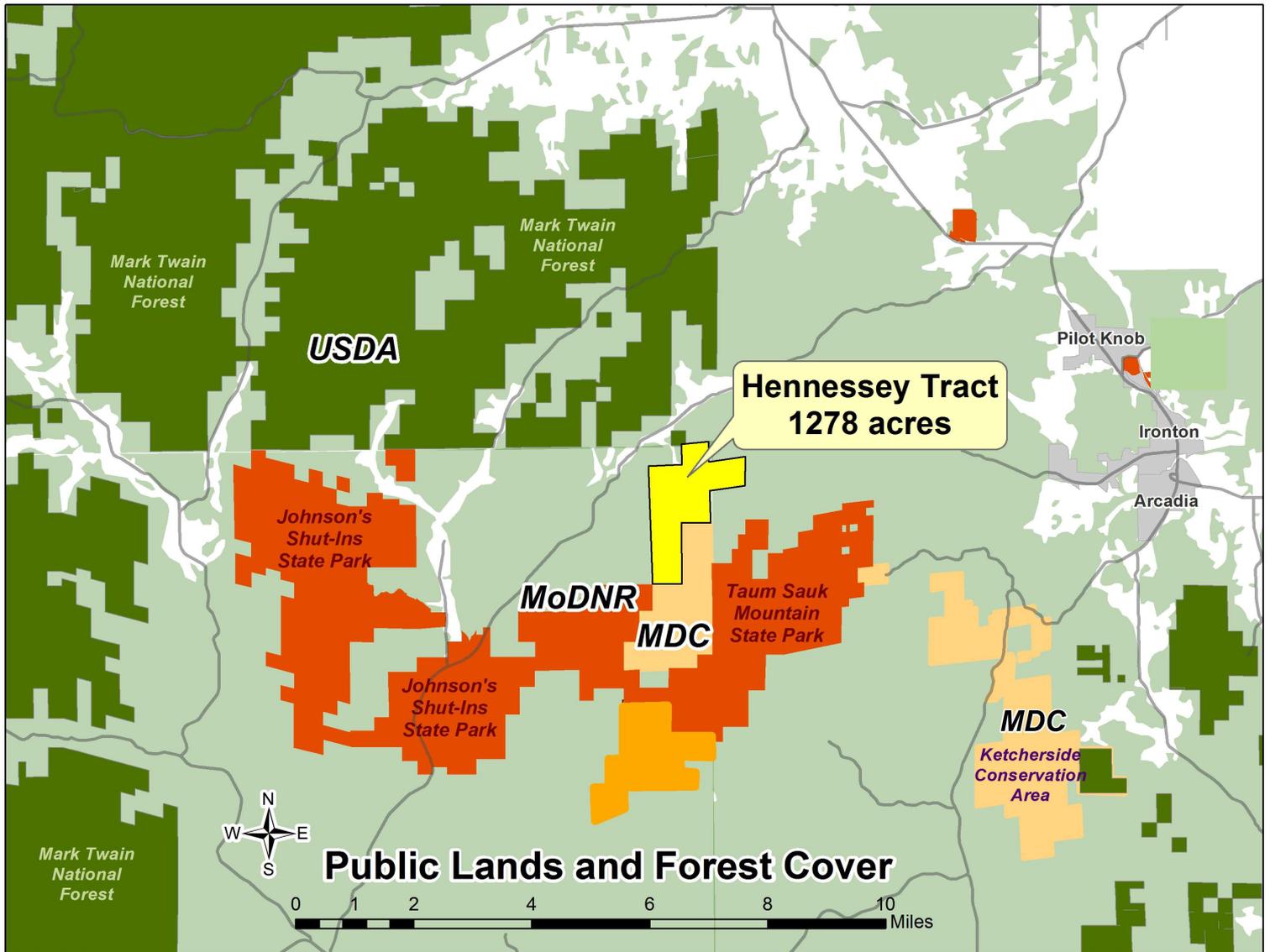


Figure 2. Hennessey Location and Injury Source Areas

