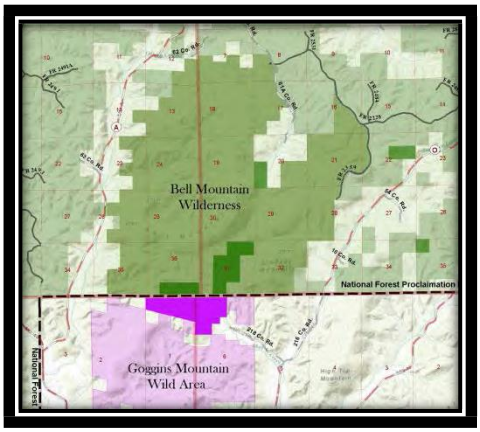
Wilderness Connection and Watershed Protection for the East Fork of the Black River

Shut-In Creek, Reynolds County

Mark Twain National Forest

Natural Resource Damage Assessment

Restoration Proposal

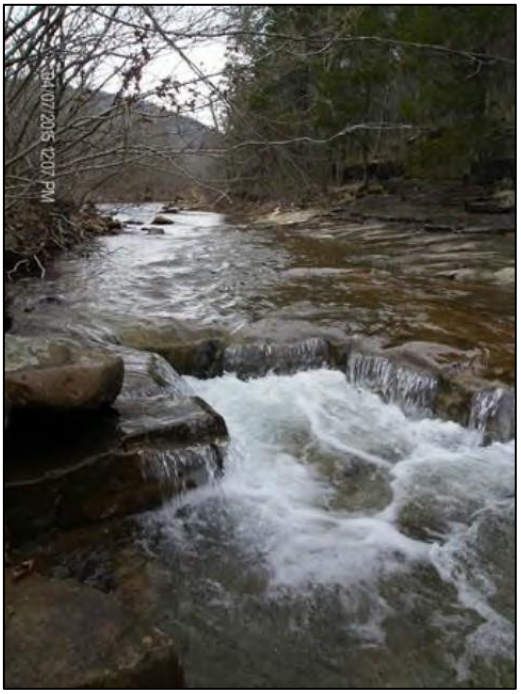


Updated December 2015

Shut-in Creek, Jost Property, Reynolds County

Forest floor Shut-in Creek bottoms

Small tributary Shut-in Creek



Upper Shut-in Creek, Iron County, Jost Property

Old house site spring- one of many small springs

Hillside igneous rock outcropping

Glade on Bell Mountain Jost Parcel elevation 1465 feet

Typical hillside white oak stand, Jost

Large high mountain glade

Wilderness view from east corner, Jost property

Restoration Project Information Sheet

General Information

Organization: Mark Twain National Forest

Date Submitted: 4/24/2015

Contact name: Janet Fraley Title: Lands and Special Uses Program Manger

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Email: jfraley@fs.fed.us

Organization website: http://www.fs.usda.gov/mtnf

Project Information

Type of project: This is a proposal for purchase of critical area inholdings in around the wilderness areas that protect and connect Mark Twain National Forest Bell Mountain Wilderness with Missouri Department of Natural Resources Goggins Mountain Wild Area of Johnson's Shut Ins State Park. These parcels would bridge the landscape to form a total state and federal wilderness in excess of 15,000 acres. This acquisition will replace lands and soils injured by releases of heavy metals from mining activities and create one of the largest wilderness areas in Missouri. The lands proposed for purchase contain over 2 miles of Shut-in Creek riparian corridor. The purchase of these lands will provide habitat replacement for damaged aquatic communities and watershed protection for the lower sections of Shut-in Creek. The project also contains a restoration component to assist with control of wild hogs in the wilderness areas and eradication of nonnative invasive plant species found along the roads on the tracts that are currently privately owned. Three miles of roads on these tracts will also be closed.

Project name: **Wilderness Connection and Watershed Protection for the East Fork of the Black River**

Location: Dent, Iron and Reynolds Counties, see project maps.

Watersheds: Headwaters East Fork Black River (1100100070201), Ottery Creek (1100000070302), Hutchins Creek-Meramec River (071401020203) and Headwaters Huzzah Creek (071401020401) See maps on page 18 and 19.

Project size: 1,104 acres

Latitude (decimal degrees): 90.87 Longitude (decimal degrees): 37.625

Introduction and Background

The federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) authorizes claims for "damages for injury to, destruction of, or loss of natural resources" as a result of the release of a hazardous substance [42 U.S.C § 9607(a)(4)(C)]. Any compensation received as a result of resolving a claim for natural resource injuries must be used for "the restoration, rehabilitation, or replacement or acquisition of the equivalent of" any lost natural resources or their services [42 U.S.C. § 9611(i)]. This CERCLA process is referred to as natural resource damage assessment and restoration (NRDAR) the goal of which is to compensate the public for the loss of resources and their services resulting from a release of a hazardous substance.

Missouri Trustees and the Trustee Council

CERCLA, and its implementing regulations, designated federal and state authorities to act on behalf of the public as trustees for natural resources, including supporting ecosystems, belonging to, managed by, controlled by, or appertaining to such state, or by the United States. [42 U.S.C. § 9607(f); 40 C.F.R. § 600 and § 300.605]. Under this authority, the Governor of the State of Missouri has appointed the director of the Missouri Department of Natural Resources (MDNR) as the designated state trustee. The U.S. Fish and Wildlife Service (FWS) is acting as the trustee on behalf of the U.S. Department of the Interior, and the U.S. Forest Service is acting as trustee on behalf of the U.S. Department of Agriculture in the Southeast Missouri Lead Mining District (SEMOLMD, collectively "Trustees"). The Trustees formed a Trustee Council by a Memorandum of Understanding and Addendum A. The Trustee Council coordinates activities for both assessing injuries to natural resources and their services and the restoration, replacement, rehabilitation or acquisition of the equivalent of the lost natural resources and their services upon receipt of compensation from potentially responsible parties.

Restoration Plan

Pursuant to CERCLA, the Trustees developed the Southeast Missouri Ozarks Regional Restoration Plan (SEMORRP) which provides a process framework that governs the approach for restoration project identification, evaluation, selection and implementation [42 U.S.C. § 9611(i)]. The SEMORRP is available at: http://www.fws.gov/midwest/es/ec/nrda/SEMONRDA/pdf/SEMOfinalRestorationPlanJune2014.pdf. As part of the restoration process, an agency member of the Trustee Council may submit proposal(s) for restoration projects to be evaluated by the larger Trustee Council in accordance with the factors discussed in the SEMORRP.

Connection to the Injured Resources

This proposed project is intended to address natural resources that the Trustees have identified as injured by releases of heavy metals in the Viburnum Trend Lead Mining Area. This project will replace and protect resources substantially identical to those injured in the Meramec and Black River watersheds.

Project Proposal

In its role as a Trustee, the Forest Service submitted the following restoration project proposal to the Missouri Trustee Council. The proposed action is the purchase and restoration of 1,104 compensatory acres of private land as a means to restore and acquire the equivalent of natural resources and their services lost at the Viburnum Trend. The project location is on and adjacent to the Mark Twain National Forest (MTNF).

Project Description:

Goals & objectives

The primary goal of the project is the purchase of private land inholdings containing high quality natural resources to consolidate public land in around the Mark Twain National Forest Bell Mountain Wilderness in compensation for natural resource injury sustained in the Viburnum Trend. The management and long term stewardship goals and objectives for these properties include but are not limited to:

1. Protect existing State and Federal wilderness areas by landscape-scale consolidation of adjacent lands.
2. Protect the watershed of Shut-in creek, an Outstanding State Water Resource.
3. Protect and provide habitat for plants and animals of conservation concern found on the properties
4. Provide for wilderness backcountry recreation and trail continuity for public use of the Ozark trail. The Ozark Trail currently crosses the Jost property without easement.
5. Ensure the unbroken connectivity of aquatic and terrestrial habitat by precluding subdivision and development of lands that are currently private inholdings in the wilderness area.
6. Reduce road mileage in the area of the wilderness, which will reduce habitat fragmentation and susceptibility of that habitat to non-native invasive species colonization.
7. Provide increased ability to manage wilderness Forest Service lands by reducing landline and costs associated with intermingling of private property.
8. Control invasive plants and feral hogs on purchased lands.
9. Reduce feral hog populations in the Bell Mountain Wilderness by continuing to use these properties as trapping areas.
10. Consolidate existing Forest Service landownership and facilitate habitat connectivity.

Current condition and the need for restoration
The 1,104 acres of lands proposed for purchase include: igneous glades, riparian areas, headwaters of the East Fork Black River, and open woodland and closed woodland forest that would be protected and enhanced through management practices consistent with the respective state or federal land and resource management plans. All of the properties are currently unoccupied with few buildings. Overall the properties contain large contiguous expanses of open woodlands and glades protecting over two miles of pristine Shut-in Creek riparian corridor and two miles of creek tributary corridors. Oak and hickory are the predominant tree species, with some areas of oak-pine mix. Red cedar and other woody vegetation make up a smaller vegetative component in the old fields. There is no evidence of environmental contamination on any of the parcels. An Environmental Site Assessment Phase 1 was completed for the Featherston and Jost properties on 4/16/2015, which confirmed the environmental integrity of those sites. Preliminary Title Commitments have been obtained for all of the properties also. There are no issues with land titles.

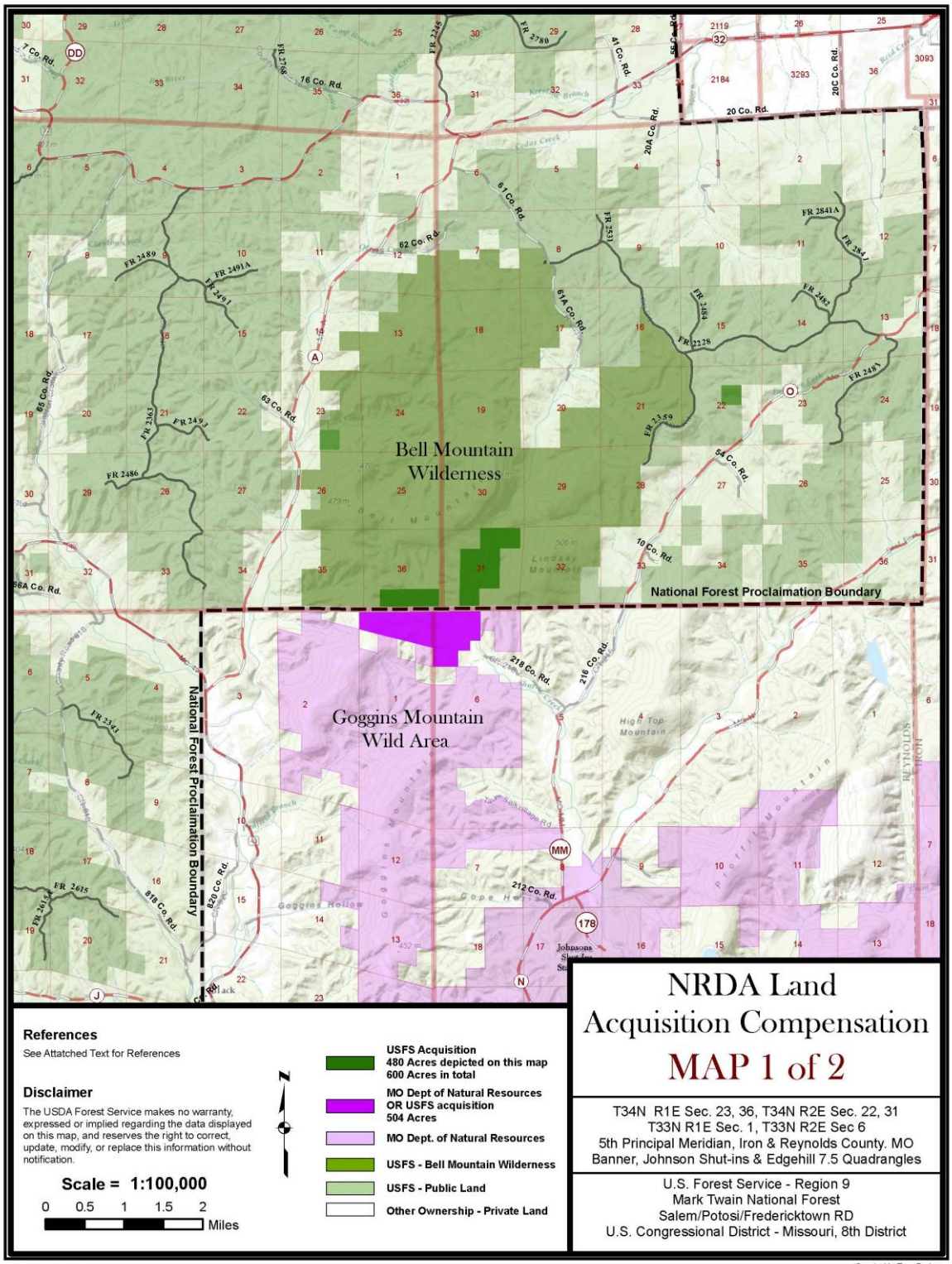
The private land owners have used the lands primarily for recreational hunting. Limited timber harvest is the only commercial activity that has occurred in the last 35 years on the parcels. Because of this minimal use, the ecological communities on the properties are in excellent condition containing the natural diversity that is common to dry-mesic igneous forests and glades. The properties provide a wide array of native plant and animal species and will meld seamlessly with the surrounding wilderness and forest acres.

Currently there are populations of feral hogs in the Bell Mountain Wilderness area and on the properties proposed for sale. There are also approximately 45 acres along the roads through the parcels that contain several common invasive plants. We are requesting funding to allow treatment of these acres and to increase efforts to control feral hog populations in the area before they cause irreversible damage to the many springs, seeps, and fens and destroy communities of sensitive plant species. There is also approximately 45 acres of invasive plants along the roads and in old fields on the parcels that will need treatment.

Table 1. Non-native invasive species observed during field visit to properties on 4/15/2015

Common name	*Scientific name*	*Where observed in project area*
Feral hog	*Sus scrofa*	All areas - Rooting observed
Russian/autumn olive	*Elaeagnus angustifolia*	Old fields
Sericia lespedeza	*Lespedeza cuneata*	Old fields and roads
Beefsteak plant	*Perilla frutescens*	Roads and skid trails
Multifora rose	*Rosa multiflora*	Old fields

Project Location
The lands are located in the headwaters of East Fork Black River in the St. Francois Knobs Ecological section and the headwaters of the Meramec River. Terrestrial natural community types represented on the lands include: igneous glade, woodland forest, and stream edge.


Bell Mountain Wilderness
Goggins Mountain Wild Area
National Forest Proclaimation Boundary
National Forest Proclaimation Boundary
NRDA Land Acquisition Compensation
MAP 1 of 2
T34N R1E Sec. 23, 36, T34N R2E Sec. 22, 31
T33N R1E Sec. 1, T33N R2E Sec 6
5th Principal Meridian, Iron & Reynolds County. MO
Banner, Johnson Shut-ins & Edgehill 7.5 Quadrangles
U.S. Forest Service - Region 9
Mark Twain National Forest
Salem/Potosi/Fredericktown RD
U.S. Congressional District - Missouri, 8th District
References
See Attatched Text for References
Disclaimer
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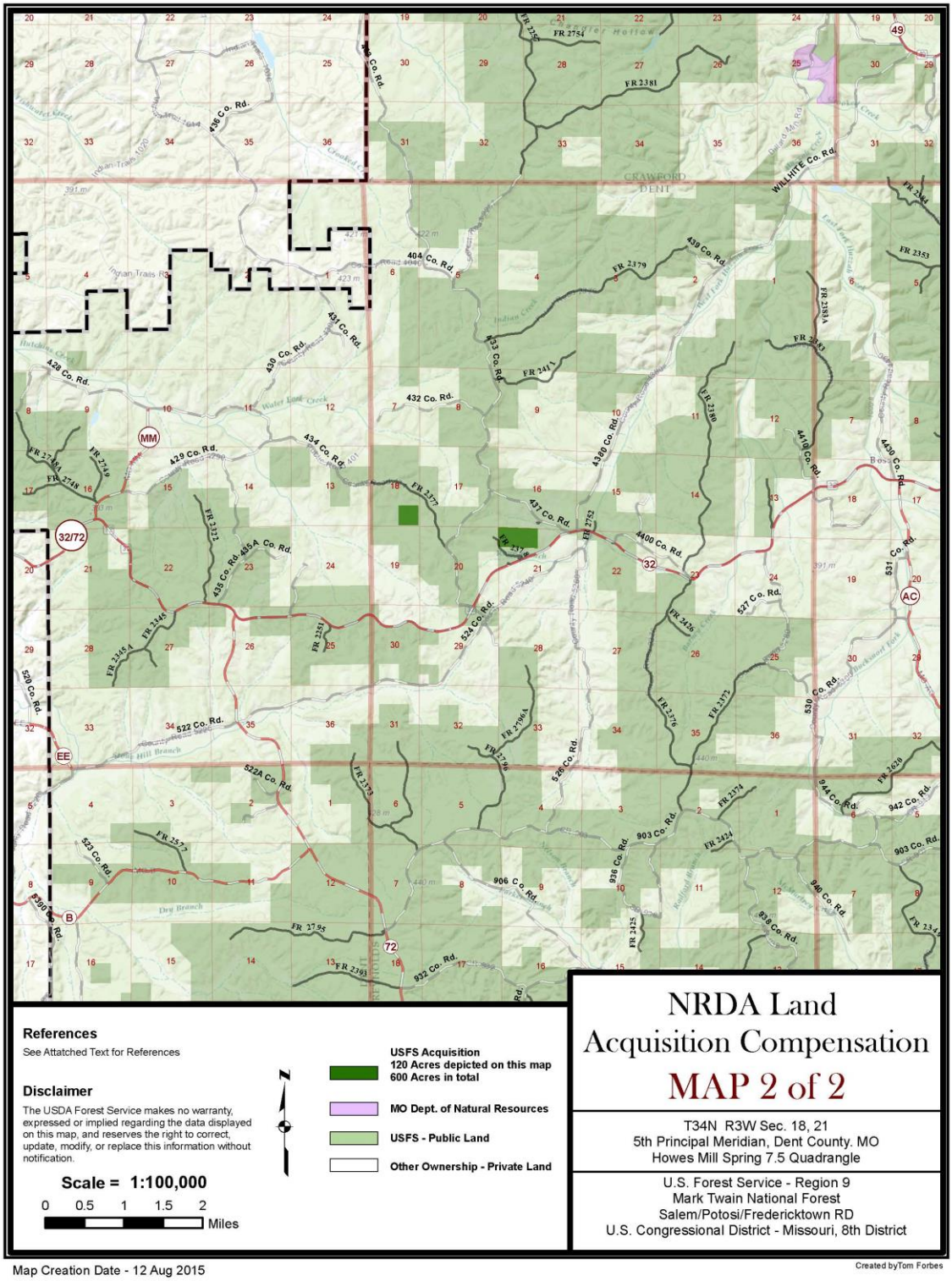
Scale = 1:100,000
0 0.5 1 1.5 2 Miles
USFS Acquisition
480 Acres depicted on this map
600 Acres in total
MO Dept of Natural Resources OR USFS acquisition
504 Acres
MO Dept. of Natural Resources
USFS - Bell Mountain Wilderness
USFS - Public Land
Other Ownership - Private Land
Map Creation Date - 12 Aug 2015
Created byTom Forbes



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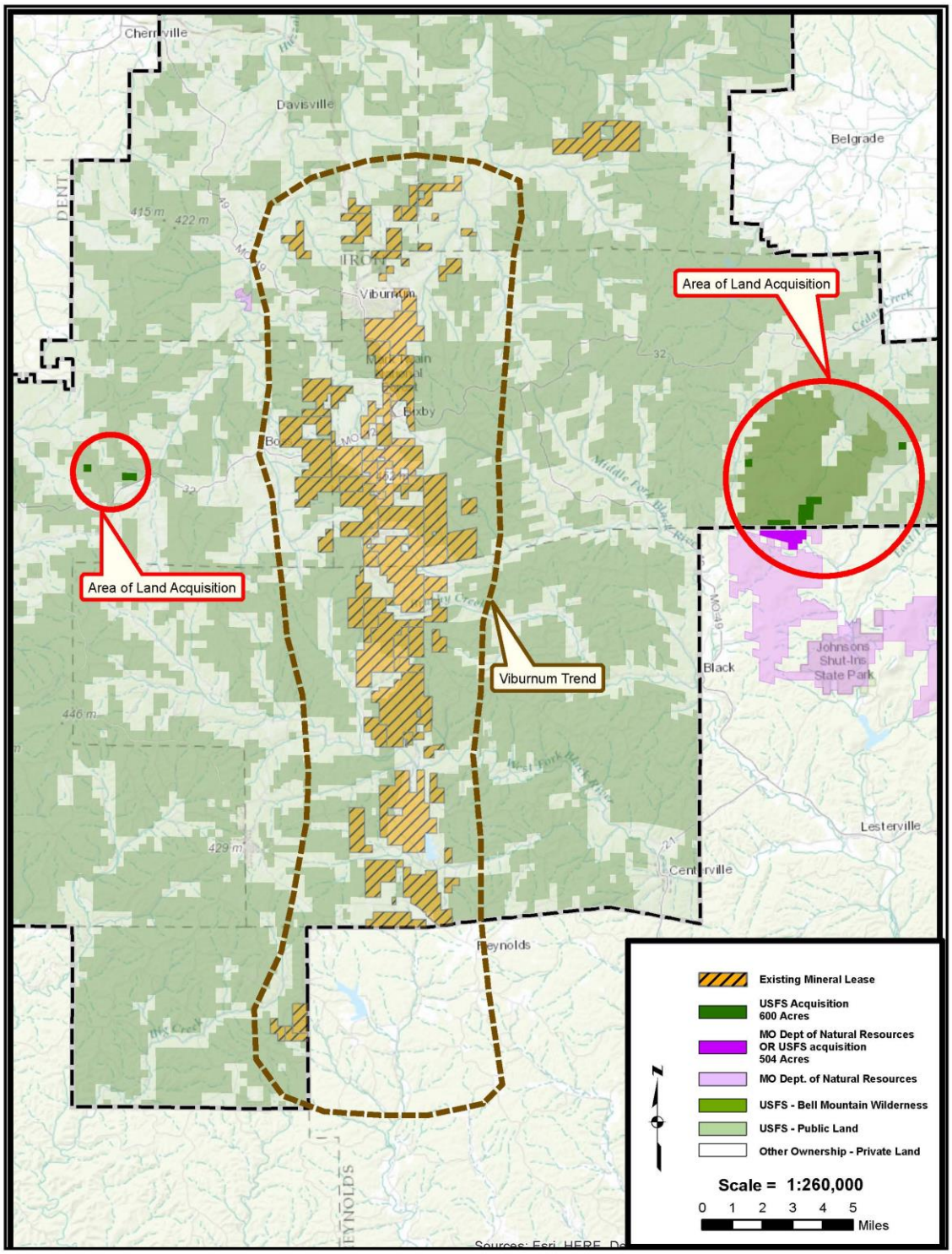
Chenoville
Davisville
Belgrade
Viburnum
Bixby
Area of Land Acquisition
Area of Land Acquisition
Viburnum Trend
Black
Johnsons Shut-Ins State Park
Lesterville
Centerville
Reynolds
Existing Mineral Lease
USFS Acquisition 600 Acres
MO Dept of Natural Resources OR USFS acquisition 504 Acres
MO Dept. of Natural Resources
USFS - Bell Mountain Wilderness
USFS - Public Land
Other Ownership - Private Land
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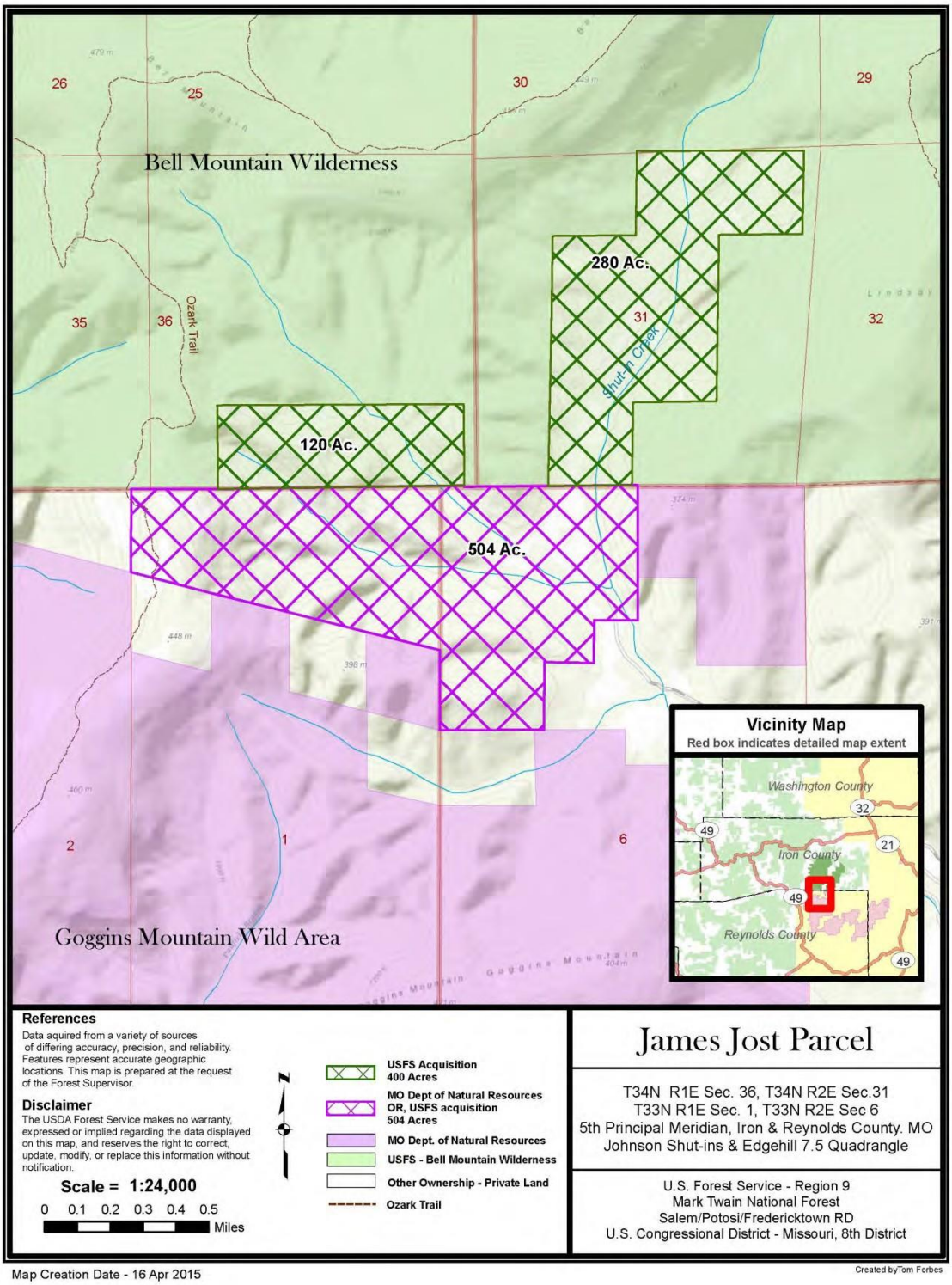
0 1 2 3 4 5
Miles


Bell Mountain Wilderness
Goggins Mountain Wild Area
Ozark Trail
Shut-in Creek
280 Ac.
120 Ac.
504 Ac.
26
25
30
29
35
36
31
32
2
1
6
Vicinity Map
Red box indicates detailed map extent
Washington County
Iron County
Reynolds County
32
49
21
References
Data aquired from a variety of sources of differing accuracy, precision, and reliability. Features represent accurate geographic locations. This map is prepared at the request of the Forest Supervisor.
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Scale = 1:24,000
0 0.1 0.2 0.3 0.4 0.5
Miles
USFS Acquisition 400 Acres
MO Dept of Natural Resources OR, USFS acquisition 504 Acres
MO Dept. of Natural Resources
USFS - Bell Mountain Wilderness
Other Ownership - Private Land
Ozark Trail
James Jost Parcel
T34N R1E Sec. 36, T34N R2E Sec.31
T33N R1E Sec. 1, T33N R2E Sec 6
5th Principal Meridian, Iron & Reynolds County. MO
Johnson Shut-ins & Edgehill 7.5 Quadrangle
U.S. Forest Service - Region 9
Mark Twain National Forest
Salem/Potosi/Fredericktown RD
U.S. Congressional District - Missouri, 8th District
Map Creation Date - 16 Apr 2015
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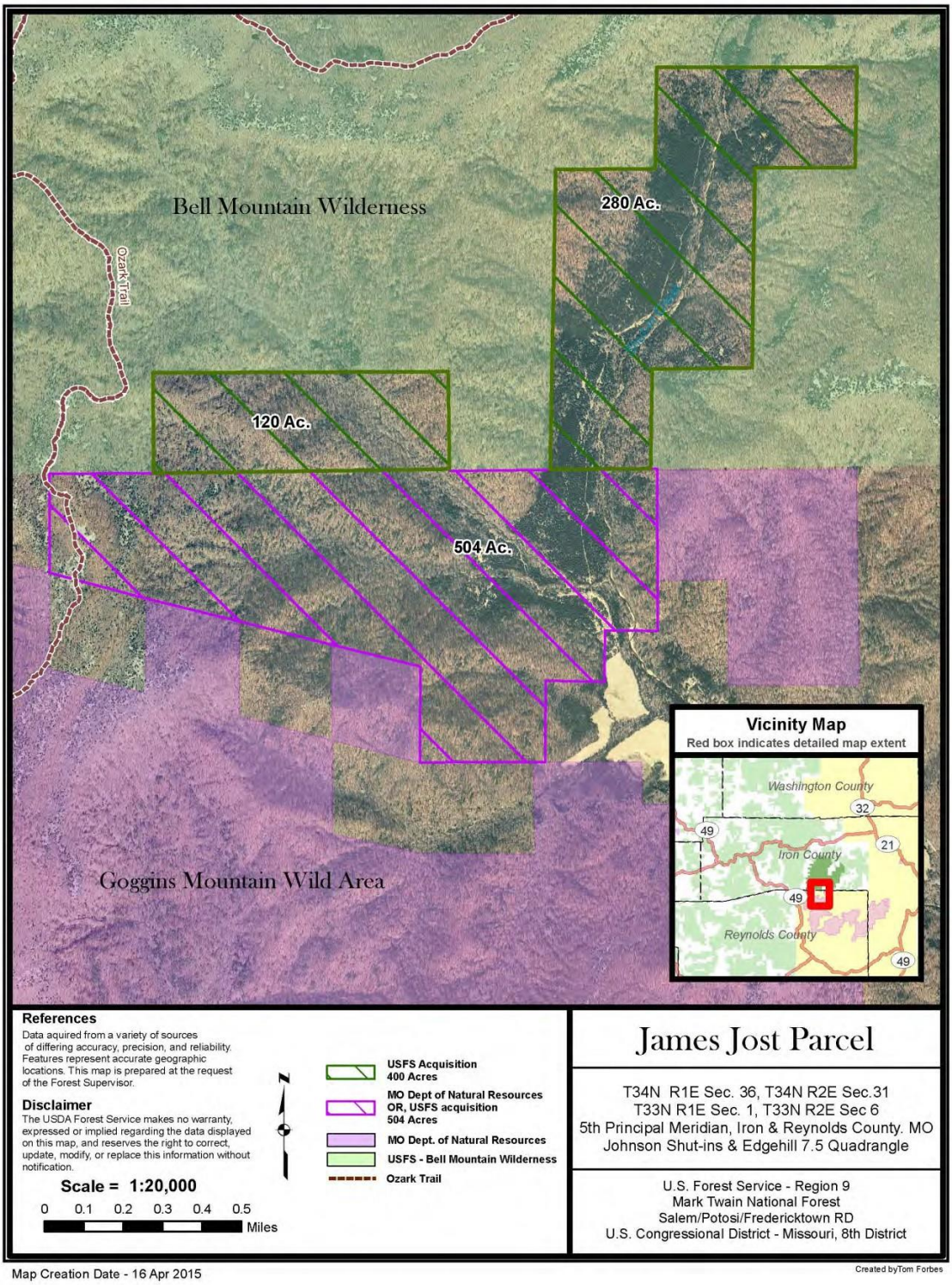

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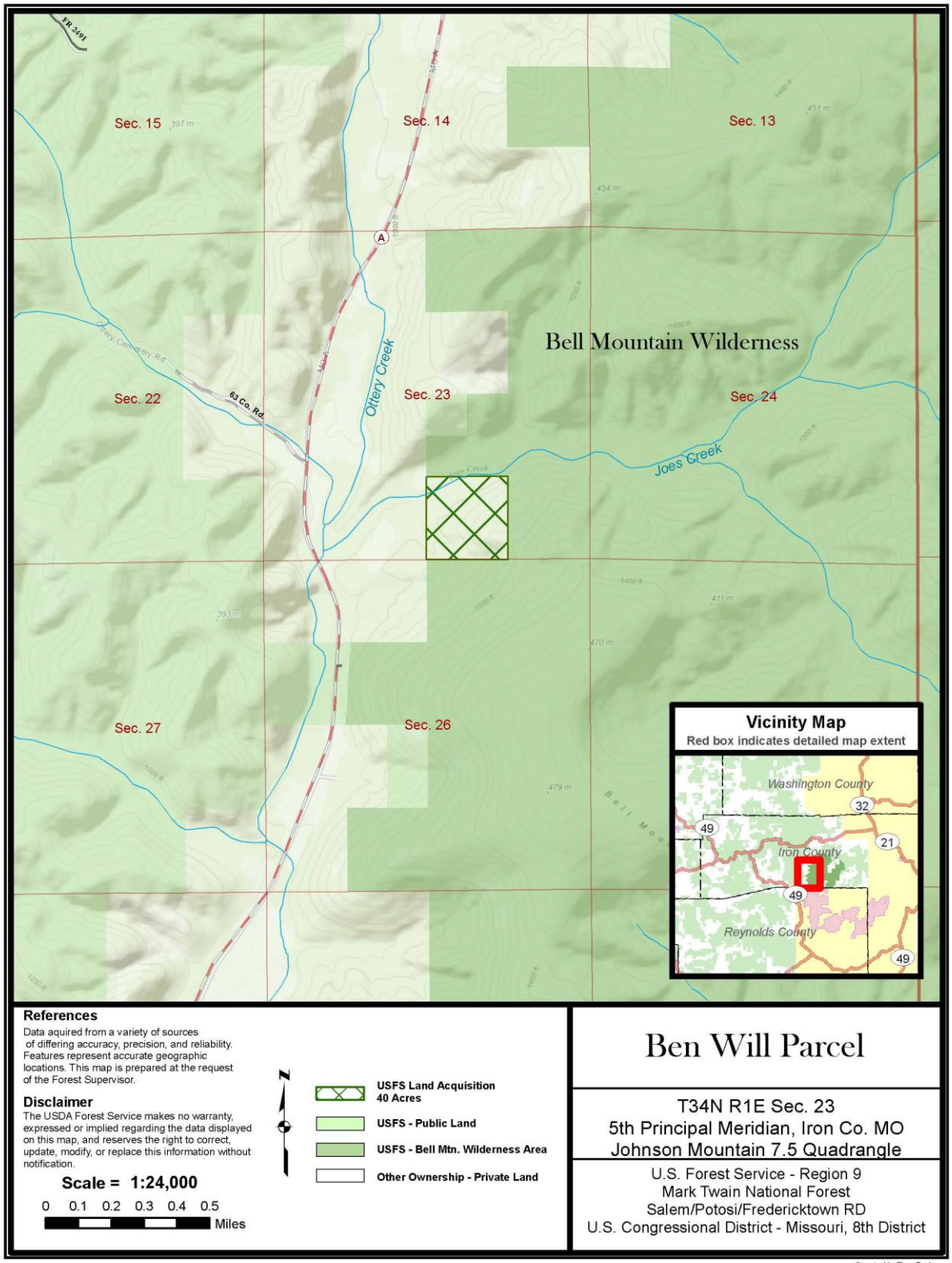
Sec. 15
Sec. 14
Sec. 13
Bell Mountain Wilderness
Sec. 22
Sec. 23
Sec. 24
Sec. 27
Sec. 26
Ottery Creek
Joes Creek
63 Co. Rd.
Vicinity Map
Red box indicates detailed map extent
Washington County
Iron County
Reynolds County
32
49
21
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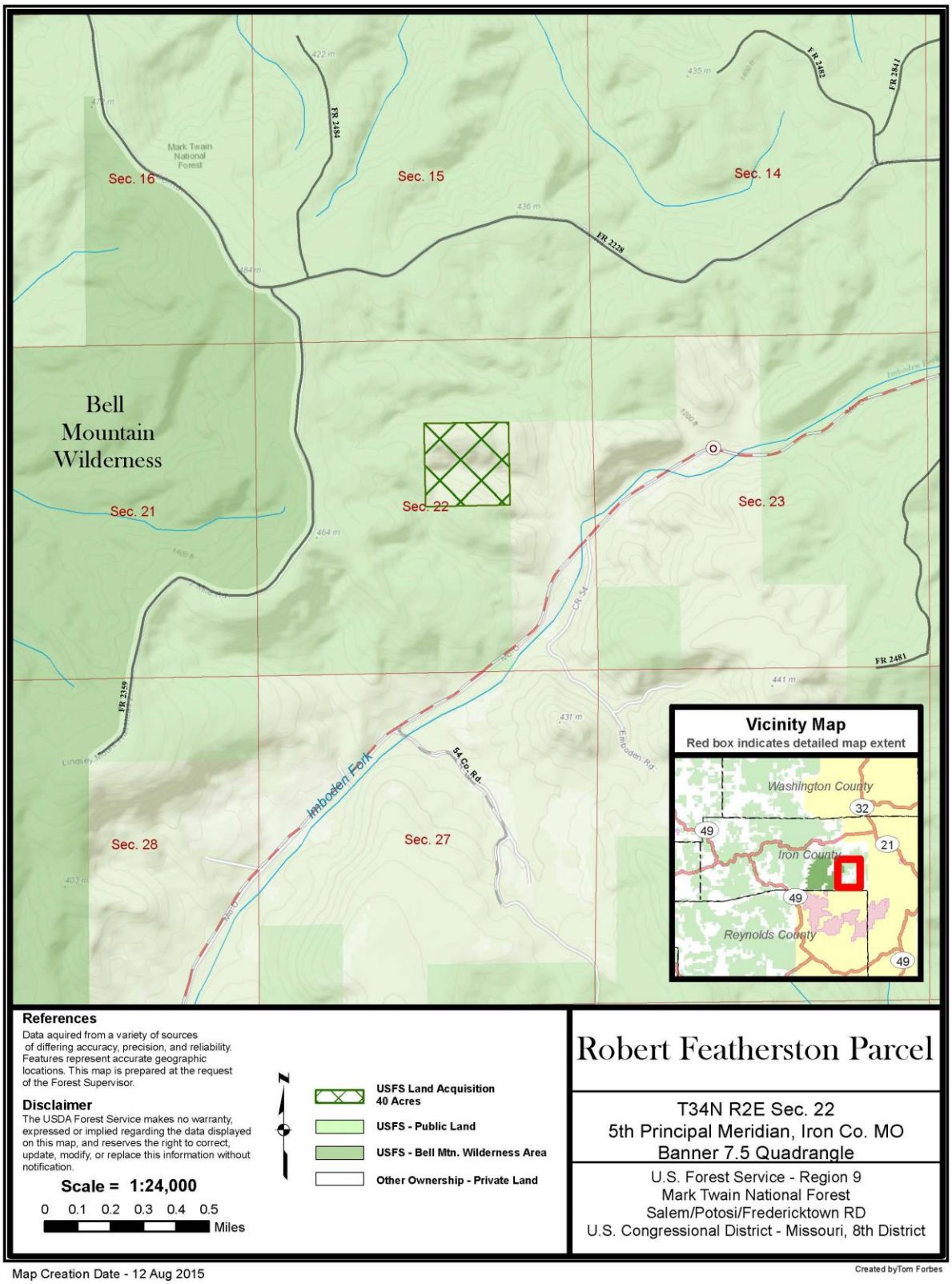
Scale = 1:24,000
0 0.1 0.2 0.3 0.4 0.5
Miles
USFS Land Acquisition 40 Acres
USFS - Public Land
USFS - Bell Mtn. Wilderness Area
Other Ownership - Private Land
Ben Will Parcel
T34N R1E Sec. 23
5th Principal Meridian, Iron Co. MO
Johnson Mountain 7.5 Quadrangle
U.S. Forest Service - Region 9
Mark Twain National Forest
Salem/Potosi/Fredericktown RD
U.S. Congressional District - Missouri, 8th District
Map Creation Date - 12 Aug 2015
Created byTom Forbes


Sec. 16
Sec. 15
Sec. 14
Mark Twain National Forest
FR 2484
FR 2482
FR 2841
FR 2228
Bell Mountain Wilderness
Sec. 21
Sec. 22
Sec. 23
FR 2481
FR 2359
Sec. 28
Sec. 27
Imboden Fork
54 Co. Rd.
Imboden Rd.
Vicinity Map
Red box indicates detailed map extent
Washington County
Iron County
Reynolds County
32
49
21
References
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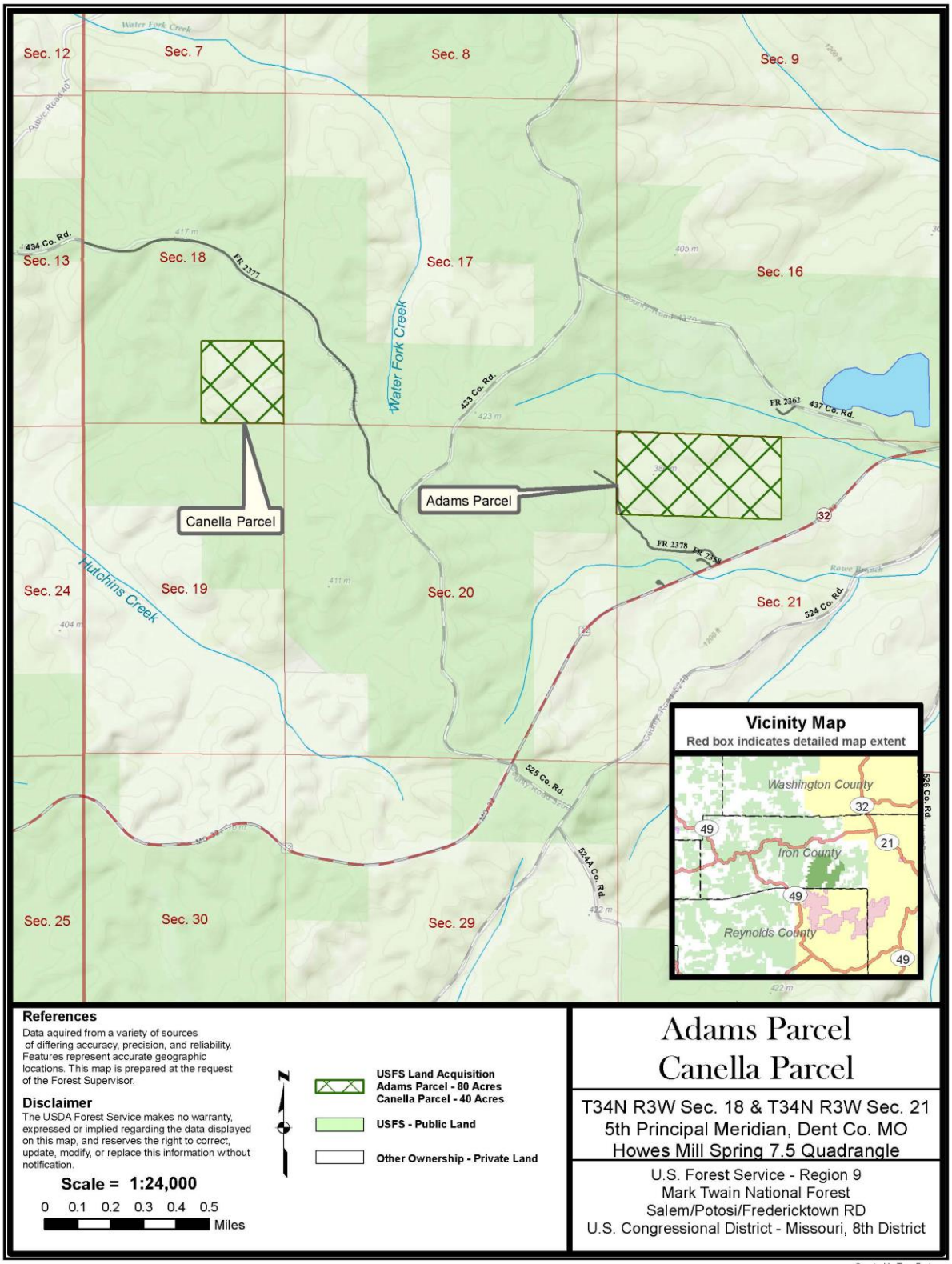
Scale = 1:24,000
0 0.1 0.2 0.3 0.4 0.5
Miles
USFS Land Acquisition 40 Acres
USFS - Public Land
USFS - Bell Mtn. Wilderness Area
Other Ownership - Private Land
Robert Featherston Parcel
T34N R2E Sec. 22
5th Principal Meridian, Iron Co. MO
Banner 7.5 Quadrangle
U.S. Forest Service - Region 9
Mark Twain National Forest
Salem/Potosi/Fredericktown RD
U.S. Congressional District - Missouri, 8th District
Map Creation Date - 12 Aug 2015
Created by Tom Forbes


Sec. 12
Sec. 7
Sec. 8
Sec. 9
Sec. 13
Sec. 18
Sec. 17
Sec. 16
Sec. 24
Sec. 19
Sec. 20
Sec. 21
Sec. 25
Sec. 30
Sec. 29
434 Co. Rd.
FR 2377
433 Co. Rd.
FR 2362
437 Co. Rd.
FR 2378
524 Co. Rd.
525 Co. Rd.
524A Co. Rd.
526 Co. Rd.
Water Fork Creek
Hutchins Creek
Canella Parcel
Adams Parcel
Vicinity Map
Red box indicates detailed map extent
Washington County
Iron County
Reynolds County
32
49
21
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Scale = 1:24,000
0 0.1 0.2 0.3 0.4 0.5
Miles
USFS Land Acquisition
Adams Parcel - 80 Acres
Canella Parcel - 40 Acres
USFS - Public Land
Other Ownership - Private Land
Adams Parcel
Canella Parcel
T34N R3W Sec. 18 & T34N R3W Sec. 21
5th Principal Meridian, Dent Co. MO
Howes Mill Spring 7.5 Quadrangle
U.S. Forest Service - Region 9
Mark Twain National Forest
Salem/Potosi/Fredericktown RD
U.S. Congressional District - Missouri, 8th District
Map Creation Date - 12 Aug 2015
Created byTom Forbes

Natural resources on site:
Geologic features- The lands include geologically unique igneous glades. Glades are open, rocky barren areas dominated by drought-adapted forbs, warm season grasses and specialized fauna including eastern collared lizard. Glades are best developed on solid, unfractured bedrock with a high resistance to weathering. Glades have the potential to have very diverse floras, related to the diversity of substrates and soils. The majority of glades in Missouri are substantially degraded due to over grazing, absence of fire and invasion of non-native invasive plant species .[1] Glades are relatively rare and occur on less than 1% of the Missouri landscape. The glade areas in the project area are relatively unimpaired.

Threatened, Endangered and Sensitive species- Many surveys have been conducted on surrounding federal and state lands. The Missouri Heritage Database has many records in the vicinity of the lands proposed for purchase, including records of Federal Threatened and Endangered species. These species occur on habitats similar to the lands proposed for purchase.

Table 2. Some of the sensitive species in the vicinity of the lands proposed to be purchased.
(Species in **bold**- habitat is available on lands proposed to be purchased)

Federally Listed Species			
Common name	*Scientific name*	*Status*	*Habitat*
Mead's milkweed	*Asclepias meadii*	Threatened	Glades
Indiana bat	*Myotis sodalis*	Endangered	Caves and forest
Gray bat	*Myotis grisescens*	Endangered	Caves, riparian areas, forest
Northern long-eared bat	*Myotis septentrionalis*	Threatened	Caves and forest
Hine's emerald dragonfly	*Somatochlora hineana*	Endangered	Fens
Region 9 – Regional Forester Sensitive Species (RFSS)			
Eastern small-footed bat	*Myotis leibii*	RFSS	Caves, under rocks in glades
Cerulean warbler	*Setophaga cerulea*	RFSS	Riparian areas
Fibrous-root sedge	*Carex communis*	RFSS	Riparian areas
Shaved sedge	*Carex tonsa*	RFSS	Glades
Butternut	*Juglans cinerea*	RFSS	Riparian
A heptogeniid mayfly	*Stenonema bednariki*	RFSS	Creeks and rivers
Whitlow grass	*Draba aprica*	RFSS	Riparian, bluffs, slopes
Allocrangonyx hubrichti	*Amphipod*	RFSS	Creeks
A liverwort	*Metzgeria furcata*	RFSS	Glades
Blazing star	*Liatris scariosa*	RFSS	Glades
Pale avens	*Geum virginianum*	RFSS	Wetlands
Tussock sedge	*Carex stricta*	RFSS	Fens
Brown bog sedge	*Carex buxbaumii*	RFSS	Fens
Missouri Species of Conservation Concern			
Collared lizard	*Crotophytus collaris*	S-4 uncommon but not rare	Glades
A moss	*Ephemerum crassinervium*	SU status undetermined	Glades
Four-toed salamander	*Hemidactylium scutatum*	S-4 uncommon but not rare	Ponds, creeks
Wood frog	*Lithobates sylvaticus*	S-3 vulnerable	Ponds, creeks
Ozark emerald dragonfly	*Somatochlora ozarkensis*	SU status undetermined	Creeks
A moss	*Campylopus tallulensis*	S-1 critically imperiled	Glades

[1] Nelson, P. 2010. *The Terrestrial Natural Communities of Missouri*. Missouri Department of Conservation, Jefferson City, MO.

How lost natural resources will be restored

The project will replace terrestrial and aquatic resources injured by mining activities with the purchase of nearby lands of exceptional environmental and ecological integrity. Ecologically the woodlands and stream riparian areas proposed for purchase are nearly identical to those injured by releases of heavby metals from mining activities.

Connectivity

These parcels would bridge the landscape to form a total state and federal wilderness in excess of 15,000 acres. Forest Service acquisitions next to Wilderness Management Areas are required by our Forest Plan to be managed as Wilderness. Because of their natural geological and ecological attributes, the properties proposed for acquisition will blend seamlessly with the existing wilderness and forest lands. Most of the acreage is within the boundary of the Bell Mountain Wilderness (MTNF) and is adjacent to the Goggins Mountain Wild Area (MDNR) and Johnson's Shut-Ins State Park (MDNR). There are State Natural Areas (NA) near the lands including- Johnson's Shut-Ins Fen NA, Johnson's Shut-Ins NA, and St. Francois Mountain NA.

Most of the acreage in the proposal is surrounded by or adjacent to the Bell Mountain Wilderness area. The lands occur on both sides of the portion of Shut-in Creek within Bell Mountain Wilderness. This creek is an important tributary to the East Fork of the Black River which runs thru the beautiful Johnson's Shut Ins State park. The neighboring private lands adjacent to the proposed parcels are mostly forested and undeveloped. The threat of unregulated small parcel development if the lands are sold on the private market is very real. Most of the lands around the Bell Mountain Wilderness are held in parcels of 40 acres or less and have multiple houses on them with individual septic systems. Traditionally, in this mountainous area, houses were built in the valleys along the roads and creeks. The access roads into the Jost property have many modest residences along them. Extending this type of unregulated small parcel development into the center of the Wilderness would have an immediate negative environmental impact. The Canella and Adams property are inholding in the Forest Service lands.

Most of the lands proposed for purchase occur within St. Francois Knobs Conservation Opportunity Area (COA). COA's were identified by the Missouri Department of Conservation as some of the best areas to conserve native wildlife and their habitats. The lands also occur within an Audubon Important Bird Area (IBA). The IBA program is a global bird conservation program designed to identify, monitor, and protect those landscapes most important to birds. The parcels provide nesting habitat for a wealth of migratory birds as evidenced by the following inventory.

Table 3. Birds heard or observed during field visit to properties on 4/15/2015

Common name	*Habitat*
Tufted titmouse	Woodlands
Carolina wren	Woodlands
Blue-gray gnatcatcher	Woodlands
Northern parula	Wooded riparian
Ovenbird	Woodlands
Yellow-throated warbler	Woodlands
Black and white warbler	Woodlands
American crow	Woodlands and openlands
Pileated woodpecker	Woodlands
Eastern towee	Brushy openlands
Blue-winged warbler	Brushy openlands
Prairie warbler	Brushy openlands
White-eyed vireo	Brushy openlands

Some of the lands within the Bell Mountain Wilderness area tie to with the Bell Mountain Wilderness Glade Restoration Project currently being proposed by the Mark Twain National Forest for analysis under NEPA. This project is intended to restore glade habitat and protect known populations of Mead's Milkweed.

Project Benefits

Similarity of resources to the Viburnum Trend area

These purchases will replace in kind the same soil types, soil invertebrate habitat, and migratory bird habitat injured by releases of heavy metals from mining activities. All of the land parcels are less than 16 miles from the injured resources and are mostly dry mesic igneous forests with interspersed glades and small drainages. Therefore, this project will replace and restore the habitat and geologic resources that are very close to and substantially identical to those injured in the Viburnum Trend Lead Mining Area sites.

Habitat connectivity

Bell Mountain Wilderness and Goggins Mountain Wild Area are part of a distinct range of igneous domes situated in the western flank of the St. Francois Mountains. These domes are unique to Missouri, having formed from a region of early volcanic activity. The trail corridor of the Ozark Trail provides the most rugged and superlative wilderness scenery in Missouri. In fact, the natural and harmonious blend of and transitions between glades, savannas, rock barrens and woodlands mantling the great domes of Goggins and Bell Mountain give this area a true pre-settlement wilderness appearance. Undoubtedly the wilderness integrity is the highest of all state parks.[2] This project is of landscape scale and importance much greater than simply the purchase of 1,104 undeveloped acres, because it ties together these two great wilderness areas. The purchases of smaller forest inholdings in the area help provide a buffer for the wilderness and reduce fragmented ownership in the area.

Habitat diversity and robustness.

By providing a connection for over 15,000 acres, the purchases will complete a landscape-scale wilderness area providing an independent, pristine, self-sustaining support ecosystem for migratory birds and other animals. The land purchases would help to contribute to the objectives of MDC's Conservation Opportunity Areas, Audubon's Important Bird Areas and the Mark Twain National Forest's Bell Mountain Wilderness Glade Restoration Project. It is not unusual for botanists to find hundreds of native plant species in small glades such as those found on the project parcels. Widely varied native plants beget more native insects. More native insects mean more native birds. Places like these glades are a magnet for all kinds of birds.[3] The same idea of connectivity repeats itself for the bottomland communities in the drainages and toe slopes of the parcels. The small valley mesic bottomlands of decomposed litter and duff provide the perfect conditions for a rich variety of soil invertebrates, which in turn improve growing conditions for plants and forage for birds. The variety of birds is evidenced in the list of sighting obtained in one day on the properties. These acquisitions would create a corridor of glades and woodlands that would serve as a stronghold for the declining populations of migratory birds and serve to mitigate mining injury to bird populations. The proposal will also aid in protection of the St. Francois Mountain's unique natural plant communities from destructive feral hogs and non-native plant species.

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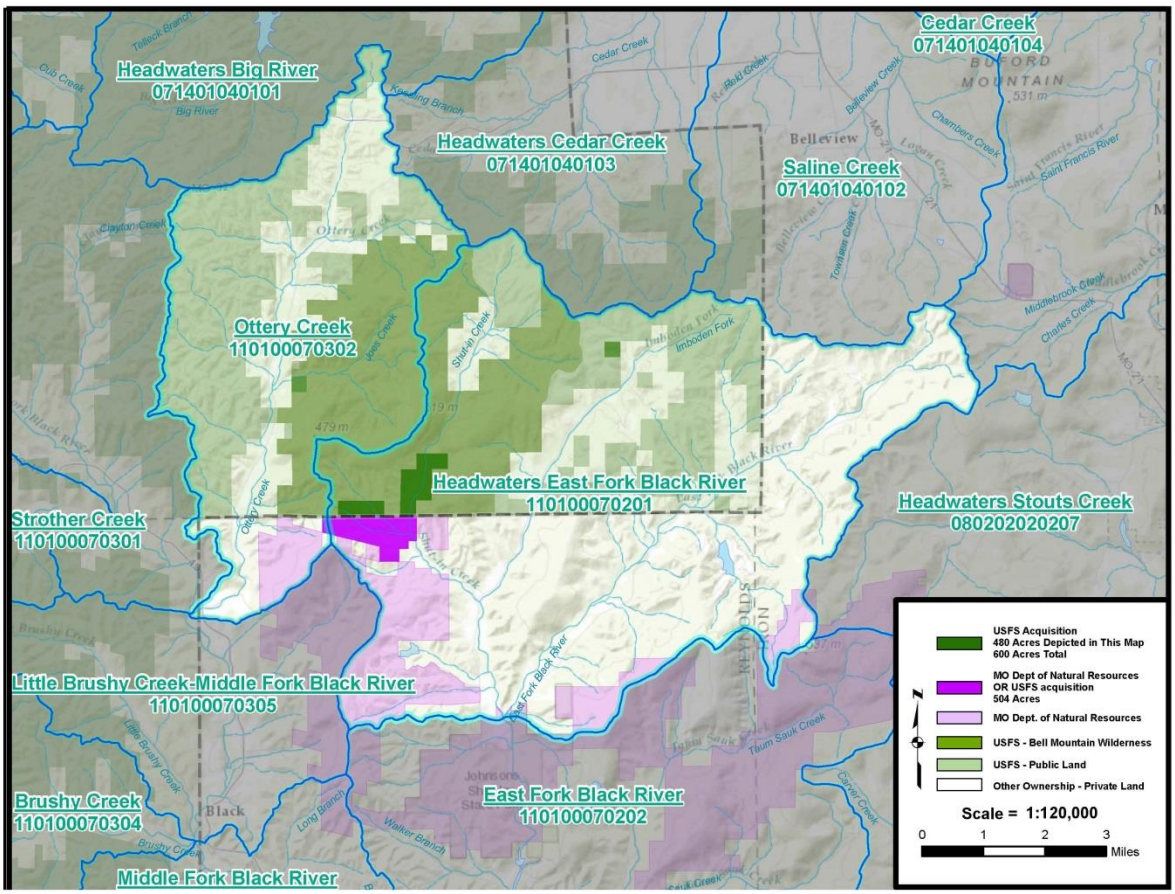
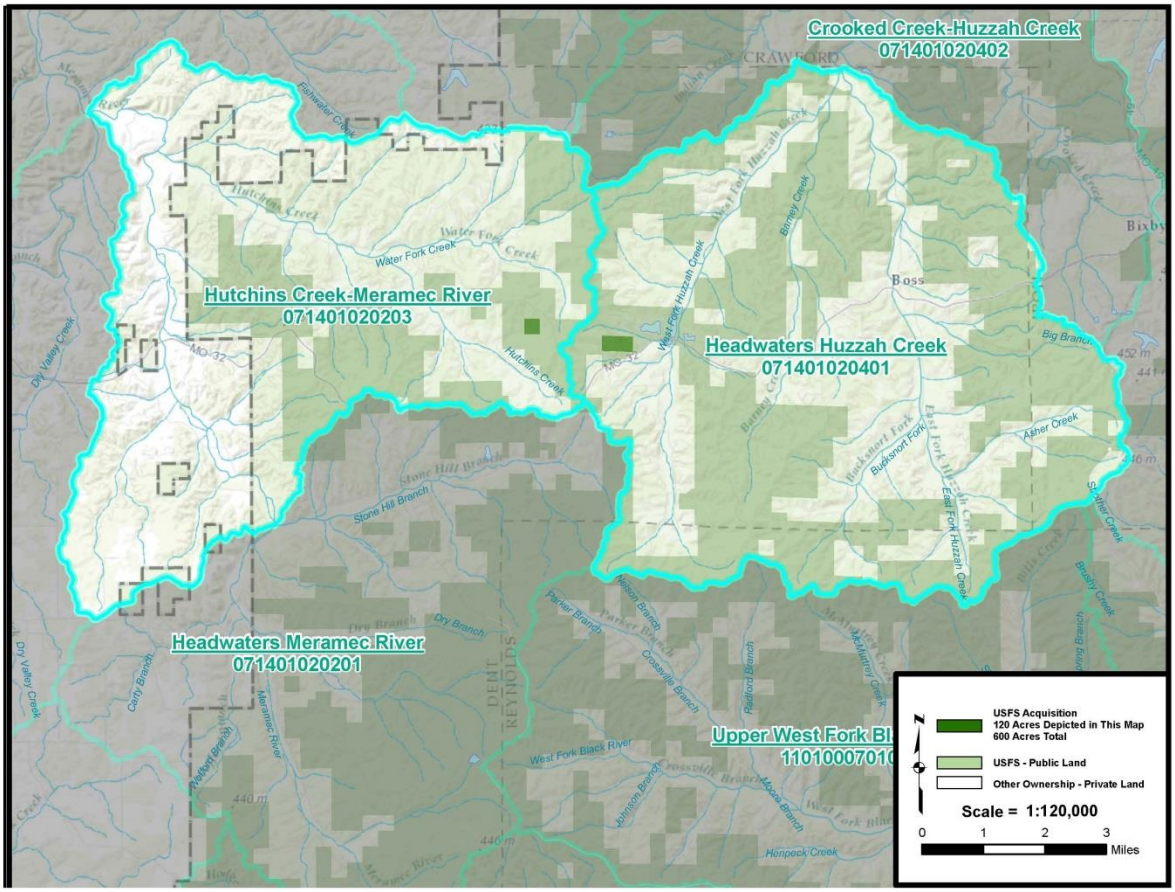
[2] Farmer, C. 2009. *Unspoiled Beauty: A Personal Guide to Missouri Wilderness.* University of Missouri Press

[3] Nielsen, J. 2013. "How to Bring Back the Birds: Woodland Restoration in the Ozarks." *Bird Conservation* Winter 2013-2014*:* 6-12

Watershed/aquatic/riparian protection

Most of the parcels are located in the Headwaters East Fork Black River and Ottery Creek watersheds. This project will provide lasting protection to the riparian corridors on both sides of Shut-in Creek for over two miles and most of its small tributaries. The section of Shut-in Creek passing thru Johnson's Shut Ins State Park is designated an Outstanding State Resource Water because of its outstanding aquatic community structure and high-quality habitat for aquatic-dependent biota. Placing the Jost properties in public ownership will exclude housing and farming development in this drainage, which is particularly important because the bottom soils along Shut-in Creek have a high infiltration rate. They would be easily contaminated with drainage from fertilizer and septic systems. This undesired nutrient load would then be transported down the stream to the detriment of one of Missouri's most precious water resources and state parks. This upstream project will insure the stability of this pristine aquatic ecosystem at Johnson's Shut Ins State Park for future generations.





Qualified project proposers

The MTNF has specialists on staff that develop, plan and execute land and resource management, and restoration activities as part of MTNF operations. The MTNF has staff, expertise, history of success with restoration work, and public accountability through NEPA. The project proposed here is consistent with the mission of the Forest Service of caring for the land.

Proposed Budget*

Costs description	Unit cost	Amount	Total
Jost property Reynolds County MDNR	$ 900 per acre	514 acres	462,600
Jost property Iron County Forest Service	$ 900 per acre	400 acres TBD	360,000
The Conservation Fund (8%) includes Acquisition costs, due diligence, purchase and holding costs for Jost property plus Appraisals for all 5 properties. Conservation Fund will acquire Jost property and donate to Forest Service and MDNR.	8% of appraised price ASARCO 8% of total land appraisals for FS to cover CF appraisals	$ 37,008 ASARCO, $ 47,368 F/M	$ 84,368
DNR - Title work ($1,500) and Appraisal ($3,000)			$4,500
Environmental Improvement and Energy Resources Authority (EIERA) Fee EIERA	$2,600 each from ASARCO	1 (Jost only) ASARCO	$ 2,600
Subtotal Land Purchase – to EIERA to pay Conservation Fund		***914 acres***	***$ 914,068***
Adams property Dent County (sub Tate)	$ 1100 per acre	80 acres	88,000
Featherstone property Iron County	$ 1200 per acre	40 acres	48,000
Will property Iron county (sub Fitzgerald)	$ 1200 per acre	40 acres	48,000
Canella property (sub Tinker)	$ 1200 per acre	40 acres	48,000
Phase 1 Environmental Assessments remaining 3 parcels	$ 2,500 each	3	$ 7,500
Title work and Policy each parcel	$ 1,500	5	$ 7,500
Road Closure	$ 1,000 per mile	3 miles	$ 3,000
Feral Hog trapping agreement with Animal Plant and Health Inspection Service (APHIS) Current agreement APHIS matches 42% of FS investment with Salaries and labor ~$40,000 match	$20,000 per year	5 years	$ 100,000
Non-native invasive species (NNIS) Treatment along roads - 45 acres	3 treatments Total 135 acres	$ 200/acre	$ 27,000
NNIS NEPA analysis	$20,000	1	$ 20,000
Boundary line marking and corners	$8,000 per mile	2.25 miles	$ 18,000
Lands and project work small parcels and overall project coordination	$ 118,522/yr	¼ FTE	$ 29,600
Review Appraiser, 4 parcels	$3,000 each	4	$ 12,000
Subtotal to Forest Service Account		***200 acres etc***	***$ 456,600***
		Total	**$ 1, 370,668**

*Forest Service salary requests are based on Forest Service direct personnel costs without any overhead. Thus Forest Service is contributing both the overhead portion of all employee costs to this project and some direct personnel costs.

Project Partners

The Mark Twain National Forest plans to partner with the Conservation Fund for the acquisition of the proposed properties. The Conservation Fund has successfully partnered in the past with the Mark Twain National Forest to provide appraisals, title services and timely funding for large lands projects that are time sensitive. Upon receiving assurance of NRDAR funding, The Conservation Fund will purchase the 904 acre Jost property. The Conservation Fund will donate the property within Iron County to the Forest Service (400 acres) and the property in Reynolds County (504 acres) to the Missouri Department of Natural Resources. If the State of Missouri does not wish to accept the Jost property in Reynolds County, the Forest Service will acquire this property, even though it is outside the Forest Service proclamation boundary. Mr. Jost and his family have signed a contract to sell the property at appraised value but want the entire property to be protected and wish to have only one transaction. The Conservation Fund will also provide the appraisals to meet Federal Standards for the remaining four purchases. Because of the limited Forest Service appraisal staff and lengthy appraisal contract process, it is necessary to partner with the Conservation Fund for the timely purchase of these properties.

The USDA Animal and Plant Health Inspection Service (APHIS) currently has an interagency agreement with the USDA Forest Service in which they match labor and some supplies for trapping and disposal of Feral Hogs in the wilderness. We would expand that agreement with this proposal. Currently APHIS has two traps set on the Jost property to trap hogs coming from the state and federal wilderness areas. Even though over 80 hogs have been trapped each year in the area, the number of animals in the area continues to increase. Project funding would provide for a doubling of the trapping efforts to minimize the number and growth of the feral hog presence in the wilderness areas.

We will also partner with The Ozark Trail Association. One of the most beautiful sections of the Ozark Trail sections passes thru these wilderness mountains. Without the purchase of the Jost property the connection between the State and Federal wilderness areas will remain broken. Upon purchase of the property the Ozark Trail Association has pledged to restore and maintain the section of the Ozark Trail crossing the Jost property. The trail is in poor condition at that location. This work would have a value of $10,000. See appendix A.

The LAD Foundation and Pioneer Forest also has a long history of cooperation with the Mark Twain National Forest. The LAD Foundation is a private operating foundation dedicated to the protection of exemplary natural and cultural areas in Missouri. Their mission includes support and advocacy for projects that have a positive influence in the Missouri Ozarks. They have also provided a letter of support for the project. See appendix B.

For inventory, restoration, and monitoring the MTNF has a suite of strong partners who would likely assist. These partnerships would be developed as restoration decisions are made based on NEPA analysis. Potential partners include VetsWork , AmeriCorps, Cave Research Foundation, and the Nature Conservancy, among others.

Maintenance Requirements

The Forest Service will incur initial increased maintenance costs for both increased feral hog trapping and invasive plant species removal. The boundary lines around the purchased lands will also need to be marked. Those costs and scheduled applications are reflected in the budget above. No other costs associated with the project are anticipated.

In the long term, this project will increase management efficiency and effectiveness of any treatments or projects in the area, such as the Bell Mountain Wilderness Glade Restoration Project. These purchases reduce the future need for access and utility special use permits, reduces the potential for encroachments, eliminates landline and permits management activities such as prescribed burning (only on parcels outside the wilderness) on a larger scale.

Inventory, restoration and monitoring plans will be developed as the parcels are acquired. The goal is the permanent establishment of a sustainable ecosystem with minimal maintenance needs. This is true especially for the parcels interior to the wilderness.

Compliance with Applicable Laws and Regulations

The lands will be acquired or accepted under the authority of the Week Acts of March 1, 1911 (36 Stat. 962) as amended; and FLPMA, October 21, 1976, as amended.

Compliance with the National Environmental Policy Act (NEPA) will be required for all activities. Decisions may be categorically excluded from documentation in an environmental impact statement or environmental assessment when they are within one of the categories identified by the U.S. Department of Agriculture in 36 CFR 220.6(d)(6) the category identified by the Chief of the Forest Service in Forest Service Handbook (FSH) 1909.15 sections 32.12 and there are no extraordinary circumstances related to the proposed action. This includes acquisition of land or interest in land.

To treat the invasive plant species with chemical herbicides, an analysis will be required. It is anticipated an Environmental Assessment tiered to the recent Mark Twain Forest non-native invasive species programmatic NEPA decision will be required to proceed.

All property accepted or purchased by the United States must also meet the commercial real estate threshold criteria for satisfying All Appropriate Inquires (AAI) requirement of CERCLA, 42 U.S.C. (35)(B) and the Landowners Liability Protections (LLPs) to CERCLA liability. An Environmental Site Assessment Phase 1 was completed for the Featherston and Jost properties on 4/16/2015, which confirmed the environmental integrity of those sites.

Timelines

Upon approval of funds, the Forest Service anticipates the following time frames for purchase.

	Jost (904 acres)	**Featherston (40 acres)**	**Adams, (80 acres), Canella (40 acres), Will (40 acres)**
Acquire title commitments, deeds, formal property inspections, Phase 1 Hazmat	Completed	Completed	Completed
Legal Descriptions written	Completed	Completed	Completed
Appraisals completed and Options signed by landowners	Completed	Contracted in Review 2 weeks	Contracted in Review 2 weeks
Property purchased by Conservation Fund	1 month Option signed	N/A	N/A
Regional Office review completed of donation or purchase request for Preliminary Title Opinion	2 months	2 months	2 months
Office of General Counsel reviews and writes deeds	2-3 months	2-3 months	2-3 months
Checks ordered and closing papers prepared	1 month	1 month	1 month

The funds for additional hog trapping could be obligated under the existing agreement at any time. Treatment of invasive plant species could potentially start after the NEPA decision in 2016.

The Forest Service will only purchase properties for the appraised value. We have proceeded with the due diligence work for the Jost and Featherson properties because both landowners have verbally agreed to sell to the Forest Service for appraised values. If the three remaining other small parcel landowners do not agree to sell for appraised values, the Forest Service will return the funds to the Trustees or if given the opportunity by the Trustees, will submit alternate small inholdings in the area of the Viburnum Trend (Dent, Washington, Reynolds, Crawford Counties) to the Trustees for review and approval. Prior to the September 2, 2015 public meeting, the Adams, Will and Canella properties were substituted for Tate, Fitzgerald, and Tinker.

Permanence

The Land and Resource Management Plan (Forest Plan) of the Mark Twain National Forest guides all natural resource management activities. The Forest Plan establishes goals and objectives for the forest, and sets out forest-wide standards and guidelines for management activities. The newly acquired properties will be guided by the Forest Plan. All land management actions taken by the MTNF are subject to the Forest Plan and the NEPA Process which includes public involvement. The Forest Plan requires that all acquired lands be allocated to the Management Prescription of the surrounding National Forest system lands. However, any changes in wilderness boundary must be approved by Congress. The Forest Plan has a list of parcels acquired since the creation of the wilderness boundary

that are proposed additions to wilderness areas. The Jost and Will properties (904 and 40 acres respectively) will be added to that list. Until that recommendation process is complete, the properties acquired by the Forest Service will be managed by wilderness standards and guidelines. Timber harvest and grazing are both prohibited by this management prescription. No commercial use is permitted and no utility transmission corridors will be allowed. All roads will be closed. This wilderness designation for the majority of lands purchased will offer the highest level of permanence currently possible by regulation while at the same time allowing for manipulation of habitat for the protection and reintroduction of threatened and endangered species. The current Meads Milkweed restoration project planned for the area is an example of this type of project. Water quality is closely monitored in the wilderness and no Forest Service activity shall degrade the water quality below that level characteristic of the undisturbed wilderness.

The 40 acre inholding near but outside the wilderness (Featherston) is surrounded by Semi-primitive Non-Motorized management prescription lands. This prescription features management of natural vegetative communities under limited investments to provide non-motorized semi-primitive dispersed recreation. The goal for this area is to provide for low production of other resources such as timber products, fish, and forage. All permanent roads are prohibited, and timber harvest shall be less than 10% of an individual management area each decade with group uneven harvest selections with openings less than 2 acres in size. Most lands around wilderness areas on the forest are managed with this prescription to limit impact on the wilderness and to blend with the wilderness areas.

The Adams and Canella properties are both inholdings in a Watchable Wildlife and Bird Conservation Area managed in cooperation with the Missouri Department of Conservation. The habitat designation for this special area is open woodland and native grasses. The Adams property is also critical for protection of the Huzzah springs and ponds. The entire area surrounding these parcels is designated general forest area and is managed under the 2005 Forest Plan and is consistent with the National Forest Management Act, the Endangered Species Act, National Environmental Policy Act, the Migratory Bird Treaty Act and many other laws and regulations. One of the goals of the general forest designation is to restore, enhance and maintain the structure, composition, and function of distinctive terrestrial and aquatic natural communities. These acquired lands will be managed to exhibit the appropriate composition, patch size, canopy structure, understory, shrub layer and ground cover characteristics which will benefit migratory bird populations and protect the Huzzah ponds watershed.

<u>Measures of Success</u>

The most successful outcome would be the completion a cooperative purchase in which both the Forest Service and the Missouri Department of Natural Resources both gain a valuable land connection between The Bell Mountain Wilderness and the Goggins Mountain Wild Area to create one of the largest wilderness and natural areas in the Midwest. This purchase would also provide miles of protection for Shut-in Creek which flows directly through the remarkably pristine Johnson's Shut Ins State Park. The preservation of the Ozark Trail corridor would also be measure of success. Successful purchases of the small parcels would buffer the wilderness and the parks and natural areas to the south by precluding development, providing habitat continuity and watershed protection. The purchase of these parcels would also be a measure of success.

Success for the removal of non-native plant species could be measured after each treatment with eradication near and on purchased lands as the achievable goal. A yearly reduction in the number of hog sightings and lower rates of hogs caught each successive year would be a measure of success for feral hog trapping and hunting.

Appendix A

Ozark Trail Association
406 West High Street
Potosi, MO 63664

April 16, 2015

Janet Fraley
USDA Forest Service
401 Fairgrounds Road
Rolla, Missouri 65401

Our Mission

To develop, maintain, preserve, promote and protect the rugged, natural beauty of the Ozark Trail.

Dear Janet,

I am writing in support of the USDA Forest Service (FS) proposal titled "Wilderness Connection and Watershed Protection for the East Fork of the Black River". This appears to be a wonderful opportunity to preserve and protect this great example of a Missouri watershed. Being sandwiched between two large areas of public land being managed to protect the watershed, this acquisition is a natural and logical way to meet both the Department of Natural Resources (DNR) and the FS management plans.

Part of this acquisition will also protect a segment of the Ozark trail that traverses the Jost property which is there on a "handshake" easement. It will be good to know that the trail corridor would be in the Public's hands.

Regards,

/s/ Matthew C. Atnip

Matt Atnip
Executive Director
Ozark Trail Association

Appendix B

L-A-D FOUNDATION
Since 1962

ST. LOUIS OFFICE
319 NORTH 4TH STREET, SUITE 805
ST. LOUIS, MISSOURI 63102
314-621-0230
WWW.LADFOUNDATION.ORG

PIONEER FOREST LLC
P.O. BOX 497
SALEM, MISSOURI 65560
573-729-4641
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ADVISORY COUNCIL
TERRY CUNNINGHAM
JIM GULDIN
DAVID LARSEN
RINDY O'BRIEN
JON SMITH
BILL TERRY
CLINT TRAMMEL

April 7, 2015

Janet Fraley
Mark Twain National Forest
401 Fairgrounds Road
Rolla, MO 65401

Dear Janet:

It is very good news that state and federal agencies may work together to acquire a critical inholding between Bell Mountain, a federal wilderness, and Goggins Mountain, a Missouri Wild Area recognized by the Missouri State Parks System.

This acquisition would strongly benefit the Mark Twain National Forest, the Missouri Department of Natural Resources, and the public. Bell Mountain and Goggins Mountain are each remarkable assets of the St. Francois Mountains Region of the Ozarks. Protection of the connecting tract between them is essential to the integrity of their boundaries, the corridor of the nationally recognized Ozark Trail, and the protection of Shut-In Creek.

This project will be greeted with enthusiasm and delight of all who value the out of doors.

Sincerely,

John Karel

John A. Karel, President

cc: Susan Flader
Bill Bryan