

Mount Dean Stone Corridor
Fee Acquisition Proposal



Application for Acquisition Funding
Missoula Open Space Program

Submitted by:



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Missoula, MT 59801
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October 21, 2020

Missoula City Council
435 Ryman
Missoula, MT 59802

Re: Mount Dean Stone Corridor Acquisition Proposal

Dear City Council members,

The Mount Dean Stone Corridor will open over five miles of new trail route across 350 acres of proposed conservation land. The trail will be broadly accessible for beginners to those with more experience and will offer a shady respite in a warming world. It will expand the limited places where the City's recreation programming can give people of all ages the opportunity to grow, experience, learn and enjoy the natural world around them. From the Corridor members of the public can enjoy inspiring views in all directions and experience the sights and sounds of a changing forest as they move up Mount Dean Stone. Delivering both physical and mental health benefits the proposed conservation lands will provide an outstanding recreational corridor where people can get exercise and connect with each other in nature.

The Mount Dean Stone Corridor includes 350 acres of land that Five Valleys Land Trust proposes to transfer to the City of Missoula to enhance the Conservation Lands system. The Corridor is adjacent to the South Hills Spur and will expand its conservation footprint to establish Mount Dean Stone as a community open space anchor as Jumbo, Sentinel, and the North Hills serve as open space icons in other parts of Missoula. Five Valleys respectfully requests \$925,000 in Open Space Bond and Open Space Estate Gift funding which Five Valleys will match with a \$1.6 million donation.

Located in an area prioritized for conservation by the 2019 Missoula Urban Area Open Space Plan, the Mount Dean Stone Corridor helps meet Missoula's health, wellness, and social equity interests while proactively planning for the recreation and open space infrastructure needs of our growing community.

Sincerely,



Pelah Hoyt
Lands Director

Landowner and Agency or Organization Identification:

Landowners: Five Valleys Land Trust
120 Hickory Street, Suite B
Missoula, MT 59801

Sponsoring Organization: same as above

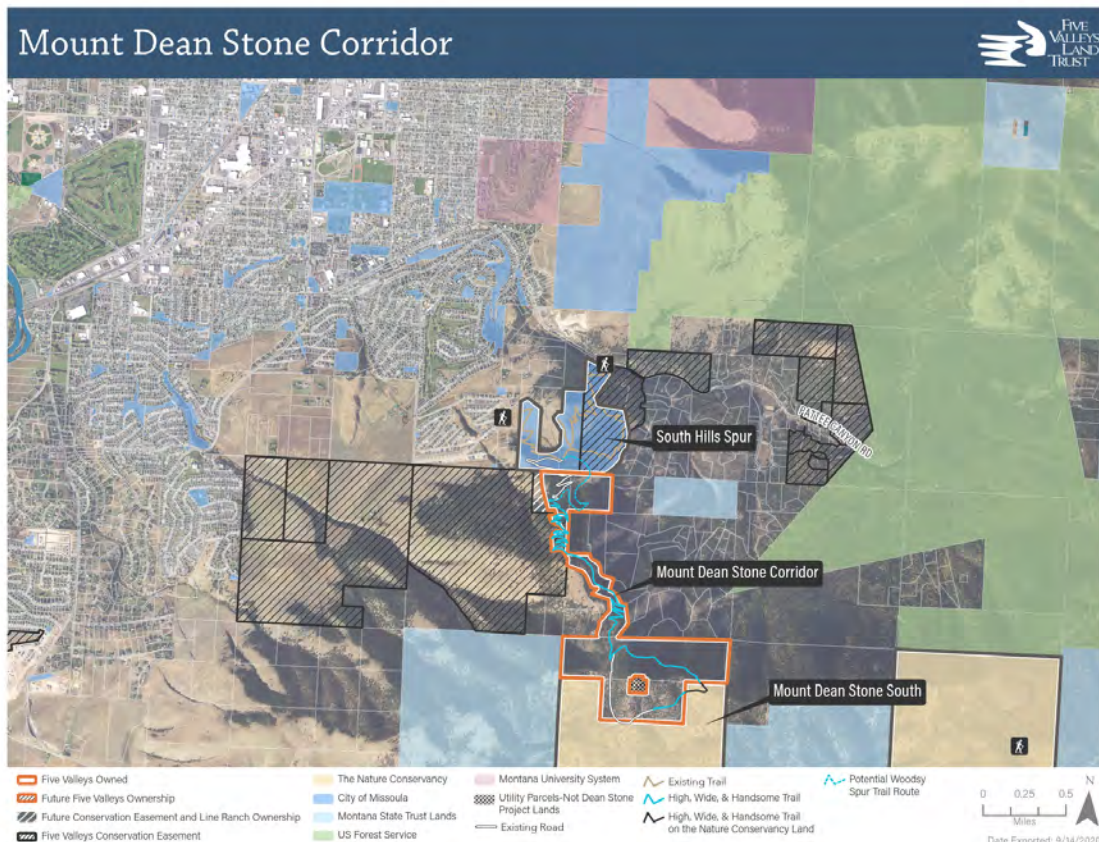


Figure 1: Vicinity map of Mount Dean Stone Corridor

1. Site Description

a) Size and location of the property

The Mount Dean Stone Corridor ("the Corridor") consists of seven connected properties totaling 350 acres of land. Located adjacent to the City of Missoula-owned South Hills Spur, the Corridor stretches up the north facing slope of Mount Dean Stone and around the top of the mountain. The summit of Mount Dean Stone is used for communication facilities and is not included in this proposal. The Corridor connects to 2,500 acres of The Nature Conservancy-owned land that stretches south to Miller Creek and east to the West Fork of Deer Creek (labeled as Mount Dean Stone South on the Vicinity Map above). The Corridor is located within an Open Space

Cornerstone, as identified in the 2019 Missoula Urban Area Open Space Plan (see Figure 3. Corridor Location in Missoula Urban Area Open Space Cornerstone Map).

b) Conservation proposal for the Property

Five Valleys Land Trust (Five Valleys) proposes to transfer the Corridor properties to the City of Missoula for inclusion in the Conservation Lands system. In coordination with the City Parks and Recreation Program, Five Valleys is developing and constructing the majority of the recreational trail on the Corridor prior to the proposed transfer of the property to the City. Five Valleys would like to transfer the Corridor to the City of Missoula before the end of this year. If the City approves this proposal, the trail could be opened to the public in the Spring of 2021.

One quarter mile of the recreational trail is being constructed on lands owned by The Nature Conservancy in order to utilize a route that reduces natural resource impacts and provides better connections to trails on the south side of Mount Dean Stone. The Nature Conservancy will grant the City of Missoula a 20-year public easement on this quarter mile portion of the trail. The Nature Conservancy and Five Valleys are committed to ensuring perpetual public access across The Nature Conservancy's 2,500 acres of land on the south side of Mount Dean Stone.

c) Property characteristics

The seven properties that make up the Corridor consist of 17 different parcels of land, including a parcel that is approved for a 10-lot residential subdivision directly above the South Hills Spur (see Figure 5. Lower Corridor Property Subdivision Plat). Five Valleys currently owns six of the Corridor properties. Five Valleys is in the process of acquiring the seventh property through a land exchange with an adjacent landowner that involves amending the Line Ranch conservation easement and relocating a boundary line between the properties. The Line Ranch conservation easement was supported with Open Space Bond funds in 2007. In coordination with the City and County of Missoula, Five Valleys is amending the Line Ranch conservation easement to expand its size by approximately 11 acres and to secure public access across a 14-acre portion of the property. The land exchange will be completed this fall, so Five Valleys will own all seven properties prior to their potential sale to the City of Missoula.

The Corridor includes a grassland ridge above the South Hills Spur and upland coniferous forest that changes in character across the Corridor in response to slope, disturbance history, and increases in elevation. The forest opens up on the Corridor near the top of Mount Dean Stone into an open subalpine meadow overlooking the Missoula Valley, Pattee Canyon, and the northern Bitterroot.

d) Property improvements

As mentioned above, the lower portion of the Corridor includes a 10-lot residential subdivision that was being prepared for development prior to Five Valleys' acquisition of the property. This lower property contains a developer road that was constructed to access the planned house sites. This lower property also contains a buried electric line, three electrical transformer boxes, two wells, and a buried agricultural water line that provides stock water to the adjacent ranch. The adjacent ranch is already protected with a conservation easement that conserves its agricultural, wildlife habitat, and scenic values. This water development on the lower property utilizes the buried electrical line and one of the two wells.

Five Valleys installed a wildlife friendly fence along the lower portion of the Corridor to separate public recreational use from agricultural use on the adjacent ranch.

The upper portions of the Corridor were logged over the last 80 years and a portion of the Corridor burned during the 1977 Pattee Canyon Fire. A network of old roads related to this forestry work crosses the upper portion of the Corridor. Thick vegetation has grown over most of these roads, making them impassable to vehicles. Some segments of these old roads will be used for portions of the public trail. One improved dirt road is located on the upper portion of the Corridor that is used to access the communication facilities at the top of Mount Dean Stone. The public trail will cross this road in three places, similar to the Sousa and Barmeyer trail road crossings.

e) Other protected land in the vicinity of the Property

The Corridor builds on decades of successful conservation work surrounding the Missoula Valley. It lies south of Mount Sentinel which was protected in phases beginning with the state's first Open Space Bond and later with Land and Water Conservation Funds. Seven families have protected important portions of Pattee Canyon to the east with conservation easements. In the upper portions of the canyon, the US Forest Service provides public access and protects habitat in the Pattee Canyon Recreation Area.

In the immediate vicinity, the Corridor is bordered to the south by 173-acres of City Conservation Lands on the South Hills Spur. Directly to the west over 1,000 acres of working ranchland and wildlife habitat are protected with conservation easements.

South and east of the Corridor the Mount Dean Stone South lands include 2,500 acres of land that The Nature Conservancy acquired from Plum Creek Timber company as part of the Montana Legacy Project. Five Valleys is working with The Nature Conservancy and other community partners to

realize the conservation vision for the Mount Dean Stone South lands which will include securing public recreational access, habitat conservation, and protecting the property from subdivision and residential development. Five Valleys and The Nature Conservancy expect to complete the conservation of the Mount Dean Stone South lands by December of 2022.

The Mount Dean Stone project will help complete a 180-degree arc of publicly accessible conservation lands around the Missoula Valley to provide places for people to connect with each other and the natural world close to home.

2. Public Access/Recreational Trails

The Corridor provides significant public access and recreational trail opportunities. Trails coming from the Sousa and Barmeyer Trailheads can be extended up through the Corridor and around the top of the Mount Dean Stone, providing over five miles of new recreational trail route for the residents of Missoula. Five Valleys designed the proposed trail and real estate acquisitions together to ensure that the proposed route provides exceptional experiences for the recreating public and reduces impacts on adjacent private land and natural values. Five Valleys is constructing the majority of this trail prior to the proposed transfer of the land to the City and is donating the cost of its design and construction. The design of the lowest portion of the trail connecting with existing trails on the South Hills Spur is being considered through the City recreation management planning process.

The trail is nicknamed the High, Wide, and Handsome Trail in honor of Montana's cultural heritage and conservation ethic which were both exemplified by writer Joseph Kinsey Howard and his seminal history of Montana by the same name. If the City acquires the Corridor, the City will follow its trail naming policy in which the name High, Wide, and Handsome may be considered.

The High, Wide, and Handsome Trail on the Corridor will provide opportunities for members of the public to connect with nature and improve their physical and mental health. It will offer outstanding views of the Missoula Valley, Pattee Canyon and up the Bitterroot Valley. On a clear day the public can see up the Blackfoot to the Scapegoat Wilderness from the Corridor. With an elevational gain of 1,300 feet, the trail will provide the public with opportunities to observe how the forest changes across a large elevational gradient. The High, Wide, and Handsome Trail is being built at a moderate ~8% grade to provide recreational opportunities for members of the public with a wide range of abilities, from beginners to experts. Five Valleys is coordinating with the City Conservation Lands program to ensure that the trail meets recreational needs while minimizing impacts on other conservation values, reduces long-term maintenance costs, and aligns with trail infrastructure and management on the South Hills Spur. Consistent with South Hills Spur infrastructure and management, the trail will be suitable for both pedestrians and bicycles.

Five Valleys is working with partners to develop other trails on the Mount Dean Stone South lands that will connect with the High, Wide, and Handsome Trail. This fall, Five Valleys will start developing the House of Sky Trail which will connect the High, Wide, and Handsome Trail with the upper Pattee Canyon area as shown on the attached 2020-2021 Trails Proposal Map (Figure 4).

The Conservation Lands Program is evaluating other management considerations for the Corridor and will propose a management plan to the Conservation Lands Advisory Committee, Park Board, and City Council consistent with City policy.

3. Wildlife Habitat/Native Plant Communities

The Corridor provides healthy grassland habitat and diverse coniferous forest habitat at different elevations and in various successional stages. In the lower portion of the Corridor, Five Valleys completed a forest health and habitat improvement project in 2019 aimed at fostering old growth conditions, retaining snags, opening up the forest floor, and reducing the risk of wildfire. The middle portions of the property were burned in the 1977 Pattee Canyon Fire and have grown into dense even-aged stands dominated by Douglas-fir, larch, and subalpine fir. The upper portions of the Corridor open into a wet meadow on the north aspect and into open forest and grassland habitat on the south facing slope interspersed with rocky areas.

The combination of open grasslands and a diverse coniferous forest on the Corridor provides foraging habitat and cover for a variety of wildlife species. Audubon Society bird surveys on the Corridor found a strong representation of breeding migrant songbirds including six warbler species, warbling and Cassin's vireos, and Swainson's and hermit thrushes among others (see Attachment 1. Bird Survey Results for Middle and Upper Corridor). A night flight migration study on the adjacent Line Ranch indicates that the area is used by many other species during periods of bird migration. The Corridor gets some use by elk, but recent data from Montana Fish, Wildlife, & Parks North Sapphires Elk Study and historic data indicate that the Corridor does not provide critical winter or spring range habitat for elk. The Corridor provides habitat for red-tailed hawk, dusky grouse, moose, and black bear and potential habitat for other species such as western skink, voles, long-tailed weasel, mule deer, mountain lion, and bobcat. The conservation value of the grassland and forested habitat on the Corridor is enhanced by its proximity to extensive grassland and forested habitats that are protected on adjacent lands.

5. Water Quality

Although streams are not located on the Corridor, conserving it will provide water quality benefits. Protection of the Corridor will reduce negative impacts on water quality associated with development by preventing septic systems and impervious

surfaces across the property. This will allow the Corridor to maintain its ability to filter and store water. Under conservation focused ownership, the City will be able to improve forest and grassland health which will in time increase the Corridor's ability to provide ecosystem services such as improving water quality.

6. Scenic and Historic Value

The scenic value of the Corridor can be enjoyed by the residents of Missoula from across the valley and from many of the most frequently visited Conservation Lands. Together with the North Hills, Mount Jumbo, and Mount Sentinel, the Mount Dean Stone Corridor will protect a 180-degree arc of scenic beauty around Missoula. This arc of conservation visually represents how deeply the residents of Missoula value open space. It forms the foundation of the unique sense of place that defines Missoula and contributes to the high quality of life here.

7. Other Unique/Exceptional Values

The Corridor enhances the conservation value of previous Open Space Bond investments in the South Hills Spur and the Barmeyer and South Hills conservation easements by expanding public access, habitat protections, and the ecosystem services these open space lands provide. The Corridor is forward thinking, as well, because it sets the stage for additional trail connections and habitat protection on Mount Dean Stone South lands to the south and east. In the years ahead, the High, Wide, and Handsome Trail will provide trail connections to the upper Pattee Canyon area and eventually to Miller Creek as shown on the 2020-2021 Trails Proposal Map (Figure 4). Conservation of the Corridor will build momentum for the conservation of the Mount Dean Stone South lands and make their eventual conservation more likely.

8. Public Values

The Corridor proposal advances the goals of city, county, and state plans and policies, as described below.

a) Missoula City and County

Missoula Urban Area Open Space Plan (City-County 2019 Update):

The Corridor proposal meets the goals of the Open Space Plan by conserving natural systems and providing recreational opportunities. The Open Space Plan envisions a connected open space system, with access to a park, trail, open space land, natural area or recreation area available in every neighborhood. The Open Space Plan prioritizes certain geographic areas in and around Missoula for conservation investment through the delineation of Open Space Cornerstones. The Corridor is located within an Open Space Cornerstone on the south east side of Missoula (see Figure 3. Corridor Location in Missoula Urban Area Open Space Cornerstone Map).

As part of the open space planning effort, the City and County conducted a statistically valid county-wide survey of residents. That survey found strong support for the type of open space conservation that the Corridor will provide including the 84% of respondents who most want natural areas/wildlife habitat and dirt trails for hiking, biking, and running and the 90% of residents who value open space for providing natural areas for recreation and for protecting land for wildlife habitat and environmental reasons.

The Corridor will provide broadly accessible recreational opportunities in nature which meets the Open Space Plan's health and wellness related goals. According to the Plan:

Open spaces encourage walking, cycling, and other exercise, which is recognized as improving many aspects of health. Studies show that contact with nature offers a wide range of medical benefits, including lower blood pressure and cholesterol levels, enhanced survival after a heart attack, and lower self-reported stress. Research suggests that exercise is more beneficial, leading to enhanced tranquility, and more relief of anxiety and depression when it occurs in natural settings rather than along urban streets.

In addition to these physical and mental health benefits, the Open Space Plan recognizes that:

through recreation in shared open spaces, social interaction between neighbors fosters strong ties between social groups. Continued exposure to nature deepens one's sense of place and belonging which inspires environmental stewardship.

The Corridor also provides social equity benefits by expanding the limited areas where City Parks and Recreation can provide programming, including educational opportunities for children and adults, which can improve academic achievement, student health, science skills, and help cultivate leadership qualities.

Our Missoula, City Growth Policy (2015):

The Corridor balances land uses by conserving land with significant public access and natural resource values without reducing the availability of land that is suitable for meeting Missoula's affordable housing needs. The Growth Policy guides Missoula's residential and commercial development inward where services and housing can be developed more economically and efficiently. The Growth Policy also recognizes that a primary, character-defining feature of Missoula is its connection with natural and scenic resources and that outdoor recreation is an essential part of the Missoula community's character and way of life. The Corridor proposal supports Missoula's efforts to provide a safe and healthy quality of life through accessible open space conservation and recreation programs on lands appropriate for conservation.

Climate Ready Missoula (City County 2020):

The Corridor proposal helps meet the goals and strategies prioritized in the City and County's Climate Ready Missoula plan to address the risks of climate change.

The Climate Ready plan recognizes the importance of protecting habitat and open space to balance competing land uses in response to climate change. It recommends restricting new development in high wildfire hazard areas, which include the Corridor lands, to reduce the vulnerability of buildings to wildfire. The Corridor proposal further meets the Climate Ready goals of preserving water quality and water storage by prohibiting impervious surfaces associated with residential development.

Missoula County Community Wildfire Protection Plan (2018)

The Missoula County Community Wildfire Protection Plan recommends using land conservation tools such as the open space bond to buffer developed areas from wildfire. The Corridor proposal is consistent with the County's Wildfire Protection Plan by utilizing Open Space Bond funds to reduce residential development and protect open-space land in an area that the County has designated as having a high to very high risk of wildfire. Eliminating residential development on 350 acres of high wildfire risk lands adjacent to Missoula reduces risks to humans and structures. Under City ownership land managers would also have the opportunity to further reduce wildfire risk on these lands through appropriate forest management.

b) State

Montana's Statewide Wildlife Action Plan (2015) -- Montana Fish, Wildlife, and Parks: The montane grassland habitat on the lower portion of the Corridor is prioritized for conservation as a Tier 1 Terrestrial Community Type of Greatest Conservation Need in Montana's Statewide Wildlife Action Plan. The Wildlife Action Plan recommends employing land acquisitions and conservation easements to prevent further habitat fragmentation and to preserve the natural habitat function of these community types of Greatest Conservation Need. Conservation of the montane grassland on the Corridor compliments the protection of this important habitat on the South Hills Spur.

9. Funding Proposal

The Mount Dean Stone Corridor project is valued at over \$2,569,147. Five Valleys is requesting \$925,000 in Open Space funding with half coming from of the 2018 Open Space Bond and half from the Open Space Estate Gift (\$462,500 from each funding source) which are described in the City Open Space Ordinance as Conservation Bond and Open Space Funding, respectively. Five Valleys will match this request by donating \$1,274,147 in real estate value, transaction costs, and trail development costs. Five Valleys project facilitation contribution is \$370,000 and includes over four years of work to acquire the properties, assess and improve forest health, design the trail, and work collaboratively with community members and neighbors to bring forward a proposal that meets community needs while being a good neighbor to adjacent private landowners. See the Proposed Budget in Table 1 below.

Transaction costs for the Corridor are higher than some other acquisition projects, because piecing the Corridor together required seven separate acquisitions, a boundary line relocation, the creation of utility parcels, a land exchange, the resolution of several access disputes, and costs to cure such as fencing. Table 2 below details these transaction costs.

Table 1: Mount Dean Stone Corridor Budget

Mount Dean Stone Corridor Expenses		
Real estate value		\$1,957,000
Acquisition transaction costs		\$162,147
Trail donation (not including seeding, weed spraying, & signs)		\$80,000
Five Valleys project facilitation		\$370,000
Total Expenses		\$2,569,147
Open Space Request		
	Percentage	
2018 Open Space Bond*	18%	\$462,500
Open Space Estate Gift*	18%	\$462,500
Five Valleys real estate and trail donation	50%	\$1,274,147
Five Valleys project facilitation donation	14%	\$370,000
Total	100%	\$2,569,147

***Total requested funds = \$925,000 (36% of expenses)**

Open Space Bond cost per acre for Corridor:	\$1,321
City Open Space Bond average cost per acre:	\$1,388

Table 2: Transaction Costs for Mount Dean Stone Corridor

Acquisition Associated Transaction Costs	
Attorney fees	\$30,821
Appraisal fees (for 5 appraisals)	\$10,000
Professional fees*	\$110,576
Cost to cure (fencing)	\$10,750
Total Expenses	\$162,147

* Includes boundary line relocation, creation of utility parcels, water development, recording & closing fees, contaminant assessments, and other professional services

10. Maps and Attachments

Figure 1. Mount Dean Stone Vicinity Map

Figure 2. Mount Dean Stone Corridor Map

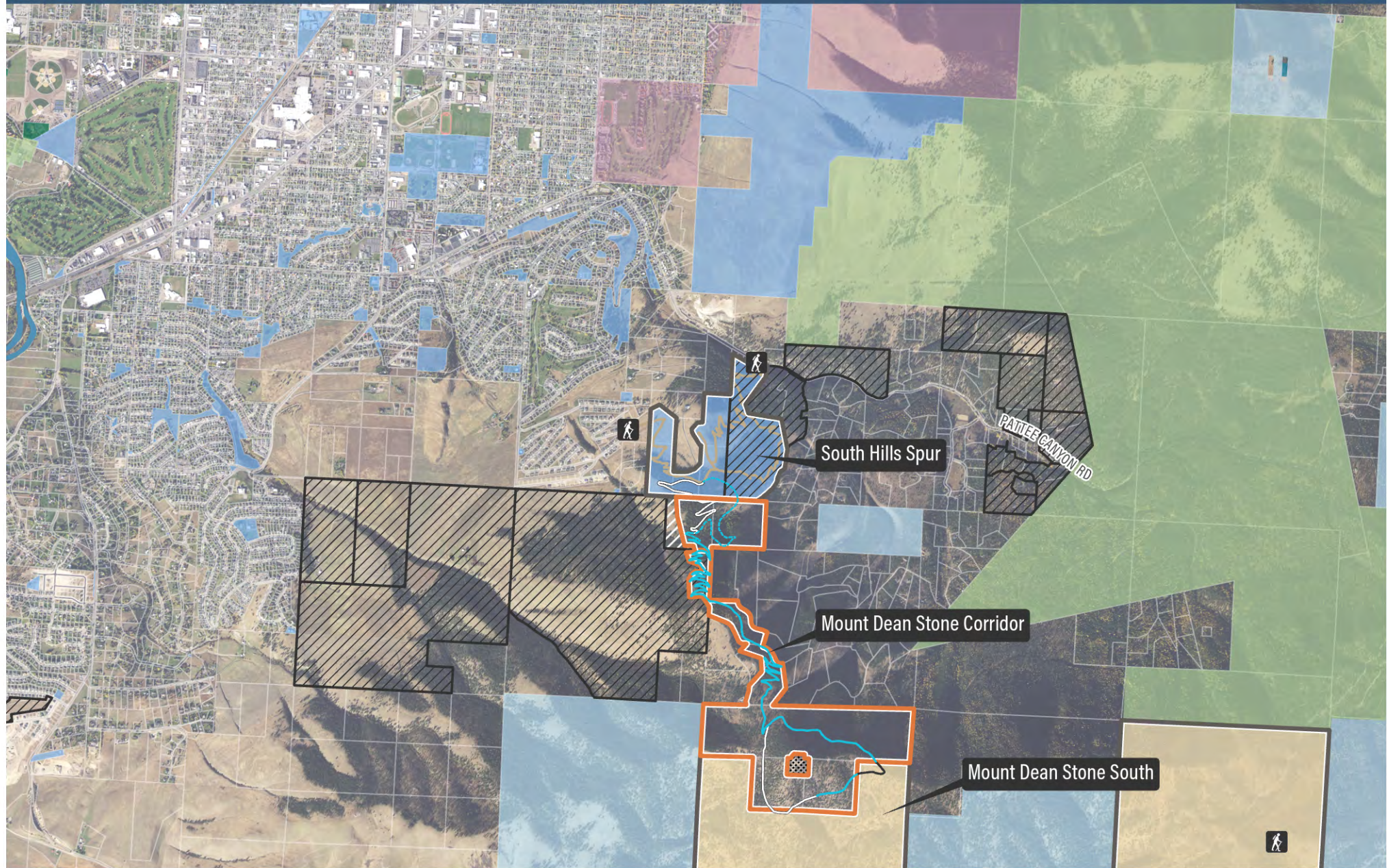
Figure 3. Corridor Location in Missoula Urban Area Open Space Plan Cornerstone Map

Figure 4. 2020-2021 Trails Proposal Map

Figure 5. Lower Corridor Property Subdivision Plat

Attachment 1. Bird Survey Results for Middle and Upper Corridor

Mount Dean Stone Corridor



Five Valleys Owned

Future Five Valleys Ownership

Future Conservation Easement and Line Ranch Ownership

Five Valleys Conservation Easement

The Nature Conservancy

City of Missoula

Montana State Trust Lands

US Forest Service

Montana University System

Utility Parcels-Not Dean Stone Project Lands

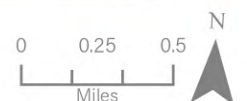
Existing Road

Existing Trail

High, Wide, & Handsome Trail

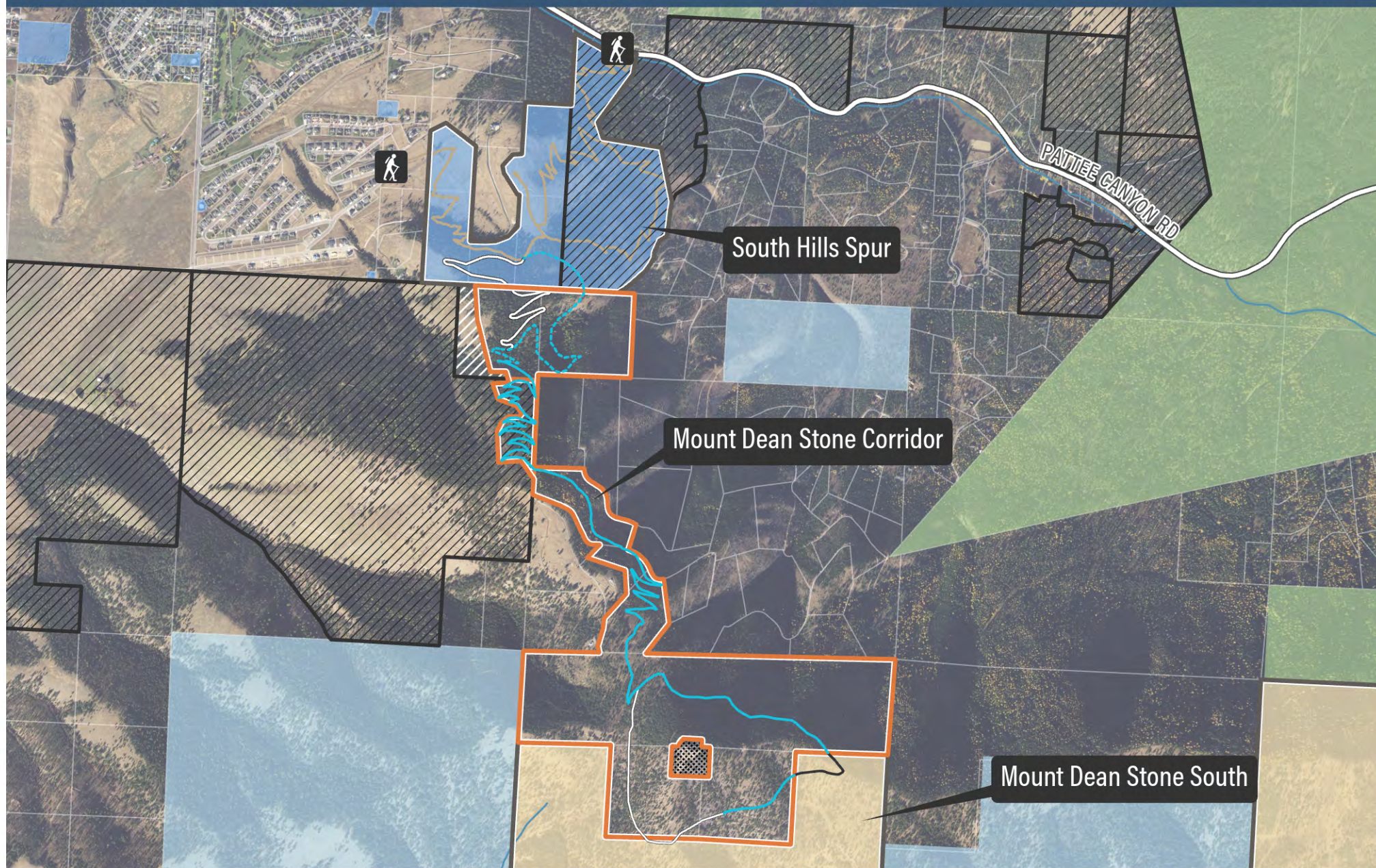
High, Wide, & Handsome Trail on the Nature Conservancy Land

Potential Woodsy Spur Trail Route



Date Exported: 9/14/2020

Mount Dean Stone Corridor



Five Valleys Owned

Future Five Valleys Ownership

Future Conservation Easement and Line Ranch Ownership

Five Valleys Conservation Easement

The Nature Conservancy

City of Missoula

Montana State Trust Lands

US Forest Service

Existing Trail

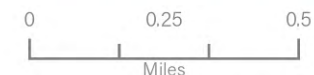
High, Wide, & Handsome Trail

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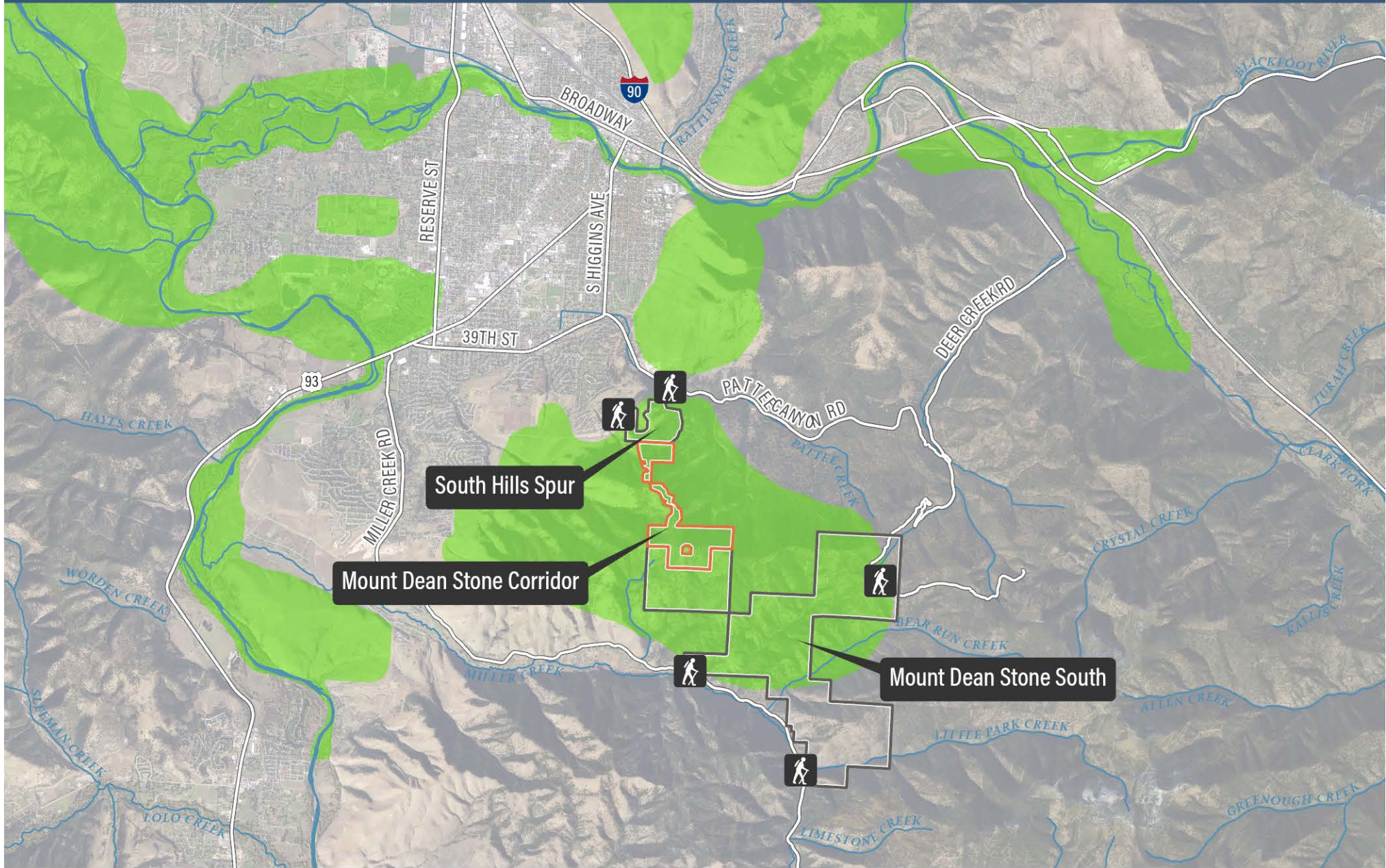
Utility Parcels-Not Dean Stone Project Lands

Existing Road



Mount Dean Stone Corridor

Location in Missoula Urban Area Open Space Plan Cornerstone



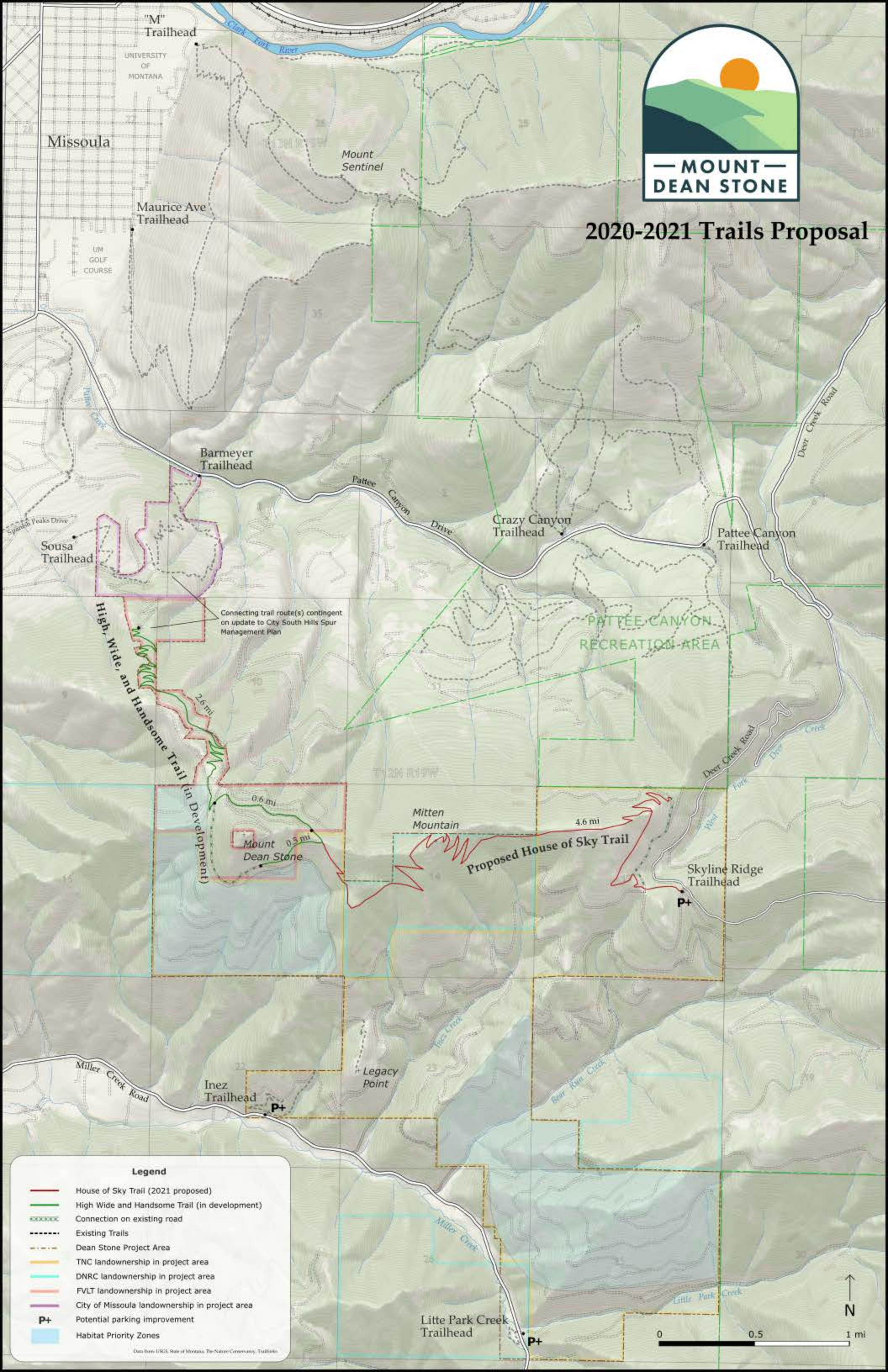
Missoula Urban Area Open Space Plan Cornerstone



Date Exported: 9/21/2020



2020-2021 Trails Proposal



Legend

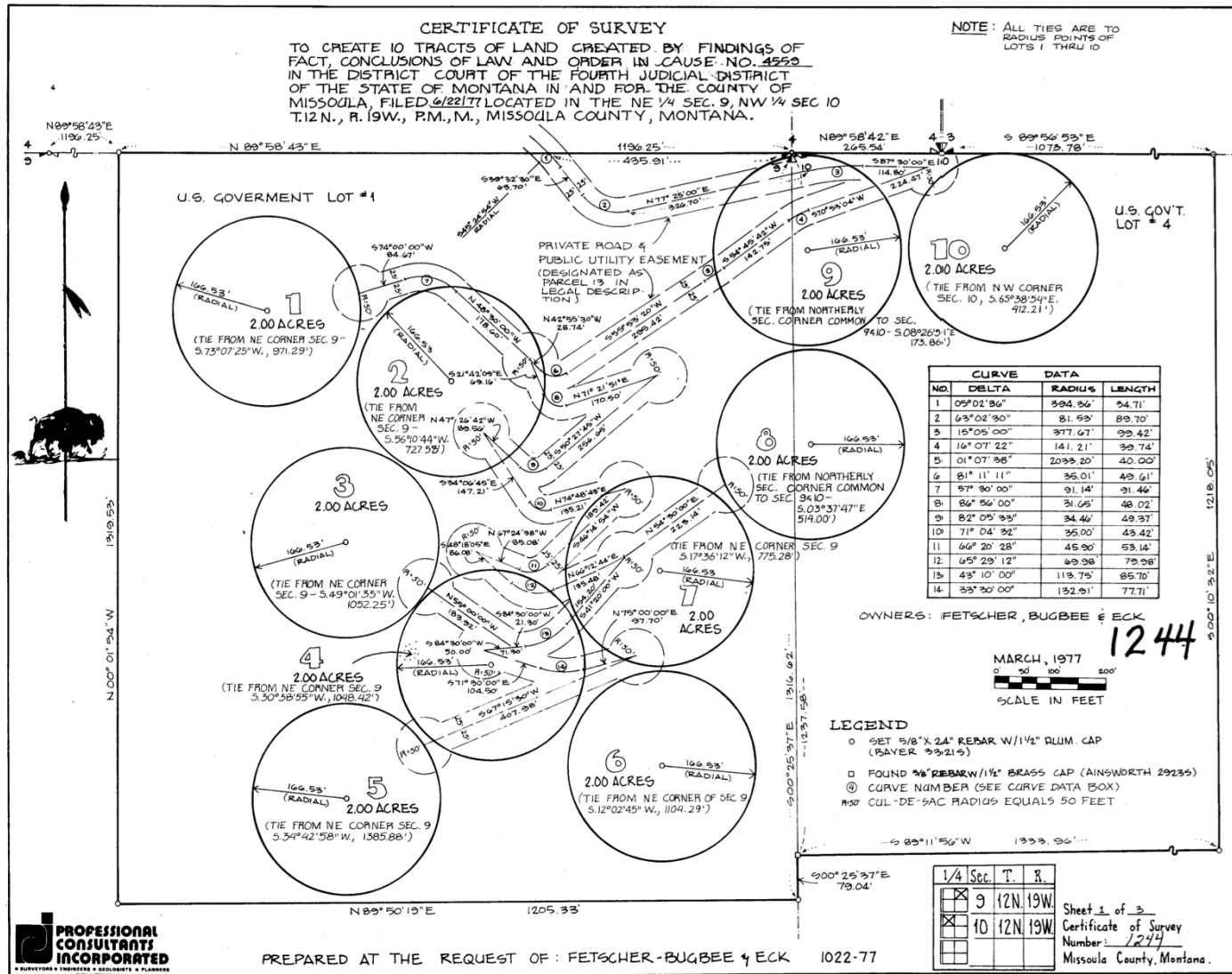
- House of Sky Trail (2021 proposed)
- High Wide and Handsome Trail (in development)
- Connection on existing road
- Existing Trails
- Dean Stone Project Area
- TNC landownership in project area
- DNRC landownership in project area
- FVLT landownership in project area
- City of Missoula landownership in project area
- P+ Potential parking improvement
- Habitat Priority Zones

Data from: USGS, State of Montana, The Nature Conservancy, TrailLink

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Figure 5. Lower Corridor Property Subdivision Plat



Attachment 1. Bird Survey Results for Middle and Upper Corridor Properties

Conducted by Five Valleys Audubon Society

Location Name: Dean Stone Corridor: Lyon, Papa Chung, Saddle, and Star Quilt Properties

Date: 6-26-19 Start Time: 0845 Duration: 3.2 hours

Observers:

Lyon, Papa Chung: Andrea Stierle, Paul Hendricks, Vick Applegate, John Brock, Brian Williams

Vertical Bridge, Hickman: Rose Leach, Cathy Ream, Brad Johnson, Roger Hogan, Jim Brown

Weather: sunny, temperature 50-60 degrees

Species	Number		Status
	Lyon, Papa Chung Properties	Saddle, Star Quilt Properties	
Calliope Hummingbird	3		b
Hairy Woodpecker		1	b
Northern Flicker	3	1	b
Western Wood Pewee		1	b
Dusky Flycatcher		1	b
Warbling Vireo	9		b
Cassin's Vireo	10	2	b
Gray jay	2		b
Steller's Jay	6	2	b
Common Raven	2	4	t
Black-capped Chickadee	3		b
Mountain Chickadee	6	3	b
Red-breasted Nuthatch	7	4	b
Golden-crowned Kinglet		2	b
Ruby-crowned Kinglet	19	8	b
Mountain Bluebird	6	4	b
Townsend's Solitaire	2	2	b
Veery	3		b
Swainson's Thrush	2	2	b
Hermit Thrush	15	6	b
American Robin	1	2	b
Orange-crowned Warbler	7		b
Nashville Warbler	1	2	b
MacGillivray's Warbler	7		b
Yellow Warbler	7		b
Yellow-rumped Warbler	15	8	b
Townsend's Warbler		1	b
Spotted Towhee	6		b
Chipping Sparrow	36	11	B
Dark-eyed Junco	10		b
Western Tanager	7	7	b
Black-headed Grosbeak	2		b

Lazuli Bunting	4	1	b
Brown-headed Cowbird	2	2	b
Pine Siskin	2	1	b
Evening Grosbeak	3		b

Notes:

Breeding Status:

B—direct evidence

1. Occupied nest—adults entering or leaving nest site; adult incubating or brooding.
2. Recently fledged young, incapable of flight or downy young of limited mobility.
3. Adults attending young—feeding, carrying food or fecal sac.
4. Used nest or eggshell found, evidence must be convincing.
5. Nest with clearly identifiable young.

b—indirect evidence

1. Singing males or territorial birds in suitable habitat during breeding season.
2. Courtship behavior or copulation
3. Adults visiting a probable nest site.
4. Agitation behavior, distraction display, or anxiety call from adult.
5. Nest building
6. Physiological evidence such as brood patch.

t—no evidence of breeding: transients, migrants or wide-ranging species.

Mammals observed: northern pocket gopher, fox, white-tailed deer, pine squirrel, chipmunk

Scat sign: Dusky Grouse, elk, moose

North facing slopes supported the most bird observations

Total species observed = 36 with 21 being migrant songbirds