Middle Henry's Fork Watershed Aspen Enhancement Project

Ashton/Island Park Ranger District

Caribou-Targhee National Forest

and

Idaho Department of Fish and Game

Importance of Aspen

- **Aspen is the most diverse forest type in the West and second only to riparian areas in biodiversity (Chong et al. 2001).**
- **Soil productivity is higher under aspen stands. An intact and functioning aspen grove typically has nearly 100% soil coverage and wood roots that anchor the soil and deflect the impact of rain and runoff (DeByle 1985).**
- **Herbaceous vegetation production is higher. Bartos and Campbell (1998) determined that a healthy aspen stand produces, on the average, 1,300 more pounds per acre than a conifer stand in a similar site.**
- **Water yields are higher. Bartos and Campbell (1998) calculated that 250 to 500 acre-feet of water per 1,000 acres of forested area is lost through transpiration annually, when either fir or spruce outcompete and replace aspen.**
- **Aspen provides critical habitat for wildlife. DeByle (1985) listed 135 bird species and 55 mammal species that use aspen habitats in the western U.S. and Canada. Mule deer, elk, and moose find aspen groves highly attractive for foraging and fawning/calving.**
- **Aspen provides fire protection to wildland urban interface situations. Forests dominated by aspen are less prone to high-intensity burning compared to surrounding conifer types (Shinneman et al. 2013).**

Aspen Decline in the West

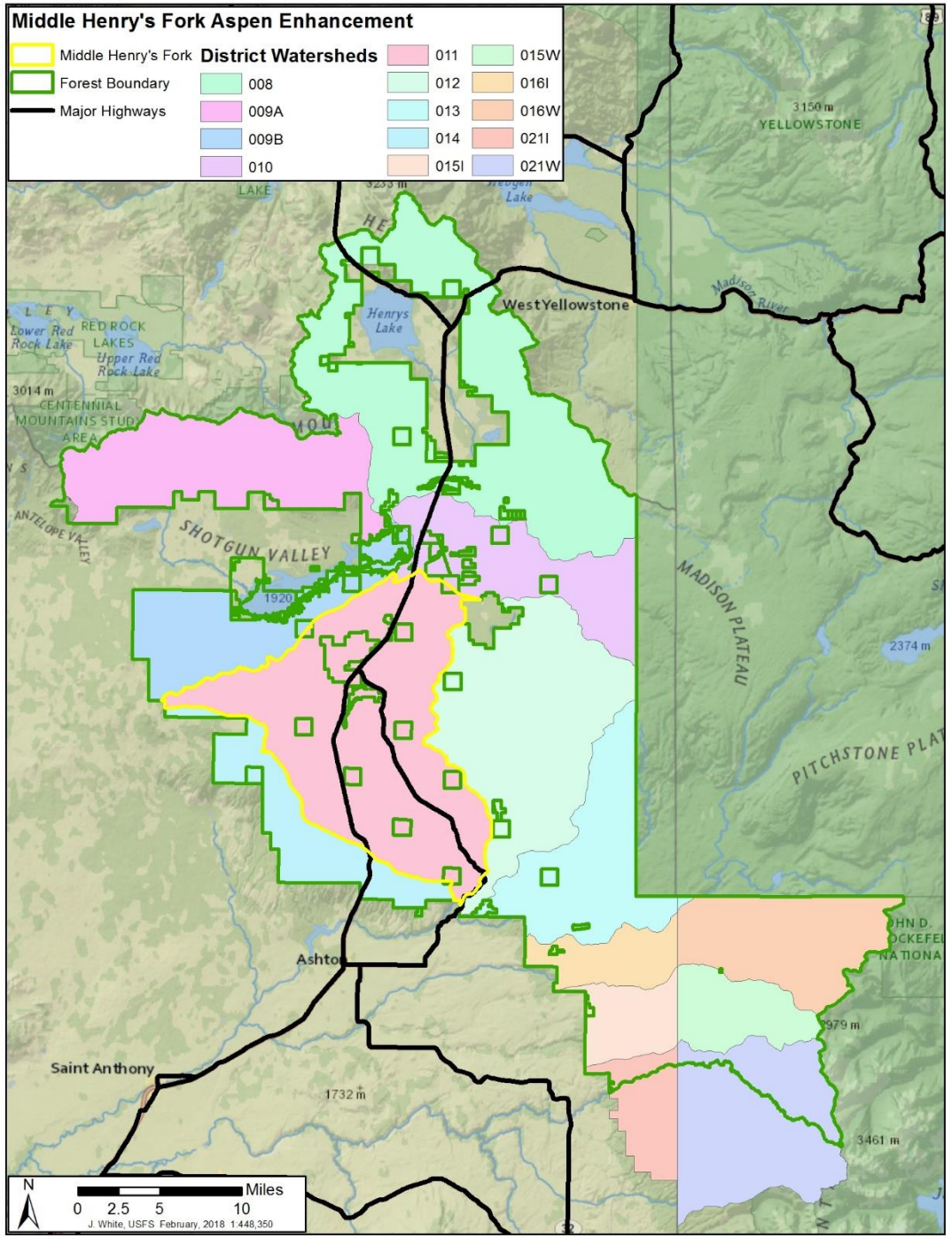
- **Aspen has been reduced by as much as 60% to 90% throughout the entire western United States (Lachowski et al. 1996).**
- **Aspen was estimated to dominate 1.6 million acres across Idaho. Now aspen is dominate on only 0.6 million acres, a decline of 61% (Bartos 2004).**
- **Eastern Idaho has experienced an approximate 60% loss in the last 100 years (East Idaho Aspen Working Group Technical Committee 2014).**
- **Aspen cover type on the CTNF once accounted for approximately 40% to 45% of the land area. Now aspen covers less than 9% of the forest (Orme 2005).**
- **In 1991, approximately 7,615 acres of aspen occurred in the Island Park subsection. In the late 1800's/early 1900's, aspen covered 35,219 acres (Orme 2005). This is roughly a 79% decline.**

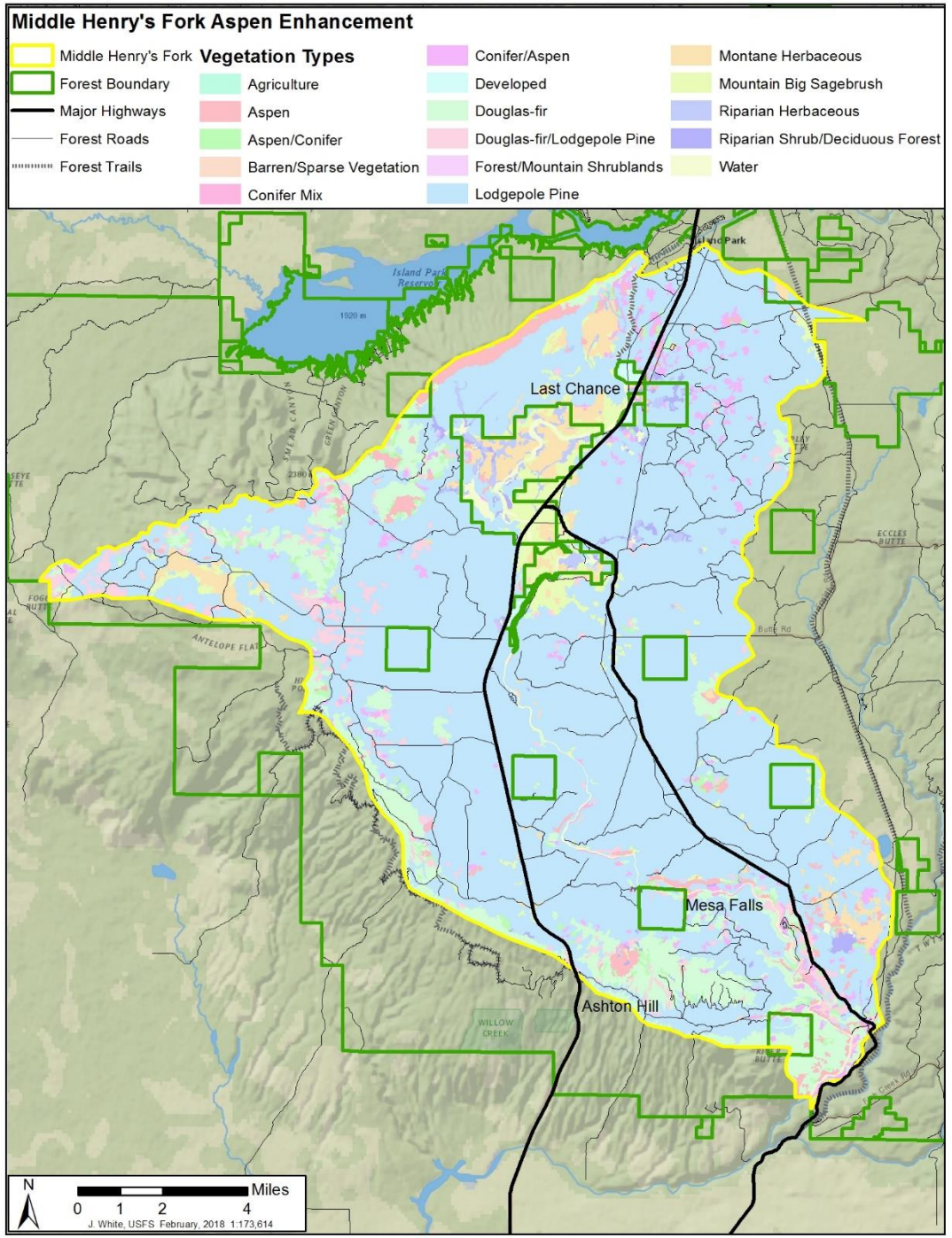
Indicators of a Properly Functioning Condition Compared To Current Condition For Aspen

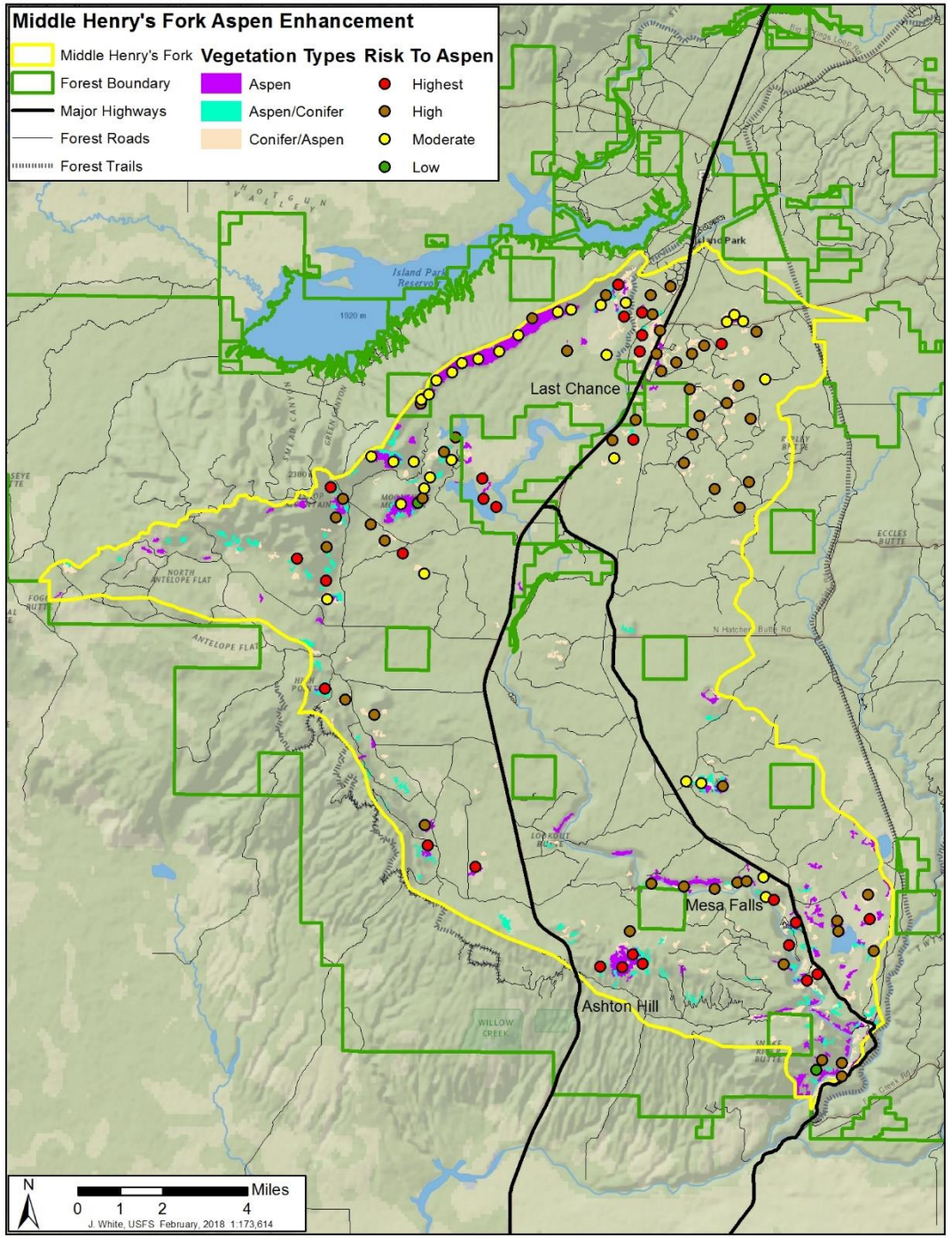
CRITERIA	INDICATORS OF A PFC (Landscape Scale)	CURRENT (1997) CONDITION
Structure	Balanced Range: Grass/forb and Regeneration/saplings = 40%	Range: Seedling/sapling = 20% (0-40 years)
	Young, Mid aged and Mature forest = 30%	Mature (40-80 years) = 70%
	Old Forest = 30%	Old Forest (80+ years) = 10%
Patterns (e.g. connectivity, shapes, size, distribution)	Patterns are within historical ranges. (Pattern sizes, shapes, and corridors are maintaining processes.) The role of fire is to influence distribution of structural classes and patterns across landscapes.	- Fragmented - Smaller patch sizes

Middle Henry's Fork Watershed Aspen Enhancement Purpose and Need

- **The large majority of aspen recession throughout eastern Idaho has been linked to both conifer encroachment and lack of new growth via suckering or seedlings (East Idaho Aspen Working Group Technical Committee 2014).**
- **The purpose of the project is to reduce the conifer competition and favor aspen by stimulating aspen root suckering and regenerate aspen clones that are being suppressed by encroaching Douglas-fir and lodgepole pine. Conifer will be maintained on the landscape in a better balance with aspen, mountain brush, sagebrush, grass and forbs to benefit mule deer, elk and other wildlife.**
- **Another objective of this project is to reduce the risk to the urban communities of an undesirable wildland fire event by reintroducing fire as a natural ecological process. By enhancing the presence of aspen, a fire break is created, slowing down or even stopping the spread of an advancing wildland fire.**


Middle Henry's Fork Aspen Enhancement
Middle Henry's Fork
Forest Boundary
Major Highways
District Watersheds
008
009A
009B
010
011
012
013
014
015I
015W
016I
016W
021I
021W
YELLOWSTONE
3150 m
Henrys Lake
WestYellowstone
Madison River
RED ROCK LAKES
Lower Red Rock Lake
Upper Red Rock Lake
3014 m
CENTENNIAL MOUNTAINS STUDY AREA
SHOTGUN VALLEY
1920
MADISON PLATEAU
2374 m
PITCHSTONE PLAT
Ashton
Saint Anthony
1732 m
979 m
3461 m
N
Miles
0 2.5 5 10
J. White, USFS February, 2018 1:448,350


Middle Henry's Fork Aspen Enhancement
Middle Henry's Fork
Forest Boundary
Major Highways
Forest Roads
Forest Trails
Vegetation Types
Agriculture
Aspen
Aspen/Conifer
Barren/Sparse Vegetation
Conifer Mix
Conifer/Aspen
Developed
Douglas-fir
Douglas-fir/Lodgepole Pine
Forest/Mountain Shrublands
Lodgepole Pine
Montane Herbaceous
Mountain Big Sagebrush
Riparian Herbaceous
Riparian Shrub/Deciduous Forest
Water
Island Park Reservoir
Last Chance
Mesa Falls
Ashton Hill
ANTELOPE FLAT
ECCLES BUTTE
WILLOW CREEK
N
Miles
0 1 2 4
J. White, USFS February, 2018 1:173,614


Middle Henry's Fork Aspen Enhancement
Middle Henry's Fork
Forest Boundary
Major Highways
Forest Roads
Forest Trails
Vegetation Types
Aspen
Aspen/Conifer
Conifer/Aspen
Risk To Aspen
Highest
High
Moderate
Low
Last Chance
Mesa Falls
Ashton Hill
Island Park
Island Park Reservoir
N
Miles
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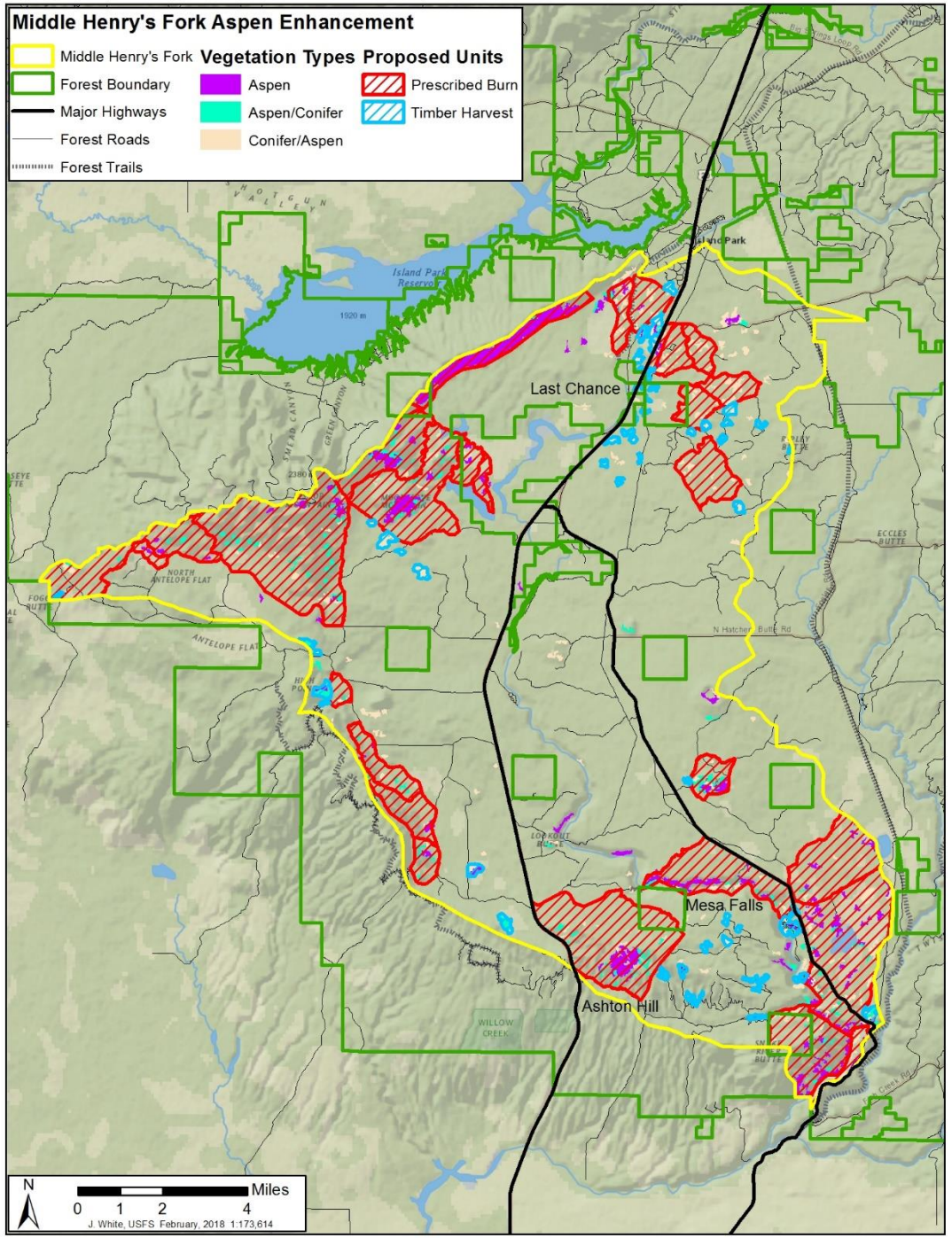
J. White, USFS February, 2018 1:173,614


Middle Henry's Fork Aspen Enhancement
Middle Henry's Fork
Forest Boundary
Major Highways
Forest Roads
Forest Trails
Vegetation Types
Aspen
Aspen/Conifer
Conifer/Aspen
Proposed Units
Prescribed Burn
Timber Harvest
Island Park Reservoir
Last Chance
Mesa Falls
Ashton Hill
N
0 1 2 4
Miles
J. White, USFS February, 2018 1:173,614