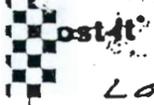


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Fax Note 7672



No. of Pages 15

Today's Date 1-12-95 Time

Larry Dean

From Gretchen Fortner

Company ASI

Company PNL

Location

Location SIGMADE, 404

Dept. Charge

Fax # 943-6812

Telephone # 946-7112

Fax # 376-3968

Telephone # 372-0426

Comments: Here is a copy of the presentation of "Evaluation of the sites" at TWRS. I've included the plant list for each site. Site #6 was not surveyed physically as the TWRS people cancelled the survey request for option #6.

Original Disposition: Destroy Return Call for pickup

TWRS Complex Site Evaluation



Site Criteria

Protect The Environment

B. Ecological: The site shall not have any areas of ecological impact which cannot be reasonably mitigated.

Specific performance measurement(s)

- 1) Presence/use of area by species protected by the Endangered Species Act.
- 2) Presence/use of area by ESA candidate or Washington State protected species.
 - # of species and individuals affected
 - Importance of habitat to species
- 3) Amount/value of wildlife habitat to be converted to other land use.
 - proximity to contiguous habitat
 - areal extent
 - shrub/understory components
 - amount of alien weed cover

TWRS Complex Site Evaluation

Alternate 1		
Pros	Cons	Rating
1) No ESA Species present	1)	2
2)	2) At least 3 loggerhead shrikes (federal candidate) and 3 sage sparrow pairs (Washington State candidate) nest within Alternate 1.	-1
3) 111 ha is covered predominantly by alien weeds; 54 ha is gravelled	3) Alternate 1 will destroy 140 ha of Washington State priority habitat, of which 117 ha is contiguous.	-2
Comments:	Alternate 1 ranks somewhat unfavorably with regard to ecological considerations, involving large areas of fully-functioning sagebrush habitat.	-1
Alternate 2		
Pros	Cons	Rating
1) No ESA Species present	1)	2
2)	2) At least 3 loggerhead shrikes (federal candidate) and 3 sage sparrow pairs (Washington State candidate) nest within Alternate 2.	-1
3) 93 ha is covered predominantly by alien weeds; 36 ha is gravelled	3) Alternate 2 will destroy 148 ha of Washington State priority habitat, of which 67 ha is contiguous.	-1
Comments:	Alternate 2 is neutral with respect to the ecological considerations. Mitigation of habitat loss may be difficult. Part of the habitat loss and species loss are in MWTF.	0
Alternate 3		
Pros	Cons	Rating
1) No ESA Species present	1)	2
2)	2) 3 loggerhead shrikes (federal candidate) and 4 sage sparrow pairs (Washington State candidate) were using the southeast corner of this layout. One shrike and one sage sparrow were in MWTF.	-1
3) 40 ha is covered by predominantly alien weeds; 5 ha is gravelled	3) Alternate 3 will destroy 105 ha of Washington State priority habitat, of which 34 ha is contiguous with other habitat.	1
Comments:	Alternate 3 ranks very favorably with respect to the ecological considerations. Priority habitat is limited to islands that do not appear to be fully functioning as wildlife habitat. Part of the habitat loss and species loss are in MWTF.	2

TWRS Complex Site Evaluation

Alternate 4		
Pros	Cons	Rating
1) No ESA Species present	1)	2
2)	2) 4 sage sparrows (Washington State candidate) and 2 shrikes were using southeast corner & MWTF; area south of Route 4S expected to contain at least 2 loggerhead shrike pairs (federal candidate) and 4 sage sparrow pairs.	-2
3) 30 ha is covered by predominantly alien weeds; 5 ha is gravelled.	3) Alternate 4 will destroy 166 ha of Washington State priority habitat, of which 95 ha is contiguous with other habitat.	-1
Comments:	Alternate 4 is somewhat unfavorable with respect to the ecological considerations. Mitigation of habitat loss may be difficult. Part of the habitat loss and species loss are in MWTF.	-1
Alternate 5		
Pros	Cons	Rating
1) No ESA Species present	1)	2
2)	2) At least 11 sage sparrow sightings (Washington State candidate) and 8 loggerhead shrike sightings (federal candidate) within Alternate 5.	-2
3) 15 ha is covered predominantly by weeds; 5 ha is gravelled.	3) Alternate 5 will destroy 166 ha of Washington State priority habitat, of which 119 ha is contiguous with other habitat.	-2
Comments:	Alternate 5 ranks very poorly with respect to the ecological considerations, primarily because of use of habitats outside the 200E area. Mitigation of habitat loss may be difficult. Part of the habitat loss and species loss are in MWTF.	-2
Alternate 6		
Pros	Cons	Rating
1) No ESA Species present	1)	2
2)	2) At least 6 loggerhead shrike pairs (federal candidate) and 12 sage sparrow pairs (Washington State candidate) are expected to nest within Alternate 6, based on known habitat usage patterns.	-2
3) 1 ha is covered predominantly by weeds	3) Alternate 6 will destroy 174 ha of Washington State priority habitat, of which 174 ha is contiguous with other habitat.	-2
Comments:	Alternate 6 ranks poorly with respect to the ecological considerations. This option involves the greatest expense of fully-functioning sagebrush habitat of the 6 alternatives; mitigation at this scale has not been attempted.	-2

SENSITIVE SPECIES LIST

THRS Alternate Site Options	Flora	Vegetation Type	Fauna
1	Stalked-pod milkvetch (<i>Astragalus sclerocarpus</i>) State Monitor 3 Crouching milkvetch (<i>Astragalus succumbens</i>) State Monitor 3 Piper's Daisy (<i>Erigeron piperianus</i>) State Sensitive	Big sage Russian thistle Big sage Gravel Cheatgrass Gravel	Sage sparrow (<i>Amphispiza belli</i>) State Candidate 3 sightings Loggerhead shrike (<i>Lanius ludovicianus</i>) Federal Candidate 2 State Candidate 3 sightings
2	Stalked-pod milkvetch Crouching milkvetch Piper's Daisy	Big sage Big sage Gravel Gravel	Sage sparrow 3 sightings Loggerhead shrike 3 sightings
3	Stalked-pod milkvetch Crouching milkvetch Piper's Daisy	Big sage Russian thistle Big sage Gravel	Sage sparrow 5 sightings Loggerhead shrike 4 sightings
4	Stalked-pod milkvetch Crouching milkvetch Piper's Daisy	Big sage Russian thistle Big sage Gravel	Sage sparrow 8 sightings Loggerhead shrike 4 sightings
5	Stalked-pod milkvetch Crouching milkvetch Piper's Daisy	Big sage Russian thistle Big sage Gravel	Sage sparrow 11 sightings Loggerhead shrike 8 sightings

TWRS Complex Site Evaluation

Overall Evaluation

The most favorable layout is Alternate 3: This takes maximal advantage of the disturbed areas and fragmented habitats within the 200 East Area, resulting in very minimal losses of true priority habitats.

Alternates 5 and 6 are the poorest layouts from an ecological perspective. They disturb more protected species and a greater expanse of undisturbed and unfragmented priority habitat. Mitigation will be extremely difficult and expensive.

Alternates 1 and 4 rank poorly based on ecological criteria because of the use of mature shrub habitat outside of 200 East Area.

Caveat: All evaluations depend on the present biological context for each alternative. If the context changes, the rating may also change.

OPTION 1

Flora

Annual mountain dandelion
 Bastard toadflax
 Big Sagebrush
 Bigseed desert parsley
 Bottlebrush squirreltail
 Bulbous bluegrass
 Bur ragweed
 Carey's balsamroot
 Cheatgrass
 Coldenia
Crouching milkvetch - State
Monitor 3
 Cushion fleabane
 Cutleaf lady's foot mustard
 Devil's lettuce
 False buckwheat
 Few-flowered eriastrum
 Flat-topped broomrape
 Flixweed
 Gray rabbitbrush
 Green rabbitbrush
 Hoary aster
 Hoary false yarrow
 Indian ricegrass
 Jim Hill's tumbled mustard
 Long-leaf phlox
 Longleaf fleabane
 Matted cryptantha
 Milkvetch

Munro's globemallow
 Needle-and-thread grass
 Pale evening primrose
 Pink microsteris
 Prickly lettuce
 Purplemat
 Rabbitleaf
 Rough wallflower
 Russian thistle
 Sagebrush mariposa lily
 Sandberg's bluegrass
 Showy Townsend-daisy
 Slender hawkbeard
 Slimleaf goosefoot
 Small-flowered gilia
 Spiny hopsage
 Spreading fleabane
 Spring hillgrass
Stalked-pod milkvetch - State
Monitor 3
 Tall willowherb
 Tarweed fiddleneck
 Threadleaf fleabane
 Turpentine spring parsley
 Western tansy mustard
 White sweetclover
 Whiteleaf scorpionweed
 Whitestem stickleaf
 Yarrow
 Yellow salsify

OPTION 1Fauna

Badger

Bank swallow

Barn swallow

Black-tailed jackrabbit

Cliff Swallow

Common nighthawk

Coyote

Deer mouse

Great Basin pocket mouse

Horned lark

Loggerhead shrike - FederalCandidate 2, State Candidate

Mourning dove

Mule deer

Nuttall's cottontail rabbit

Pocket gopher

Prarie falcon

Raven

Sage sparrow - State Candidate

Side-blotched lizard

Western meadowlark

Western kingbird

OPTION 2Flora

Annual mountain dandelion
 Antelope bitterbrush
 Bastard toadflax
 Big Sagebrush
 Bigseed desert parsley
 Bottlebrush squirreltail
 Broom buckwheat
 Buckwheat milkvetch
 Bur ragweed
 Carey's balsamroot
 Cheatgrass
 Crested wheatgrass
Crouching milkvetch - State
Monitor 3
 Cultivated barley
 Culleaf ladysfoot mustard
 Devil's lettuce
 Fendler's cryptantha
 Flat-topped broomrape
 Flixweed
 Gray rabbitbrush
 Green rabbitbrush
 Hoary false yarrow
 Horse weedoary aster
 Indian ricegrass
 Indian wheat
 Jim Hill's tumbledustard

Long-leaf phlox
 Longleaf fleabane
 Matted cryptantha
 Needle-and-thread grass
 Pale evening primrose
 Prairie junegrass
 Prickly lettuce
 Purplemat
 Russian thistle
 Sagebrush mariposa lily
 Sand dropseed
 Sandberg's bluegrass
 Slender sixweeks
Stalked-pod milkvetch - State
Monitor 3
 Tall willowherb
 Tarweed fiddleneck
 Threadleaf fleabane
 Turpentine spring parsley
 Western tansy mustard
 Whiteleaf scorpionweed
 Whitestem stickleaf
 Woolly sunflower
 Yarrow
 Yellow salsify

OPTION 2

Fauna

American robin
Badger
Bank swallow
Barn swallow
Black-tailed jackrabbit
Brewer's blackbird
Cliff Swallow
Coyote
Deer mouse
European starling
Great Basin pocket mouse
Great Basin gopher snake

House sparrow
Killdeer
Mourning dove
Nuttall's cottontail rabbit
Pocket gopher
Rock dove
Sage sparrow - State Candidate
Side-blotched lizard
Western yellow-bellied racer
Western kingbird
Western meadowlark

OPTION 3Flora

Annual mountain dandelion
Antelope bitterbrush
Bastard toadflax
Big Sagebrush
Bigseed desert parsley
Bottlebrush squirreltail
Broom buckwheat
Buckwheat milkvetch
Bur ragweed
Carey's balsamroot
Cheatgrass
Crested wheatgrass
Crouching milkvetch - State
Monitor 3
Cultivated barley
Cushion fleabane
Cutleaf ladysfoot mustard
Desert mal
Devil's lettuce
Fendler's cryptantha
Few-flowered eriastrum
Flat-topped broomrape
Flixweed
Gray rabbitbrush
Green rabbitbrush
Hoary aster
Hoary false yarrow
Horse weed
Indian wheat
Indian ricegrass
Jim Hill's tumbledustard
Long-leaf phlox
Longleaf fleabane
Matted cryptantha
Needle-and-thread grass

Pale evening primrose
Prairie junegrass
Prickly phlox
Prickly lettuce
Purplemat
Rough wallflower
Russian thistle
Sagebrush mariposa lily
Sand beardtongue
Sand dropseed
Sandberg's bluegrass
Showy Townsend-daisy
Slender sixweeks
Slender hawksbeard
Slimleaf goosefoot
Small-flowered gilia
Spiny hopsage
Spreading fleabane
Stalked-pod milkvetch - State
Monitor 3
Stork's bill
Tall willowherb
Tarweed fiddleneck
Thickspike wheatgrass
Threadleaf fleabane
Turpentine spring parsley
Western tansy mustard
White sweetclover
Whiteleaf scorpionweed
Whitestem stickleaf
Winged cryptantha
Woolly sunflower
Yarrow
Yellow salsify

OPTION 3

Fauna

American robin
Badger
Bank swallow
Barn swallow
Black-tailed jackrabbit
Brewer's blackbird
Brown headed cowbird
Cliff Swallow
Common nighthawk
Coyote
Deer mouse
European starling
Great Basin pocket mouse
Great Basin gopher snake
Horned lark
House sparrow

Killdeer
Lark sparrow
Loggerhead shrike - Federal
Candidate 2, State Candidate
Mourning dove
Mule deer
Nuttall's cottontail rabbit
Pocket gopher
Rock dove
Sage sparrow - State Candidate
Say's phoebe
Side-blotched lizard
Western yellow-bellied racer
Western meadowlark
Western kingbird

OPTION 4

Flora

Bastard toadflax
Big Sagebrush
Bottlebrush squirreltail
Broom buckwheat
Buckwheat milkvetch
Bur ragweed
Carey's balsamroot
Cheatgrass
Crested wheatgrass
Crouching milkvetch - State

Monitor 3

Cutleaf lady'sfoot mustard
Desert mat
Devil's lettuce
Dune scurfpea
Flat-topped broomrape
Flixweed
Gray rabbitbrush
Green rabbitbrush
Hoary aster
Hoary false yarrow
Indian ricegrass
Jim Hill's tumbled mustard
Long-leaf phlox
Matted cryptantha

Needle-and-thread grass
Pale evening primrose
Pine bluegrass
Prairie junegrass
Prickly lettuce
Prickly phlox
Rabbitfoot grass
Rough wallflower
Russian thistle
Sagebrush mariposa lily
Sandberg's bluegrass
Sand dropseed
Slender sixweeks
Slimleaf goosefoot
Small-flowered gilia
Spiny hopsage
Stalked-pod milkvetch - State

Monitor 3

Tall willowherb
Tarweed fiddleneck
Threadleaf fleabane
Turpentine spring parsley
Yarrow
Yellow bell
Yellow salsify

OPTION 4

Fauna

Badger
Bank swallow
Barn swallow
Black-tailed jackrabbit
Common nighthawk
Coyote
Deer mouse
Great Basin pocket mouse
Horned lark
Lark sparrow

Loggerhead shrike - Federal
Candidate 2, State Candidate
Mule deer
Nuttall's cottontail rabbit
Pocket gopher
Rock dove
Sage sparrow - State Candidate
Side-blotched lizard
Western meadowlark

OPTION 5Flora

Bastard toadflax
Big Sagebrush
Bottlebrush squirreltail
Broom buckwheat
Buckwheat milkvetch
Bulbous bluegrass
Bur ragweed
Carey's balsamroot
Cheatgrass
Crested wheatgrass
Crouching milkvetch - State

Monitor 3

Cushion fleabane
Cutleaf lady'sfoot mustard
Desert mat
Devil's lettuce
Dune scurfpea
Few-flowered eriastrum
Flat-topped broomrape
Flixweed
Gray rabbitbrush
Graybull sage
Green rabbitbrush
Hoary false yarrow
Hoary aster
Indian ricegrass
Jim Hill's tumbled mustard
Long-leaf phlox
Longleaf fleabane
Matted cryptantha

Needle-and-thread grass
Pale evening primrose
Pine bluegrass
Pink microsteris
Prairie junegrass
Prickly phlox
Prickly lettuce
Purplemat
Rabbitfoot grass
Rough wallflower
Russian thistle
Sagebrush mariposa lily
Sand dropseed
Sandbeard tongue
Sandberg's bluegrass
Slender hawksbeard
Slimleaf goosefoot
Small-flowered gilia
Spiny hopsage
Stalked-pod milkvetch - State

Monitor 3

Tall willowherb
Tarweed fiddleneck
Threadleaf fleabane
Turpentine spring parsley
Western tansy mustard
Whitestem stickleaf
Yarrow
Yellow salsify
Yellow bell

OPTION 5Fauna

Bank swallow
Barn swallow
Black-billed magpie
Black-tailed jackrabbit
Cliff Swallow
Common nighthawk
Coyote
Deer mouse
European starling
Great Basin pocket mouse
Horned lark

Lark sparrow
Loggerhead shrike - Federal
Candidate 2, State Candidate
Mule deer
Nuttall's cottontail rabbit
Pocket gopher
Rock dove
Sage sparrow - State Candidate
Side-blotched lizard
Western meadowlark