

## Environmental Assessment Checklist

**Project Name: Cowan Ranch Timber Sale**  
**Proposed Implementation Date: January, 2016**  
**Proponent: Havre Unit, Northeast Land Office, Montana DNRC**  
**County: Blaine Co.**

### Type and Purpose of Action

**Description of Proposed Action:**

The Havre Unit of the Montana Department of Natural Resources and Conservation (DNRC) is proposing the Cowan Ranch Timber Sale. The project is located 30 miles Southeast of Havre on Sec. 36 T28N R17E (refer to vicinity map Attachment A-1 and project map A-2) and includes the following sections:

| Beneficiary                                | Legal Description       | Total Acres | Treated Acres |
|--|-------------------------|-------------|---------------|
| Common Schools                             | <b>Sec 36 T28N R17E</b> | <b>640</b>  | <b>147</b>    |
| Public Buildings                           |                         |             |               |
| MSU 2 <sup>nd</sup> Grant                  |                         |             |               |
| MSU Morrill                                |                         |             |               |
| Eastern College-MSU/Western College-U of M |                         |             |               |
| Montana Tech                               |                         |             |               |
| University of Montana                      |                         |             |               |
| School for the Deaf and Blind              |                         |             |               |
| Pine Hills School                          |                         |             |               |
| Veterans Home                              |                         |             |               |
| Public Land Trust                          |                         |             |               |
| Acquired Land                              |                         |             |               |

Objectives of the project include:

- Generate revenue for Common School Trust
- Improve stand health and vigor by removing dead and dying trees
- Promote maintenance of biodiversity
- Remove trees infected by insects and diseases
- Reduce fuel loading
- Maintain or improve species diversity
- Create natural regeneration
- Maintain habitat for local wildlife

Prescription:

- Harvest on 147 acres would incorporate a shelterwood treatment with reserves

- Shelterwood with reserves,
- Ground Based harvesting with cut to length, whole tree or tree length skidding.
- Leave Trees marked: 15-20 Trees per acre, 30-50" variable spacing
- Accumulated slash would be piled at landings for burning
- Machine pile and burn all slash in excess of retention requirements of 4-8 tons/acre
- Spatial openings created by proposed treatment should provide opportunities for establishment of natural regeneration.
- Retain all non-merchantable trees
- Retain one snag and one snag recruitment tree per acre.
- Retain healthy Douglas-fir with DHB between 16-24", with good crowns and are disease free.
- Favor retention of Ponderosa Pine where possible.

Proposed activities include:

| Action                                       | Quantity   |
|--|------------|
| <b>Proposed Harvest Activities</b>           |            |
| Clearcut                                     | 0          |
| Seed Tree                                    | 0          |
| Shelterwood                                  | 0          |
| Selection                                    | 147        |
| Commercial Thinning                          | 0          |
| Salvage                                      | 0          |
| <b>Total Treatment Acres</b>                 |            |
|  | <b>147</b> |
| <b>Proposed Forest Improvement Treatment</b> |            |
| Pre-commercial Thinning                      | <b>0</b>   |
| Planting                                     | <b>0</b>   |
| <b>Proposed Road Activities</b>              |            |
| New permanent road construction              | 9881 feet  |
| New temporary road construction              | 0          |
| Road maintenance                             | 0          |
| Road reconstruction                          | 0          |
| Road abandoned                               | 0          |
| Road reclaimed                               | 0          |
| <b>Other Activities</b>                      |            |
|  |            |
|  |            |

The lands involved in this proposed project are held in trust by the State of Montana. (Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11). The Board of Land Commissioners and the DNRC are required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run for the beneficiary institutions (Section 77-1-202, MCA).

The DNRC would manage lands involved in this project in accordance with:

- The State Forest Land Management Plan (DNRC 1996),
- Administrative Rules for Forest Management (ARM 36.11.401 through 471),
- Best Management Practices for Forestry
- and all other applicable state and federal laws.

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## Project Development

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### SCOPING:

- DATE:
  - February 4<sup>th</sup>, 2015
- PUBLIC SCOPE:
  - The scoping notice was posted on the DNRC Website:  
<http://dnrc.mt.gov/PublicInterest/Notices/Default.asp>
  - Cowan Ranch, Winecup Ranch LLC, Posted on DNRC website
- AGENCIES SCOPE:
  - Chippewa Cree, MT FWP, Ft. Belknap
- COMMENTS RECEIVED:
  - How many: One
  - Concerns: One
  - Results (how were concerns addressed): No environmental concerns were raised, Salish Kootenai tribe just wanted to make sure that Chippewa Cree was included within the DNRC scoping.

DNRC specialists were consulted, including: Jeff Schmalenberg Resource Management , Patrick Rennie Archeologist, Tim Spoelma Silviculturalist,

Internal and external issues and concerns were incorporated into project planning and design and will be implemented in associated contracts.

### OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS

**NEEDED:** (*Conservation Easements, Army Corps of Engineers, road use permits, etc.*)

- **Montana Department of Environmental Quality (DEQ)-** DNRC is classified as a major open burner by DEQ and is issued a permit from DEQ to conduct burning activities on state lands managed by DNRC. As a major open-burning permit holder, DNRC agrees to comply with the limitations and conditions of the permit.
- **Montana/Idaho Airshed Group-** The DNRC is a member of the Montana/Idaho Airshed Group which was formed to minimize or prevent smoke impacts while using fire to accomplish land management objectives and/or fuel hazard reduction (Montana/Idaho Airshed Group 2006). The Group determines the delineation of airsheds and impact zones throughout Idaho and Montana. Airsheds describe those geographical areas that

have similar atmospheric conditions, while impact zones describe any area in Montana or Idaho that the Group deems smoke sensitive and/or having an existing air quality problem (Montana/Idaho Airshed Group 2006). As a member of the Airshed Group, DNRC agrees to burn only on days approved for good smoke dispersion as determined by the Smoke Management Unit.

- **Montana Department of Fish, Wildlife and Parks (DFWP)-** A Stream Protection Act Permit (124 Permit) is required from DFWP for activities that may affect the natural shape and form of a stream’s channel, banks, or tributaries. Such activities include:
  - The installation of a new, permanent 24” CMP on a Class I non-fish bearing stream.

**ALTERNATIVES CONSIDERED:**

**No-Action:** This alternative would postpone any timber harvest activity at this time, but would continue current grazing lease agreement. Potential effects of the “No Action Alternative” include reduced tree growth rates, declining forage and grazing potential and increased risk of stand replacement wildfire. Additionally, revenue opportunity may be lost as dead and dying timber is lost to decay, insects, wind throw and wildfire.

**Action Alternative (Provide a brief description of all proposed activities):** the proposed action would commercially harvest approximately 882 MBF of timber on 147 acres with 1.9 miles of new road. The sale of forest products would produce revenue for the public school trust fund, while ensuring the long-term productivity and revenue generating capacity. The sale would utilize primarily even-aged harvest practices to improve timber and forage productivity while mitigating potential adverse impacts and maintaining certain desirable stand structure and habitat elements.

**Impacts on the Physical Environment**

Evaluation of the impacts on the No-Action and Action Alternatives including **direct, secondary, and cumulative** impacts on the Physical Environment.

**VEGETATION:**

**Vegetation Existing Conditions:** The existing vegetation conditions on site are classified as Douglas-fir/western snowberry with areas of Aspen and Rangeland.

| Vegetation           | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|----------------------|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|                      | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|                      | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| <b>No-Action</b>     |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Noxious Weeds        |        | X   |     |      |           | X   |     |      |            | X   |     |      | No                       | 1              |
| Rare Plants          | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Vegetative community |        | X   |     |      | X         |     |     |      | X          |     |     |      | No                       | 2              |

| Vegetation           | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|----------------------|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|                      | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|                      | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| Old Growth           | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| <b>Action</b>        |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Noxious Weeds        |        |     | X   |      |           |     | X   |      |            |     | X   |      | Yes                      | 3              |
| Rare Plants          | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Vegetative community |        |     | X   |      | X         |     |     |      |            | X   |     |      | No                       | 4,5            |
| Old Growth           | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |

*Comments:*

- (1) This area is mix of rolling rangeland with forested areas interspersed; therefore a small population of noxious weeds such as hounds tongue and thistle are established on site.
- (2) Reduced growth and increased mortality of even-aged Douglas-fir would continue due to an overstocked condition. Continued defoliation from Western Spruce Budworm due to loss of vigor should also be expected.
- (3) Mechanical treatment would increase ground disturbance and increase the potential spread of noxious weeds
- (4) Species composition will be unaffected as harvesting activities will replicate natural disturbance regimes of this cover type
- (5) All live and salvageable Lodgepole Pine will be harvested

*Vegetation Mitigations:*

- Noxious weeds will be sprayed with in 60' of haul roads, slash piles and other timber harvest activities for three years following timber harvest
- No rare plants were identified in the project area.
- Disturbed areas will be replanted using native seed source
- There is no old growth in the project area

**SOIL DISTURBANCE AND PRODUCTIVITY:**

**Soil Disturbance and Productivity Existing Conditions:** The two soil types identified in the harvest areas are Macmeal Association and Hedoes-Belain-Castner Complex and are classified as a gravelly, sandy loam. The productivity is low and due to the high fraction of coarse fragments, the risk of compaction from equipment operations is considered moderate if operations are conducted during dry or frozen conditions. These soils are moderately erosive when the forest floor is removed and only moderately prone to displacement.

| Soil Disturbance and Productivity                  | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|--|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|  | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|  | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| <b>No-Action</b>                                   |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Physical Disturbance (Compaction and Displacement) | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |

| Soil Disturbance and Productivity                  | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|--|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|  | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|  | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| Erosion  | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Nutrient Cycling                                   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Slope Stability                                    | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Soil Productivity                                  | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| <b>Action</b>                                      |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Physical Disturbance (Compaction and Displacement) |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Erosion  |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Nutrient Cycling                                   |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 2              |
| Slope Stability                                    | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 1              |
| Soil Productivity                                  |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 2              |

*Comments:*

1. Soil displacement and compaction will be limited to 20% of all harvest units is mitigations and operating conditions are implemented correctly. Standard erosion control measures will provide effective erosion prevention. No unstable slopes were observed in the project area.
2. 5-10 tons of coarse woody material (>3.0") with as many fines (<3.0") will be retained on site to retain nutrients critical for soil productivity.

*Soil Mitigations:*

- Limit equipment operations to periods when soils are dry (<20% soil moisture), frozen or snow covered (12" packed, 18" unconsolidated)
- Limit equipment operations to slopes <45%.
- Retain 5-10 tons/acre of coarse woody material
- Apply BMP's for forestry concurrent with all activities.

**WATER QUALITY AND QUANTITY:**

**Water Quality and Quantity Existing Conditions:** The Cowan Ranch timber sale project area (22" annual precipitation) is located in the upper Clear Creek watershed (6<sup>th</sup> code) which is tributary to the Milk River. The water use class in this watershed is B-1 and is currently fully supporting beneficial uses. One Class I stream exists in the project area and does not support a fishery on State owned lands.

| Water Quality & Quantity | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|--------------------------|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|                          | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|                          | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| <b>No-Action</b>         |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Water Quality            | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Water Quantity           | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |

| Water Quality & Quantity | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|--------------------------|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|                          | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|                          | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| <b>Action</b>            |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Water Quality            |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Water Quantity           | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |

*Comments:*

1. A high probability of low, direct and secondary impacts to water quality is expected during the installation of one road stream crossing culvert on a Class 1 stream in the project area as well as the use of a ford on private lands. These activities will be regulated by the Montana Stream Protection Act administered by Montana Fish Wildlife and Park 124 permit program.

*Water Quality & Quantity Mitigations:*

- BMP's for forestry will be applied concurrent with all logging and hauling operations to mitigate sediment production and transport to water bodies or stream courses.
- The Streamside Management Zone Law will be applied to all stream in the project area.
- Montana Administrative Rules for Forest Management will be applied throughout the implementation of this project.

**FISHERIES:**

**Fisheries Existing Conditions:** There are no fish bearing streams in the project area.

**No-Action:** No direct or indirect impacts would occur to affected fish species or affected fisheries resources beyond those described in Fisheries Existing Conditions. Cumulative effects would continue to occur.

**Action Alternative (see Fisheries table below):**

| Fisheries          | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|--------------------|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|                    | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|                    | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| <b>No-Action</b>   |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Sediment           | X      |     |     |      | X         |     |     |      | X          |     |     |      |                          |                |
| Flow Regimes       | X      |     |     |      | X         |     |     |      | X          |     |     |      |                          |                |
| Woody Debris       | X      |     |     |      | X         |     |     |      | X          |     |     |      |                          |                |
| Stream Shading     | X      |     |     |      | X         |     |     |      | X          |     |     |      |                          |                |
| Stream Temperature | X      |     |     |      | X         |     |     |      | X          |     |     |      |                          |                |
| Connectivity       | X      |     |     |      | X         |     |     |      | X          |     |     |      |                          |                |
| Populations        | X      |     |     |      | X         |     |     |      | X          |     |     |      |                          |                |
| <b>Action</b>      |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Sediment           |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Flow Regimes       |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Woody Debris       |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |

| Fisheries          | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|--------------------|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|                    | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|                    | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| Stream Shading     |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Stream Temperature |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Connectivity       |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Populations        |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |

*Comments:* (1) The nearest fish bearing stream is over 1 mile away from the proposed project area. Class 3 SMZs in the project areas would be subject to harvest within them, following SMZ law and protecting non-merchantable trees. Due to the lack of connectivity and proximity to fish bearing streams here is very low risk of direct, in-direct or cumulative impacts to fish habitat or aquatic life.

**Fisheries Mitigations:** Fisheries Mitigations: Apply all BMP's for forest management activities concurrent with road construction, hauling and harvesting. Apply SMZ law to all streams within the project area and haul route.

**WILDLIFE:**

*Note:* There were no species of concern in this area as listed by the Montana Natural Heritage Program review.

**No-Action:** No appreciable changes to existing conditions would be anticipated, thus no habitat or species would be affected.

**Action Alternative (see Wildlife table below):**

| Wildlife   | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact be Mitigated? | Comment Number |
|--|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|  | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|  | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| <b>Threatened and Endangered Species</b>   |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| <b>Canada lynx</b><br>( <i>Felix lynx</i> )<br>Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 1              |
| <b>Wolverine</b><br>( <i>Gulo gulo</i> )   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 1              |
| <b>Sensitive Species</b>   |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| <b>Bald eagle</b><br>( <i>Haliaeetus leucocephalus</i> )<br>Habitat: Late-successional forest more than 1 mile                 | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 2              |

| Wildlife  | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact be Mitigated? | Comment Number |
|---|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|   | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|   | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| from open water   |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| <b>Black-tailed prairie dog</b><br>( <i>Cynomys ludovicianus</i> )<br>Habitat: grasslands, short-grass prairie, sagebrush semi-desert | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 2              |
| <b>Gray Wolf</b><br>( <i>Canis lupus</i> )<br>Habitat: Ample big game populations, security from human activities                     | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 2              |
| <b>Harlequin duck</b><br>( <i>Histrionicus histrionicus</i> )<br>Habitat: White-water streams, boulder and cobble substrates          | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 2              |
| <b>Mountain plover</b><br>( <i>Charadrius montanus</i> )<br>Habitat: short-grass prairie & prairie dog towns                          | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 2              |
| <b>Peregrine falcon</b><br>( <i>Falco peregrinus</i> )<br>Habitat: Cliff features near open foraging areas and/or wetlands            | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 2              |
| <b>Greater Sage grouse</b><br>( <i>Centrocercus urophasianus</i> )<br>Habitat: sagebrush semi-desert                                  | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 3              |
| <b>Townsend's big-eared bat</b><br>( <i>Plecotus townsendii</i> )<br>Habitat: Caves, caverns, old mines                               | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 2              |
| <b>Big Game Species</b>   |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| <b>Elk</b>  |        | X   |     |      |           | X   |     |      |            | X   |     |      | Y                        | 4              |
| <b>Whitetail</b>  |        | X   |     |      |           | X   |     |      |            | X   |     |      | Y                        | 4              |
| <b>Mule Deer</b>  |        | X   |     |      |           | X   |     |      |            | X   |     |      | Y                        | 4              |

| Wildlife        | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact be Mitigated? | Comment Number |   |
|-----------------|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|---|
|                 | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |   |
|                 | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |   |
| Other           |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |   |
| Red-tailed Hawk |        | X   |     |      |           | X   |     |      |            | X   |     |      |                          | Y              | 5 |

*Comments:*

- (1) The project area occurs outside of the normal distribution of Canada Lynx and Wolverine in Montana. Thus, no direct, secondary or cumulative effects to these species would be anticipated.
- (2) The project area is either out of the range of the normal distribution for this species or suitable habitat is not present. Thus, no direct, secondary or cumulative effects would be anticipated.
- (3) The project area is not located in Greater Sage Grouse general habitat or core habitat and the nearest known lek site occurs ~8.5 miles southeast of the project area (survey date 1999).
- (4) For Big game species, the project duration would be short and ample hiding cover and winter cover would be retained in thinned stands. Disturbance associated with thinning activities could temporarily displace individual animals in the area, however the project would be short in duration. There is no public access to the project area. Thus minor adverse direct, secondary, and cumulative effects to these species would be expected.
- (5) During field reconnaissance for the project in summer 2015, a red-tailed hawk was encountered that was exhibiting territorial, protective behavior. It is presumed that the bird was defending a nest site, however a nest was not detected. Additional efforts will be made during the 2016 field season to locate the nest. If found, a DNRC wildlife biologist will be consulted and additional retention of leave trees would be required near the nest site. Activity restrictions would also be established within ¼ of nesting birds as necessary from June 16 to August 15.

*Wildlife Mitigations:*

-A minimum of one snag and one snag recruitment tree per acre, of the largest diameter class, would be retained. Cull live trees and cull snags would be retained where possible given human safety considerations.

-Maintain screening cover along riparian areas.

-Retain coarse woody debris amounts in harvest units following recommendations of Graham et al. (1994) (i.e., 5 – 10 tons of coarse woody debris per acre).

-Contact DNRC wildlife biologist should any threatened or endangered species be encountered within the proposed project area.

-Contact DNRC wildlife biologist should an active raptor nest be encountered within ½ mile of the proposed project area.

-Retain forest cover in draw features and along ridge tops to the extent practicable to provide habitat connectivity and security for wildlife.

-Maintain security by minimizing new road construction and effectively closing roads following completion of project activities.

**AIR QUALITY:**

| Air Quality      | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|------------------|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|                  | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|                  | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| <b>No-Action</b> |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Smoke            | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Dust             | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| <b>Action</b>    |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Smoke            |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Dust             |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 2              |

**Air Quality Comments:**

1) Under the Action Alternative, slash piles consisting of tree limbs and tops and other vegetative debris would be created throughout the project area during harvesting. These slash piles would ultimately be burned after harvesting operations have been completed.

The project area is located within Montana Airshed Group 9 which encompasses major portions of eastern Montana. Few residential properties are found within the vicinity of this project.

(2) Harvesting and hauling logs could create dust, which may affect local air quality. However, because dust would be localized to skid trails and haul roads and operating seasons would be short in duration, effects to air quality as a result of dust generated during harvest activities are expected to be low.

**Air Quality Mitigations:**

- Burning within the project area would be short in duration and would be conducted when conditions favored good to excellent ventilation and smoke dispersion as determined by the Montana Department of Environmental Quality and the Montana/Idaho Airshed Group.
- The DNRC, as a member of the Montana/Idaho Airshed Group, would burn only on approved days.

**ARCHAEOLOGICAL SITES / AESTHETICS / DEMANDS ON ENVIRONMENTAL RESOURCES:**

| Will the No-Action or Action Alternatives result in potential impacts to: | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|---|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|   | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|   | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| <b>No-Action</b>  |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |

| Will the No-Action or Action Alternatives result in potential impacts to: | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|---|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|   | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|   | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| Historical or Archaeological Sites  | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 1              |
| Aesthetics  | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Demands on Environmental Resources of Land, Water, or Energy              | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| <b>Action</b>   |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Historical or Archaeological Sites  | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Aesthetics  | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Demands on Environmental Resources of Land, Water, or Energy              | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |

**Comments:**

- Scoping letters were sent to those Tribes that requested to be notified of DNRC timber sales. No response was returned that identified a specific cultural resource issue. A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search results revealed that no cultural or paleontological resources have been identified in the APE, but it should be noted that Class III level inventory work has not been conducted there to date.

Because the topographic setting and geology suggest a low to moderate likelihood of the presence of cultural or paleontologic resources, proposed timber harvest activities are expected to have No Effect to Antiquities. No archaeological investigative work is planned in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

**Mitigations:**

- Based on the lack of previously identified cultural resources, DNRC Archaeologist Patrick Rennie did not recommend additional investigative work. If any archaeological sites are found, they would be protected. No direct, indirect, or cumulative effects to cultural resources are expected as a result of the proposed action.

**OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:** *List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

- None

## Impacts on the Human Population

Evaluation of the impacts on the proposed action including **direct, secondary, and cumulative** impacts on the Human Population.

| Will the No-Action or Action Alternatives result in potential impacts to: | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|---|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|   | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|   | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| <b>No-Action</b>  |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Health and Human Safety   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Industrial, Commercial and Agricultural Activities and Production         | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Quantity and Distribution of Employment                                   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Local Tax Base and Tax Revenues   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Demand for Government Services  | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Access To and Quality of Recreational and Wilderness Activities           | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Density and Distribution of population and housing                        | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Social Structures and Mores   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Cultural Uniqueness and Diversity   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| <b>Action</b>   |        |     |     |      |           |     |     |      |            |     |     |      |                          |                |
| Health and Human Safety   |        | X   |     |      |           | X   |     |      |            | X   |     |      | Yes                      | 1              |
| Industrial, Commercial and Agricultural Activities and Production         | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Quantity and Distribution of Employment                                   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Local Tax Base and Tax Revenues   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Demand for Government Services  | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |

| Will the No-Action or Action Alternatives result in potential impacts to: | Impact |     |     |      |           |     |     |      |            |     |     |      | Can Impact Be Mitigated? | Comment Number |
|---|--------|-----|-----|------|-----------|-----|-----|------|------------|-----|-----|------|--------------------------|----------------|
|   | Direct |     |     |      | Secondary |     |     |      | Cumulative |     |     |      |                          |                |
|   | No     | Low | Mod | High | No        | Low | Mod | High | No         | Low | Mod | High |                          |                |
| Access To and Quality of Recreational and Wilderness Activities           | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      | 2              |
| Density and Distribution of population and housing                        | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Social Structures and Mores   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |
| Cultural Uniqueness and Diversity   | X      |     |     |      | X         |     |     |      | X          |     |     |      | N/A                      |                |

*Comments:* (2) State Land associated with this project has no legal public access and would have no impact on the ability of the public to recreate on these lands.

*Mitigations:* (1) Signs at appropriate locations on county roads and access roads would be used to warn motorists and local residents. No harvests are being completed along public roads.

**Locally Adopted Environmental Plans and Goals:** *List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

- None

**Other Appropriate Social and Economic Circumstances:**

Costs, revenues and estimates of return are estimates intended for relative comparison of alternatives. They are not intended to be used as absolute estimates of return. The estimated stumpage is based on comparable sales analysis. This method compares recent sales to find a market value for stumpage. These sales have similar species, quality, average diameter, product mix, terrain, date of sale, distance from mills, road building and logging systems, terms of sale, or anything that could affect a buyer's willingness to pay.

**No Action:** The No Action alternative would not generate any return to the trust at this time.

**Action:** The timber harvest would generate additional revenue for the Common Schools Trust. The estimated return to the trust for the proposed harvest is \$14,241 based on an estimated harvest of 882 MBF (6,086 tons) and an overall stumpage value of \$2.34 per ton. Costs, revenues, and estimates of return are estimates intended for relative comparison of alternatives, they are not intended to be used as absolute estimates of return.

**References**

DNRC 1996. State Forest Land Management Plan: final environmental impact statement (and appendixes). Montana Department of Natural Resources and Conservation, Forest Management Bureau, Missoula, Montana.

DNRC. 2010. Montana Department of Natural Resources and Conservation Forested State Trust Lands Habitat Conservation Plan: Final EIS, Volume II, Forest Management Bureau, Missoula, Montana.

**Does the proposed action involve potential risks or adverse effects that are uncertain but extremely harmful if they were to occur?**

No

**Does the proposed action have impacts that are individually minor, but cumulatively significant or potentially significant?**

No

**Environmental Assessment Checklist Prepared By:**

**Name: Josh Stoychoff**  
**Title: NELO Forester**  
**Date: September 21, 2015**

**Finding**

**Alternative Selected**

Action Alternative

**Significance of Potential Impacts**

None

**Need for Further Environmental Analysis**

EIS

More Detailed EA

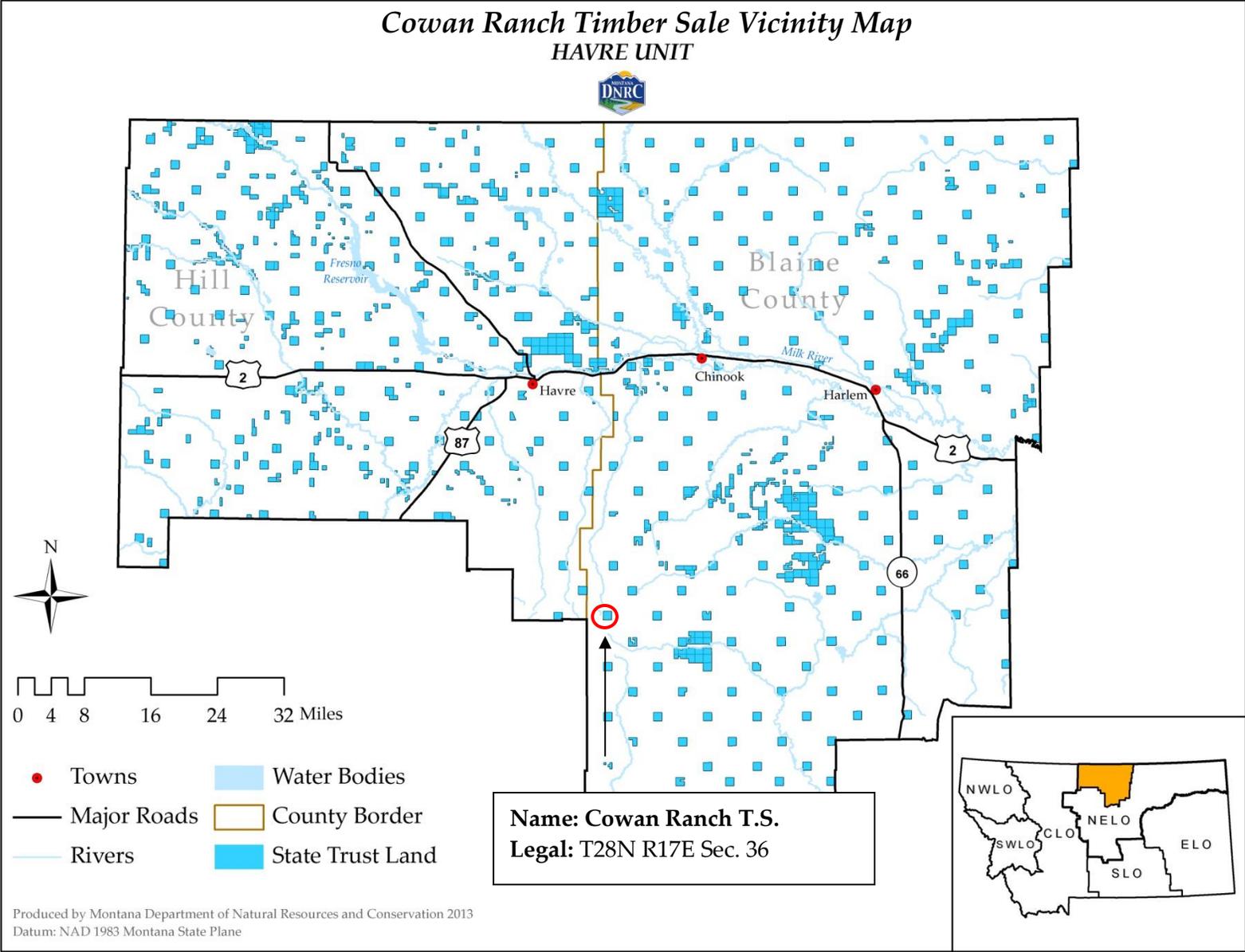
No Further Analysis

**Environmental Assessment Checklist Approved By:**

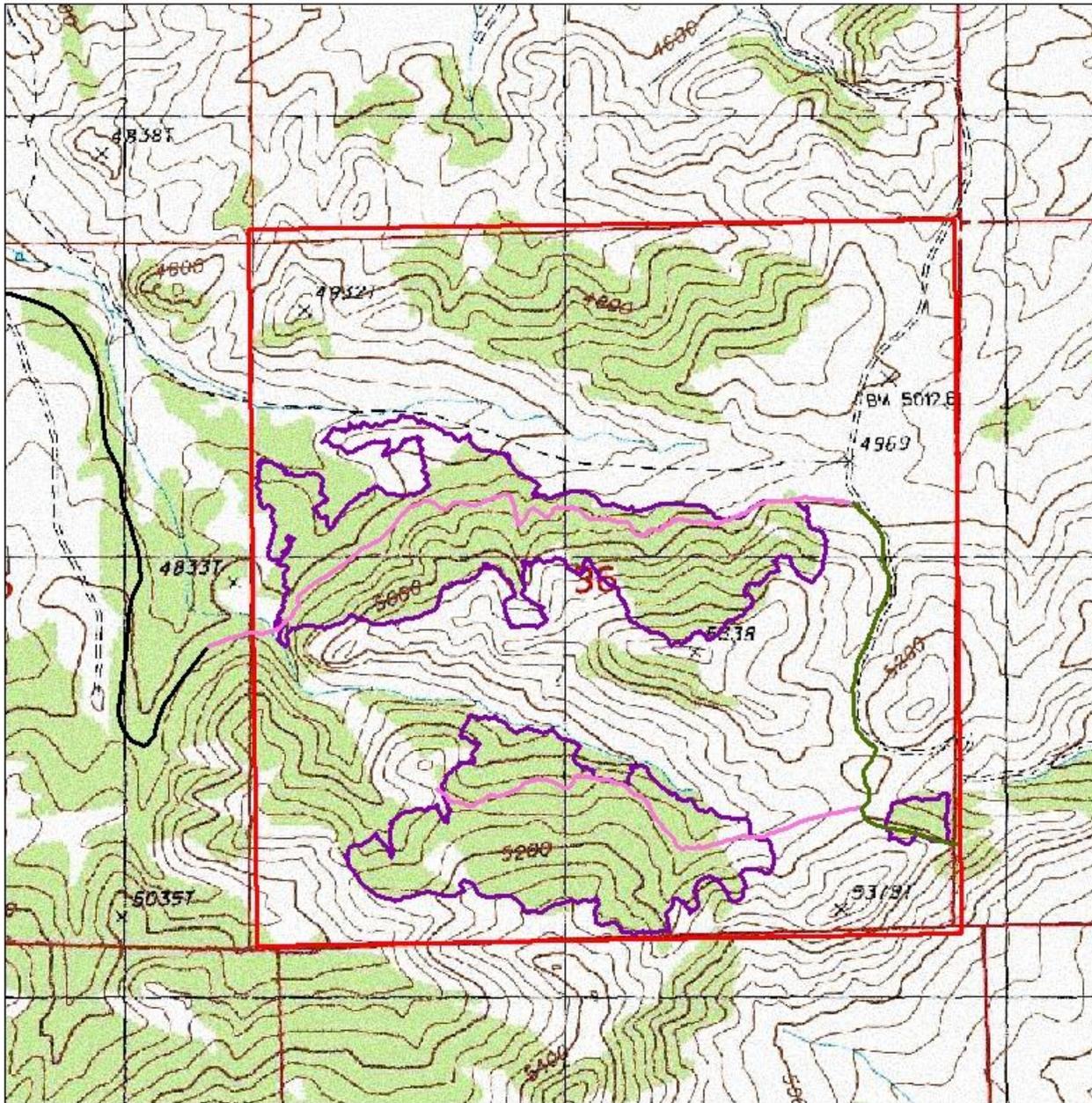
**Name: Clive Rooney**  
**Title: Northeastern Land Office Area Manager**  
**Date: November 16, 2015**  
**Signature: /s/ Clive Rooney**

## **Attachment A - Maps**

A-1: Timber Sale Vicinity Map



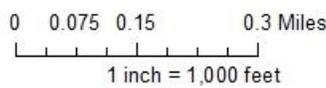
A-2: Timber Sale Harvest Units



**Legend**

-  ExistingRd
-  NewRoad
-  CowanAccessRd
-  Property Line
-  SouthUnitFinal
-  SECornerUnitFinal
-  MiddleunitFinal

**Cowan Ranch T.S.**  
Northeastern Land Office  
Section 36 T28N R17E



JRS 11/24/15