

**OPEN SPACE ADVISORY COMMITTEE
STAFF REPORT**

MEETING DATE: February 26, 2018

AGENDA ITEM NUMBER: 3J

STAFF: Ann Bollinger, Open Space Administrator

REQUEST: **For Possible Action:** To approve the annual monitoring report for the Horse Creek Ranch conservation easement for 2017.

GENERAL DISCUSSION: The Horsecreek Ranch Conservation Easement was purchased by Carson City in 2009 to protect the property from development. The Conservation Easement requires annual monitoring to ensure that the property is being maintained and continues in good condition. The initial assessment condition photos were taken in 2009 and each year staff takes new photos at the same locations for comparison. The 2017 monitoring visit was conducted on September 26, 2017. The areas that require continued monitoring are the lower drainage area, the cattle loafing area, and the channel headcut as well as a new small headcut. In addition, weed monitoring and removal is anticipated to continue into future years. Mr. Fagen has extended his invitation to scout troops or volunteers to assist in this effort. The property continues to be in good condition, and the full report is attached.

RECOMMENDED ACTION: I move to approve the annual monitoring report for the Horse Creek Ranch conservation easement for 2017.

Carson City Open Space – Conservation Easement Monitoring

Date: September 26, 2017

Start time: 8:00 a.m. depart from office

End time: 2:30 p.m. return to office

Monitor(s): Lyndsey Boyer & Ann Bollinger (Carson City)

Persons Attending Inspection (landowner or others): William Michael Fagen

Current Landowner(s): William Michael Fagen (William Michael Fagen 2005 Trust)

Mailing Address: P.O. Box 703 Zephyr Cove, 89448

Easement Address: APNs 007-051-82, 007-051-83, and 007-051-84. Located approximately 2.5 miles west of the paved terminus of Kings Canyon Road.

Easement size: 175.33 acres

Parcel size: 3 parcels, 201 acres total

On-site land use(s): Agricultural in the meadow, open sagebrush and forest in the plan.

Surrounding land uses(s): On west, north, and east, the lands are under public ownership by Carson City Open Space and the U.S. Forest Service. The land use consists of undeveloped, dispersed recreation. On the south, the lands are under private ownership and the land use continues as agricultural.

Conservation Easement, Exhibit C, Prohibited Uses and Practices

1. Impairment of Protected Values

No change. The landowner is in compliance.

2. Commercial or Industrial Use

No change. The landowner is in compliance.

3. Construction

No change. The landowner is in compliance.

4. Subdivision

No change. The landowner is in compliance.

5. Motorized Vehicles

No change. The landowner is in compliance.

Carson City Open Space – Conservation Easement Monitoring

6. Tree Cutting

No change. The landowner is in compliance.

7. Dumping

No change. The landowner is in compliance.

8. Soil Degradation

No change. The landowner is in compliance.

Near the southeast corner, one specific area is being monitored for landscape change. This low drainage area of the meadow appears to be vegetated and stable though a few isolated mounds or hummocks may be the result of cattle trampling. A qualitative assessment with the photo comparisons may be deceptive due to the time of year each photo was taken – either during the growing season or at the end of the season after grasses were grazed and/or senesced. Additionally, a new head cut was observed on the creek northeast of the cabins. This head cut is small in size currently (1 - 1.5 feet), but it should be monitored in future years to document change in size or location, as it could potentially migrate upstream.

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Carson City Open Space – Conservation Easement Monitoring

Photo Point: The photo of this drainage, located south of the cabins, has been included to document change and vegetation growth. N 39 07' 42.7" W 119 50' 10.2"

2010 Condition, photo taken November 1, 2010 (initial assessment – view west)



2017 Condition, photo taken September 26, 2017



Carson City Open Space – Conservation Easement Monitoring

2013 Condition, photo taken July 23, 2013 (initial assessment – view south)



2017 Condition, photo taken September 26, 2017



Carson City Open Space – Conservation Easement Monitoring

2013 Condition, photo taken July 23, 2013 (initial assessment – view south)



2017 Condition, photo taken September 26, 2017



Carson City Open Space – Conservation Easement Monitoring

Photo Point: The photo of this head cut, located northeast of the cabins, has been included to document stream channel changes and erosion. N 39 07' 51.0" W 119 50' 11.4"

2017 Condition, photo taken September 26, 2017 (view north)



Carson City Open Space – Conservation Easement Monitoring

9. Water Quality Degradation

No change. The landowner is in compliance.

It should be noted that specific measurements have never been taken to determine water quality. However, the average amount of surface water from Neal's Flume and two other springs is minimal and most of the water percolates into the ground to recharge the Carson City aquifer and/or reappear as groundwater discharge into Clear Creek. Due to these reasons, contamination from livestock grazing would be negligible.

10. Surface Alteration or Excavation

No change. The landowner is in compliance.

11. Fencing Restrictions

No change. The landowner is in compliance.

Additional Comments:

- Stewardship Account: There are no expenses to report. The account has a current balance of \$47,375.00.
- The irrigation ditch known as "Neal's Flume" was dry during this field monitoring. It should be noted that the Baseline Condition Report also commented that the ditch is not used during the minimum flow periods of the north fork of Clear Creek due to significant conveyance losses on the ditch. While the upper meadow at Horsecreek Ranch was not currently receiving water from Neal's Flume, two other springs were flowing and providing water to nearby areas. Additionally, the flume was heavily sedimented and may require future maintenance to maintain flow.
- The Pasture Utilization and Condition Assessment was conducted by Ms. Bollinger and Ms. Boyer, Open Space Administrator and Senior Natural Resource Specialist, respectively. This Pasture Utilization and Condition Assessment included a visual observation of the monitoring plot as described in the Baseline Condition Report. A diversity of pasture, wetland-associated, and invasive grasses (cheatgrass) exhibited various utilization levels depending on species. Overall, grazing appeared negligible and an average stubble height of 2 – 4" was recorded.

Carson City Open Space – Conservation Easement Monitoring

- Bull thistle remains present throughout the meadow. Mr. Fagen and staff are committed to working together towards the eradication. Mr. Fagen is receptive to volunteer projects to assist in the eradication effort; however, there is a short time frame for identification and removal (July-August). In 2017, a volunteer project was not able to be conducted due to saturated meadow conditions from significant precipitation received in the winter of 2017. In the future, staff will work with Mr. Fagen to coordinate an additional fall treatment to target overwintering rosettes, and potentially avoid access issues caused by saturated soil.
- The previous reports recommended the monitoring of the cattle loading area located just outside the gated entrance to the cabins with the goal to limit further expansion. The following documentation provides photo points and respective measurements. The disturbed area consists primarily of cheatgrass and foxtail barley although sagebrush is successfully re-establishing on the east edge of the disturbed area. It is important to note that depending on the timing of monitoring, cheatgrass abundance and cover varies indicating that cattle are likely grazing the cheatgrass.

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Carson City Open Space – Conservation Easement Monitoring

2013 Condition, photo taken July 23, 2013 (initial assessment – view south):
The bare area measures 157' north to south along the sagebrush.



2017 Condition, photo taken September 26, 2017:
The bare area measures 150' north to south along the sagebrush.



Carson City Open Space – Conservation Easement Monitoring

2013 Condition, photo taken July 23, 2013 (initial assessment – view west):
The bare area measures 145' east to west along the gravel road.



2017 Condition, photo taken September 26, 2017:
The bare area measures 147' east to west along the gravel road.



Carson City Open Space – Conservation Easement Monitoring

- One distribution box located approximately in the middle of the meadow is in complete disrepair. It was noted in the 2016 monitoring report that this box should be replaced prior to the next irrigation season, which has not yet been completed. In the future, the box will need to be replaced in order to regain functionality of this irrigation system.

2013 Condition, photo taken facing east July 23, 2013 (initial assessment)



2017 Condition, photo taken September 26, 2017



Carson City Open Space – Conservation Easement Monitoring

- In addition to monitoring and evaluating the current conditions related to the terms of the conservation easement, staff believes that it is important to document external factors that could potentially affect the future condition of the property. Specifically, mistletoe has been found in the conifer stands on one of the adjacent properties. The mistletoe infestations are being managed through the use of timber thinning. On Horse Creek Ranch, the Nevada Division of Forestry has begun development of a Forest Stewardship Plan, which includes an inventory, assessment, and recommended actions.

Summary:

The results of the 2017 audit of the Horsecreek Ranch Conservation Easement by Carson City demonstrate that the property generally continues to be in good condition and the landowner is in full compliance with both the letter and the spirit of the Easement. The report identifies two recommendations for active measures and likely coordination between Carson City and the landowner:

- 1) Replacement of the concrete distribution box
- 2) Continued removal of bull thistle

The landowner is cooperative about addressing, over time and in consideration of available resources, additional improvements to the conditions on the property in a joint effort with Carson City and other local agencies.

Written by: _____
Lyndsey Boyer Date

Reviewed by: _____
Ann Bollinger Date

Landowner: _____
William Michael Fagen Date

Carson City Open Space – Conservation Easement Monitoring

Please indicate the number of the following attachments to this report. Be sure to date and sign all materials and provide a description or map showing where on-site photos and illustrations were taken:

Aerial photos

Ground photos (digital or other)

- 13 ground photos – Within the Report
- 34 ground photos – Baseline Report Repeat Photo Documentation
- Digital photos taken, copied into a written report

Maps and illustrations

Other:

Date Inspection Report Sent To Landowner: February 12, 2018

Baseline Report Repeat Photo Documentation

Photo Point 1A (view northeast): A photo point located at the edge of the shrub dominated granitic fan and the irrigated meadow. This would be used to monitor shrub invasion into the meadow area indicating irrigation problems.

2009 Baseline Condition, photo taken February 4, 2009:
(GPS coordinate: N39° 08' 02.3" W119° 50' 11.8")



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 1B (view northwest): A photo point located at the edge of the shrub dominated granitic fan and the irrigated meadow. This would be used to monitor shrub invasion into the meadow area indicating irrigation problems.

2009 Baseline Condition, photo taken February 4, 2009:
(Photo possibly taken from the upper meadow, near the new GPS coordinate for Photo Point 2 updated in 2010: N39 07' 54.9" W119 50' 11.3")



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 2 (view south): A photo point located in bottom of the active stable drainage channel to the southeast of the house to monitor side slope stability.

2009 Baseline Condition, photo taken February 4, 2009:
(GPS coordinate updated in 2010: N39 07' 54.9" W119 50' 11.3")



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 3 (view south): A photo point located immediately east of the house in the active channel where rip-rap has been placed for stabilization.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 4A (view north): A photo point located at the most northern active headcut after required stabilization to monitor effectiveness.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 4B (detail): A photo point located at the most northern active headcut after required stabilization to monitor effectiveness.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 4C (detail): A photo point located at the most northern active headcut after required stabilization to monitor effectiveness.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



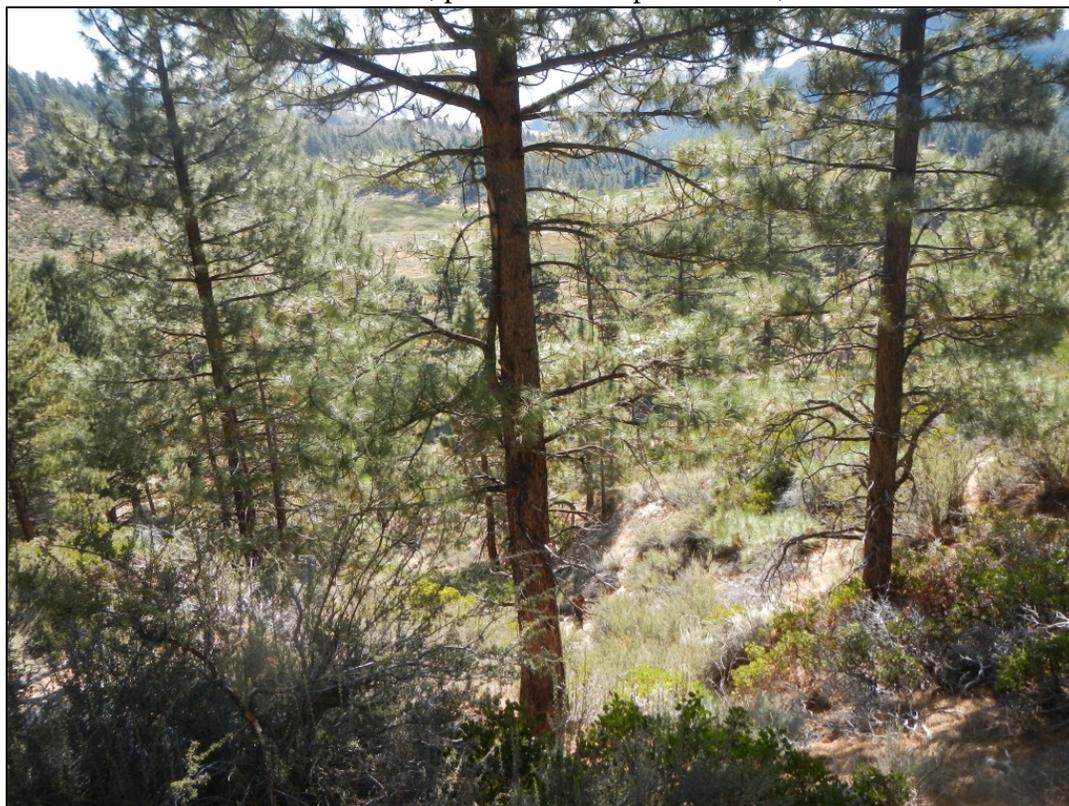
Baseline Report Repeat Photo Documentation

Photo Point 5 (view east): A photo point on the hillside conveyance ditch at a location where a previous washout has occurred to monitor ditch maintenance.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 6A (view north): A photo point from the Kings Canyon Road that would provide panoramic views of the ranch from a west to east perspective.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 6B (view center): A photo point from the Kings Canyon Road that would provide panoramic views of the ranch from a west to east perspective.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Photo Point 6C (view south): A photo point from the Kings Canyon Road that would provide panoramic views of the ranch from a west to east perspective.

2009 Baseline Condition, photo taken February 4, 2009



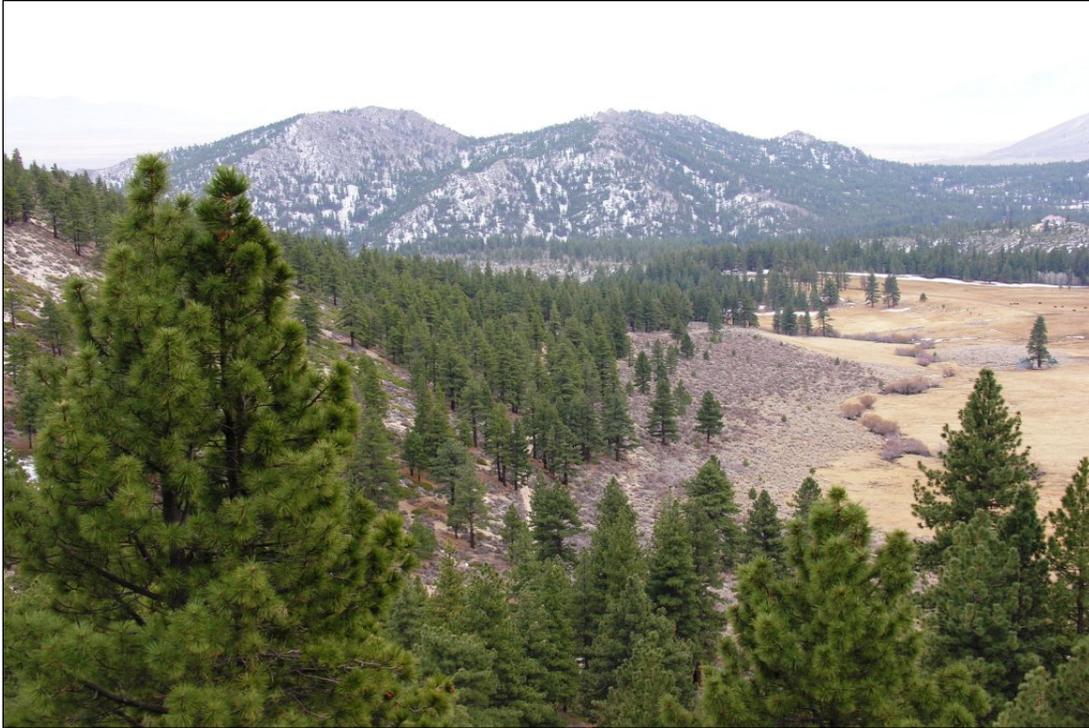
2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 7A (view southeast): A photo point from Kings Canyon Road that would provide panoramic views of the ranch from a north to south perspective.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 7B (view south): A photo point from Kings Canyon Road that would provide panoramic views of the ranch from a north to south perspective.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 7C (view southwest): A photo point from Kings Canyon Road that would provide panoramic views of the ranch from a north to south perspective.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 8A (view northwest): A photo point overlooking the meadow from the east to the west located next to the property corner along the new road.

2009 Baseline Condition, photo taken February 4, 2009



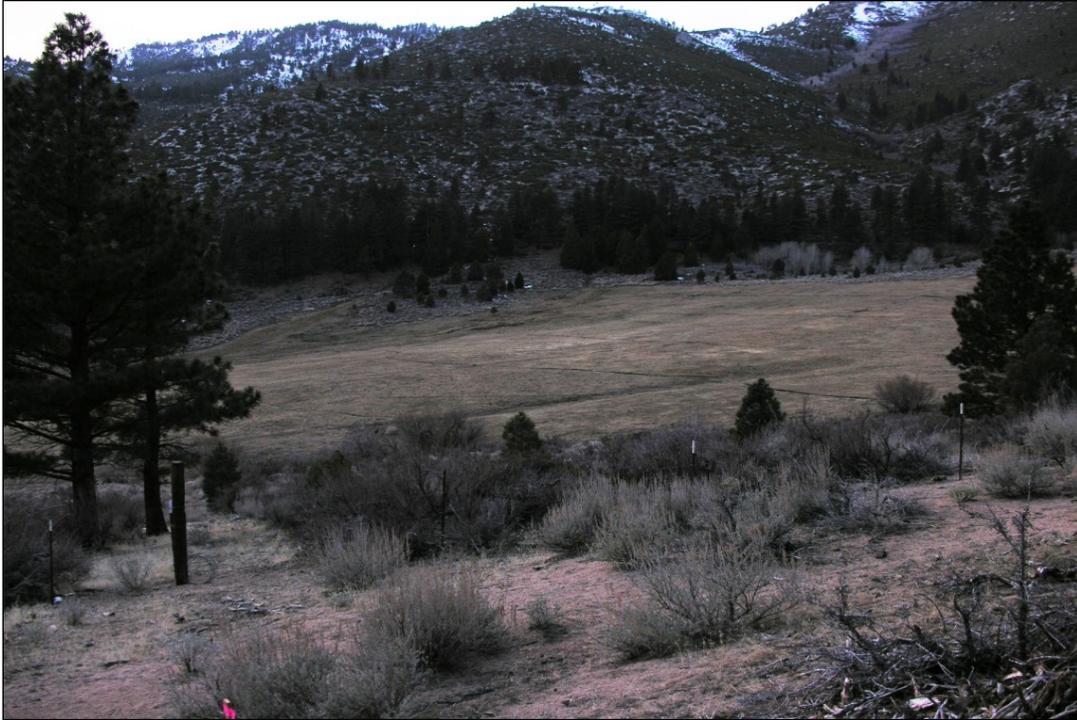
2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 8B (view west): A photo point overlooking the meadow from the east to the west located next to the property corner along the new road.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017



Baseline Report Repeat Photo Documentation

Photo Point 9: A permanently marked 100' x 100' area to monitor pasture condition. This annual inventory will be used to monitor not only pasture condition but irrigation efficiency, vegetative response to drought and appropriate livestock utilization.

2009 Baseline Condition, photo taken February 4, 2009



2017 Condition, photo taken September 26, 2017

