

2019 Broomfield Bald Eagle Watch Data Sheet

| Site Code | Date | Start Time | End Time | Observer | Observation Pt. | Sky Code |
|-----------|----------|------------|-----------|----------|-----------------|----------|
| SL | 2/4/2019 | 8:00 | 12:00 | AJS | A | PC |
| Noise | | Start | End | Temp (F) | | |
| | | 52.0-57.3 | 50.8-57.3 | 43° 46° | | |

| | |
|--------------------------------------|---|
| Number of adult Bald Eagles detected | 2 |
| Number of nestlings detected | |
| Number of fledglings detected | |

| Behaviors ^A |
|-------------------------------|
| P- Perched ¹ (A) |
| NI - Nest Incubating (L) |
| NB - Nest Brooding (1) |
| NC - Nest Const/Maint. (D) |
| FS - Feeding Self (C) |
| FY - Feeding Young (M) |
| PR - Preening (B) |
| BR - Branching |
| FL - Fledging |
| SL - Sleeping (E) |
| AI - Aggressive Interact. (F) |
| Fly - to/from Nest/Perch (7) |
| TE- Territory Flight (8) |
| NV - Not Visible (9) |
| C - Courtship (G) |
| Cop - Copulate (H) |

| Disturbance Indicators (DI) | |
|-----------------------------|--|
| 1 | Staring Intently |
| 2 | Raised hackles |
| 3 | Alert posture |
| 4 | Distress calls ² (three distinctive calls of nesting birds in response to humans) <ul style="list-style-type: none"> a. "chatter call" à 3-4 intro notes w/ short gasps of silence (<1s) followed by rapid sequence of descending notes, usually 6-9 notes (kwit kwit kwit kwit kee-kee-kee-kee) b. "peal" high-pitched, prolonged, gull-like cry, repeated 3-5 times c. "wails" (rare) |
| 5 | Flushing |
| 6* | Standing over their eggs (For an extended period > 10 min. notify super; > 20 minutes Stop Work) |
| 7* | Standing on the side of nest (For an extended period > 10 min notify super; > 20 minutes Stop Work) |
| 8* | Absence from the nest for an extended period |
| 9 | Direct flight toward construction, particularly if vocalizing while flying |
| 10 | Vocalization during flight in the vicinity of construction |

² Any distress call must be investigated to determine cause and **any construction or human activity that may be responsible for the distress call, must be halted or modified immediately.**

*. Applies to incubation /brooding periods - once chicks hatch standing in or on the side of the nest is normal. Absence from nest also common

^A. The alpha-numeric codes in parenthesis correspond to FRNBES behavior codes

Please include additional notes and comments below:

An adult bald eagle (A1) was observed perched in the nest at the start of the survey, but flew from the nest after the first minute of the survey. A1 then flew to a branch on the nest tree. While A1 was perched, A2 flew to the nest tree and vocalized. A2 then flew to the west. A1 and A2 flew to the nest and began adding sticks to the nest. A2 then flew to the ground, and then to a bush below the nest tree. A2 flew back to the ground and picked up a stick, carrying it back to the nest. A1 and A2 continued adding sticks to the nest. A1 then moved to a branch in the nest tree. A2 moved to a branch in the nest tree and A1 moved to the nest. A1 continued adding sticks to the nest. A1 and A2 then flew to a branch on the nest tree and copulated. A2 then moved to a different branch on the nest tree. While the eagles were perched in the nest tree, a resident came by and asked questions. While talking to the resident, the eagles moved out of sight and were not observed for the remainder of the survey. Moderate construction was performed for the duration of the survey in Zones A and B, and consisted of framing buildings. Construction noise included hammering and drilling.

| Plumage |
|---------------|
| Y - Young |
| JU - Juvenile |
| SU- Sub Adult |
| AD- Adult |

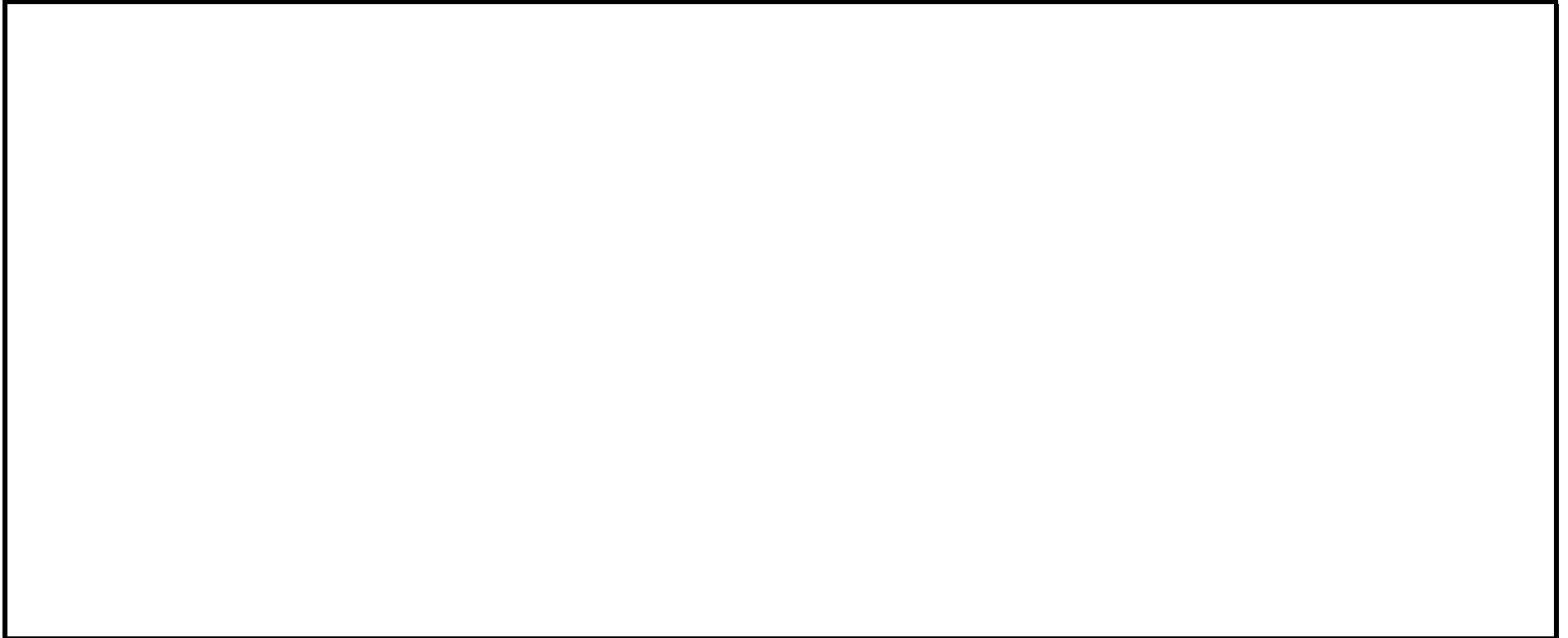
| Eagle ID Examples |
|--------------------|
| A1 - Adult 1 |
| A2 - Adult 2 |
| Y1 - First Eaglet |
| Y2 - Second Eaglet |
| Y3- Third Eaglet |

| Sky Codes | |
|-----------|---------------|
| CL | Clear |
| PC | Partly Cloudy |
| OC | Overcast |
| DR | Drizzle |
| RA | Rain |
| SN | Snow |
| SL | Sleet/hail |
| FH | Fog/Haze |

| Wind Codes | Speed (mph) | Description |
|------------|-------------|---|
| 0 | 0 | Smoke rises vertically |
| 1 | 1-3 | Wind direction visible in smoke |
| 2 | 4-7 | Wind felt on face, leaves rustle |
| 3 | 8-12 | Leaves and smaller twigs in constant motion |
| 4 | 13-18 | Small branches sway |
| 5 | 19-24 | Smaller trees sway |
| 6 | 25-31 | Large branches in motion |
| 6+ | 31+ | Whole trees in motion |

Used as a back-up to anemometer

Photo (s)



| Time (Continuous) | 3 min. obs. | Behavior | | | | | Disturbance ³ | | Notes /comments/Loc ² | Wind | |
|----------------------|----------------|----------|-----|----|----|----|--------------------------|----|--|------|------|
| | | A1 | A2 | Y1 | Y2 | Y3 | Type | DI | | Spd. | Dir. |
| 8:00 | 0 | P1 | | | | | constr. | | A1 perched in nest. | | |
| 8:01 | | Fly | | | | | constr. | | A1 flew from nest. | | |
| | 8:03 | NV | | | | | constr. | | No eagles observed. | 3.98 | W |
| | 8:06 | NV | | | | | constr. | | No change. | | |
| | 8:09 | NV | | | | | constr. | | No change. | | |
| | 8:12 | NV | | | | | constr. | | No change. | | |
| | 8:15 | NV | | | | | constr. | | No change. | | |
| | 8:18 | NV | | | | | constr. | | No change. | | |
| | 8:21 | NV | | | | | constr. | | No change. | | |
| | 8:24 | NV | | | | | constr. | | No change. | | |
| | 8:27 | NV | | | | | constr. | | No change. | | |
| | 8:30 | NV | | | | | constr. | | No change. | 2.98 | NW |
| | 8:33 | NV | | | | | constr. | | No change. | | |
| | 8:36 | NV | | | | | constr. | | No change. | | |
| | 8:39 | NV | | | | | constr. | | No change. | | |
| | 8:42 | NV | | | | | constr. | | No change. | | |
| | 8:45 | NV | | | | | constr. | | No change. | | |
| | 8:48 | NV | | | | | constr. | | No change. | | |
| | 8:51 | NV | | | | | constr. | | No change. | | |
| | 8:54 | NV | | | | | constr. | | No change. | | |
| | 8:57 | NV | | | | | constr. | | No change. | | |
| | 9:00 | NV | | | | | constr. | | No change. | 4.23 | W |
| | 9:03 | NV | | | | | constr. | | No change. | | |
| | 9:06 | NV | | | | | constr. | | No change. | | |
| | 9:09 | NV | | | | | constr. | | No change. | | |
| 9:10 | | Fly | | | | | constr. | | A1 flew to nest tree. | | |
| | 9:12 | P2 | | | | | constr. | | A1 perched in nest tree. | | |
| 9:14 | | P2 | Fly | | | | constr. | | A2 flew to nest tree and vocalized; A1 remained perched on branch. | | |
| | 9:15 | P2 | P2 | | | | constr. | | A1 and A2 perched in nest tree. | | |

¹ Perch type = 1. On nest; 2. In nest tree (outside of nest); 3. < 50 m. outside of nest tree; 4. >51-200 m from nest; 5. 201-1000 m. from nest; 6. >1k from nest. mark locations on attached map

³ Mark disturbance on BBC property on attached map (Figure 2)

Disturbance Type includes: construction, highway/traffic, train, aircraft, pedestrians, horseback riders, other

| Time (Continuous) | 3 min. obs. | Behavior | | | | | Disturbance ³ | | Notes /comments/Loc ² | Wind | |
|----------------------|----------------|----------|-----|----|----|----|--------------------------|----|---|-------|------|
| | | A1 | A2 | Y1 | Y2 | Y3 | Type | DI | | Spd. | Dir. |
| | 9:18 | P2 | P2 | | | | constr. | | A1 and A2 perched in nest tree. | | |
| 9:20 | | P2 | P2 | | | | constr. | | A1 vocalized; A2 remained perched in nest tree. | | |
| | 9:21 | P2 | P2 | | | | constr. | | A1 and A2 perched in nest tree. | | |
| | 9:24 | P2 | Fly | | | | constr. | | A2 flew to the west. | | |
| 9:25 | | NC | NC | | | | constr. | | A1 and A2 flew to the nest, and began adding sticks to nest. | | |
| | 9:27 | NC | NC | | | | constr. | | A1 and A2 added sticks to nest. | | |
| | 9:30 | P1 | P1 | | | | constr. | | A1 and A2 perched in nest. | 13.78 | SE |
| | 9:33 | P1 | P1 | | | | constr. | | No change. | | |
| | 9:36 | P1 | P1 | | | | constr. | | No change. | | |
| | 9:39 | P1 | P1 | | | | constr. | | No change. | | |
| 9:41 | | NC | P1 | | | | constr. | | A1 began adding sticks to nest. | | |
| | 9:42 | P1 | P1 | | | | constr. | | A1 and A2 perched in nest. | | |
| | 9:45 | P1 | P1 | | | | constr. | | No change. | | |
| | 9:48 | P1 | P1 | | | | constr. | | No change. | | |
| 9:50 | | NC | P1 | | | | Plane flies | | Plane flew over; A1 began adding sticks to nest; A2 remained perched. | | |
| | 9:51 | P1 | P1 | | | | Plane flies | | A1 and A2 perched in nest. | | |
| | 9:54 | P1 | P1 | | | | constr. | | No change. | | |
| | 9:57 | P1 | P1 | | | | constr. | | No change. | | |
| | 10:00 | P1 | P1 | | | | constr. | | No change. | 13.27 | SE |
| | 10:03 | P1 | P1 | | | | constr. | | No change. | | |
| | 10:06 | NC | P1 | | | | constr. | | A1 began adding sticks to nest; A2 remained perched in nest. | | |
| 10:07 | | P1 | Fly | | | | constr. | | A2 flew to the ground; A1 remained perched in nest. | | |
| | 10:09 | P1 | Fly | | | | constr. | | A2 flew to a bush below the nest tree; A1 remained perched in the nest. | | |
| | 10:12 | P1 | P3 | | | | constr. | | A2 perched on the bush; A1 perched in the nest. | | |
| 10:14 | | P1 | Fly | | | | constr. | | A2 flew to the ground and grabbed a stick; A1 remained perched in nest. | | |
| | 10:15 | P1 | Fly | | | | constr. | | A2 flew to the nest with a stick; A1 remained perched in the nest. | | |
| 10:16 | | Fly | NC | | | | constr. | | A1 and A2 added sticks to nest; A1 flew to branch in nest tree. | | |
| | 10:18 | P2 | P1 | | | | constr. | | A1 perched on branch in nest tree; A2 perched in nest. | | |
| 10:20 | | Fly | Fly | | | | constr. | | A2 moved to branch adjacent to nest; A1 moved to nest. | | |
| | 10:21 | NC | P2 | | | | constr. | | A1 added sticks to nest; A2 remained perched on a branch in nest tree. | | |
| | 10:24 | P1 | P2 | | | | constr. | | A1 perched in nest; A2 remained perched on branch. | | |
| | 10:27 | P1 | P2 | | | | constr. | | No change. | | |

| Time (Continuous) | 3 min. obs. | Behavior | | | | | Disturbance ³ | | Notes /comments/Loc ² | Wind | |
|----------------------|----------------|----------|-----|----|----|----|--------------------------|----|---|-------|------|
| | | A1 | A2 | Y1 | Y2 | Y3 | Type | DI | | Spd. | Dir. |
| | 10:30 | P1 | P2 | | | | constr. | | No change. | 9.84 | SE |
| | 10:33 | P1 | P2 | | | | constr. | | No change. | | |
| | 10:36 | P1 | P2 | | | | constr. | | No change. | | |
| | 10:39 | P1 | P2 | | | | constr. | | No change. | | |
| | 10:42 | P1 | P2 | | | | Geese fly | | No change. | | |
| | 10:45 | P1 | P2 | | | | constr. | | No change. | | |
| 10:46 | | P1 | P2 | | | | Plane flies | | Plane flew overhead. No response from eagles. | | |
| | 10:48 | P1 | P2 | | | | constr. | | A1 perched in nest; A2 remained perched on branch. | | |
| | 10:51 | P1 | P2 | | | | constr. | | No change. | | |
| | 10:54 | P1 | P2 | | | | constr. | | No change. | | |
| | 10:57 | P1 | P2 | | | | constr. | | No change. | | |
| | 11:00 | P1 | P2 | | | | constr. | | No change. | 10.38 | SE |
| | 11:03 | P1 | P2 | | | | constr. | | No change. | | |
| | 11:06 | P1 | P2 | | | | constr. | | No change. | | |
| | 11:09 | P1 | P2 | | | | constr. | | No change. | | |
| | 11:12 | P1 | P2 | | | | constr. | | No change. | | |
| | 11:15 | P1 | P2 | | | | constr. | | No change. | | |
| 11:17 | | Cop | Cop | | | | constr. | | A1/A2 flew to branch on nest tree; copulated. A2 moved to lower branch. | | |
| | 11:18 | P2 | P2 | | | | constr. | | A1 and A2 perched on separate branches in the nest tree. | | |
| | 11:21 | P2 | P2 | | | | constr. | | No change. | | |
| | 11:24 | P2 | P2 | | | | constr. | | No change. | | |
| 11:26 | | PR | P2 | | | | Plane flies | | Plane flew over; A1 preened self; A2 remained perched. | | |
| | 11:27 | P2 | P2 | | | | constr. | | A1 and A2 perched on separate branches in the nest tree. | | |
| | 11:30 | P2 | P2 | | | | constr. | | No change. | 14.03 | NW |
| | 11:33 | P2 | P2 | | | | constr. | | No change. | | |
| | 11:36 | P2 | P2 | | | | constr. | | No change. | | |
| | 11:39 | P2 | P2 | | | | constr. | | No change. | | |
| 11:40 | | NV | NV | | | | constr. | | Stopped to talk to resident; lost sight of eagles. | | |
| | 11:42 | NV | NV | | | | constr. | | No eagles observed. | | |
| | 11:45 | NV | NV | | | | constr. | | No change. | | |
| | 11:48 | NV | NV | | | | constr. | | No change. | | |
| | 11:51 | NV | NV | | | | constr. | | No change. | | |

