RIDGE ENVIRONMENTAL PLANNING LTD

To: Deighen Blakely – Flood Resiliency Program

Reference: Preconstruction Bird/Nest and Wildlife Search – Newcastle

CC: Jonathan Peterson, Klohn Crippen Berger

Date: April 16, 2024

From: Kelsey Morin, P. Biol., QEP

The following memo details findings from the nest/bird search completed on April 15, 2024 for The Town of Drumheller (the Town) for ground disturbance and other maintenance work for the Newcastle Berm as part of the Drumheller Flood Resiliency Program along the Red Deer River in Drumheller, Alberta.

INTRODUCTION

On April 15, 2023, Kelsey Morin performed an intensive pre-construction survey for nesting and denning wildlife at work areas planned as part of the Newcastle Berm maintenance work (the Project) based on information provided by the Town on April 11, 2024, and KCB on April 12, 2024. Tree removal may be required within Newcastle Park. The wildlife sweep areas included a search of suitable nesting or denning habitat within each work area, access routes and a suitable buffer. Buffers were determined based on habitat, the anticipated level of disturbance form planned activities, and the level of existing disturbance within the work areas (e.g., existing road traffic, agriculture activity). Project location areas details are shown in **Figure 1.** Sweep tracks are in **Appendix A**.

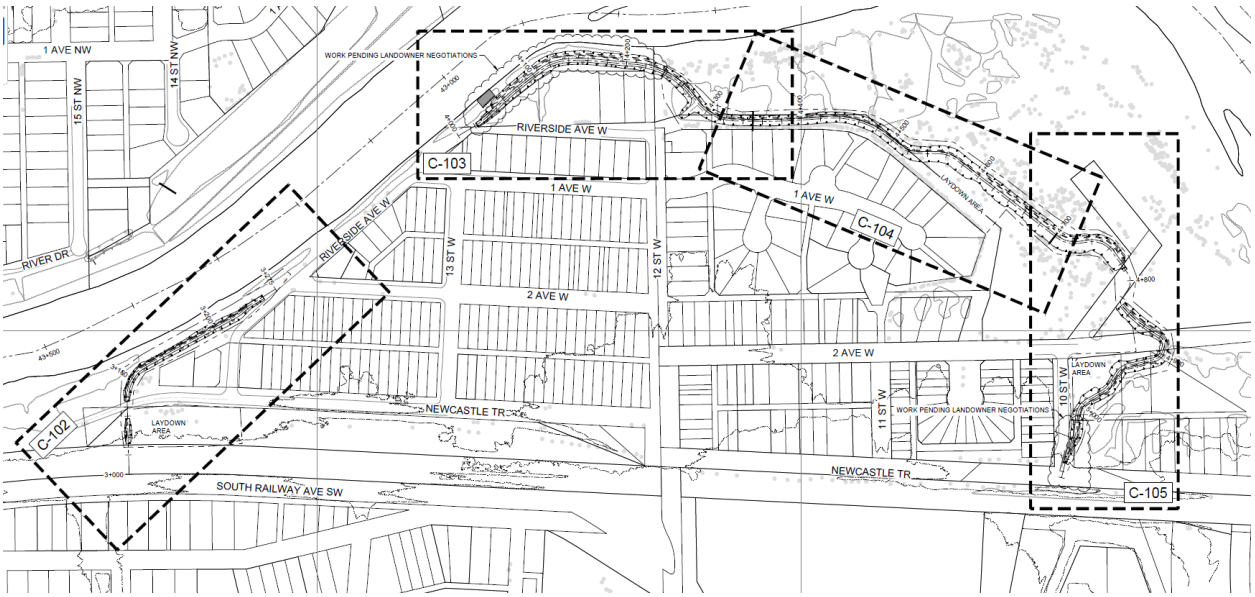


Figure 1 - Project Area

The nest search areas included a search of suitable nesting habitat in the work areas throughout the Project limits. The search area was determined according to the project area provided by The Town (**Figure 1**) and includes a buffer as appropriate given existing disturbances, habitat types, and proposed work activities. The nest search followed Government of Alberta (i.e., Alberta Environment and Parks [AEP]) recommendations for ground-based wildlife surveys and Ridge Environmental Planning Standard Operating Procedures for bird nest searches.

The nests of most birds are protected federally under the *Migratory Birds Convention Act,* 1994 (MBCA), and provincially under the Alberta *Wildlife Act*, 2000 (AWA). To mitigate risk of incidental take (i.e., inadvertent harming, killing, disturbance or destruction of birds, nests, and eggs) for construction activities occurring within bird nesting periods, a nest search can be conducted to confirm locations of nesting birds and allow for the implementation of mitigation measures (e.g., setback buffers, timing guidelines). Recommended mitigations are primarily based on Environment and Climate Change Canada's guidance to avoid risk of incidental take of migratory birds (ECCC 2020).

Considering the different jurisdictional guidelines and legislation providing protection for bird nests, the recommended project-specific Restricted Activity Period (RAP) is from March 1 to August 31, considering:

1. The migratory bird Primary Nesting Period (PNP) for Region B4 (April 15 to August 31; ECCC 2018).
2. Provincial RAP for migratory birds (April 15 to August 15; GoA 2021).
3. Provincial RAP for raptors (March 1 to July 15; ASRD 2011; GoA 2021).

SEARCH AREA

The search area encompassed proposed work areas as provided by the Town and KCB plus a 10-to-30-meter buffer. All work activities are contained within the existing ROW. Buffer widths were determined in consideration of the existing types, position, and level of disturbance within the immediate area (i.e., roads/ditches, trail tracks, and adjacent private property). All areas where construction activities will take place were thoroughly inspected for wildlife concerns.

The Project area occurs within the Northern Fescue subregion of the Grasslands Natural Region of Alberta. Key Features of this region include dry southern prairies dominated by drought-tolerant grasses, shrubs, and herbs. Trees are absent except along rivers or in deep coulees where subsurface water is available. (GoA 2006)

Representative photographs of all habitat types are attached.

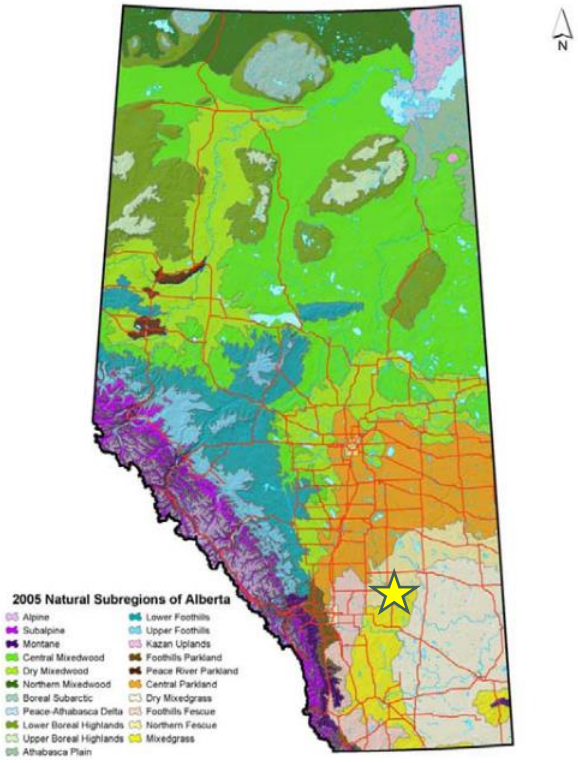


Figure 2 - Natural Subregions of Alberta (GoA 2006)

METHODS

Nest searches were conducted using a combination of passive detection techniques (observing bird behavior and listening for bird song or calls) and systematically walking the search area to observe nests and nesting behavior. A nest can be confirmed by physically observing the nest structure (often identified by a flushing bird), or by observation of breeding behavior (e.g., auditory signs [singing males, alarm calls, defense calls, screeching, begging vocalizations by nestlings]; distraction displays; nest defense behaviors [e.g., diving]; birds carrying nesting material, food or fecal sacs; observation of nestlings or fledglings; or repeated flying towards a specific location). All nests and evidence of breeding activity, as well as all bird species observed and heard during the nest search were recorded. Incidental observations of other wildlife were also recorded.

RESULTS

Weather conditions were good for conducting nest searches – overcast and no wind with the temperature ranging from 6 to 8°C.

Vegetation on the west end of the berm was dormant and primarily leaf off. Vegetation consisted primarily of manicured lawn and newly seeded ground. Buffer areas consisted of manicured park, ornamental coniferous trees, mature cottonwood trees (*Populus spp.*), balsam poplar (*Populus balsamifera),* western snowberry (*Symphoricarpos occidentalis)*, narrowleaf willow (*Salix exigua),* red osier dogwood (*Cornus sericea),* and tansy (*Tanacetum vulgare)*.

Inactive cavities were found throughout the project area, in addition to an inactive stick nest within Newcastle Park (51.46449, -112.72937). A herd of four mule deer *(Odocoileus hemionus)* was observed in a vegetated area adjacent to the entrance of Newcastle Park (51.46395, -112 72922).

Evidence of the following wildlife species were incidentally observed including vocalization, direct observation, tracks or other signs within the search area:

Table 1 - Species observed during bird sweep on April 15, 2024

COMMON NAME	SCIENTIFIC NAME	STATUS		
		AEP	COSEWIC	SARA
American Tree Sparrow	*Spizelloides arborea*	Secure	-	-
American Robin	*Turdus migratorius*	Secure	-	-
American Crow	*Corvus brachyrhynchos*	Secure	-	-
Black-billed Magpie	*Pica hudsonia*	Secure	-	-
Blue Jay	*Cyanocitta cristata*	Secure	-	-
Black-capped Chickadee	*Poecile atricapillus*	Secure	-	-
Bufflehead	*Bucephala albeola*	Secure	-	-
Canda Goose	*Branta canadensis*	Secure	-	-
Dark-eyed Junco	*Junco hyemalis*	Secure	-	-
Downy Woodpecker	*Dryobates pubescens*	Secure	-	-
European Starling	*Sturnus vulgaris*	Alien	-	-

COMMON NAME	SCIENTIFIC NAME	STATUS		
		AEP	COSEWIC	SARA
Great Blue Heron	*Ardea Herodias*	Sensitive	Special Concern	Schedule 1 – Special Concern
House Sparrow	*Passer domesticus*	Alien	-	-
Hairy Woodpecker	*Dryobates villosus*	Secure	-	-
Mallard	*Anas Platyrhynchos*	Secure	-	-
Merlin	*Falco columbarius*	Secure	-	-
Northern Flicker	*Colaptes auratus*	Secure	-	-
Song Sparrow	*Melospiza melodia*	Secure	-	-
Mule Deer	*Odocoileus hemionus*	Secure	-	-
Gray Squirrel	*Sciurus carolinensis*	Alien	-	-

RECOMMENDATIONS

The following recommendations are provided based on the results of the nest search:

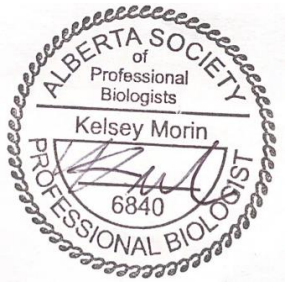
- Give Mule Deer space and avoid approaching closer than 30 meters until they move on their own. Do not harass or feed the wildlife.
- Work should begin within seven days of the date of the nest search.
- Work should continue steadily until complete in order to maintain a continuous disturbance and avoid the possibility of migratory birds (or other wildlife) moving in.
- If construction activity stops for seven or more consecutive days, nest searches must be repeated.
- Minimize the attraction of wildlife by keeping the worksite tidy and free of food waste or other wildlife attractants. Store food in appropriate facilities or vehicles and secure litter, waste, and garbage in appropriate containers.
- If any other nesting (e.g., hawks, owls, migratory birds) or denning (e.g., coyotes, foxes, snakes) wildlife are observed, immediately implement a disturbance buffer of 30 m or greater and contact a Qualified Environmental Professional.

CLOSURE

All work areas are cleared for work to begin as soon as possible. Nest search information is valid for seven days from the search date. As such, construction activities should commence as soon as possible. If these activities do not commence on or before April 22, 2024 or if work is interrupted for seven consecutive days during the breeding period, a follow-up nest search should be completed.

Should you have any questions or require additional information, please do not hesitate to contact RIDGE Environmental Planning Ltd.

Prepared by:



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SITE PHOTOGRAPHS

Photo 1 – Vegetation within C-102.

Photo 2 – Vegetation within C-102 continued.

Photo 3 – Downy Woodpecker foraging on the north side of C-102 on a private landowner's property.

Photo 4 – Song Sparrow within the riparian area along the wet side of the berm, within C-102.

Photo 5 – Vegetation within C-103.

Photo 6 – Vegetation transition from C-103 to C-104.

Photo 7 – Inactive cavity within C-105.

Photo 8 – Drainage within C-105, Mule Deer in the centre of the frame.

Photo 9 – Two juvenile Mule Deer within a herd of four, within C-105.

APPENDIX A – Sweep Tracks