

# Recommendations for habitat preservation around Hodgson-Harris Reservoir

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## Executive Summary

Hodgson-Harris Reservoir (HHR), located in the northeast area of Superior and owned and managed by Boulder County, has repeatedly been identified as a unique and important wildlife resource for Superior and is a Boulder County-designated Critical Wildlife Habitat. As such, it is vital that any new development in the vicinity of HHR be planned carefully to minimize disruption to the existing habitat and to enhance the value of HHR for both wildlife and residents of Superior.

It has been OSAC's long-standing preference that the Zaharias property immediately north of HHR be preserved as open space. An open space designation would

- Help retain value for Superior's \$600K investment in the HHR restoration by maintaining an undisturbed reservoir environment;
- Ensure public viewing access and enjoyment of an important open space asset;
- Allow for the possibility of creating a substantial wildlife preserve around HHR that would be a regional draw, especially for birders;
- Preserve the existing prairie dog colony, which is the last remaining in Superior, and allow for the creation of a "Prairie Dog Education Area".

In preparation for the possibility of development on the Zaharias property, OSAC commissioned environmental studies of the HHR/Zaharias complex. Based on these studies and other relevant information sources, OSAC developed recommendations for habitat-sensitive development around HHR.

- 1) The most important recommendation is for a *wide buffer zone of up to 300 feet* between the edge of the developed area and the edge of the reservoir. This buffer zone should be fenced to prevent human/pet encroachment, and should include sight barriers such as large shrubs, a berm, or a low wall. The buffer should be owned by the Town and managed as natural open space.
- 2) *Prevention of water, light, and sound pollution in and around HHR* will be critical both during and after any construction activity in order to avoid damaging the reservoir ecosystem.
- 3) *Habitat restoration in and near the buffer zone* would enhance the aesthetic and habitat value of the HHR area. In particular, OSAC recommends replacement of invasive plants with native flora and trees, expanding the existing wetland along the west side of the reservoir, and installing bat roost and bird nest boxes.
- 4) Human enjoyment of this natural space would be improved by the *installation of new amenities* along the upper edge of the buffer zone. These could include a nature trail, a wildlife-viewing blind or platform, interpretive signage, and a connection to a potential new trail to Autrey Park.
- 5) Finally, OSAC strongly recommends that the *prairie dogs on the Zaharias property be relocated* rather than exterminated.

## **Introduction**

Hodgson-Harris Reservoir was constructed in the 1880s to provide irrigation water to nearby farms. However, by the early 2000s the dam had begun to fail and the reservoir was subsequently allowed to go nearly dry. Following a collaborative effort between the Town of Superior, Boulder County, and several state agencies, the dam was reconstructed and the reservoir had refilled by 2014. HHR now supports a diverse and growing population of breeding and migratory birds (including several Species of Concern.) Fifty-two potential nesting species were observed there in spring 2018 and over 130 bird species have been recorded overall (Jones). HHR has also provided habitat for the threatened Northern Leopard Frog (Spaulding). Boulder County has designated it as a Critical Wildlife Habitat (BCCP).

It has been OSAC's recommendation for many years that the Zaharias property adjacent to HHR be acquired and preserved as Town of Superior open space. However, given the possibility of additional development immediately adjacent to HHR, including on the Zaharias property, OSAC has created a set of recommendations for habitat-sensitive development. These guidelines would help minimize disruption to the existing habitat and to enhance the value of HHR for both wildlife and residents of Superior.

These recommendations are based on information in two environmental assessments that OSAC commissioned in 2018, one by Boulder County Parks and Open Space staff (Spaulding) and one by Smith Environment and Engineering (Smith). In addition, the recommendations draw on reports by other local groups and agencies (Jones, BPDS, BCCP) and input from several Superior residents.

## **Recommendations**

In the event that the Town of Superior receives an application to develop the Zaharias property, OSAC's strong preference is to preserve that property as open space in order to:

- Help retain value for Superior's \$600K investment in the HHR restoration by maintaining an undisturbed reservoir environment, since nearby development could cause the habitat value to decrease significantly (Spaulding, p.10);
- Ensure public viewing access and enjoyment of an important open space asset;
- Allow for the creation of a substantial wildlife preserve around HHR that would be a regional draw analogous to the Waneka Lake - Greenlee Preserve complex in Lafayette;
- Preserve the last remaining prairie dog colony in Superior, which could provide a focus for a "Prairie Dog Education Area" (PDMP, p.45).

If a development is approved on property adjacent to HHR, OSAC recommends the following steps to enhance the value of the area as a public amenity and to mitigate impact to wildlife and habitat at HHR. *Several of these would require coordination with Boulder County (indicated by "B") or Saddlebrooke ("S"). Some could be implemented by the developer ("D"), and some would likely be the responsibility of the Town ("ToS").*

Most importantly, a wide buffer strip of natural open space between the edge of the high-water mark of the reservoir and the edge of any new development will be key for minimizing disturbance of the wildlife on and along HHR. Guidelines from the U.S. Environmental Protection Agency suggest a minimum buffer width of 100 feet for protecting the habitat of unthreatened wildlife species, while 200-300 feet is recommended if rare or threatened species are present (BPDS, p.13; Jones, p.14). In addition, the buffer area should

- Be controlled and owned by the Town, not a condo management company or HOA;

- Include not only a large physical space but also intermittent sight barriers such as large shrubs, a berm, or a low wall (Smith, p.5) [D, ToS];
- Be fenced to prevent human/pet access into buffer area (Jones, p.14) [D, ToS].

It may also be worthwhile to consider additional sight/sound buffering between the existing Saddlebrooke community and the HHR shoreline (e.g., large shrubs) [S].

New amenities could help enhance human enjoyment of the habitat in and around HHR. These could include a nature trail, a wildlife-viewing blind or platform, interpretive signage, and a connection to a potential new trail along the eastern border of the town to Autrey Park [D, ToS].

Any changes to the properties around HHR would offer an opportunity to enhance the aesthetic and habitat values of the area through habitat restoration. Rehabilitation activities could include

- Restoring flora in the buffer area with wildlife-attracting native grasses, forbs, shrubs, and trees. Removing invasive weeds (Smith, p.4; Jones, p.14) [B, D, ToS].
- Developing an ongoing habitat maintenance plan, including weed control [ToS].
- Expansion and enhancement of the existing wetland along the west shoreline to improve cover for nesting waterfowl and other birds via manipulation of the elevation of the west bank and shoreline of the reservoir (Smith, p.4) [B].
- Planting of aquatic plants preferred by ducks in shallower depth zones of the reservoir and sedges and bulrushes in the wetland to improve the availability of food for waterfowl and enhance habitat quality for amphibians and fish (Smith, p.4) [B].
- Installation of bat roost and bird nest boxes in uplands adjacent to the reservoir to enhance species diversity (Smith, p.4) [ToS].

New development brings the possibility for detrimental water, light, and sound pollution to HHR and the adjacent tributary of Rock Creek. Mitigation actions should include

- During construction - avoid contamination of HHR with construction debris, especially wind-blown packaging and plastics. Also, scrupulously prevent construction runoff from entering the reservoir or nearby wetlands. [D].
- After construction - prevent runoff water from the developed area from entering HHR or nearby wetlands. Consider using permeable surfaces such as paving stones for roads and parking areas. Consider adding a wetland buffer for runoff filtering. (Spaulding, p.5) [D].
- Lighting design to mitigate light pollution on the property [D].
- Create a berm, hedge, or other barrier between U.S. Hwy 36 and the buffer zone to reduce effects of noise pollution on wildlife habitat. [D, ToS].

Because the prairie dogs on the Zaharias parcel are among the last remaining in Superior, OSAC recommends especially sensitive treatment of their colony prior to any construction activity. In particular, the developer should be required to

- Create a detailed prairie dog relocation plan, including thorough prep at the relocation site as well as followup care. If possible, relocate to a site in or near Superior. Humane euthanization of the PDs should be allowed only as an absolute last resort after the developer has convincingly demonstrated that relocation is impossible [D].
- Survey for Burrowing Owls - using a qualified wildlife consultant following Colorado Parks and Wildlife protocols - if any construction activity is scheduled to begin between March 15 - October 31. (Smith, p.3; CPW) [D].

Finally, ongoing habitat management and monitoring will be important to maintain high-quality wildlife habitat. Superior and Boulder County may consider

- Managing reservoir water levels to accommodate shore-nesting birds and wintering/migrating birds (Spaulding, p.3,8-10) [B].
- Establishing protocols to monitor the physical and chemical characteristics and biota of the reservoir to inform management of water levels and any habitat enhancement efforts (Smith, p.7) [B].

## **Conclusion**

New development around HHR must proceed sensitively in order to avoid damage or disruption to important wildlife habitat in and near the reservoir. However, if done correctly, associated habitat restoration and addition of amenities could result in real improvements to the value of the reservoir for both wildlife and residents of Superior. OSAC urges the Trustees to consider any development proposals with a careful eye to their impacts on habitat, and to require that new developments result in a net improvement for the overall quality of life in Superior.

## **References**

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