

Save The Poudre Coalition
PO Box 20
Fort Collins, CO 80522

Comments on NISP DEIS Treatment of Birds

Summary

We find that the NISP Draft Environmental Impact Statement (DEIS) is grossly deficient in its treatment of the likely impacts of NISP on birds.

Our main criticism is that the NISP DEIS fails to seriously consider the likely impacts that dewatering the Cache la Poudre River will have on the many birds that breed, migrate, or otherwise depend on the river corridor. Particularly at risk are birds that breed in the cottonwood / willow forests along the river's banks; their habitat could be seriously impaired, due to contraction of the forest or decreased invertebrate productivity brought about by decreases in river flows. The NISP DEIS does not address these potential harms.

The NISP DEIS also fails to fully analyze NISP's potential threats to the Bald Eagle, which in our area depends on the Cache la Poudre River corridor for nesting sites and winter roosting sites.

Because of these failures, we ask that the Army Corps of Engineers require NISP proponents to prepare a supplemental EIS. This should fully and honestly analyze the likely impacts of reduced flows in the Cache la Poudre River on bird populations which depend on habitats in the river corridor for their survival.

Introduction: The Importance of the River Corridor for Birds

by Barry Noon, Professor of Conservation Science, Colorado State University

Significant advances have occurred in our understanding of the composition and dynamics of bird communities in temperate zone riparian habitats. Specifically, researchers in the United States and Japan have found that a very significant portion of the insect diet of birds found in riparian and adjacent upland habitat is of aquatic origin (Uesugi and Murakami 2006, Baxter et al. 2005, Nakano and Murakami 2001). In general, in temperate deciduous forests (such as along the Poudre River corridor), insectivorous birds in riparian zones forage extensively for aquatic insects in the spring when terrestrial upland sources of food are limited. As a consequence, bird density is significantly higher in upland habitats adjacent to riparian areas and in riparian areas with healthy aquatic insect communities. Declines in the abundance and diversity of the aquatic insect community, as occurs following flow reductions and changes in seasonal flow patterns, will have adverse effects on breeding and resident birds in the Poudre River corridor.

Birds affected by reduced flows in the Poudre River include resident, migratory, and over-wintering birds. For example, strongly dependent on aquatic insect prey are long-distance migrants such as warblers, vireos, wrens, flycatchers and orioles, and to a lesser degree resident birds such as song sparrow, chickadees, and woodpeckers. Particularly adversely affected will be waterfowl that use the River for winter habitat and adjacent upland ponds for breeding. Dewatering the River will significantly change the hydrology of many upland wetlands and ponds currently used by over-wintering waterfowl.

A recent study of the effects of stream dewatering on bird communities in the desert southwest reports significant declines in the number of bird species when flows are ephemeral and of low volume (Brand et al. 2008). In addition, these researchers found that native willow and cottonwood communities were being replaced by xeric plant species (e.g., tamarisk) that support less diverse, low abundance insect prey populations to be exploited by insectivorous bird species.

The effects of reductions in aquatic insects following reduced flow and increased water temperatures will occur quickly and be long-lasting. If significant amounts of sediment accumulate due to several years of low flow, it may take many subsequent high flow events to once again create aquatic insect larval habitat. In addition, reduced flows will lead to slow acting, but long-term adverse effects to water-dependent riparian and upland plant communities. In contrast to rapid changes in aquatic insects following reduced flows, changes in vegetation, particularly reductions in mesic plant species (e.g., cottonwoods and willows) along the riparian corridor will take much longer to be expressed. The effects of reduced flow on vegetation will be to dewater plant species dependent on high water tables and effectively stop recruitment of new individuals to replace those that experience mortality. This change will have long-term negative impacts on the riparian bird community as mesic shrub and tree-dominated plant communities are replaced by more xeric and structurally simple xeric plant communities. Reversing this process would take decades to centuries and would not occur in the absence of flows characteristic of the last three decades.

In summary, it is clear that reduction in background flows of the stretch of the Poudre River from the mouth of Poudre Canyon to below Tinmath would have long-lasting, and significant, adverse effects on breeding and resident bird communities.

The Importance of the River Corridor's Birds to People

The Cache la Poudre River corridor through Fort Collins is an irreplaceable resource for bird watchers and other nature enthusiasts. This is evident in many ways, including in its recent nomination as an Audubon Society Important Bird Area.

In early 2007, the Fort Collins Audubon Society nominated a twenty-mile corridor along the Poudre River, from Bellvue through southeast Fort Collins, to be designated as the Cache la Poudre Urban River Corridor Important Bird Area (FCAS 2007a, FCAS 2007b).

“The River Corridor sustains some of the most important bird habitat in the region,” remarked Joel Hurmence, President of the local chapter of the national Audubon Society. “This IBA nomination seeks to preserve this important resource for our children and grandchildren.”

The Important Bird Area program is an effort to identify and protect bird habitat across the United States. IBA’s are jointly designated by technical committees of ornithologists and willing land owners, public and private. To be recognized as an I.B.A., areas must meet certain scientific criteria, including representing rare habitat within a state or region.

Riparian areas cover less than 2% of the shortgrass steppe ecotype covering the eastern half of Colorado. Much of this habitat has been degraded by urban and agricultural development (FCAS 2007b). Yet these rivers and narrow strips of mature riparian forest provide essential habitat for many bird species only rarely found elsewhere, or found elsewhere only in much smaller numbers. Riparian corridors also serve as important migration pathways for both montane and grassland birds.

Dr. Nicholas Komar, a researcher at the Centers for Disease Control and a co-author of the nomination, organized breeding bird censuses along the river in 2001, 2002 and 2006 (FCAS 2001-2002, FCAS 2006, Komar et al. 2002). According to Komar, these censuses show that the river corridor supports many species of birds found rarely if at all outside the corridor, including common merganser, black-crowned night heron, cedar waxwing, and orchard oriole. In addition, many species are found in much greater numbers within the corridor than outside it, including yellow warbler, bank swallow, wood duck, kingfisher, osprey, great-blue heron and eastern kingbird (FCAS 2007a, FCAS 2007b). “Our surveys indicate that the river corridor is a unique, restricted and important habitat type for birds in Larimer County,” Komar stated.

Bill Miller, conservation chair for the Fort Collins Audubon Society, echoed those comments. “The river corridor is a key resource for birds and other wildlife, and for everyone who enjoys seeing them,” said Miller. He added: “If we want our kids to connect to nature, we need to protect places like the river corridor where they can do it.”

Lands along the river are an important educational resource, according to Philip Cafaro, a philosophy professor at Colorado State University who co-wrote the IBA nomination. “In putting together the nomination,” said Cafaro, “I talked to many educators who teach their students about nature down by the river, from university to elementary school classes. Ph.D. dissertations and dozens of peer-reviewed scientific papers have been written about research conducted along the banks of the Poudre. At the same time, it is the perfect place for a parent to point out a kingfisher or osprey to their child, for the first time.”

As Colorado’s human population continues to grow, more and more wildlife habitat is being destroyed. To preserve a remnant of the state’s rich biological diversity, the Audubon Society works to identify lands most in need of protection through its Important Bird Areas program. The Cache la Poudre River corridor from Bellvue to Interstate-25

meets these criteria for protection, since it includes habitat that is vital to bird migration, breeding, and winter survival (FCAS 2007a, FCAS 2007b).

The “IBA Nomination for the Cache la Poudre Urban River Corridor: Supporting Text” (FCAS 2007b) documents some of the rich natural history education that the Poudre River corridor and its birds provide to the citizens of Fort Collins. We ask that the Corps consider this document, since such information is not provided in the NISP DEIS. Indeed, one can read the entire NISP DEIS and not have any inkling that the river corridor is the primary resource for nature study and nature appreciation for Fort Collins, a city of 140,000 people.

NISP Impacts to Bald Eagles

The NISP DEIS provides evidence that building NISP will harm bald eagles, a species of special concern in Colorado. We quote below from the NISP DEIS and provide further comments.

(DEIS, p. 3-90) Notes potential displacement of a bald eagle nest in the Glade to Horsetooth Pipeline Study Area. Similarly, a bald eagle nest is likely to be displaced by the Carter Lake pipeline.

(DEIS, section 3.16.11.1.2: Bald Eagle) “Three active bald eagle nests are located along the Poudre River in the Poudre-South Platte River corridor study area. Several bald eagle roost sites occur in this study area downstream of Fort Collins (Figure 3-16).”

This area clearly contains important wintering habitat for bald eagles.

(DEIS, Appendix B: NISP Biological Assessment, page 5, section 5.1.: Existing Conditions in Proposed Project Construction Action Area): “Due to the complexity of the Proposed Project, areas potentially affected by construction of the Proposed Project (Action Area) have been divided into several study areas representing the various project components. Existing conditions at these study areas are described below.”

Note that the river and the river corridor below the canyon are not one of the study areas subsequently discussed. We do not believe NISP proponents can perform an adequate biological assessment of the impacts of NISP on bald eagles, other birds, or wildlife in general, without looking in more detail at the Cache la Poudre River and the river corridor.

(DEIS, Biological Assessment, p. 19) Regarding bald eagles: “The lower Poudre River corridor and the South Platte River near its confluence with the Poudre River are within a bald eagle winter concentration area. Bald eagle winter concentration areas are defined as areas (e.g., trees and islands) within an existing winter range where bald eagles concentrate between November 15 and April 1 (CNDIS 2006).”

Furthermore, under “Effects of the Proposed Project”: “Construction of the proposed Glade Reservoir would result in temporary and permanent disturbance, degradation, and/or elimination of about 16 acres of prairie dog colonies that potentially provide prey for bald eagles.”

Here we see evidence that if built NISP will harm winter roosting sites and reduce food sources for bald eagles.

(DIES, Biological Assessment, p. 20) “Bald eagle nesting habitat could be degraded if large cottonwoods (over 12 inches diameter at breast height) within ½ mile are cut down during pipeline construction.”

If that’s the case, then Bald eagle nesting habitat could also be degraded if lowered water tables cause the loss of big cottonwoods along the river corridor.

(DEIS, Biological Assessment, p. 40) “Effects of the Proposed Project” on bald eagles:

“Reduced flows in the Poudre River downstream of the PVC diversion associated with the Proposed Project could have subtle long-term effects on riparian habitat. Recruitment of new riparian vegetation could be reduced in localized areas, resulting in a reduction of mature cottonwoods available for nest sites over the long term. However, wide bands of cottonwoods along the Poudre River will remain.”

But is this a legitimate assumption? Furthermore, reducing nest sites could harm eagles. Nest sites and roost sites might be limiting factors for Bald eagles in the area. The NISP DEIS should discuss these issues, but does not do so.

The “Biological Assessment” continues: “Reduced flows resulting from Proposed project operations would not likely result in decreases in fish (prey) populations (CEC 2006).”

The Biological Assessment provides no clear evidence for this contention. Our own analysis of the likely impacts of NISP on fish suggests this contention is false.

*

The NISP DEIS is somewhat equivocal on the likely impacts of NISP on the Bald eagle. On page 48 of the “Biological Assessment,” in table 5, it asserts that “construction of the proposed project” “may affect” and is “likely to adversely affect” the federally listed Bald eagle. On page 49, in table 6, however, it states that “operation of the proposed project” is “not likely to affect” the Bald eagle.

This conclusion is in line with the NISP DEIS’s overriding tendency to downplay or ignore the impacts of NISP on the Cache la Poudre River corridor. For this very reason, however, the DEIS likely underestimates the impacts that NISP, if built, will have on the Bald eagle.

Conclusion

Protecting bird populations along the Cache la Poudre River corridor is too important to be left to chance. They are too valuable in themselves and to the citizens of northern Colorado. But the NISP DEIS fails to consider the likely impacts of NISP on birds in the river corridor.

Because of this, we ask that the Army Corps of Engineers require NISP proponents to prepare a supplemental EIS that fully and honestly analyzes the likely impacts of reduced flows in the Cache la Poudre River on bird populations in the river corridor. This information is necessary in order to come to an informed conclusion about whether or not to build NISP and about how to mitigate its harms to wildlife if it is built.

References

Baxter, C.V., K.D. Fausch, and W.C. Saunders. 2005. "Tangled webs: reciprocal flows of invertebrate prey link streams and riparian zones." Freshwater Biology 50:201-220.

Brand, L.A., G.C. White, and B.R. Noon. 2008. "Factors influencing species richness and community composition of breeding birds in a desert riparian corridor." The Condor 110:199-210.

Fort Collins Audubon Society (FCAS). 2001-2002. Poudre River Corridor Breeding Bird Survey-data.

Fort Collins Audubon Society (FCAS). 2006. Poudre River Corridor Breeding Bird Survey-data.

Fort Collins Audubon Society (FCAS). 2007a. "Important Bird Areas Nomination Form: Nomination of the Cache la Poudre Urban River Corridor I.B.A."

Fort Collins Audubon Society (FCAS). 2007b. "IBA Nomination for the Cache la Poudre Urban River Corridor: Supporting Text."

Komar, Nicholas, Phil Friedman, Joseph LaFleur and Alex Cringan. 2002. "Breeding Bird Survey of the Poudre River Corridor, Larimer County, Colorado, 2001."

Nakano, S., and M. Murakami. 2001. "Reciprocal subsidies: dynamic interdependence between terrestrial and aquatic food webs." Proceedings National Academy Science 98:166-170.

Uesugi, A., and M. Murakami. 2006. "Do seasonally fluctuating aquatic subsidies influence the distribution pattern of birds between riparian and upland forests?" Ecological Research.