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Short -Term Effects of the Site C Dam and Reservoir on Bank Swallow *Riparia riparia* Populations Along the Peace River

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The Peace River located in North-East British Columbia contains one of the largest populations of Bank Swallows *Riparia riparia* in the province, with an estimated 60+ breeding colonies with over 1,700 nests. Along this same river, BC Hydro's Site C project is set to be filled in 2023, and has the potential to cause a decline in the local bank swallow population through the cumulative loss of breeding and foraging habitat, changes in diet, and the bioaccumulation of mercury and heavy metals. Data has been collected during the 2021 and 2023 breeding seasons, both upstream and downstream of the dam construction. At selected colonies, captured Bank Swallows were banded, and morphometric measurements, feather, and blood samples were collected for diet, heavy metal, and mercury analysis to be completed. Following a third field season in 2024, Mixed models will be used to contrast the difference in the Bank Swallow distribution, abundance, diet composition, mercury levels, heavy metal accumulation and breeding habitat characteristics. This information will give us an insight on how Bank Swallow diet quality has changed both over time and spatially, whether heavy metals and mercury are being bioaccumulated through the food web, and how nesting distribution may have changed over time.