

Stopping Trumpeter Swan Collisions With Power Lines: A Collaborative Approach

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Introduction

This is the story of our community's project to underground a set of overhead, 3-phase power lines adjacent to a small pond just north of Sequim on Washington's Olympic Peninsula. Burial of power lines is not unique, but how we accomplished it is, using an innovative community coalition that may be the first of its kind.



Swans at Kirner Pond



Swans roosting at Kirner Pond



Injured swan after collision



Shelly Ament collects a dead swan

Conclusions

We developed a unique collaboration among public agencies, private companies, individuals, and non-profits to solve a conservation problem. Frequently conservation projects involve conflict, often resulting in litigation. Sometimes such projects achieve their objectives, but rarely in a timely manner. Through collaboration and the persistent efforts of a dedicated community, this project was successfully completed in just six months, and within budget. The project result is one in which all parties can feel pride, setting the stage for ongoing collaboration. No swan injuries or mortalities were observed adjacent to the pond this season. We hope that this project serves as a model, a tool in the toolkit, that will prove useful to others facing similar conservation challenges.

Acknowledgments

Our donors and their generous support and dedicated volunteers made this project possible. Mike Hill, PUD Engineering Manager, followed through on every facet of this project. Our contractors, C&J Excavating and Astound Broadband reduced their costs and offered innovative solutions to construction problems.



Kirner Pond Swans

Defining the Problem

- Swan mortality from power line collisions at the pond was a known problem, with 9 reported fatalities to WDFW since 2014
- Data from early morning monitoring by Bob Phreaner of OPAS from 2017-2020 clarified the problem. These observations showed that:
 - the pond is an important early season overnight "roost" for swans, averaging 56 birds / night in December '20 with a high of 119 birds, including many juveniles
 - the 25-pound birds depend upon strong prevailing westerly winds to gain the 35 feet needed to cross the power lines on the west end of pond
 - power line strikes occur primarily during calm conditions with little or no wind, or in poor visibility conditions (fog or drizzle)
 - swans take off in families and trailing birds most often collide
 - injured birds wander off and were not recovered, so the full extent of mortality is higher
 - 16 line strikes in 2 months, worse than the mortality data suggested
- Extensive line marking by PUD failed to address reduce collision frequency
- Burial of the power lines emerged as the best solution to avoid collisions, injuries, and death

Response

Line burial usually falls under the sole purview of the local utility. However, given the costs, our rural public utility lacked funding to undertake the project solely for wildlife protection. We needed a different approach: this would have to be a customer-driven project. In a real sense, the swans became the customer, and a unique collaborative partnership began to form. OPAS conducted a GoFundMe campaign (supported by John Gussman's Sudden Impact video) yielding \$65,000 from over 290 individuals and other non-profits. The utility then contributed partial construction funds and project design. OPAS undertook the project management role on behalf of the swans, coordinating subcontractors in close partnership with the utility. WDFW provided regulatory backing and staff support, and our county road department permitted use of an alternative, less-costly road crossing. The excavation contractor reduced their costs and coordinated with the irrigation district and landowners to solve easement issues. The broadband company also removed their overhead communication lines and placed them into conduit. Line removal and burial, once initiated, was straightforward and was largely accomplished within a week's time.



Swans flying through wires



Swan collides with power line



Swan collides and is electrocuted



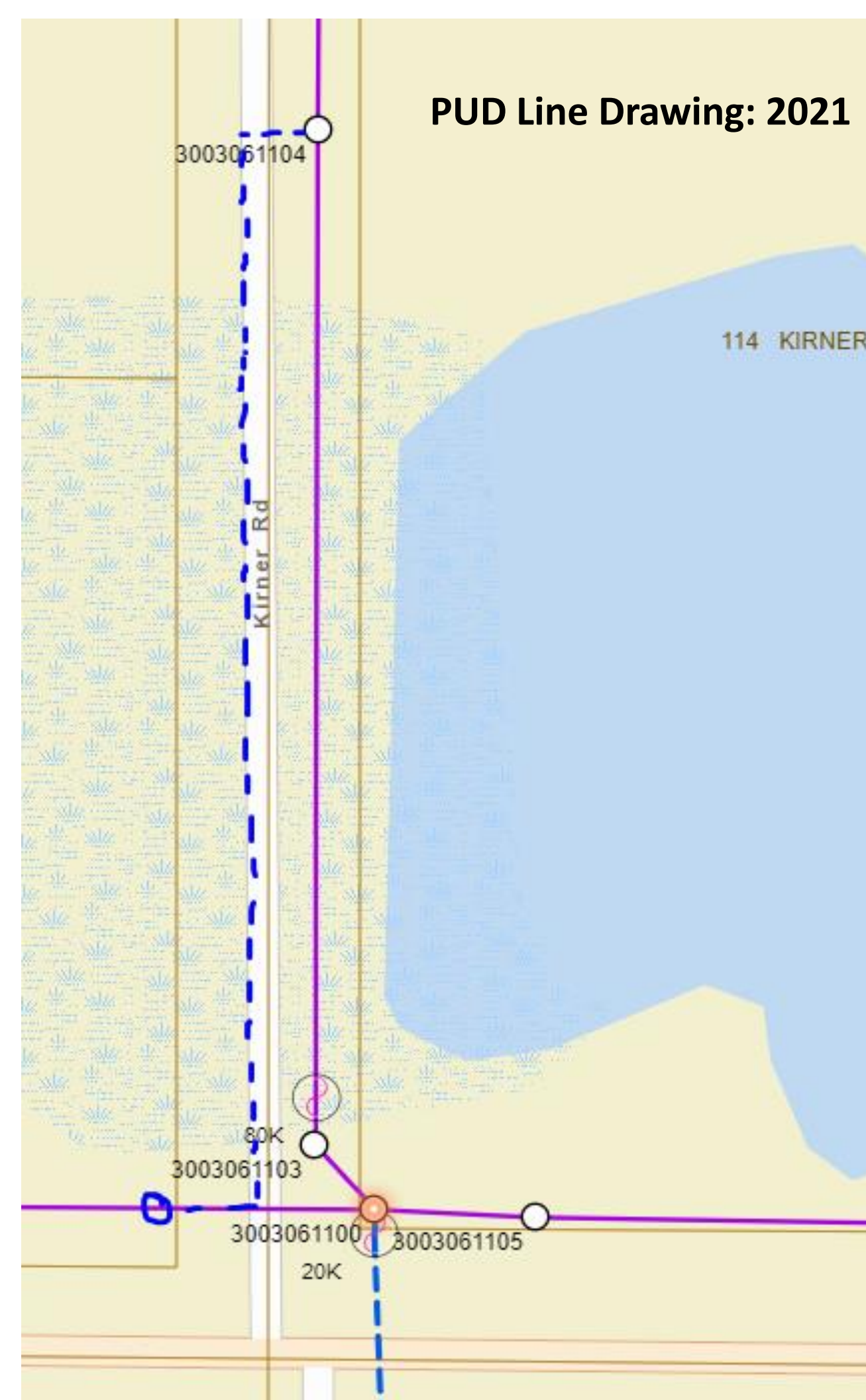
Injured swan after collision



PUD installs a new riser at Kirner Pond



Conduit in utility trench along Kirner Rd



Kirner Pond before and after Line Removal



Swans in Flight



Swan at Kirner Pond



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