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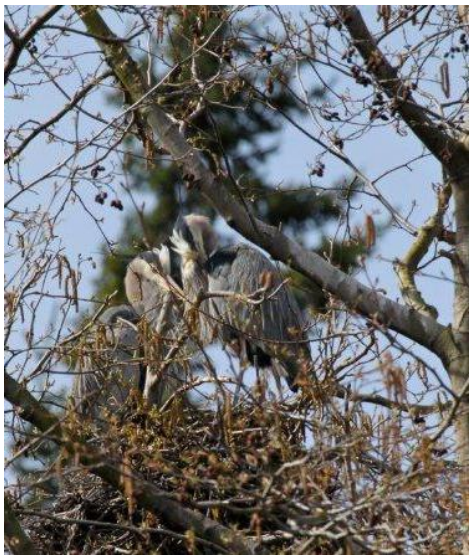
City of Bellingham

Post Point Great Blue Heron Colony Monitoring progress report: February-April 2013

Photographs by Alan Fritzberg and Tami DuBow



INTRODUCTION

The Post Point Great Blue Heron Colony, located near Fairhaven in south Bellingham, is the only known heron nesting colony associated with Bellingham Bay and the City of Bellingham and is considered a sensitive breeding site and habitat area. Currently there are only four known active colonies in Whatcom County including Post Point. The current status of the other colonies is not known. The Great Blue Heron *(Ardea herodias)* is recognized as a Priority Species in Washington State and is managed by Washington Department of Fish and Wildlife. Both the herons and their nesting habitat are protected as a Priority Species in Washington State.

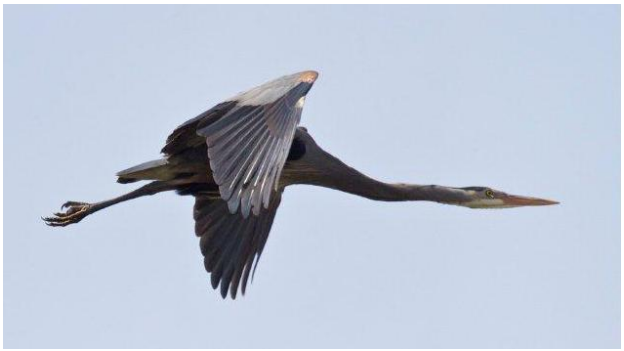
The Post Point heron colony was established in 2000, with 6 nests occupying 5 nest trees on the current site. Between 2000 and 2006 the colony rapidly expanded to peak at 37 nests occupying 15 trees. In 2007 the colony began a decline to 27 nests, then to 17 in 2008 and 9 in 2009. However in both 2008 and 2009, the colony appeared normal in the early season, but abandoned prior to fledging of young, resulting in zero productivity for the season. Abandonment occurred in 2008 in late June and late May 2009. In 2010, 2011 and 2012 the colony rebounded, and successfully fledged young, however the number of active nests have declined to a new normal of about 16. As of April 30, 2013, the Post Point heron colony is active, with a total of 16 occupied nests.

The annual Post Point Great Blue Heron monitoring includes three primary components: general monitoring which focuses on colony activity including breeding chronology, predation and disturbance; productivity which focuses on nestling numbers and fledgling success; and nest survey which will provide an update on the number of nests and nest trees utilized during the current season. In addition, some foraging observations will be made to document foraging activity, locations and any observed disturbances related to foraging heron.

The expansion of the Post Point Wastewater Treatment Plant (PPWTP), located adjacent to the heron colony, is underway this season and adds another component to the heron monitoring. Construction at the PPWTP began following the heron nesting season in 2012 and is in full swing this year. As part of the heron monitoring during the construction phase, site visits are increased to twice weekly, with additional observations as needed. Weekly reports are submitted electronically to the City of Bellingham PPWTP manager and expansion project management, providing the current status and activities of the herons and other associated wildlife in the vicinity. Twelve reports have been submitted, as of April 30, 2013. In addition, mitigation related to the heron colony includes no construction within the 100 foot buffer after February 1st and reduced construction activity within the 300 foot buffer. Any disturbance to the herons or concern related to construction activities will be recorded and reported immediately to the City of Bellingham project manager Freeman Anthony.

Included in the monitoring plan, in addition to the weekly reports, are detailed progress reports and informal communiqués as needed. At the end of the monitoring year, an annual report will be prepared and will provide the City with a complete report of the heron's nesting activity and seasonal outcome for 2013.

The design and implementation of the monitoring plan is managed by Biologist Ann Eissinger of Nahkeeta Northwest Wildlife Services and focuses on frequent site visits, field observation and empirical data collection. Field work is conducted by field assistant Tam DuBow and Ann Eissinger. Ms Eissinger has over twenty years experience monitoring Great Blue Herons and is expert in their ecology, behavior, colony management and conservation. She is also the author of the 2003 Post Point Heron Colony Management Plan, and 2005 Post Point Heron Colony Baseline Study prepared for the City of Bellingham, Department of Public Works. The Biologist has also been actively involved in public education and the PPWTP expansion review process related to the Post Point herons.



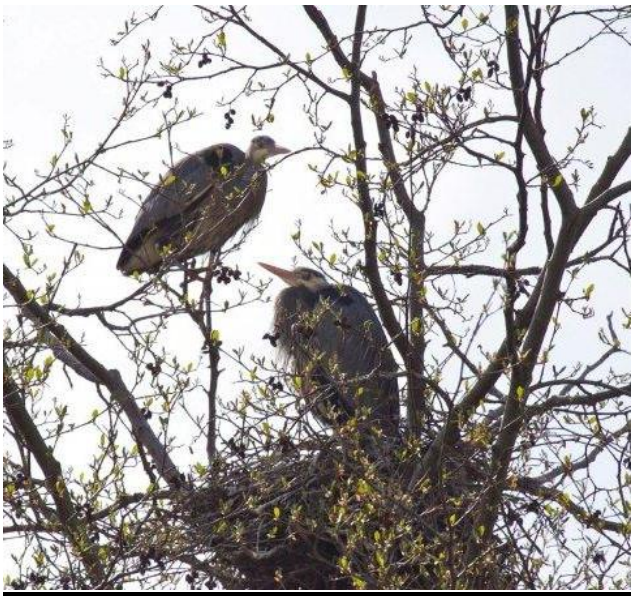
GENERAL MONITORING

Early season monitoring commenced by the first of February 2013 to determine the condition of the colony, record the onset of staging and colony reoccupation. This report summarizes field observations for three months, February, March and April. A total of 27 site visits were made between January 31 and April 30, 2013. During these visits detailed observations were made and documented by the field biologist on a standardized form. All forms are maintained in a permanent file maintained by Nahkeeta Northwest. Results of these observations are summarized as follows.

Early Season Assessment

The winter of 2012-2013 was relatively mild, wetter than normal and relatively normal temperatures and no major storm events according to the Office of the Washington State Climatologist. As a result, no storm damage was observed in the Post Point heron colony nest stand, resulting in most nests and nest trees remaining intact from 2012.

In early February, 2013 a total of 17 nest structures remained in the colony. The colony was checked twice weekly, through February, with no heron present in the colony until February 26. Some heron were however present west of the colony roosting or staging at the edge of the nest stand. With construction in close proximity of the colony (within 200 feet) due to the work to complete the walls of the secondary clarifier, it is possible herons were reluctant to reoccupy the nesting area, whereas the previous year herons were in the colony the first week of February.



Colony Reoccupation and Nesting

As March approached, 9-10 nests in the colony were occupied and the heron seemed tolerant of the noise and construction activity, yet their activity at the nests was slow and egg laying seemed delayed. On March 22 a possible eagle incursion was reported and that may have removed some of the eggs and disturbed the colony. However by the end of March, 13 nests were occupied and several were laying eggs or incubating.

April brought some unsettled weather, but was relatively mild that time of year. Construction near the heron colony continued, but was buffered somewhat by concrete walls that had been completed at the nearest structure to the colony. At the start of April, 14 nests were occupied and by the end of the month two additional pairs had moved into the colony for a total of 16 occupied nests, similar to 2012.

Egg laying was first noted March 14, but incubation was delayed until March 23, similar to 2012. With early incubation starting March 23, first hatching was expected the week of April 21. As of April 28, no young have been heard and activity in the colony remained much the same, with heron incubating on nests.

Predation and Disturbance

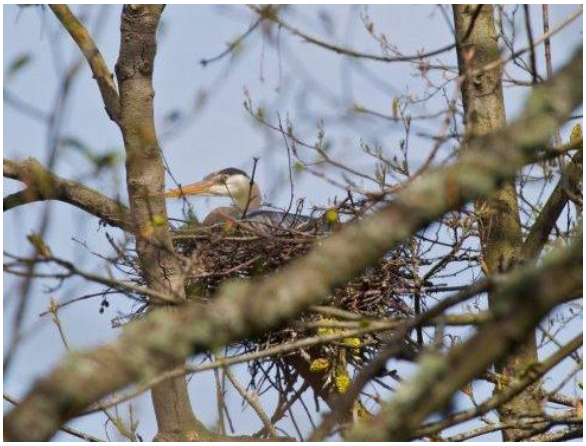
During each field visit to and in the vicinity of the heronry, observations are made of potential predators, such as Bald Eagles, Red-tailed Hawks, Crows and Ravens. Human activities are also noted. Bald Eagles are generally common and regularly observed in the vicinity of the colony. In the past, the male adult belonging to a pair of resident Bald Eagles was consistently perched in the vicinity of the colony, the female was only occasionally observed. This year to date, the eagles are rarely observed. During the first visit to Post Point January 31, the resident eagle was observed acting disturbed and unable to settle in his regular perch near the heron colony. Noise levels from construction and human activities related to the construction were both very high. No signs of eagle nesting and no nest structure is visible within the vicinity of Post Point.

The only eagle related disturbance was reported in late March and was isolated to a single report of an eagle incursion in the colony. No other reports were made. If an incursion occurred, only heron eggs would have been lost and only at 1 to 3 nests maximum, since few nests had eggs at that time.

No other eagle or other predator or human related disturbances have been observed or reported in or near the heron colony. Aside from the construction, no other human activity is allowed in the vicinity of the heron colony or lagoon due to PPWTP which has fenced off this area.

The Shorewood pedestrian trail, constructed in 2009, appears to have been routed away from the heron colony to the east and it is not known if it has been used during the nesting season.

Disturbance at foraging areas has not been observed this season. Heron using the nearshore of Marine Park and Post Point are vulnerable to people, dogs and water-sports enthusiasts utilizing this area.



PRODUCTIVITY

The productivity of the visible nests within the heron colony is monitored annually and will be measured during visits in later May and June following hatching as young become more visible in the nest and prior to fledging. Productivity will be reported in the next progress report.

PUBLIC EDUCATION

Public education is an integral part of the heron conservation at Post Point. However during the PPWTP expansion project, most trail and interpretive signs related to the herons and their habitat are inaccessible by the public.

POST POINT WASTEWATER TREAMENT PLANT EXPANSION

The Post Point Wastewater Treatment Plan (PPWTP) expansion is well underway. The most potentially disturbing part of the project, for the herons, was the construction of a secondary clarifier within 200 feet of the colony. Most of the work on the clarifier super structure and walls was completed in February and March. The remaining work is all conducted inside the walls of the structure and outside the 100 foot buffer during the herons nesting season. In addition to the clarifier, two large cranes extending hundreds of feet in the air have been used on site. One was removed and currently only one large crane and one smaller portable crane is being used.

New clarifier construction and associated crane - view from base of heron colony 2/19/2013 TD

Noise levels related to construction have been considered a potential disturbance. In the absence of a formal noise monitoring using sound level meters, the biologist in the field has *recorded* general noise levels per site visit. These levels range from low, medium and high and are recorded on the data sheet. Of the 22 site visits during construction, the noise level has been High=7, Medium=11, Low=4. Noise levels are recorded at the base of the colony's northeast edge at ground level.

Further detail related to the project go to:
http://www.cob.org/government/departments/pw/projects/wwtp-construction.aspx

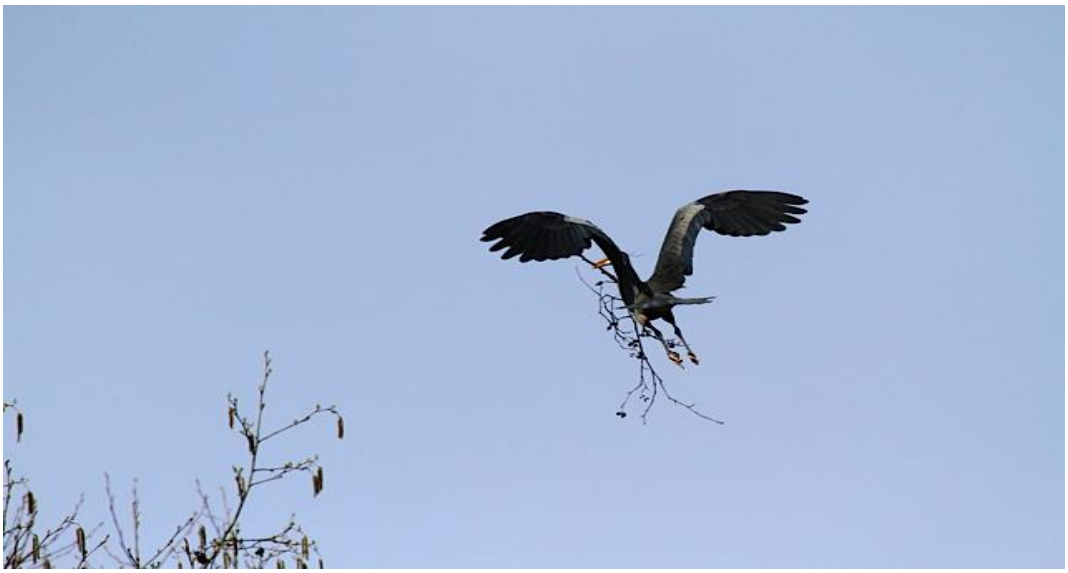
Post Point Wastewater Plant expansion 4.25.2013

CONCLUSION

The Great Blue Heron Colony has reoccupied its nesting site at Post Point in Bellingham for the 2013 season. A total of 16 nests are active and occupied, similar to 2012. Following mid-season abandonment in 2009 and 2008 the colony's future was in question. However the colony reestablished and produced young from 2010-2012. Currently the colony is reoccupied and seems to be doing well in spite of major construction and related noise directly adjacent to the colony this season.

The herons returned to the Post Point colony in late February and active nests were slow to establish. The heron numbers increased through March and a new nest added in April for a total of 16 active nests. Occupation of nests, pairing, courtship and nest enhancement appeared to be normal. Early egg laying and incubation began in the third week of March, similar to 2011 and 2012, and incubation continued through April.

Unlike past years, the Bald Eagles usually present at Post Point, have been less frequently seen in the vicinity of the heron colony. And unlike previous years, the Bald Eagles do not appear to be raiding the colony. Only one possible incursion was reported in March, but heron appear to be unaffected.



Although heron eggs were expected to begin hatching the week of April 22, no young have been heard or seen as of last day of April 2013. Heron in the colony continue nesting/incubation.

Expansion of the Post Point Wastewater Treatment Plant is in full swing and is a major construction project. Construction within 100 feet of the colony was completed in February and most of the construction currently is in other parts of the project area, but still within full view of the colony. Noise, equipment use, and tall cranes are all contributing to potential disturbances within 200 or more feet from the heron colony.

Close monitoring of the heron colony during construction has revealed no obvious responses to the project activity, other than what appeared to be a delayed reoccupation of the nesting area early in the season. Disturbance response was observed in Bald Eagle activity in February and it is thought that the construction may be deterring eagles from utilizing the immediate area, given that few eagles have been observed this season.

Currently, the Post Point heron colony has recolonized and appears to be productive. The herons are displaying regular breeding and nesting behavior. The hatching of young should have begun at the end of April, and detection of young is expected any day. Monitoring of the colony, foraging area and vicinity will continue through the breeding season, including productivity counts, foraging area spot checks, a fall nest count and mapping.

Finally, Nahkeeta Northwest would like to extend our gratitude to the City of Bellingham Public Works Department, Freeman Anthony PPWTP expansion project manager, and Larry Bateman, PPWTP manager and the staff at Post Point for their assistance. We also appreciate reported observations by neighbors of the colony, Jack and Sandie Starr, and the beautiful heron photos by local photographer Alan Fritzberg. Thank you.

Respectfully submitted,

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