Post Point Heron Colony

2011 Monitoring - Annual Report

prepared for:

The City of Bellingham
Department of Public Works
2221 Pacific Street
Bellingham, WA 98226

prepared by:

Ann Eissinger
NAHKEETA NORTHWEST WILDLIFE SERVICES
PO Box 176
Bow, WA 98232
(360) 770-6012
nahkeetanw@gmail.com

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EXECUTIVE SUMMARY

The Post Point Great Blue Heron Colony is the only known heron nesting site in the City of Bellingham. The colony was first documented in 2000 at its present location in south Bellingham's Fairhaven district on the nearshore bluff southwest of the Post Point Waste Water Treatment Facility. The colony is located on City owned property situated between the waste water plant and privately owned undeveloped land. Due to the sensitivity of the heronry and its uniqueness within the city, Bellingham Public Works requested a management plan (2003) followed by a scientific baseline study of the colony in 2005 to document breeding chronology, nesting activities, colony status and habitat use. Following these efforts, annual monitoring of the colony has been employed as a conservation measure due to the colony's local significance as a critical area and unique location within the urban area.

Habitats used by the Post Point herons include upland forest, grassland field, freshwater, estuarine and nearshore marine areas. All of these essential habitats are located in close proximity to the Post Point colony and form a habitat mosaic supporting staging, nesting, roosting and foraging. The heronry is situated on a nearshore bluff in mixed forest. The herons utilize this habitat for both nesting and roosting and are present seasonally in large concentrations to nest and in smaller year-round roosting congregations in the same contiguous forest occupied by the colony. The Post Point herons are also unique in their use of upland human structures for staging at the Post Point wastewater treatment facility. Herons forage along the intertidal shoreline of Post Point, the lagoon and Padden Creek estuary as well as shoreline areas of Bellingham Bay, Chuckanut Bay and Portage Bay.

The results of the 2011 Post Point Great Blue Heron Colony Annual Monitoring are detailed in this annual update. The colony breeding season spanned 6 months between mid-February and mid-August 2011. A total of 40 site visits were made to the colony and nearby foraging area, including post-season colony checks, nest counts and site assessments. The breeding season monitoring schedule was intensified over previous years due to the colony's instability resulting from weather, Bald Eagle incursions in April and past colony failures in 2008 and 2009. The 2011 nesting season however, proved both productive and successful, and included two new nests.

The Post Point nesting season includes staging, colony reoccupation, nest building and breeding, egg laying, incubation, hatching, rearing and fledging. As in previous years, the 2011 herons returned to the site in February. However, weather delayed the onset of nesting to March. As hatching approached another disruption occurred in late April, Bald Eagle incursions destroyed the viable eggs and young, causing the colony to re-nest beginning in May. Many colonies would have abandoned, but instead the herons laid a second clutch of eggs and successfully reared and fledged young. Young were fledged between the end of July and mid August. However, many young and adults remained in the vicinity of the colony to roost and forage into autumn.

A total of 16 nests were active and productive in 2011, an increase of 3 nests from 2010. In the past, from 2000 to 2007, the heron colony had grown and expanded annually at a rate of approximately 35%. In 2007 the colony declined approximately 27% from 2006 – this was attributed to higher than normal winter mortality. In 2008 and 2009 the decline in returning adult heron continued, and failure to fledge any young threatened the viability of the colony. The primary factor influencing the colony's decline was Bald Eagle depredation of young and repeated flushing of adults off nests. Other potential contributing factors included human disturbance at feeding areas, reduction in food supply, disease and/or systemic changes within the regional ecosystem. Eagle depredation did not occur in 2010 allowing the colony to recover,

but was repeated in 2011. Despite eagle pressure, the Post Point herons persisted, and produced an average of 3 young per active nest.

The planned expansion of the Post Point Waste Water Plant adjacent to the heron colony continued through the permitting process and was given a SEPA - Mitigated Determination of Non Significance. The expansion design includes construction of a new clarifier within 100 feet from the colony core and significant changes to the current colony buffer. Discussions with the City of Bellingham Department of Public Works, Planning and Washington State Department of Fish and Wildlife were included in the 2011 work related to Post Point Heron Colony Monitoring and Management. Construction work for the plant expansion is slated to commence in March 2012, requiring close monitoring of the colony.

The Post Point Heron Colony continues to be active as the only nesting colony in the City of Bellingham. Rebounding from complete nest failures in 2008 and 2009, the colony was productive in 2010 and 2011, and gradually increasing in heron breeding numbers. However, several successful breeding seasons will be needed to fully recover to pre-2007 numbers. Due to the colony's unique occurrence within Bellingham, protection of the nesting area and associated habitats are imperative to the heronry's continued existence. The Great Blue Herons of Post Point represent one of the City's greatest natural features and most sensitive wildlife areas.

Photo by Mike Hamilton

INTRODUCTION

The Post Point Great Blue Heron Colony Annual Report details the 2011 heron colony monitoring results and provides a comparison with previous years. The Post Point heronry is located near Fairhaven in south Bellingham, Washington (T37N/R2E/Section 2). This heronry is the only known heron nesting site in the City of Bellingham and is considered a sensitive breeding and habitat area. The colony is small, yet unique and has been strategically important to the area's heron population.

The Great Blue Heron *(Ardea herodias)* is a year-round resident in Western Washington, and recognized as a Priority Species by Washington Department of Fish and Wildlife (WDFW). Heron colony sites are also considered Priority Habitats by WDFW and as Critical Areas in many jurisdictions requiring the protection of both the herons and their habitat. Heron colonies are sensitive to human disturbance and in most cases require special management to maintain their stability and productivity.

Due to the sensitivity of the Post Point Great Blue Heron Colony Heron Colony and its uniqueness, the City of Bellingham Public Works has supported the conservation of the site by developing a management plan (2003), establishing a scientific baseline (2005) and sustaining professional monitoring of the colony, which has been ongoing since 2005.

Monitoring of the Post Point Great Blue Heron Colony usually includes three primary components: general monitoring, focusing on colony activity, breeding chronology, predation and disturbance; productivity, which focuses on nestling numbers and fledgling success; and nest survey updating the number of nests and nest trees utilized during the breeding season. Heron foraging observations are also made to document foraging activity. Monitoring usually spans six months during the breeding season, plus post breeding documentation. In 2011 monitoring was intensified and extended, due to nesting failures in 2008 and 2009, Bald Eagle incursions, and late season fledging.

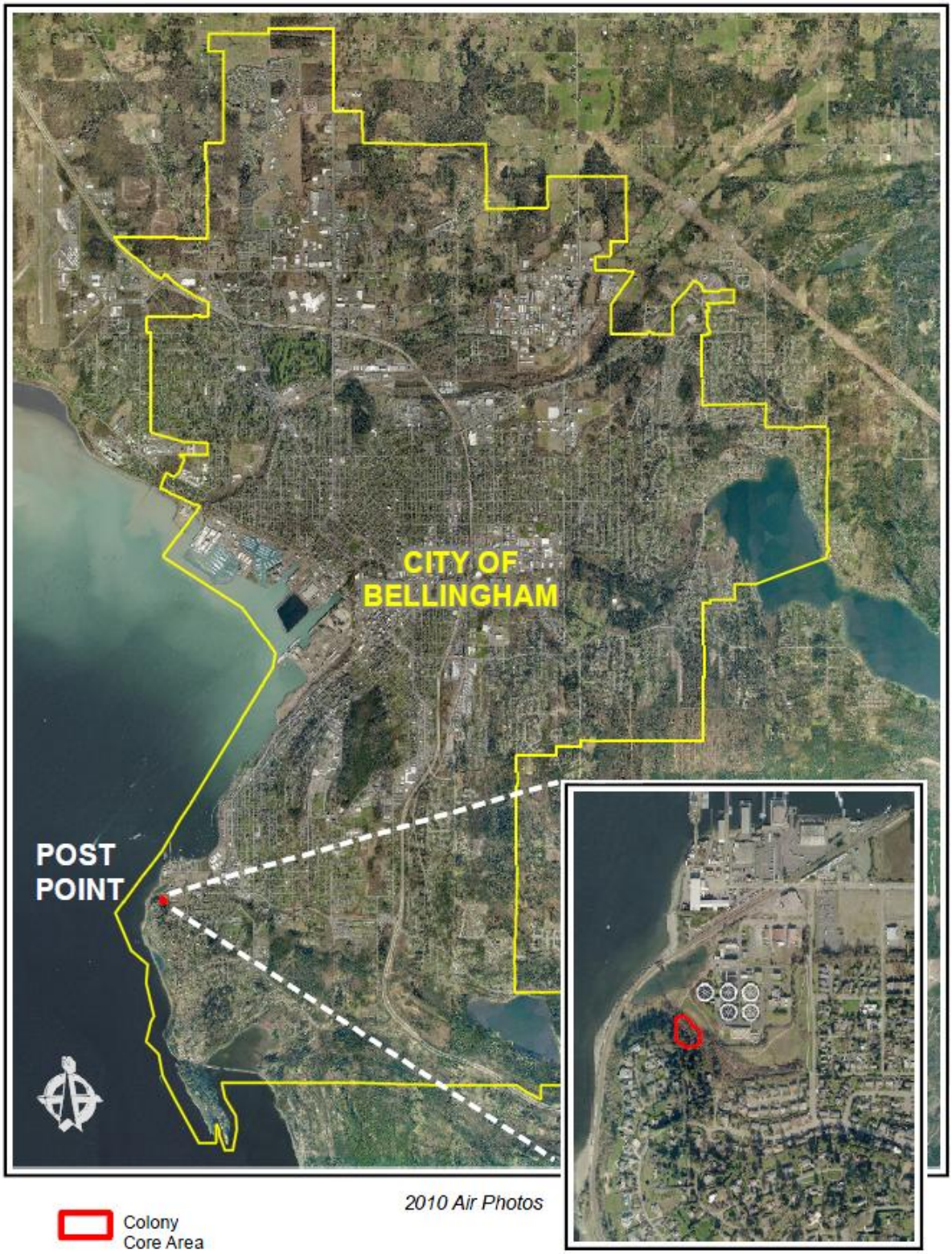
Implementation of monitoring, including on-site field observation and data collection was conducted by Dacia Wiitala, Jaime Welfelt and Ann Eissinger of Nahkeeta Northwest Wildlife Services based in Bow, Washington. Ms Eissinger has over twenty years experience monitoring Great Blue Herons and is expert in heron ecology, behavior, colony dynamics and stewardship. Her publication provides the most up-to-date synopsis of heron life history and status as a valued ecosystem component in Puget Sound - Great Blue Herons in Puget Sound: Technical Report 2006-2007 prepared for the Puget Sound Nearshore Partnership is available online at: http://pugetsoundnearshore.org/technical reports.htm This technical report, serves as the general reference for heron life history and breeding information used in this annual update.

Ann 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, Public Works Department. In addition the Biologist has assisted in the development of interpretive displays and public education materials for Post Point and has provided public educational programs featuring the herons of Post Point.

Periodic progress reports were submitted to the City documenting the heron's nesting activity and any observed disturbances. The point of contact for this project at the City of Bellingham Department of Public Works is Larry Bateman, Post Point Operations Supervisor.

Figure 1

Post Point Heron Colony Location



GENERAL MONITORING

General monitoring includes on-site visits and observations made from various locations in close proximity to the colony. Monitoring includes early season, breeding/nesting and foraging. Post-season monitoring takes place following the fledging of young from nests and range from foraging observations, colony checks, nest counts and map updates. Due to the location and associated vegetation around the nesting area, views of certain nests maybe obscured following leaf-out. All visible nests are therefore utilized for observation throughout the season.

Dacia Wiitala monitoring herons 2011

General monitoring of the colony commenced early in the year, beginning in February, and colony observations extended to mid-August 2011. The primary nesting season was documented from March to August. In 2011, a total of 38 on-site monitoring visits were made during the breeding/nesting season, plus one pre-season assessment of the colony site and two post nesting site visits following the herons fledging from the colony. A few reliable citizen reports, based on on-site observations, were also incorporated into the monitoring record. Added monitoring this season was conducted to document Bald Eagle activity, nesting, and disturbances during the weekend of Ski to Sea Festival at the Marine Park heron foraging area.

Monitoring of the colony included four primary objectives: 1) documentation of the nesting cycle or breeding chronology and related behavior; 2) observe and record disturbance including natural predators, human disturbance and other natural or unnatural disturbances; 3) document nest success and productivity; 4) record and map habitat utilization. The results of the monitoring observations are detailed below.

In addition to monitoring Great Blue Heron, Bald Eagles were monitored for their potential nesting activity and predation on herons. Also, all vertebrate species identified in the vicinity of the colony are recorded. In 2011, two new species were identified. The Merlin falcon *(Falco columbarius)* which was observed within the nest stand, but as a bird predator posed no threat to the herons. Most interesting was the regular occurrence of Green Heron (*Butorides virescens*) flying past the heron colony to the lagoon or marine shoreline, throughout the nesting season. The final observation of the Green Heron included one young heron accompanying the adult feeding at Post Point. The Green Heron is very secretive and generally builds small stick nests along stream or river courses in the under story.

Green Heron photos by Mike Hamilton

and

Brian Switek

Early Season Assessment

The winter of 2010-11 was anticipated to be colder and wetter than normal in the Pacific Northwest due to a La Niña in the equatorial Pacific Ocean. According to the Office of the Washington State Climatologist, the winter was moderate and not as cold and wet as expected. Mild temperatures and drier conditions started in November followed by a temporary cold spell in the low lands and generally warmer temperatures and less precipitation through January. A winter-like storm arrived late in February with snow reaching sea level and day-time cold temperatures in the twenties with high winds. March and April continued cool and wetter than normal. Overall weather patterns for the region were irregular. Great Blue Heron response to extreme weather events and winter survival is not well documented and prey availability following sea surface changes is also not known.

At Post Point, no winter storm damage was observed, most nests and nest trees appeared to be intact from 2010. The colony's location on the lee-side of a forested marine bluff, provides protection from most storms, however is not well protected from northeast winds. As of February 10th , 11 nest structures remained intact at the colony and heron were present in the colony only to be pushed out at the end of the month during the severe winter storm and northeast winds. By March 3rd herons remained sparse near the colony with 6 heron observed staging on a clarifier on the west side of the waste water facility and one heron were observed foraging. Heron began moving into the colony by March 7th, with heron occupying 7 nests.

An unauthorized pedestrian trail, which was created by residents from Shorewood in 2009, through the forest understory along the east side of the colony continues to be a problem. The trail was reestablished in 2011, despite efforts to close that access by the City of Bellingham. The trail was closed and blocked in 2009 and 2010 by City personnel with fence and signs. The signage was once again ignored and the fence damaged. The trail is not permitted and located in the colony which is a sensitive area. Presence of humans and human traffic through the colony is a source of potential disturbance to the herons. It is strongly recommended that the City meet with the neighborhood to craft a solution, particularly since the area below the colony will be under construction beginning in 2012.

Photo by Dacia Wiitala

Breeding/Nesting Season Summary

Field visits to the Post Point heronry started in early-February with heron already present in the colony. Following the winter storm in late February, the heron activity in the colony ceased temporarily. Rather than dispersing, several heron remained in the nesting stand or staged on clarifiers at the waste water treatment plant. Heron returned to the colony by March 7 with a total of 11 visible nests with 7 occupied. Nest building ensued, and as more herons arrived, by

the end of March a total of 14 nests were observed, 12 occupied with 20 heron present, with at least one nest incubating. These dates are slightly later than 2010.

Heron carrying nest material to colony - Photo by Alan Fritzberg 2010

Early April brought high rainfall and cold temperatures. Herons in the colony continued to enhance their nests and actively lined nests with fir boughs for insulation. By April 5th, 17 nests were visible, only one remained unoccupied and all active nests appeared to be incubating.

With first incubation observed March 23rd, hatching was expected to begin April 20th, but no young were heard. However, on the 16th of April a Bald Eagle flew over the colony flushing herons from nests, on the 19th of April, herons were observed copulating at one nest (indicating a second nesting attempt) and one week later, April 26th an observant neighbor reported a Bald Eagle incursion in the colony. Upon investigation, it was determined that the colony had experienced a significant loss of eggs and newly hatched young. It was not clear if all nests were predated or not.

Close monitoring of the colony in May resulted in observed re-nesting of nearly all nests and no young hatching from what may have been eggs remaining from the eagle incursion. Incubation of the second clutch began within the first week of May and no nests appeared to have abandoned. Incubation continued through May with no further eagle disturbances.

Adult heron with hatchling
Photo courtesy of March Point webcam

The first hatching of young was detected June 1st and continued through the first week of June. This late hatching is a result of the second nest attempt for 2011 and is one month later than 2010. Young require about eight weeks in the nest prior to fledging. As a result, the nesting season extended into the first or second week of August.

Feeding and rearing of young continued through July. No eagle incursions occurred and no major disturbance to the colony was observed or reported. In mid-July one possible juvenal was observed feeding at Marine Park. By July 26th the young were very active and preparing to fledge.

By August 2nd, most nests had fledged young, however at least 1 young remained in most nests. Fledging continued until August 14th when all nests appeared empty, however young and adults were present roosting within the nest stand and feeding at Marine Park. In 2010 the last remaining young fledged on July 26, resulting in a 3 week difference between 2010 and 2011.

Post Point Heron Nesting Chronology Summary 2011

- **February:** Early staging in colony, then pushed out by winter storms.
- **Early March:** Staging on clarifiers at Post Point Waste Water Plant, reoccupation of the colony, nest repair and building.
- **March:** Courtship, onset of nesting, egg laying and early incubation
- **April:** Incubation and possible onset of hatch.
- **Late April:** Bald Eagle depredation of all nests, young and eggs.
- **Early May:** Nesting rebound – laying of second clutch, incubation.
- **June:** Hatching, brooding and rearing of young.
- **July:** Rearing of young – adults roosting and foraging near colony.
- **Early to mid- August:** Fledging of all young from nests.
- **August:** Fledglings and adults continue roosting and foraging near colony.

In addition to the seasonal chronology, a historic chronology was also developed for this colony. The historic chronology outlines the annual colony activity, nest count results and other pertinent occurrences for that year related to the herons. The historic chronology is included as an addendum to this report.

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. Only Bald Eagles have been known to directly disturb or prey on the Post Point herons. However, crows have been known to enter the colony following Bald Eagle incursions, presumably to scavenge on the spoils. A mature pair of Bald Eagles, particularly the male, is commonly observed in the vicinity of the heron colony and regularly perches nearby, it is only when eagles prey on heron that the nesting is disrupted and herons are flushed from and could potentially abandon their nests.

Adult Bald Eagle attacking Great Blue Heron nest in Stanley Park, Vancouver B.C.

In 2011, the Post Point heron colony experienced severe Bald Eagle depredation, resulting in the loss of eggs and young. On April 26th, at the time when hatching was expected to start, a Bald Eagle incursion was reported by a neighbor of the colony at about 6pm. Upon investigation, 22 broken heron eggs were found under the colony, and the heron were easily flushed by any eagle flyover. A few of the eggs appeared to have been naturally hatched, but no young remained in the colony and no carcasses were found. Prior to this incursion, on April 16th, an eagle flushed 15 heron off nests and that likely indicated the onset of eagle depredation.

The only eagles observed in the area in April was the adult male (likely) of the resident pair which is observed at nearly every visit and has no effect on the herons. A juvenal Bald Eagle was also observed the morning of April 26th near the heron colony and may be associated with the incursion. Poor weather conditions and colder than normal temperatures may have contributed to the eagle attacks and/or loss of viable eggs/young in the colony.

Following the April 26h eagle attack, the herons appeared to resettle in the colony and start breeding and nesting all over again. A second clutch of eggs were laid and incubation ensued within one week's time. No other eagle incursions followed, resulting in herons rearing and fledging normally.

During the 2008 and 2009 breeding seasons, the local pair of Bald Eagle were observed in the vicinity of the heron colony at the onset of nesting. However, it was not until young had hatched and were ~3 weeks old that eagles were observed entering and disrupting the heron colony. Numerous eagle incursions were observed or reported, and it is likely Bald Eagle were the primary cause of the colony failure in both 2008 and 2009. In 2009, the local Bald Eagle pair was also reported to nest and have young, contrary to 2009 annual report. A Bald Eagle nest, situated in a large Douglas fir tree located approximately 62 feet southeast of the heron colony, was active in 2009 based on post-season reports from neighbors. Food demands by young eaglets likely caused the adult eagles to enter and prey on heron during that season.

In 2010 and 2011, the local Bald Eagle pair were observed in the vicinity of the heronry, however no eagle nesting activity or young were observed. No other predators or related incursions were observed or reported.

The Bald Eagle was delisted from the Federal Endangered Species Act in 2007, however they remain protected under the Bald Eagle Protection Act and Washington State Endangered Species Act. Nests are also protected under State regulations and require a Bald Eagle site management plan. The Bald Eagle nest located near the heron colony was recorded by the Washington Department of Fish and Wildlife's Region 6 Bald Eagle Specialist Julie Stofel in 2006. This nest however has not been active since 2009.

Ski to Sea Race Finish Line at Marine Park
(beach and primary heron foraging area in background)
Photo by Jaime Welfelt

A special effort was made at the end of May 2010 and 2011 to observe the heron colony and foraging areas during the Ski to Sea Race festivities. Site visits were made prior to, during and after the event festivities. With the finish line located at Marine Park, the potential for disturbance the foraging herons and the colony were possible. The results of the observations were negative for disturbance to the colony, but indicated that the event had disturbance to foraging herons. In 2010 herons were not utilizing all of the foraging area due to festival related human activities in the nearshore.

Herons were seen feeding in eelgrass beds about 200 feet away from the 2010 finish line, yet heron closer were flushed. A limitation around feeding areas at this critical period is notable. In 2011, no herons were feeding the vicinity of Ski to Sea activities due to high tide.

A persistent pedestrian trail, constructed in 2009, was cleared and actively used again in 2011. Earlier in the season, despite signage and fencing the trail was used by folding down the fence for passage. The trail was reported to the City of Bellingham and the trail entry points were blocked again or repaired. A public education effort is needed to inform citizens and neighbors of the sensitivity of the heron colony and to safeguard the colony during the nesting season. Trail closure is particularly important due to planned construction below the colony for the wate water plant expansion and other related trail closures beginning in 2012.

HABITAT UTILIZATION

The habitats utilized by the herons of Post Point include upland mixed forest, nearshore bluff, marine estuary, shoreline, intertidal and human structures. The upland mixed forest is situated along the nearshore bluff at Post Point and provides the structural substrate for seasonal nesting and year-round roosting. Within close proximity of the colony are marine shoreline, protected lagoon, estuary and intertidal area with eelgrass meadows.

Post Point Heron Habitat: field, forest, fenced buffer and lagoon.

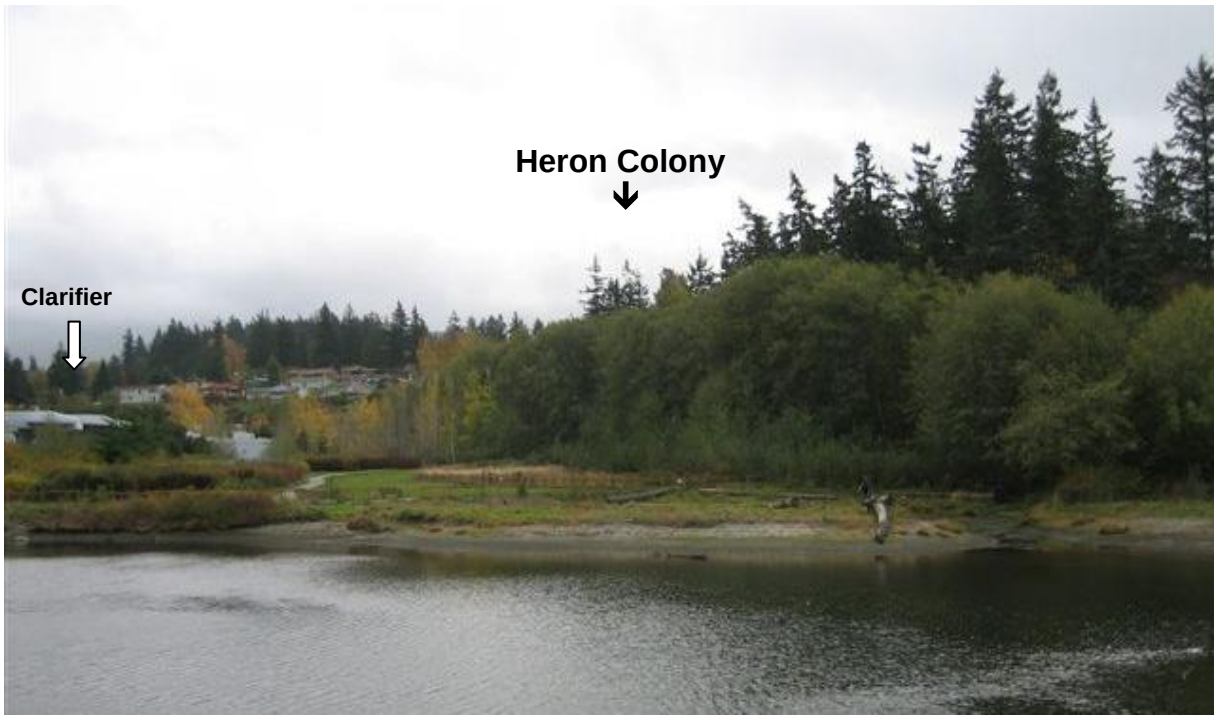


Photo by A. Eissinger

The upland forest where the nest colony is located is situated along a historic shoreline bluff. The bluff line allows the herons separation and elevation above the shoreline park and nearby municipal facilities. The forest is mixed second growth containing mature conifer and deciduous trees. The tree species utilized by the herons for nesting have in the past included Pacific paper birch *(Betula papyrifera),* big-leaf maple *(Acer macrophyllum)* and red alder *(Alnus rubra)*. The

nest stand is dominated by alder and Douglas fir *(Pseudotsuga menziesii).* Many of the old nest trees are mature and have died or blown over during the past ten years. As a result, the current nesting only occurs in alder. Douglas fir define the bluff and provide a critical overstory and wind break for the colony; they also serve as the primary roost trees for herons and bald eagles.

Although field habitat is present adjacent to the heron colony at Post Point and a vole population is available for foraging, heron observed using of the fields is rare. However, vole casting have been observed in the colony and vole tunnels were documented in the immediate field. Since 2008 the fields both inside and outside the protective fence remained fallow (unmowed) which is beneficial for the voles. The creation of more field or grassy habitat margins adjacent to the lagoon has been recommended as part of restoration efforts. These grassy margins are important as supplemental foraging and open loafing habitat for herons. Herons in other locations both stage and feed in shoreline coastal wetlands, saltmarsh, upland fields – particularly fallow margins along fields, wetlands and shoreline. Fields are also used as diurnal or day-time roosts. The heron's use of the Post Point lagoon has been limited, but appears to be gradually increasing as eelgrass restoration takes hold. The lagoon serves as an important and safe habitat area for newly fledged young from the colony.

Protection of the grassy field (wet meadow) and lagoon margins are important and strongly recommended. Construction of the new clarifier will remove approximately 8,300 square feet of wetland habitat and part of that is existing wet meadow (figure 2). Mitigation for lost wetland and habitat is described in the Post Point Waste Water Treatment Plant Expansion Mitigation Plan: http://www.cob.org/documents/pw/utilities/ppwwtp/pp-wwtp-mitigation-plan-june-2011.pdf Although the planting plan is diverse, and stresses native vegetation, it is unclear is the lost meadow area will be replaced. It is recommended that the final planting plan be developed with the heron habitat and screening needed to offset disturbance and habitat loss.

Heron at Post Point Lagoon
Photo by Jaime Welfelt

The heron's use of the Post Point Waste Water Treatment Facility is unique. Herons utilize the top of the clarifiers during staging and occasionally during the breeding season, fledging and winter roosting. Herons standing on the clarifier structures provide separation from the colony, but not without the risk of human disturbance. It is also a sunny, protected and potentially warmer area than the north-facing forest where they normally roost.

Post Point water treatment clarifiers with heron staging
Photo by Gary Gilfilen

Post Point Waste Water Treatment Plant
Photo by A. Eissinger

FORAGING

Foraging habitats for herons include field, freshwater, estuaries and marine intertidal areas. The most productive foraging areas are frequented during the breeding season and provide the essential prey necessary to nourish both adults and young. The foraging areas for the Post Point herons in and around Bellingham Bay were surveyed and mapped in 2006 and are illustrated in previous reports.

Foraging surveys are conducted by the monitoring Biologist during each breeding season. Since 2008, herons from the Post Point colony were staying close to the colony for foraging, unlike previous years. However in 2011, adult herons were observed regularly crossing Bellingham Bay to feed. Yet, the primary foraging is concentrated to Post Point/Marine Park and immediate shoreline. Use of the Post Point lagoon is used infrequently. The lagoon shoreline is particularly favored by newly fledged young.

The most productive foraging areas for heron are shallow Intertidal with abundant native eelgrass *(Zostera marina)* where prey species reproduce and concentrate. Eelgrass is abundant along the Post Point shoreline and heron use of the area is essential for successful feeding of young and maximum fledging. The Post Point/Marine Park shoreline was used daily by the Post Point herons and served as the primary foraging area in 2011. Use of the eelgrass area was limited only by tide and competition with recreating humans.

In an effort to limit encounters between heron and human, signs were used to alert shoreline users at Marine Park to the sensitivity of the eelgrass and lagoon areas and requested that people not disturb herons.

Other known foraging areas utilized by the Post Point herons include, Chuckanut Bay, Padden Creek estuary, Portage Bay, Lummi Shore Drive shoreline, Nooksack River delta and suitable locations along the Bellingham Bay shoreline.

Herons foraging in eelgrass near Marine Park Photos by Alan Fritzberg 2010

PRODUCTIVITY

The productivity of the visible nests within the heron colony is monitored annually and is measured during on-site visits in May and June prior to fledging. Due to the delay in this year's nesting, productivity was measured in July. Productivity within the colony is an important indicator of the health of the colony, and was particularly important this year given that the colony is still recovering from failing in 2008 and 2009.

The Post Point herons successfully produced young in 2011, despite losing all eggs and young in April. Herons lay four to five eggs per nest and may fledge a maximum of five young, but normally fledge one to three.

In 2011, young were successfully fledged. Based on a sample of 14 nests, in 2011, between 2 and 4 young were observed, for an average of 3 young per nest. Visibility obscured certain nests. In 2010 between 2 and 5 young were documented for the 13 nests, resulting in an average of 3 young per nest. These results are an excellent result and reflect good health and success on the part of the herons and locally viable food sources. This is particularly good, given the required energy and resources needed to lay and rear a second brood to fledging.

Post Point heron nest with 4 young
Photo by Alan Fritzberg

NEST SURVEY & MAPPING UPDATE

The annual nest count is the standard method for determining the number of nests within the heronry and indicates the number of nests and active breeding heron pairs utilizing the site during that year. Autumn allows maximum viewing of the whole heronry following leaf drop, and is the most accurate count of the year for large colonies. However, in colonies that were not fully utilized, a count of nests at the end of a breeding season can misrepresent actual numbers of active nests, so colony monitoring during the breeding season is essential.

A record of nest tree locations and nest numbers is also made or updated in the autumn of each year. New nest trees and nests are added to an index of nest trees, all of which are tagged and identified. A map illustrating the nest trees and locations in the heronry is updated year to year. For 2011, an autumn nest count was conducted in November. From this count, a total of 13 nest trees with 17 nest structures were recorded. Of these, one nest was not active and two nests in

separate nest trees were new for 2011. A total of 16 nests were active, observed and tracked during the nesting season and 14 were more easily viewed and provided the source for productivity and other information. All of the active nest trees were alder, the birch have died, blown-down or are no longer structurally sound to hold nests, and the big-leaf maple, once a major nesting tree, is not active.

In review of previous years (Table 1), 19 nests were active in 2004, two of which may not have supported young. In October 2005, the annual nest count was conducted resulting in a total of 31 nests counted in 10 nest trees. Of the nests counted in 2005, 13 were new for that year. In 2006 a new high of 37 nests were recorded. For 2007 the nest count totaled 27 nests in 12 trees, and one new nest tree. The 2007 season marked the first decline in breeding numbers since the colony established in 2000. The total nest count for 2007 was a 10 nest decline from 2006 and dropped below the 2005 total of 31 nests. Storm damage accounted for the loss of five nest trees and at least seven nests. In 2008, a total of 17 nests in 9 nest trees were recoded as active, and 2009, 11 nests were confirmed active and 2 were not visible, but assumed active. However all nests in 2008 and 2009 failed. In 2010, the colony rebounded with 13 active nests, all of which fledged young.

A colony map update was completed in December 2011, by Chris Behee of the City of Bellingham and Dacia Wiitala, Nahkeeta Northwest. The colony maps (Figures 2-3) illustrate the colony, its location on the landscape, the core area, nest tree location and number of nests per tree. In addition, the Post Point Waste Water Plant expansion overlay was included (Figure 2).

The colony core area, as indicated on the maps, constitutes the actual nesting area and is calculated 50 feet laterally from the base of the outermost nest trees. This allows for variance in tree canopy and actual nest location. GPS readings of each tree are taken at its base. The core area is about 1 acre in size. A 100 foot buffer is illustrated as the non-disturbance area around the colony. This buffer was created as the minimum no-entry/ no disturbance area during the breeding season (2003 Post Point Heron Colony Management Plan). This also represents an area in which the colony could move over time. Due to the infringement of the Waste Water Plant and placement of a new clarifier which will infringe on this buffer, it is recommended that trees be planted between the new clarifier and colony for screening.

The 2011 maps for the colony illustrate the two new trees (596 and 597). These new trees expanded the colony core area & disturbance area buffers on the northwest edge, towards the lagoon.

Also mapped are, heron roosting and foraging areas, as well as the bald eagle nest near the colony and property boundaries are indicated on the map. Although the colony is situated on City property, many of the nests are bordering private property which is proposed for future development.

During the annual nest count, each nest tree is tagged or existing tags are read, and tree condition is noted. New nest trees were recorded and tagged. The number and size of nests are recorded as well as the presence of egg shell, remains or blown down nests. A database of nests and nest trees is maintained and updated annually.

The following is a summary of nests and nest trees since 2000.

Table 1: Post Point Heron Colony Annual Nest Count

Year	Total number of nests	Total number of nest trees	Percentage change (# of nests)
2000	6	5	----
2001	8 estimated	6 estimated	+33%
2002	10	6	+25%
2003	14	8	+40%
2004	19	10	+36%
2005	31	10	+63%
2006	37	15	+19%
2007	27	12	-27%
2008	17 active	9	-37%
2009	11 active at onset 9 active nesting	8	-35%
2010	13 active	9	+44%
2011	16 active, 1 not active	12	+23%

Post Point herons preparing nest 2010
Photo by Alan Fritzberg

Figure 2: Colony Map 2011 Update

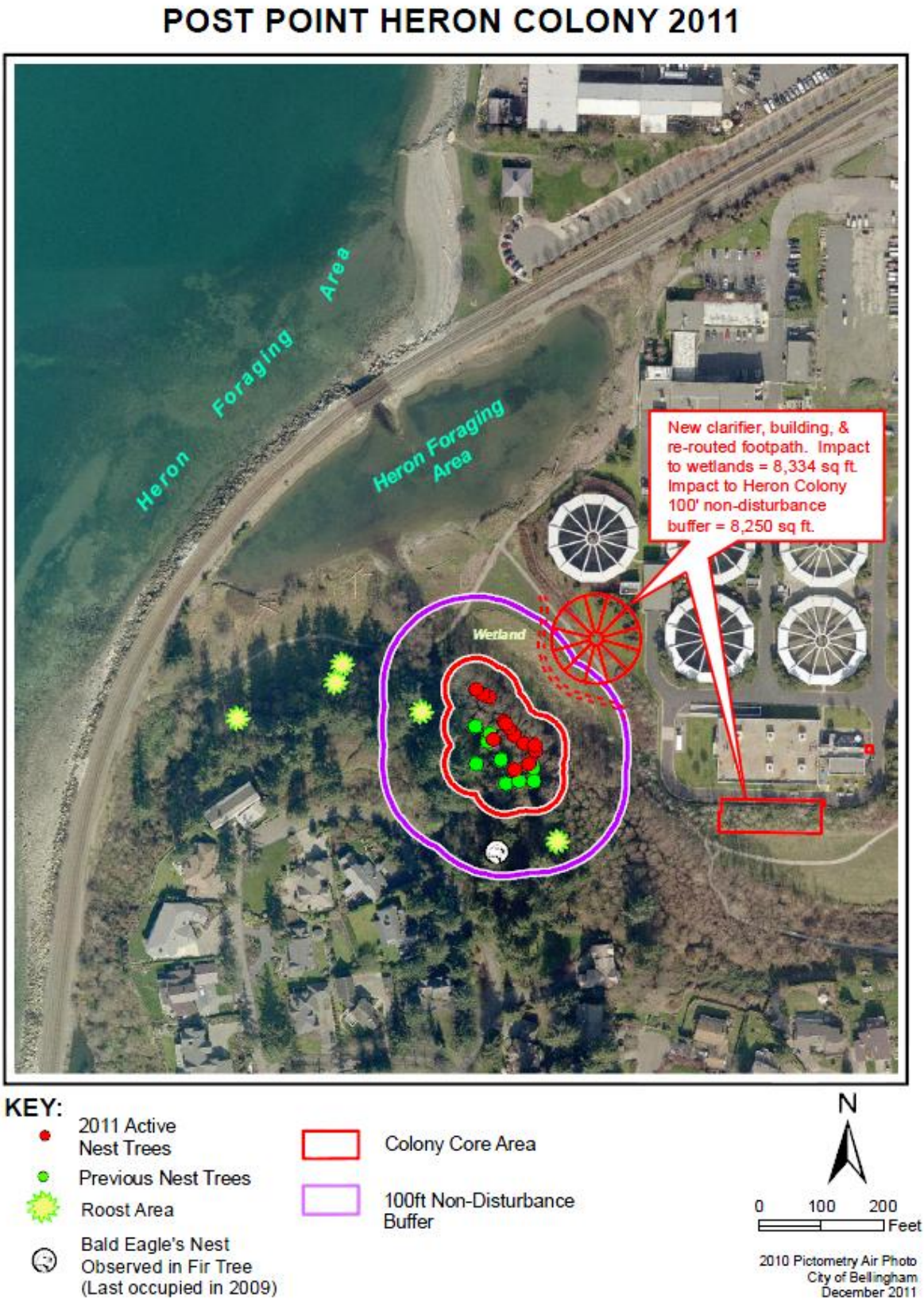
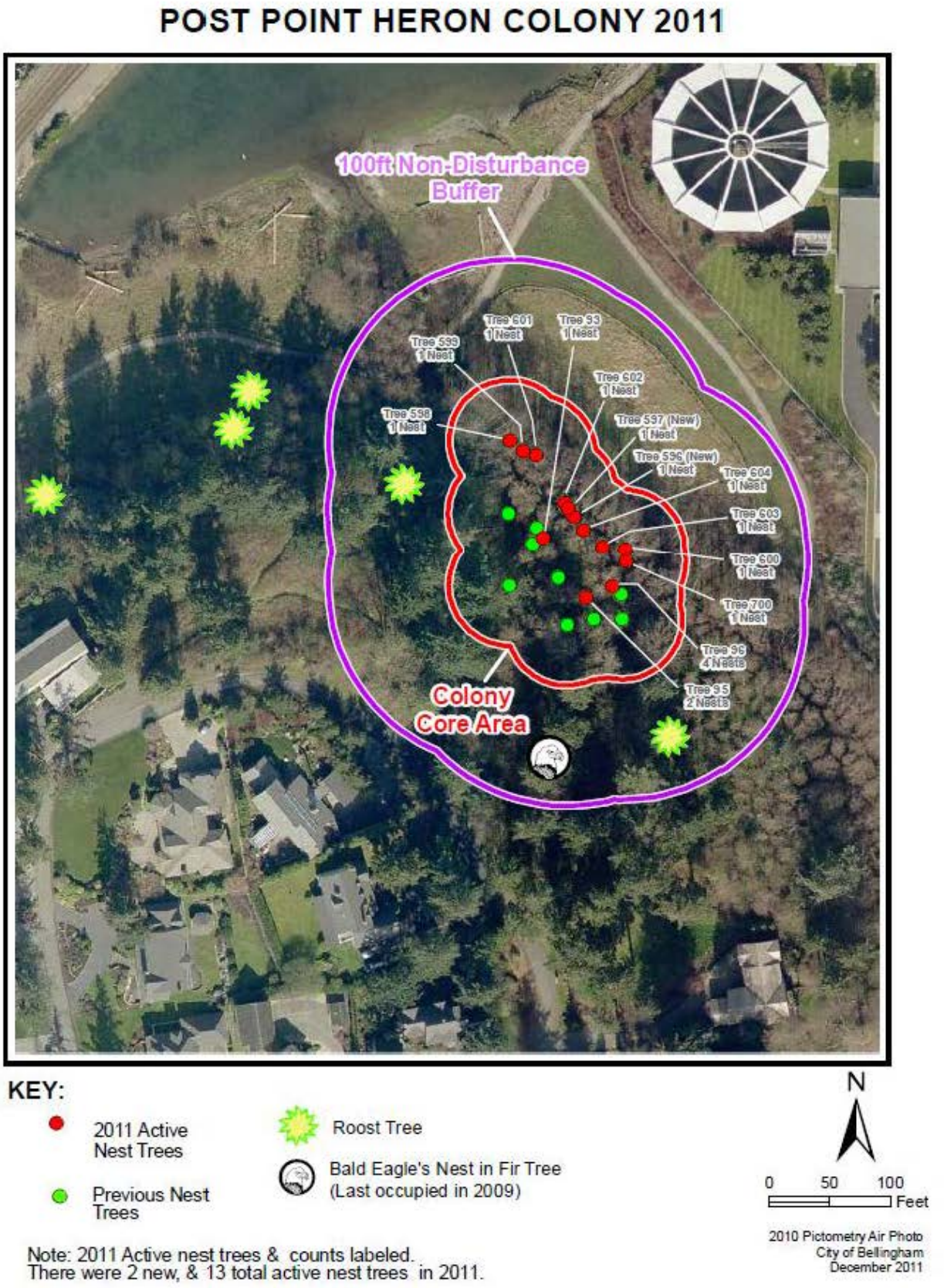


Figure 3: Colony Map 2011 Update



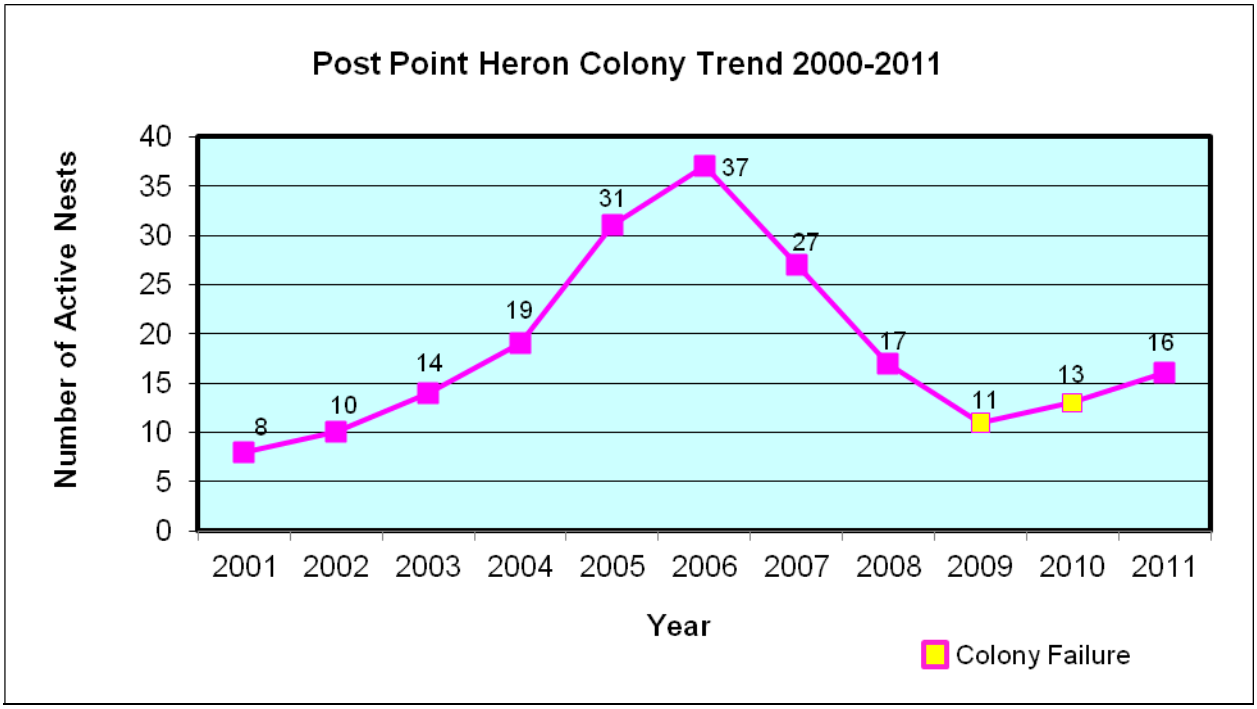
COLONY GROWTH and DECLINE

The Post Point Heron Colony experienced growth in its first six years, then for unknown reasons declined, failed and then rebounded in 2010. Between 2000 and 2006, the colony expanded from 6 to 37 nests. During this period the growth rate was approximately 36% annually. In 2007 the colony declined and that trend continued through 2009. Although the colony was active in 2008 and 2009, the colony failed to fledge young. In 2010, the colony rebounded and in 2011 the colony continued to be successful with slight growth.

The early growth of the colony indicated the annual influx of new breeding adults and likely return of previous fledglings to breed once reaching maturity (2-3 years of age). Based on 2005 fledging numbers, the predicted return of 30 young breeders did not occur, instead approximately 20 heron failed to return to the colony to breed in 2007. In 2008, the return of adult heron to the colony was only half of the previous year and that repeated in 2009. The decline in breeding numbers in 2007 was likely related, in part, to high mortality resulting from harsh conditions and hurricane force winds experienced during 2006-2007 winter months, as well as other environmental stressors impacting heron fitness and survival. Declines in 2008-2009 were related in-part to depredation by Bald Eagles, but other factors were likely also involved, including weather, water temperature, prey availability, and adult heron health/fitness. Declines at other colonies in the Salish Sea were also reported in 2008 and reflect the need for region-wide reporting and tracking of colonies.

2010 and 2011 have marked a positive rebound for the Post Point heron colony. A minor increase in the number of nests and successful fledging of young proved to be an important turn around for the colony. The lack of Bald Eagle incursions during the 2010 season contributed to the nesting success. However, even with the mid-season loss of viable eggs and young from eagle depredation, the colony rebounded with a second nesting attempt and successfully fledged young from all active nests.

Figure 4: Post Point Heron Colony Trend

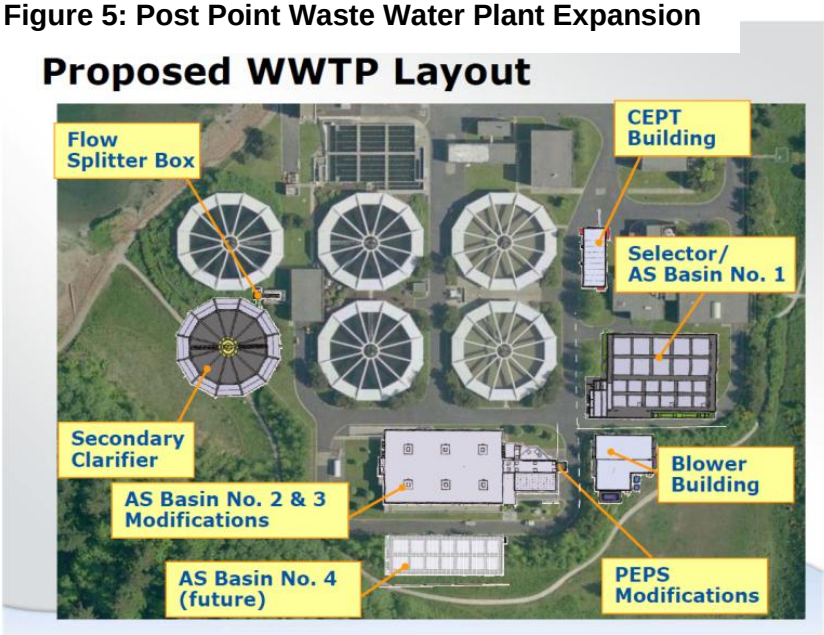


POST POINT WASTE WATER PLAN EXPANSION

The City of Bellingham Public Works Department is in the process of expanding the Post Point Waste Water Plant. The Post Point facility has provided secondary treatment of waste water since 1993 and processes up to 72 million gallons daily, with treated discharge piped directly to Bellingham Bay. Due to the city's population growth, the plant has reached its capacity and requires expansion to handle the increase in flow and load, and maintain treatment within federal and state standards. The expansion project is planned for construction to start March 2012 and continue to July 2014. This and more detailed information is available on the web: http://www.cob.org/government/departments/pw/projects/wastewater-treatment-improvements.aspx

The expansion of the Post Point Waste Water Plant requires the addition of several new structures and enlargement of its existing footprint. Although most of the new construction is situated within the current facility boundary, defined by fencing and vegetative screening, three new structures will be built outside that defined space (Figure 5 Carollo Engineers). Two structures, including the Secondary Clarifier and AS Basin No. 4, as depicted in the August 2010 project layout, will be built within line of sight and close proximity of the Post Point heron colony.

Figure 5: Post Point Waste Water Plant Expansion



The expansion of the Post Point facility directly affects the Post Point Great Blue Heron Colony, due to its close location and structural scale. The proposed project will require site prep, excavation and construction, using heavy equipment and associated lighting, cranes, and personnel, resulting in increased noise, lighting and human activity resulting in permanent physical changes to the landscape.

The close proximity of the Post Point heron colony to the waste water plant and the proposed addition of a structure (Secondary Clarifier) within 100 feet of the active nests, will pose both temporary disturbance and potential permanent impact to the colony. Design changes were not possible due to existing infrastructure and cost.

In order to mitigate impacts the City of Bellingham, Public Works Department hired EAS Adfolson of Seattle to conduct a Biological Evaluation and provide a Wetland and Wildlife Mitigation Plan for the project. Both reports were completed June 2011 and used in the permitting process: http://www.cob.org/government/departments/pw/projects/wwtp-permits.aspx

Due to the sensitivity of the herons and close proximity of the construction and placement of the new secondary clarifier to the colony, a series of conditions were included in the City's Mitigated

Determination of Non-Significance as a means of mitigating impacts to the heronry. The MDNS is included as an attachment to this document for greater detail. It is hoped that the conditions set forth in concert with the mitigation plan and consistent monitoring will provide the protective measures during construction and habitat enhancement necessary to retain a healthy, productive heron colony at Post Point.

Habitat mitigation area on lagoon shoreline
Photo by A. Eissinger

Heron Roost near Post Point Lagoon
Photo by Alan Fitzberg

MANAGEMENT AND STEWARDSHIP RECOMMENDATIONS

Recommendations for 2012 management and stewardship of the Post Point Great Blue Heron colony are as follows:

1. Conduct weekly or semiweekly monitoring of the heron colony and nearby foraging areas, while herons are present nesting.
2. Work with the City project manager and contractor during construction at the waste water treatment plant to inform the process and reduce impacts to herons and other wildlife.
3. Fully protect associated upland habitat around the colony – maintain naturally vegetated buffers and purchase adjacent undeveloped land.
4. Protect the Post Point nearshore foraging habitat from human recreational disturbance by posting signage between May and August - including the lagoon and outershore intertidal and eelgrass area.
5. Collaborate with other agencies or institutions to survey foraging sites around Bellingham Bay and document heron prey species and concentrations in foraging areas.
6. Conduct outreach and education to the user groups of the Post Point and Marine Park shoreline including: kayakers, kiteboarders, shellfish gatherers, Bellingham Parks and Ski to Sea organizers.
7. Monitor Bald Eagle activity and determine location of any active eagle nest.
8. Support active public education and volunteer involvement in consultation with the Biologist.
9. Provide neighborhood education outreach in the Shorewood/Edgemoor area.

In 2003, the Post Point Heron Colony Management Plan was prepared for the City of Bellingham. The plan provided background information, regulatory overview, status of the colony and recommendations. Due to revisions in the WDFW priority species management recommendations for Great Blue Heron and accumulated knowledge specific to this heronry, it is strongly recommended that the 2003 Post Point Heron Colony Management Plan, be updated to reflect these changes.

An assessment of foraging areas and documentation of prey species and seasonal occurrence is needed to better understand their relationship with the heron colony. No survey of nearshore heron prey species in Puget Sound has been made. Documentation of prey concentrations would also help direct conservation of foraging areas. Continued observation of foraging areas during the breeding season is also essential due to the dependence of the colony's success on these areas.

In addition, inclusion or support for regional heron colony monitoring would contribute significantly to the understanding, determination of trends and tracking of the heron population as a whole. With this additional information, individual heron colony fluctuations can be better explained.

Public education, particularly for shoreline user groups, Sea to Ski organizers is needed to inform them of sensitive heron feeding areas and the role they can play to protect these areas for herons and other wildlife.

CONCLUSION

The Post Point Heron Colony was established in 2000. The colony has grown, and successfully produced and fledged young for eight consecutive nesting seasons. In 2007 the colony began to decline. Nesting numbers dropped by over half during 2008 and 2009 and the colony experienced mid-season failures. The colony has rebounded in 2010 and 2011, with successful nesting, fledging and a slight increase in active nests. This success of the colony is a hopeful sign that the colony is recovering.

Monitoring of the colony during the 2011 nesting season revealed two disruptions in heron nesting. First, early occupancy of the colony in February was, interrupted by winter storm conditions and low temperatures, which temporarily forced heron out of the colony. Second, the colony suffered Bald Eagle depredation in late April, but recovered, laid a second clutch of eggs and successfully fledged young in August. A special effort to intensify monitoring during the season included observations specifically aimed at Bald Eagle activity and human disturbances, particularly around the foraging area and over Ski to Sea weekend. No Ski to Sea disturbance was observed due to high tide.

Efforts were made to reduce human disturbance of the herons and colony in 2011. These include fence repair blocking the illegal trail passing through the heron nest stand, and the creation and placement of shoreline signs discouraging people from flushing herons from their feeding areas and keeping people out of the Post Point lagoon area.

The Post Point Great Blue Heron Colony was active from early February to mid-August in 2011 and supported 16 active nesting pairs in 13 nest trees, one nest remained inactive for the season. The colony successfully fledged young in August, one month later than 2010. Active nest numbers increased 23% from 2010. Nests consisted of 2 to 4 young indicating good productivity. Compared to previous years, this year proved vital in withstanding devastating eagle depredation and in reversing the failures of 2008 and 2009. The colony needs to be carefully monitored to ensure the continuation of success and viability.

Due to the sensitivity and instability of the Post Point heron colony, emphasis on the colony's protection and conservation is greatly needed through 2012. Intense monitoring, protection of habitat, particularly primary feeding areas is also is highly recommended. This protection includes the education of used groups and the posting of signage. Mitigation of habitat and protective measures during the Post Point Waste Water Plant expansion is planned, but will require on site monitoring and information sharing throughout the construction phase.

Finally, Nahkeeta Northwest would like to extend our gratitude to Larry Bateman and the staff of the Post Point Waste Water Treatment Facility, Stan Nelson of the Shorewood neighborhood, for their assistance in this monitoring effort, and Renee LaCroix and Kim Weil of the City of Bellingham for their work in planning and permitting. We would also like to express a special thank you to Chris Behee, GIS Specialist with the City of Bellingham, for providing nest locations, mapping and excellent updated maps for this report. We greatly appreciate photographs of the Post Point herons provided by Alan Fritzberg and additional photos from Mike Hamilton. Finally, we acknowledge the support of neighbors who shared useful information related to the herons and heronry.

ATTACHMENTS

- **Post Point Great Blue Heron Colony Annual Chronology**
-
- **City of Bellingham: Post Point Waste Water Treatment Plant Expansion - SEPA Mitigated Determination of Non-Significance**

Inside the Post Point Heronry
Photo by A. Eissinger

Post Point Great Blue Heron Colony

Colony Chronology (2011 update)

Pre 1999:

- Post Point bluff utilized by herons for roosting and possible nesting
- Post Point Lagoon and nearby shoreline utilized for foraging

1999

- Neighbors report heron nesting activity at Post Point (1-2 nests unconfirmed)
- Chuckanut heron colony abandon from Heron Estates
- Herons reported attempting to build nests in cottonwood north of Viewcrest, nesting attempt failed

2000

- Herons establish nesting colony in present location at Post Point
- Total 6 nests in 5 trees and successfully fledge young

2001

- Herons continue to nest at Post Point (no data available - 8 nests estimated)
- Pedestrian trail moved away from base of colony to 111 feet northeast

2002

- Herons continue to nest at Post Point increasing to 10 nests in 6 trees
- 66% growth from 2000 (estimated 25% annual growth from 2001)

2003

- Herons nesting at Post Point increase to 14 nests in 8 nest trees
- 133% growth from 2000 (40% annual growth from 2002)

2004

- Herons successfully nesting at Post Point for 5th year with 19 nests in 10 nest trees
- 216% growth from 2000 (36% annual growth from 2003)

2005

- Herons successfully nesting at Post Point for 6th year.
- 56-58 breeding adults.
- Staging reported February 11 with nesting commencing February 23.
- Hatching confirmed April 19
- Nesting/fledging completed August 26.
- 28 week breeding cycle.
- Productivity: mean 2.5 young per nest = estimated 77 young fledged
- Total of 31 nests in 10 nest trees (including 1 blown down nest)
- 416% growth from 2000 (63% annual growth from 2004)
- Average growth rate = 39.4% annually over 5 years.

2006

- Herons successfully nesting at Post Point for 7th year.
- 72-74 breeding adults.
- Staging reported March 1 with nesting commencing March 15.
- Hatching confirmed May 3
- Nesting/fledging completed August 11.
- 23 week breeding cycle.
- Productivity: mean 2.6 young per nest = estimated 91 young fledged
- Total of 37 nests in 15 nest trees
- 19% annual growth from 2005
- Average growth rate = 36% annually over 6 years.

2007

- Winter storm damage: loss of 5 trees and 7 nests
- Herons successfully nesting at Post Point for 8th year.
- ~54 breeding adults.
- Colony reoccupied Feb. 18
- Incubation started March 12
- Hatching confirmed April 26
- Nesting/fledging completed July 26.
- 21 week breeding cycle.
- Productivity: mean 2.6 young per nest = estimated 70 young fledged
- Total of 27 nests in 12 nest trees
- 27% nesting decline from 2006
- Average growth rate = 35% annually over 7 years.

2008

- Herons return to nest at Post Point for 9th year.
- Colony reoccupied March 6
- ~34 breeding adults
- Incubation started March 15
- First hatching confirmed April 26
- Early nests failed late-May
- Second nesting attempt June
- Colony failure late-June
- Colony abandonment confirmed July 1 – no young fledged
- Total of 17 nests in 9 nest trees
- 37% nesting decline from 2007 – no productivity

2009

- Herons return to nest at Post Point for 10th year.
- Colony reoccupied March 6
- ~18 breeding adults - 11 nests active (2 unable to attract mates)
- Incubation started April 1
- First hatching confirmed May 3
- Bald Eagle depredation observed May 27
- 2-3 nests remain active May 29
- Colony abandonment confirmed June 12 – no young fledged
- Total of 9 nests utilized in 8 nest trees
- 35% nesting decline from 2008 – no productivity

2010

- Herons return to nest at Post Point for 11th year.
- Staging Feb 5
- Colony reoccupied March 6
- 22 breeding adults – 13 nests active (max. 15 nests visible)
- Incubation started March 19
- First hatching confirmed April 27
- Productivity ~3 young/nest
- No Bald Eagle depredation observed or reported
- Fledging late June – early July, fledging complete July 12
- Total of 13 active nests utilized in 9 nest trees
- 2 added nests, positive change from 2008-09 – 100% change in nest productivity!

2011

- Herons return to nest at Post Point for 12th year.
- Staging in colony February 10 – 5 nests occupied by single adult
- Winter storm and snow force heron out of colony February 25
- Staging on clarifiers March 3
- Colony reoccupied March 7 – 7 nests occupied
- Early Incubation started March 19
- Total 16 nests active (max. 17 nests visible) April 9
- Bald Eagle incursions April 26-27 eggs and young viability lost
- Re-nesting begins May1 – 16 nests remain occupied
- Egg laying/incubation underway May 5
- No Bald Eagle incursions observed or reported
- First hatching confirmed June 1
- Rearing June/July
- Productivity ~3 young/nest
- Fledging late July – early August, fledging complete August 14 (one month later than 2010)
- Total of 16 active nests utilized in 13 nest trees (2 new nest trees)
- 3 added nests, positive change from 2010 = +23%

Heron Flyover
Photo by Mike Hamilton

PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT
210 Lottie Street, Bellingham, WA 98225
Telephone: (360) 778-8300 Fax: (360) 778-8302

SEP2011-00005

Mitigated Determination of Non-Significance

Description of Proposal: The proposed project will improve treatment capacity at the City's Post Point Wastewater Treatment Plant, a designated Essential Public Facility, by expanding the core secondary process to meet regulatory requirements and the projected population increase. The project includes construction of a fourth secondary clarifier, a chemical facility and a blower building; modifications to pump stations and flow splitting structures; a new anaerobic selector basin; additional activated sludge basins and associated mechanical facilities; retrofits to the existing activated sludge basins; and improvements to existing electrical and control systems. The project will result in 1acre more of impervious surface within the 30-acre site and will obtain coverage under the existing General NPDES Permit to be granted by Dept. of Ecology. Critical areas at the construction site include wetlands, a stream, a great blue heron colony, and an eagle's nest. A portion of the proposed construction and wetland enhancement is within 100-foot of the heron colony. The construction will result in filling of approximately 8,642 square feet of wetland and impact wetland buffers. The existing trail near the south end of the Post Point Lagoon will be permanently closed to protect the heron colony and provide a buffer to the expanded lagoon. Additional mitigation proposed includes expansion of the lagoon to increase habitat and wetland function, limiting construction and wetland enhancement during the breeding season February 1st----August 31st (or when the project heron biologist indicates all heron juveniles have fledged), native plant installation in remaining wetland and buffers to increase function and provide protection to the heron colony and eagle's nest, and temporary or permanent closure of the pedestrian trail nearest the new clarifier (wetland impacts for a rebuilt trail accounted for). Monitoring the heron colony will occur during and after the project by the project heron biologist; the temporary trail closure will be re-evaluated after construction. For more details and site plans go to www.cob.org and type in the search bar "Post Point Wastewater Treatment Plant".

Proponent: City of Bellingham Public Works Dept. 210 Lottie St., Bellingham, WA 98225. Rory Routhe contact, (360)778-7900.

Location of Proposal: 30-acre site 200 McKenzie Ave, Bellingham, WA 98225; Fairhaven Neighborhood Area 10, Parcel # 370211 403538, Zoned Public.

Lead Agency: City of Bellingham Planning and Community Development Department

Mitigating Conditions Required for this Proposal:

1) Impacts to wetlands, wetland buffers, the great blue heron colony and bald eagles shall be mitigated by full implementation of the "Post Point Wastewater

Treatment Plant Improvements Wetland and Wildlife Mitigation Plan" (ESA, June 2011) and by implementation of the conditions within this determination.

2) Prior to issuance of building, grading, clearing, or stormwater permits for the project, a complete and detailed wetland and wetland buffer mitigation plan shall be submitted to the Planning and Community Development Dept. (PCDD) for review and approval. The plan shall include: plant species (common and scientific name), density, size, and other specifications; site specific goals, objectives, and performance standards; a monitoring and maintenance plan for at least five years; a contingency plan; and an implementation schedule for all phases of the mitigation work.
3) Mitigation work shall commence within one year of the issuance of the Critical Areas Exemption and Shoreline Permits. The mitigation implementation schedule mentioned in #2 shall provide the timing of each mitigation action, including coordination of the lagoon excavation work within the regulatory "windows" allowing it and coordination with ingress and egress of equipment necessary to do the excavation, trail removal, planting, site preparation, and other necessary work. The timing of the excavation of the lagoon shall adhere to federal and state regulations for in-water work and shall also adhere to the construction-timing limits established from February 1st through August 31st, or when the project heron biologist indicates the heron juveniles have fledged (i.e. the heron nesting construction restriction period), for protection of the nesting great blue heron and bald eagles. The City of Bellingham Environmental Coordinator shall be consulted before final grades for excavation are established in order to concur with the final design.
4) No construction work shall occur on the secondary clarifier, or any other construction aspect of the project located within the 100-foot heron colony core buffer (shown on attached site plan), during the heron nesting construction restriction period, except for finishing work done within the interior of the clarifier or work done with non-mechanized hand-held tools.
5) Work between the 100-foot heron colony core no-disturbance buffer and the 300-foot heron-nests buffer shall be avoided to the greatest extent possible during the heron nesting construction restriction period· Work in this area during this period shall be limited to that within the existing built facility and within the existing vegetated screen separating the active facility from the rest of the property. To the greatest extent possible, background noise and light from construction activities should be of no greater duration or intensity.
6) Reports submitted from the project heron biologist to the applicant detailing the status of the heron colony during the nesting season and through the duration of construction shall be sent monthly to the PCDD and to the contractor at the same time they're submitted to the Public Works Dept.
7) Prior to issuance of any building, grading, clearing, or stormwater permits for the project, the location of the 300-foot heron nests-buffer shall be clearly marked in the field, and on the construction plans, and remain in place for the duration of the project. The 300-foot buffer is defined as 300 feet from the active heron nest trees last mapped in the spring of 2010. In addition, the 100-foot heron colony core buffer and clearing limits shall be clearly marked in the field.

8) If soil conditions anywhere on the site prevent the use of auger-cast piles and instead require pile driving during the heron nesting construction restriction period, the project heron biologist and the PCDD shall be notified immediately and before pile driving commences. Pile driving shall be done in a way that minimizes audio and visual disturbances to the heron colony to the greatest extent possible.
9) Revised plans shall be developed to reconstruct the trail that is currently located between the heron colony and the clarifiers. The applicant shall work in concert with the project heron biologist to design and locate the trail, including fencing, mitigation planting, construction timing, and other measures that are aimed at reducing potential impacts to the heron colony and bald eagles based on current conditions. The trail plan shall be submitted to the PCDD for review and approval prior to issuance of any building permits for the entire project. The trail shall be constructed prior to final building inspection approval for the clarifier unless otherwise recommended by the project heron biologist and approved by the City SEPA Official.
10) Equipment and material storage, staging and fueling areas shall be outside the 100-foot heron colony core buffer and wetlands.
11) In order to mitigate for the permanent closure of the trail spur along the south portion of the lagoon, a permanent viewing platform and interpretive sign for the heron colony and the lagoon shall be installed near the public trail adjacent to the lagoon. The applicant shall work in concert with the project heron biologist to develop the design and location of the viewing platform and location of the interpretive sign to avoid impacts to the heron feeding areas and their line-of-sight to those feeding areas. The viewing platform shall be constructed prior to final building inspection approval of the clarifier unless otherwise recommended by the project heron biologist and approved by the City SEPA Official.
12) Construction stormwater impacts shall be mitigated to avoid water quality and quantity degradation to the stream, lagoon, and Bellingham Bay. All state and local stormwater requirements shall be met at the time of construction, not postponed to a future date.

Environmental Information Considered:

1) Permit application materials as revised through August 24, 2011
2) JARPA (June 23, 2011)
3) SEPA Checklist (March 4, 2011)
4) Biological Evaluation (June 2011)
5) Critical Areas Assessment Report: Wetland Delineation (Revised 2011)
6) Wetland and Wildlife Mitigation Plan (June 2011)
7) Memorandum RE: Post Point Great Blue Heron Colony (October 2009)
8) Post Point Heron Colony Annual Monitoring Reports
9) Post Point Heron Colonty—2010 Monitoring Annual Report (January 28, 2011)
10) Post Point Heron Colony Management Plan (2003)
11) Bald Eagle Management Plan (February 2011)
12) Geotechnical Engineering Report (October 2010)
13) Archaeological Assessment (April 13, 2011).

14) Facilities Planning Report (February 2011)
15) Technical Memorandum No. 5 Alternatives Review Criteria Draft(February 2010)—Final included in Facilities Planning Report
16) Comprehensive Sewer Plan (June 2009)

The lead agency for this proposal has determined that the project does not have a probable adverse impact on the environment. An environmental impact statement is not required under RCW 43.21.C.030(2) c. This decision was made after review of a completed environmental checklist on file with the lead agency. This information is available to the public on request.

(X) This MDNS is issued under WAC 197-11-350; the lead agency will not act on this proposal for 14 days from the date below.

Comments must be submitted by 5 PM: September 21, 2011

Responsible Official: Jeffrey Thomas
Position: Planning and Community Development Director
Address: 210 Lottie Street, Bellingham, WA 98225

9-7-2011.

Signature Date

Contact: Kim Weil, Planning and Community Development Department, (360) 778-8356 or email kweil@cob.org.

Appeal rights: Pursuant to BMC 16.20.210(D), there is no administrative appeal of this environmental determination.

The City of Bellingham seeks to comply with the American Disabilities Act. If you have special needs, please call (360) 778-8300 (voice) or (360) 676-6883 (TDD).

For more information about the PPWTP expansion please go to:
http://www.cob.org/government/departments/pw/projects/wastewater-treatment-improvements.aspx