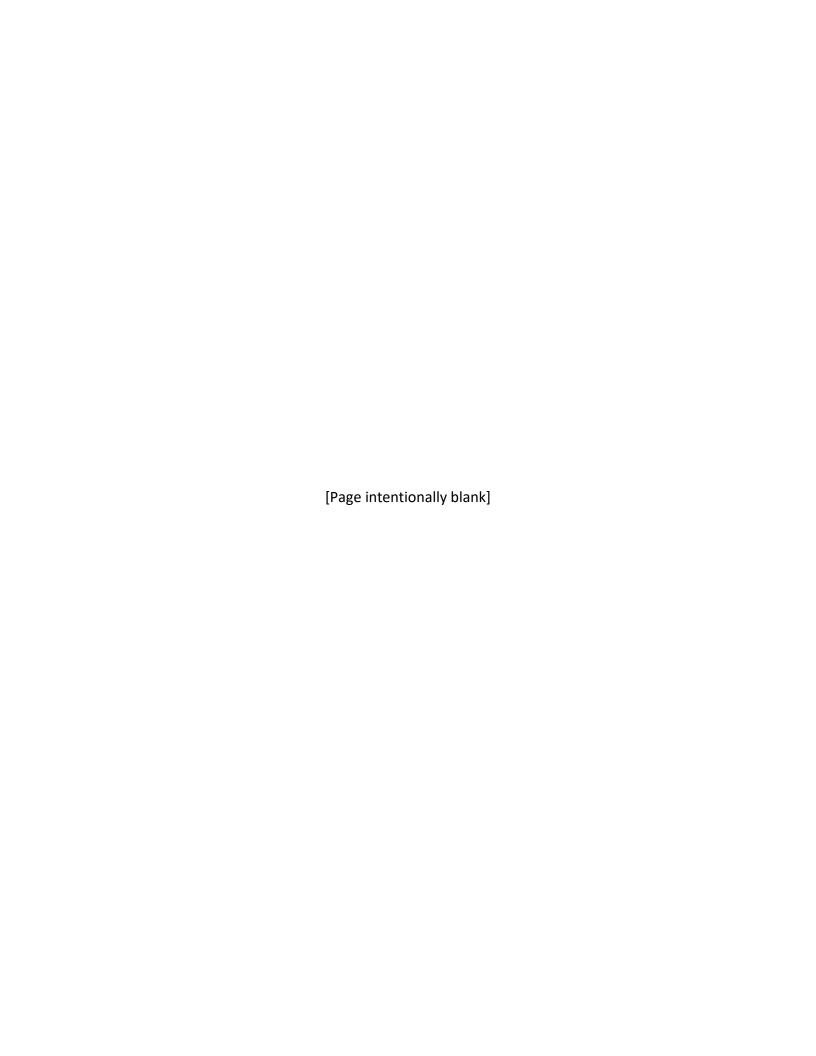
Summary of 2021 Canada Goose Management Program: Egg Addling and Population Surveys

Okanagan Valley Goose Management Program









Executive Summary

This document provides a summary of activities conducted by EBB Environmental Consulting Inc. (EBB) as part of the 2021 Okanagan Valley Goose Management Program. This year the program included egg-addling and post-addling gosling surveys. The egg-addling program consisted of preaddling pairs surveys and nest surveys in March followed by an intensive addling period throughout April and the first half of May. Survey and access protocols continued to be slightly modified to comply with restrictions related to the Covid-19 global pandemic.

Overall, crews addled 1389 eggs from 370 nests. Of these, 29 nests were inaccessible due to safety concerns and two nest sites did not provide authorizations (31 total). Post-addling ground surveys indicated that an estimated 6% of the post-nesting population was comprised of young-of-the-year. Aerial population surveys were not conducted due to Covid-19 restrictions and fire activity.





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1.0 Introduction

1.1 Background

The global population of Canada geese (*Branta canadensis*) and the smaller, closely related cackling geese (*Branta hutchinsii*) comprise 11 subspecies of geese (Banks *et al.* 2004) collectively referred to as Canada geese. Prior to the 1960's, Canada geese were migrants and summer visitants in British Columbia (Campbell *et al.* 1990). Some nesting was documented on Haida Gwaii and northern Vancouver Island (*B. c. fulva*) and in the northern interior (*B.c. moffittii*), but most geese native to British Columbia, including the Okanagan Valley were migratory. Geese used the region as a temporary stopover during migration between northern nesting and southern wintering grounds.

By the 1970's, Canada goose numbers had increased through introduced transplants of flightless young (Campbell *et al.* 1990). Young of different taxonomic stocks of Canada geese from across Canada and the United States were introduced to British Columbia with the aim of providing a population that would allow harvest and wildlife viewing opportunities.

Translocated young of the 1960's and 70's did not have the opportunity to imprint on mature geese (i.e., parents) and did not learn migratory patterns. These geese remained in areas to which they were relocated. The current non-migratory goose population in the Okanagan Valley is comprised of hybrid offspring from different stocks of geese that were introduced decades ago. These geese do not fall into recognized subspecies defined by Banks *et al.* (2004).

At the time of translocations, the British Columbia landscape changed. Urban and rural areas increased, and many areas were closed to hunting. Increased suitable habitat with fewer population controls assisted Canada geese to become abundant in different areas throughout the province.

Today non-migratory, resident populations of Canada geese are largely perceived as problem wildlife due to their abundance, territorial behaviour during breeding season, crop damage, potential risks to human health and safety, fouling of grassy areas with droppings, fecal coliform contamination of public swimming areas, damage to lawns and green spaces, as well as other economic losses (Smith *et al.* 2005). Non-migratory Canada geese can be found on land governed by various jurisdictions including federal, provincial, municipal, and private properties such as parks, golf courses, schools, and agricultural lands.

Canada geese, like all waterfowl in Canada, are protected under the federal *Migratory Birds Convention Act* and pursuant *Migratory Bird Regulations*. Any attempts to manage geese must abide by the federal *Act* as well as any provincial and municipal regulations that apply in their respective regions.



1.2 Regional Background

Okanagan Valley in the interior of British Columbia is coping with an ongoing goose management issue. Canada geese are fouling green spaces and contaminating lake waters to such an extent that they pose a risk to human health and the associated economic losses from tourism and recreation. Communities and stakeholders of the Okanagan Valley formed an Okanagan Regional Goose Management Committee (ORGMC) to implement a unified and landscape-level approach to goose management throughout the region. In 2021, contributing partners included:

- District of Coldstream
- Greater Vernon Water
- City of Vernon
- District of Lake Country
- Central Okanagan Regional District
- City of Kelowna
- City of West Kelowna
- Westbank First Nation.
- District of Peachland
- District of Summerland
- City of Penticton
- Naramata
- Regional District of Okanagan-Similkameen
- Okanagan Falls
- Town of Oliver
- Town of Osoyoos.

1.3 Management

The Okanagan Regional Goose Management Strategy and Action Plan (Robertson Environmental and Ophiuchus Consulting 2006) drafted for ORGMC identified options to control the population of resident Canada geese. This plan was drafted with extensive consultation with Canadian Wildlife Service (CWS) of Environment Canada. At the time of development, this plan was the first landscape-level, multi-jurisdictional, cooperatively implemented plan for goose management in Canada. The plan was adopted by ORGMC and is being implemented by EBB Environmental Consulting Inc. (EBB) and other contractors (e.g., Wise Wildlife Control, LaHawk Enterprises). This addling summary describes the 16th season of the egg addling program (spring 2021).

In addition to cooperative components of goose management (e.g., communications, nest surveys and egg addling, population monitoring), individual jurisdictions continue to mitigate



impacts within their lands. This often includes scaring and habitat modification to reduce conflicts at key sites.

1.4 Coordination and Implementation of the Valley-Wide Egg Addling Program

Egg addling is a relatively simple, cost-effective and humane tool for controlling reproductive output of Canada geese. To be effective, crews must be trained to access nesting areas and addle eggs so that geese will not re-nest. Crews must be thorough, ensuring all nests in a targeted area are included. Many target areas are within public viewing; crew members are often required to sensitively address questions and refer public to the program coordinator and other resources for additional information.

In addition to actual addling, the early years of the program included development of an egg addling protocol manual, including mapping nest locations using GPS technology, and maintaining records of nest sites and addling activities. This protocol is available as an additional reference document.

1.5 Canada Goose Reproductive Ecology

A successful Canada goose egg addling program depends on a sound ecological approach. Factors influencing goose behaviour and reproductive output must be understood. Canada geese usually build nests within sight of water; however, geese will find alternative sites if necessary (Elphick et al. 2001, Environment Canada 2003). Preferred nesting locations are islands, including tops of beaver lodges and floating mats of vegetation. First-time breeders exhibit high natal fidelity and will attempt to nest in the same area they were fledged (Mowbray et al. 2002). Geese will return to old nest sites, or nearby locations year after year. This knowledge is helpful for finding nests in successive years.

Nests are generally simple, constructed of weeds, twigs and other local vegetation. Females will use their bodies to make a depression in the vegetative mound and insulate it with down and feathers removed from their breasts, resulting in a noticeable area of fewer feathers (brood patch). In the Okanagan, EBB has observed geese that have adapted their nest construction to urban environments. Nests have been constructed from scrapes in flower planters; depressions in sagging boat covers; conifer needle debris on roof-tops; osprey nesting platforms; ripped stuffing from patio/houseboat furniture; and other materials (e.g., Figure 1).

Females are responsible for building nests and incubating eggs. During this time, males will diligently "mate guard" ensuring other geese and predators do not disturb the female. A good indicator of a nearby nest is a lone male, particularly if he is in an alert posture with his head and neck held high, or as he is approached, he lowers his head and neck in a threatening stance and



hisses. Our experience suggests that a male may be >100 m away from his mate and nest (i.e., across a wetland), but provided he maintains her within his sight line, he will remain in a vigilant stance.

During mild climatic conditions, Canada geese may begin nesting as early as February. Egg-laying is initiated in March and can continue into late May. In the Okanagan, the earliest egg-laying we have observed is the first week of March, which would indicate nest building occurred during February. Most nests, however, are built in March and laying and incubation occurs during April.

Females typically lay 4-7 creamy white eggs (average is 5; total can be greater than 12) on consecutive days. They may also lay replacement eggs if originals are preyed upon, or the nest is destroyed early in incubation, which is approximately 25-27 days (Mowbray *et al.* 2002, Environment Canada 2003).



Figure 1. Canada goose nest made from twigs and rocky debris (Okanagan Mountain Provincial Park, 2021)



2.0 Methodology

2.1 Administration

2.1.1 Permits

EBB obtained permits from Environment Canada for goose egg addling and addling in the Vaseux Lake Migratory Bird Sanctuary. In 2020, EBB obtained a 10-year authorization for accessing and addling within BC Provincial Parks which included consultation with local First Nations. As part of the consultation process, Westbank First Nation provided authorization for access to traditional lands.

Environment Canada requires individual landowner authorization forms in addition to the overarching OVGMP permit for activities that occurred on private lands. Under this permitting structure, the federal egg addling permit EBB received for the OVGMP was sufficient for activities conducted on public lands owned or managed by members of the ORGMC (e.g., municipal parks). Additional lands (e.g., private residences, institutions, docks/groins above the high-water mark) required the signature of a landowner or designated manager attesting EBB was addling on their behalf. Landowner authorizations are valid for up to three years, depending on the preference of the landowner. Copies of all authorizations are required to be submitted to CWS as part of mandatory reporting. Landowners who choose the multi-year option must be listed on the permit application of the following year.

Table 1. Permit Summary

Permit	Issuer
Canada Goose Egg Addling Permit for OVGMP	Environment Canada (Canadian Wildlife Service)
Landowner attestations as required to augment the OVGMP addling permit	Environment Canada (Canadian Wildlife Service)
Canada Goose Egg Addling Permit, Vaseux Lake Migratory Bird Sanctuary	Environment Canada (Canadian Wildlife Service)
Research and Education Park Use Permit (10 year)	BC Parks/Ministry of Environment and Climate Change Strategy

2.1.2 Media and Public Involvement

A toll number (1-877-943-3209) and e-mail address (coordinator@okanagangooseplan.com) were established in 2007 for public to call with nest locations and other questions. These contacts remain active throughout the year. A public service Announcement (PSA) was drafted at the onset of the addling season to inform and encourage public to report nests or observations of leg-banded birds.



2.2 Field Program

2.2.1 Pairs Surveys

Prior to the addling season pairs of geese were surveyed for behaviour to gauge timing of the nesting season. This allowed crews to become familiar with the landscape for efficient addling when the fast-paced egg laying and nesting season occurred. Field crew surveyed lands (e.g., parks, playing fields, beach accesses) that EBB had permission to access. Pairs and lone Canada geese were identified, and nest searches were conducted in these locations. Any early nests were noted. Flocks of geese were also noted, but these groups were typically not nesting (e.g., had not reached maturity or lost their mates). Where nests were located, crew members recorded UTM coordinates as well as a general description of the area to facilitate relocation and reporting. If nests contained full clutches of eggs, they were addled, marked and noted following the appropriate egg addling protocol (Section 2.2.2). Crews did not use nest-marking techniques (e.g., flagging tape), as this can attract public or predators to the nest. In general, if nests are destroyed early in incubation, a goose pair will likely re-nest, defeating the purpose of addling.

The pairs survey also acted as an opportunity to engage with landowners regarding authorizations. Information requirements or authorizations sorted out prior to peak nesting saved time during the field-intensive addling season.

2.2.2 Egg Addling

Daily addling occurred between April 1 and May 14, 2021. Nests located during the pre-addling nest surveys were visited first. Nest searching continued with the expectation that most newly located nests contained eggs, and this was generally the case. Crews worked in pairs following the *United States Humane Society Canada Goose Egg-addling Protocol* (HSUS 2009) and *Best Practices for Destroying Eggs or Preventing Hatching: Canada Goose Management* (Environment Canada 2011). During addling, one crew member moved the female or pair away from the nest while the other worked at the nest. In high density nest areas, and boat-access only areas, working in threes and fours was more effective. The crew member working at the nest counted, addled and marked each egg; the other fended off the guard, if required, and recorded data.

Crews numbered the nests in the field to make rechecking easier and allow them to identify new nests quickly. Marking was such that all the eggs in Nest 1 were labelled "1", all the eggs in Nest 2 were labelled "2" etc. (Figure 2). In addition, the crew member at the nest took GPS coordinates and field notes. Nests were rechecked once (occasionally twice), approximately 10 days following the first addling visit depending on incubation status of the nest.



Canada goose eggs are humanely addled until about 14 days of incubation (HSUS 2009). If there was concern that eggs were older than 14 days, crews performed a float test to estimate age (Section 2.2.2.2). Float tests were routinely performed during the last part of the egg addling season. If eggs were less than 14 days' incubation, the crew member working at the nest addled each egg, either by shaking or oiling.



Figure 2. Eggs numbered in a Canada goose nest (Osoyoos, 2021).

2.2.2.1 Oiling or Shaking Eggs

Oiling as a technique for sterilizing eggs was introduced during the 2011 addling program, as this was the first year CWS allowed it on the permit. To use oil, eggs were dipped and rolled in a container of 100% biodegradable, food-grade corn oil. Only a light coating of oil is necessary to stop gas exchange and interrupt egg development (HSUS 2009).

When addling by shaking, the egg is vigorously shaken for about one minute. In doing so, the inner membranes are broken, and the egg contents "slosh", which can be heard and felt by the field technician (Figure 3).

Effectiveness and efficiency (i.e., timing and ease of use) of the two addling methods were compared in 2011. In general, the crew found the logistics of shaking simpler (i.e., no need for extra equipment and the oil can be messy), but oiling is physically easier and appears less



aggressive in sensitive public locations. Eggs early in incubation (i.e. 1-2 days) are not easily addled with shaking; oiling is more effective on these nests. It continues to be up to the discretion of the crew which technique should be applied at each location.



Figure 3. Field technician shaking goose eggs (West Kelowna, 2021).

2.2.2.2 Float Tests

Float tests were used to determine the incubation stage of an egg. If the incubation stage was unknown, the addling crew used a bucket of water to perform a float test. Eggs that did not float were less than two weeks old and were humanely addled. Eggs that rose near the surface were older than two weeks and were not addled (Figure 4; HSUS 2009).



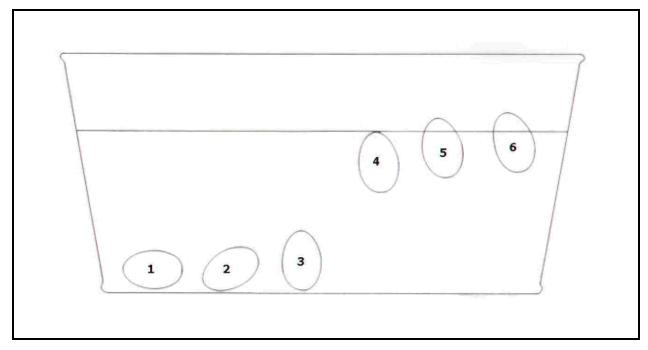


Figure 4. Cross-Section of a Float Test: Stages 1-3 represent eggs incubated for less than 2 weeks; Stages 4-6 represent eggs incubated for 14-27 days (Diagram from HSUS Canada Goose Egg Addling Protocol).

2.2.2.3 Covid-19 Related Restrictions

Survey and addling protocols had to be modified again this year to accommodate safety considerations related to the ongoing global Covid-19 pandemic. Field activities coincided with a strict lockdown in BC. At the direction of provincial health authorities, physical distancing measures were required that ensured addling crew members (which isolated in place as a team) did not come within 2m of the public, and households were instructed to isolate. This prevented addling nests that had to be accessed through apartments/residential units, and easily conversing with landowners or public who may have had questions.

2.2.3 Additional Surveys

2.2.3.1 Gosling Surveys

Follow-up ground surveys for goslings were conducted in June to help identify areas where nests were missed and estimate the number of young in the population. The entire valley was surveyed, so the estimate contained data from properties that did not participate in the egg addling program.



2.3 Leg Band Data

EBB crews observed geese for leg-bands (Figure 5). Leg-band data returns were provided from the National Bird Banding Office (i.e., observations that were reported to that office were forwarded to EBB) and directly through the OVGMP website. Maps (available on the websiste) are regularly updated to provide an overview of distribution of banded birds.



Figure 5. Yellow plastic leg band with black alpha-numeric code.

3.0 Results

3.1 Egg Addling

EBB crews addled 1389 eggs from 370 nests. An additional 148 eggs were identified that had been predated and did not require addling. Crews identified 29 additional nests that were inaccessible due to safety concerns (e.g., unsafe location such as a cliff or access violated the Covid-19 physical distancing restrictions such as an apartment patio). Two nests were not addled due to lack of authorizations to access the nests (e.g., landowner did not want the nest addled).

Some properties were identified as having nests or highly likely to have nests (as observed from the road) but were not accessed because landowners could not be reached. These nests were not included in the overall total, as they were not specifically identified and mapped. An area of particular concern was the wetlands between Okanagan Lake and Ellison (Duck) Lake. Continued effort will be made to contact landowners for future addling efforts.

Table 2 provides a summary of egg addling data. An overview of nest distribution is provided in Figures 6 and 7. Regional data are detailed in Appendix A. The mean clutch size was 4.1 (4 to 5) eggs, which is consistent with other years of the program.



Table 2. Okanagan Valley Egg Addling Data Summary

Nest Element	Value	
Minimum Clutch Size	0	
Maximum Clutch Size	11	
Mean Clutch Size	4.1	
Number of Accessible Nests	339	
Number of Inaccessible Nests	31	
Total Number of Addled Eggs	1389	
Number of Geese Prevented from Entering Population	1042	
(approximately 75% of addled eggs)		

Nests were built on a variety of substrates including, but not limited to:

- Rooftops (cottage, home and industrial),
- Planters,
- Boat covers, boats and barges,
- Groins/breakwaters,
- Trees/stumps,
- Docks/wharves,
- Log booms,
- Osprey nesting platforms,
- Cliffs,
- Beaver lodges,
- Islands and peninsulas, and
- Debris piles.

3.2 Media and Public Involvement

A press release was provided to the City of Kelowna communications department for distribution at the onset of the addling program. Release was delayed until after Easter and went out on April 14.

This year we received 23 emails and 11 calls from the public regarding egg-addling, and 2 requests for interviews from media. Additional calls and emails are ongoing and include topics such as:

- Vernon goose kill
- Animal welfare (likely a result of Vernon goose management decisions)
- Hunting and hunting seasons,
- Flocks of migrating geese,
- Using dogs for hazing,



- Geese at beaches,
- Feeding of geese,
- Injured geese (and other wildlife),
- Leg-bands on geese.



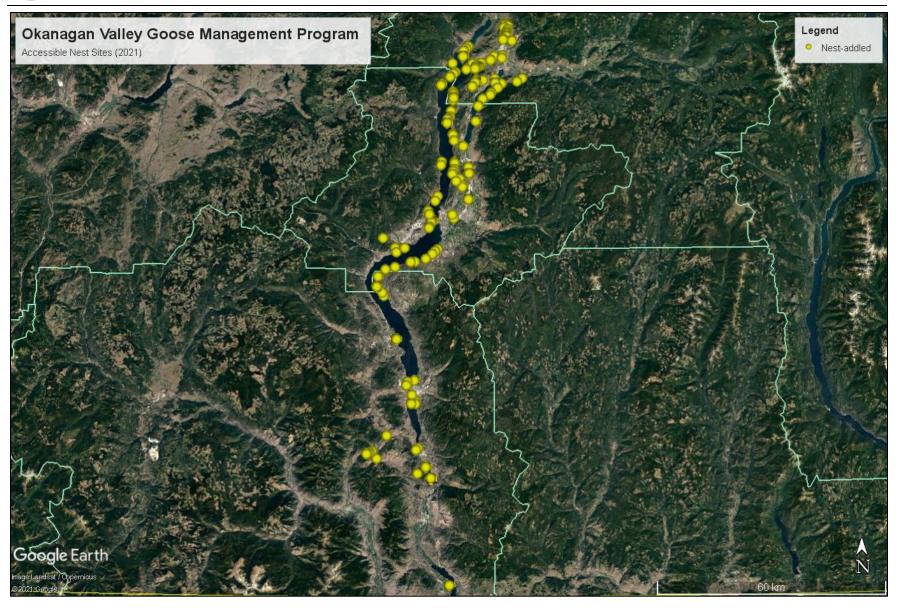


Figure 6. Accessible nest sites (addled) during the 2021 field season (valley overview)

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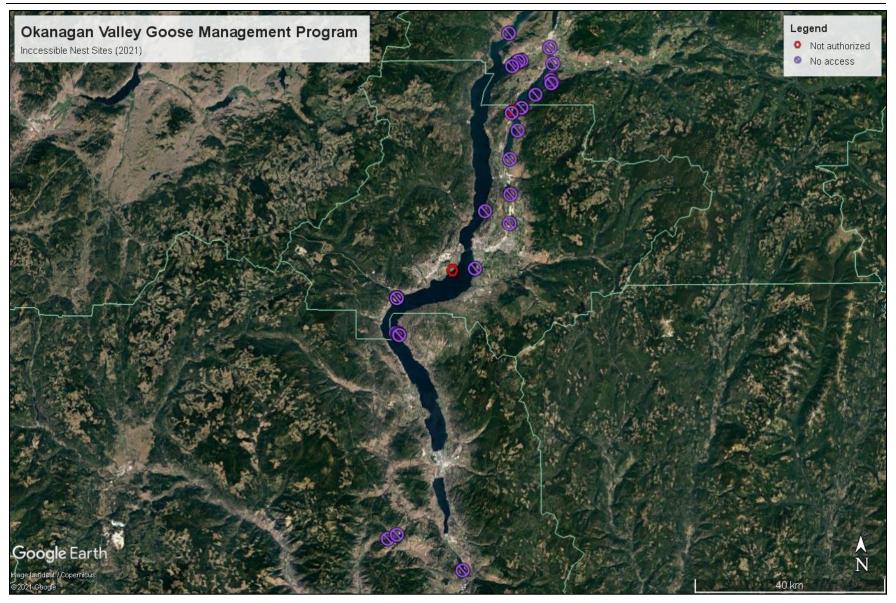


Figure 7. Inaccessible nests (not addled) during 2021 field season

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3.3 Gosling Surveys

During ground surveys, population composition was 1047 adults and 65 goslings (6% young overall; Table 3).

Table 3. Summary Data for 2021 Post-addling Population Ground Surveys

Location	Adult	Juvenile	Total	% Young	Estimated Clutches
Osoyoos Lake	0	0	0	0.0	
Oliver - Tuc-el-nuit Lake	0	0	0	0.0	
Vaseux Lake	380	0	380	0.0	
OK Falls - Christie Park	27	0	27	0.0	
Kaleden Point	0	0	0	0.0	
Skaha Lake Park - Penticton	13	8	21	38.1	2
Penticton Lake Shore	24	0	24	0.0	
Naramata	47	0	47	0.0	
Summerland waterfront	63	0	63	0.0	
Peachland waterfront	76	1	77	1.3	1
West Kelowna Yacht Club	11	0	11	0.0	
Kelowna waterfront parks	16	27	43	62.8	5
Wood Lake	20	0	20	0.0	
Kaloya Regional Park	127	0	127	0.0	
North Kalamalka Lake	9	0	9	0.0	
Vernon - Paddlewheel Park	76	0	76	0.0	
Vernon - Kin Beach	74	29	103	28.2	5
Vernon- Polson Park	24	0	24	0.0	
Swan Lake	5	0	5	0.0	
North Arm of Okanagan Lake	55	0	55	0.0	
Totals	1047	65	1112	5.8	13

3.4 Leg Band Data

EBB banded 281 geese in Vernon, Kelowna, West Kelowna and Penticton between 2012-2018. The band observation database contains 205 entries and continues to increase slightly each year despite most observations being from hunters who have shot geese. Figure 9 shows the overall distribution of band returns relative to their origin for the last five years. Figure 10 provides a valley-wide aspect of local data. Largely, geese banded in central and south Okanagan do not migrate outside the valley. Geese banded in north Okanagan (Vernon) are not so clearly defined. Banding results there indicate resident and migratory geese mixed at the banding site.



4.0 Summary and Discussion

This year 1389 eggs were addled in the Okanagan Valley. Taking natural mortality into account, addling prevented over 1000 new geese from entering the population. Cumulatively, over the 14-year span of the addling program, approximately 15,200 geese have been directly prevented from entering the population. Recognizing each female goose can hatch up to 240 goslings in her lifetime, many additional generations of geese have also been prevented from hatch.

Although geese are traditional in their nesting patters, it is likely that the addling program has influenced nest distribution since the onset of the program. We observed 108 eggs that had been predated prior to us finding them. This is an increase over past years and may be an indication of increased predation pressure on nests situated in less optimal locations.

As in previous years, EBB found that the highest density and number of nests were in the Vaseux Lake Migratory Bird Sanctuary (109 nests; 479 egg). Vaseux Lake accounts for approximately one third of the eggs addled each year.

Gosling survey results help us identify areas where efforts should be increased to engage the public and increase awareness about goose management as well as look for nests. In doing so, more nest reports and access to lands will increase the ability of crews to successfully find and addle nests. Gosling data also provide us with an indicator of overall program success and where we should be directing our field survey/nest-finding efforts. This year we estimated 6% young for the valley-wide population. This is a substantial improvement over the 2019 and 2020 results, which showed 18% and 11% young, respectively. However, survey conditions were not optimal with gusts of wind on most days that may have encouraged geese to shelter their goslings in wetland vegetation or other less visible areas.

During the survey, the largest improvement continued to be in Vernon, but large numbers (>100) of geese and goslings we observed during the summer outside of official surveys at popular beaches. Wood Lake remains a source of goslings with some inaccessible nests, due to safety limitations.

The leg-band observation database continues to grow, but the number of banded geese is a diminishing resource. Many data points are returned by hunters who have shot geese and provided band information. The data are still helpful and will be collected provided they continue to be returned. In terms of population management, band data supports the conclusion that population control of these birds does not impact natural migratory populations and will likely have long-term benefits towards mitigation and prevention of damage caused by geese in the Okanagan Valley.



5.0 Recommendations

The following recommendations have been provided to ensure continued program success. Recommendations include items that are on-going or newly identified. Action items from previous years that were addressed have been removed. Recommendations are as follows:

Continue increased nest survey/addling effort in Vernon

Action: ORGMC to continue to work with Vernon to identify resources specifically available for nest survey and addling.

Action: Coordinator to continue to implement Vernon-specific nest survey and addling protocols for the most efficient use of those resources.

Action: Coordinator to ensure that PSA/media releases go out in Vernon—confirm contact of Vernon communications staff.

Action: Continued addling pressure at known/developing colony sites (e.g., Mackay Reservoir) to prevent nesting colony expansion and hatch success.

Action: Coordinator to assist with *Danger of Damage* federal permit applications and to assist with investigating hunting opportunities within City limits

Increase nest survey/addling effort at Wood Lake

Action: Coordinator to ensure time is allocated to Wood Lake for hard-to-find nest surveys

Gain access to wetlands along Glenmore Road (north of McKinley Reservoir)

Action: Coordinator to worth with Kelowna to identify landowners

Action: Coordinator to keep trying to contact identified landowners

Continue to achieve buy-in from new partners, stakeholders and the general public

Action: Continue to promote program activities through networks and other conferences/venues (respecting Covid-19 restrictions)

Action: Have committee members discuss the issue with their counterparts in other jurisdictions, engage councils where appropriate; discuss the issue with potential partners such as golf course superintendents, hunting/fishing clubs, naturalist groups.

Continue with public education/communications/best management practices

Action: Assis inquiring landowners on habitat management options to reduce attractiveness of their properties to geese.



Action: Where public interest is identified, provide training sessions or informational materials to resident volunteers, and/or partners such as golf course superintendents and maintenance staff, on observing and identifying goose breeding behaviour to assist in identifying nest locations (this can be delivered via video-conference).

Action: Continue to provide an information package to landowners with a copy of the information pamphlet, landowner attestation form (required by Environment Canada),

Limit nest destruction on private property or boat covers. Destruction of nests within a breeding season can result in re-nesting at new (unknown) locations, and addling crews missing the new nest.

Action: Encourage residents to prevent nesting by providing information in media releases following breeding season, or early in spring; have bylaw officers notify residents of laws regarding protection of breeding birds and their nests.

6.0 References

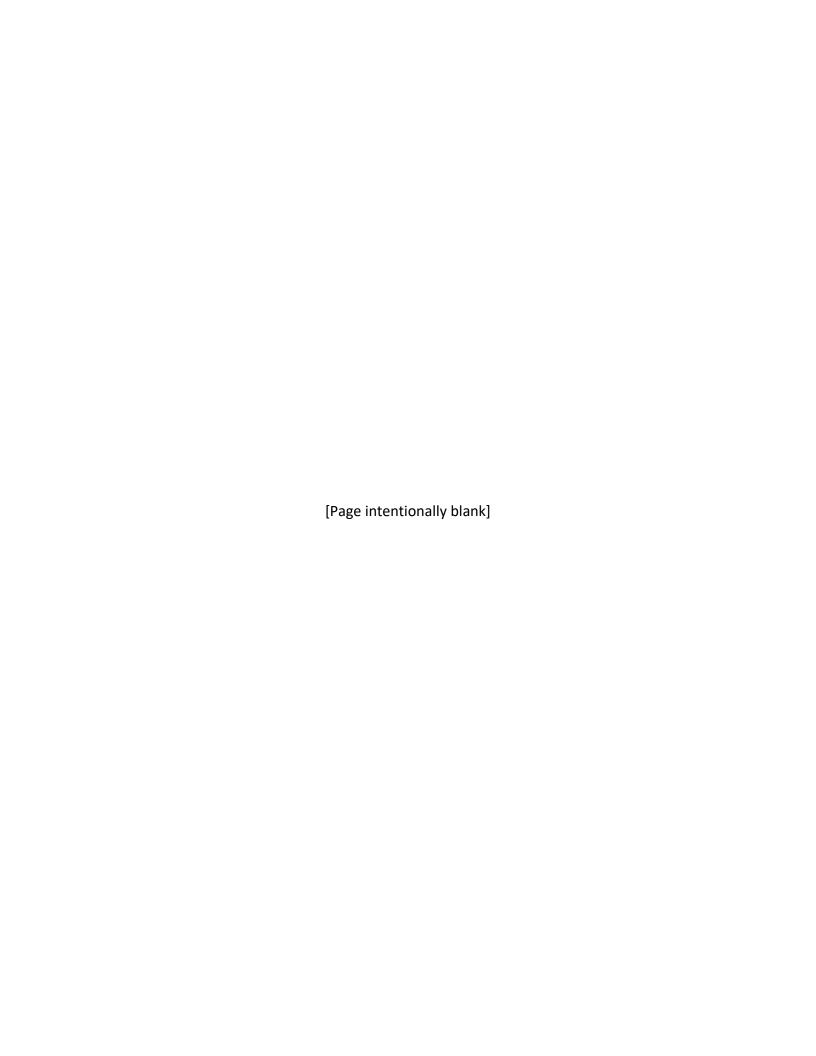
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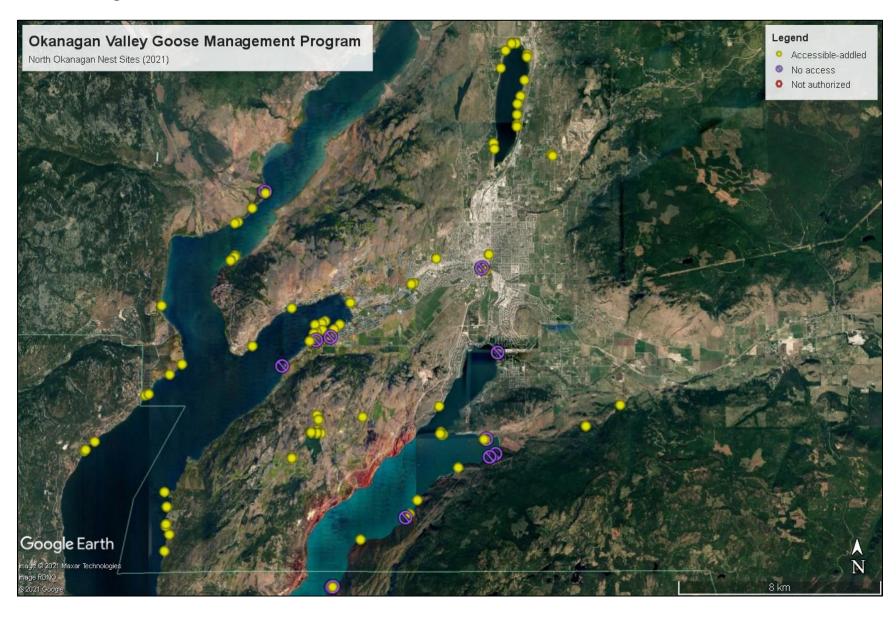


APPENDIX A

Egg Addling Data: Regional Summaries



North Okanagan



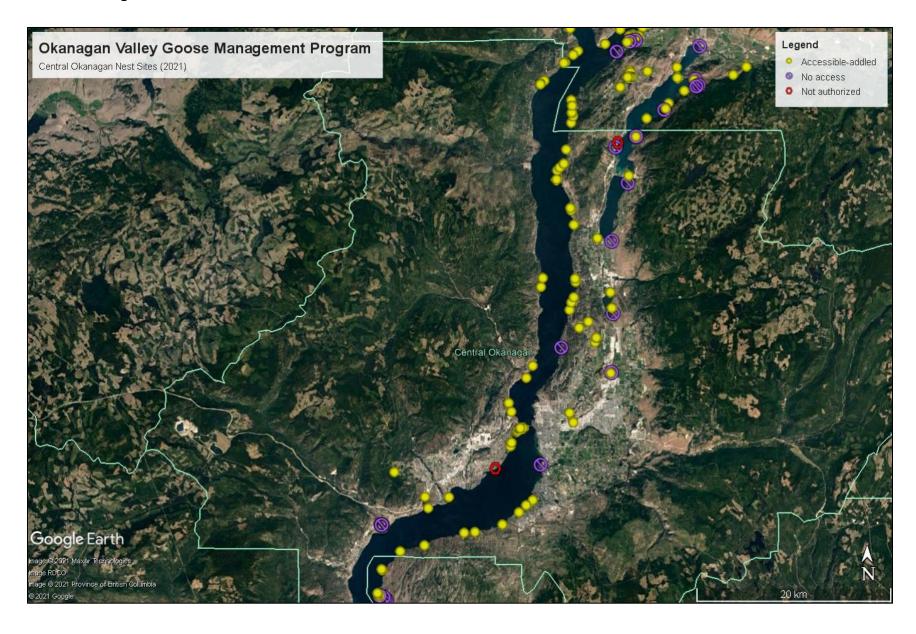
Latitude	Longitude	Locality	Site	Access	Addling Total
50.33820	-119.254	Vernon	Swan Lake	Accessible	0
50.33807	-119.252	Vernon	Swan Lake	Accessible	0
50.33794	-119.255	Vernon	Swan Lake	Accessible	0
50.33552	-119.258	Vernon	Swan Lake	Accessible	4
50.33408	-119.246	Vernon	Swan Lake	Accessible	0
50.33321	-119.246	Vernon	Swan Lake	Accessible	0
50.32927	-119.261	Vernon	Swan Lake	Accessible	5
50.32497	-119.248	Vernon	Swan Lake	Accessible	0
50.31933	-119.25	Vernon	Swan Lake	Accessible	0
50.31660	-119.251	Vernon	Swan Lake	Accessible	5
50.31279	-119.252	Vernon	Swan Lake	Accessible	2
50.30929	-119.252	Vernon	Swan Lake	Accessible	0
50.30856	-119.252	Vernon	Swan Lake	Accessible	0
50.30273	-119.265	Vernon	Swan Lake	Accessible	4
50.30068	-119.264	Vernon	Swan Lake	Accessible	0
50.29875	-119.233	Vernon	Cool's Pond	Accessible	5
50.29820	-119.232	Vernon	Cool's Pond	Accessible	5
50.28569	-119.392	Vernon	Okanagan Lake	Inaccessible	0
50.28524	-119.391	Vernon	Okanagan Lake	Accessible	5
50.27990	-119.399	Vernon	Okanagan Lake	Accessible	6
50.27504	-119.407	Vernon	Okanagan Lake	Accessible	7
50.27458	-119.408	Vernon	Okanagan Lake	Accessible	4
50.26341	-119.268	Vernon	Vernon	Accessible	5
50.26314	-119.408	Vernon	Okanagan Lake	Accessible	9
50.26268	-119.408	Vernon	Okanagan Lake	Accessible	11
50.26198	-119.297	Vernon	Cross Rocks	Accessible	1
50.26145	-119.411	Vernon	Okanagan Lake - Vernon	Accessible	4
50.26145	-119.411	Vernon	Okanagan Lake - Vernon	Accessible	2
50.25855	-119.272	Vernon	Polson Park	Inaccessible	0
50.25771	-119.269	Vernon	Polson Park	Accessible	1
50.25333	-119.309	Vernon	Big Chief RV	Accessible	8
50.25297	-119.311	Vernon	Big Chief RV	Accessible	4
50.24644	-119.344	Vernon	Vernon	Accessible	6
50.24546	-119.449	Vernon	Okanagan Lake	Accessible	0
50.24457	-119.377	Vernon	Okanagan Lake	Accessible	2
50.23989	-119.358	Vernon	Okanagan Lake	Accessible	5
50.23918	-119.36	Vernon	Okanagan Lake	Accessible	4
50.23870	-119.35	Vernon	Okanagan Lake	Accessible	6
50.23861	-119.364	Vernon	Okanagan Lake	Accessible	0
50.23702	-119.353	Vernon	Okanagan Lake	Accessible	6
50.23678	-119.36	Vernon	Okanagan Lake	Accessible	11
50.23586	-119.363	Vernon	Okanagan Lake	Accessible	2

Latitude	Longitude	Locality	Site	Access	Addling Total
50.23558	-119.365	Vernon	Okanagan Lake	Accessible	4
50.23424	-119.356	Vernon	Paddle Wheel Park	Inaccessible	0
50.23313	-119.364	Vernon	Okanagan Lake	Inaccessible	0
50.23288	-119.367	Vernon	Okanagan Lake	Accessible	5
50.23115	-119.399	Vernon	Okanagan Lake	Accessible	6
50.22864	-119.263	Coldstream	Kalavista Park	Inaccessible	0
50.22472	-119.438	Vernon	Okanagan Lake	Accessible	6
50.22403	-119.382	Vernon	Okanagan Lake	Inaccessible	0
50.22110	-119.445	Vernon	Okanagan Lake	Accessible	6
50.21417	-119.456	Vernon	Okanagan Lake	Accessible	5
50.21375	-119.458	Vernon	Okanagan Lake	Accessible	5
50.21001	-119.195	Coldstream	Coldstream Ranch	Accessible	5
50.20977	-119.295	Vernon	Kalamalka Lake	Accessible	5
50.20673	-119.363	Vernon	Mackay Reservoir	Accessible	7
50.20603	-119.338	Vernon	Rose's Pond	Accessible	7
50.20512	-119.362	Vernon	Mackay Reservoir	Accessible	5
50.20259	-119.214	Coldstream	Deep Lake	Accessible	0
50.20135	-119.363	Vernon	Mackay Reservoir	Accessible	6
50.20129	-119.363	Vernon	Mackay Reservoir	Accessible	2
50.20128	-119.363	Vernon	Mackay Reservoir	Accessible	1
50.20127	-119.363	Vernon	Mackay Reservoir	Accessible	4
50.20098	-119.362	Vernon	Mackay Reservoir	Accessible	2
50.20096	-119.362	Vernon	Mackay Reservoir	Accessible	5
50.20070	-119.366	Vernon	Mackay Reservoir	Accessible	4
50.20066	-119.294	Vernon	Kalamalka Lake	Accessible	5
50.20062	-119.366	Vernon	Mackay Reservoir	Accessible	0
50.20060	-119.366	Vernon	Mackay Reservoir	Accessible	0
50.20057	-119.366	Vernon	Mackay Reservoir	Accessible	0
50.20056	-119.363	Vernon	Mackay Reservoir	Accessible	1
50.20055	-119.366	Vernon	Mackay Reservoir	Accessible	0
50.20055	-119.366	Vernon	Mackay Reservoir	Accessible	0
50.20053	-119.363	Vernon	Mackay Reservoir	Accessible	5
50.20053	-119.363	Vernon	Mackay Reservoir	Accessible	0
50.20050	-119.363	Vernon	Mackay Reservoir	Accessible	0
50.20047	-119.363	Vernon	Mackay Reservoir	Accessible	4
50.20046	-119.363	Vernon	Mackay Reservoir	Accessible	6
50.20044	-119.363	Vernon	Mackay Reservoir	Accessible	2
50.20043	-119.363	Vernon	Mackay Reservoir	Accessible	7
50.20037	-119.363	Vernon	Mackay Reservoir	Accessible	9
50.20027	-119.361	Vernon	Mackay Reservoir	Accessible	0
50.20004	-119.295	Vernon	Kalamalka Lake	Accessible	5
50.19984	-119.294	Vernon	Kalamalka Lake	Accessible	0
50.19980	-119.293	Vernon	Kalamalka Lake	Accessible	5

Latitude	Longitude	Locality	Site	Access	Addling Total
50.19970	-119.293	Vernon	Kalamalka Lake	Accessible	6
50.19802	-119.269	Vernon	Kalamalka Lake	Inaccessible	0
50.19800	-119.271	Vernon	Kalamalka Lake	Accessible	0
50.19788	-119.27	Vernon	Kalamalka Lake	Accessible	3
50.19736	-119.486	Vernon	Okanagan Lake	Accessible	8
50.19446	-119.491	Vernon	Okanagan Lake	Accessible	1
50.19402	-119.492	Vernon	Okanagan Lake	Accessible	0
50.19282	-119.264	Vernon	Kalamalka Lake	Inaccessible	0
50.19176	-119.268	Vernon	Kalamalka Lake	Inaccessible	0
50.19159	-119.377	Vernon	Predator Ridge	Accessible	5
50.19156	-119.377	Vernon	Predator Ridge	Accessible	6
50.19151	-119.377	Vernon	Predator Ridge	Accessible	5
50.18801	-119.285	Vernon	Kalamalka Lake	Accessible	0
50.17952	-119.447	Kelowna	Okanagan Lake	Accessible	4
50.17656	-119.308	Vernon	Kalamalka Lake	Accessible	0
50.17431	-119.446	Kelowna	Okanagan Lake	Accessible	4
50.17168	-119.312	Vernon	Kalamalka Lake	Accessible	0
50.17034	-119.314	Vernon	Kalamalka Lake	Inaccessible	0
50.16815	-119.447	Kelowna	Okanagan Lake	Accessible	5
50.16742	-119.447	Lake Country	Okanagan Lake	Accessible	0
50.16452	-119.445	Lake Country	Okanagan Lake	Accessible	5
50.16266	-119.339	Vernon	Kalamalka Lake	Accessible	0
50.15862	-119.448	Lake Country	Okanagan Lake	Accessible	4
50.14594	-119.355	Vernon	Kalamalka Lake	Inaccessible	0
50.14594	-119.355	Vernon	Kalamalka Lake	Accessible	4
50.14574	-119.355	Vernon	Kalamalka Lake	Inaccessible	0
50.14568	-119.356	Vernon	Kalamalka Lake	Accessible	1
50.14022	-119.381	Lake Country	Kalamalka Lake	Unauthorized	0

Nest Summary	Value
Minimum Clutch Size	0
Maximum Clutch Size	11
Mean Clutch Size	3.7 (4)
Total Number of Nests	113
Total Number of Eggs	339

Central Okanagan



Latitude	Longitude	Locality	Site	Access	Addling Total
50.13604	-119.384	Lake Country	Lake Country	Inaccessible	0
50.13409	-119.455	Lake Country	Okanagan Lake	Accessible	5
50.12110	-119.458	Lake Country	Okanagan Lake	Accessible	2
50.11750	-119.464	Lake Country	Okanagan Lake	Accessible	6
50.11481	-119.468	Lake Country	Okanagan Lake	Accessible	0
50.11003	-119.365	Lake Country	Young Marsh	Accessible	4
50.10656	-119.469	Lake Country	James Grant Island	Accessible	4
50.10649	-119.469	Lake Country	James Grant Island	Accessible	0
50.10635	-119.469	Lake Country	James Grant Island	Accessible	6
50.10635	-119.469	Lake Country	James Grant Island	Accessible	4
50.10622	-119.469	Lake Country	James Grant Island	Accessible	4
50.10621	-119.469	Lake Country	James Grant Island	Accessible	4
50.10618	-119.469	Lake Country	James Grant Island	Accessible	0
50.10617	-119.469	Lake Country	James Grant Island	Accessible	6
50.10611	-119.469	Lake Country	James Grant Island	Accessible	0
50.10312	-119.367	Lake Country	Oyama Road	Inaccessible	0
50.08038	-119.449	Lake Country	Okanagan Lake	Accessible	0
50.07813	-119.448	Lake Country	Okanagan Lake	Accessible	7
50.06494	-119.444	Lake Country	Okanagan Lake	Accessible	6
50.05265	-119.410	Lake Country	Wood Lake Campground	Accessible	1
50.05212	-119.410	Lake Country	Turtle Bay Marina	Accessible	6
50.04986	-119.390	Lake Country	Oyama Road	Inaccessible	0
50.01605	-119.488	West Kelowna	Okanagan Lake	Accessible	6
50.01548	-119.442	Kelowna	Okanagan Lake	Accessible	5
50.01246	-119.441	Lake Country	Okanagan Lake	Accessible	3
50.00783	-119.491	West Kelowna	Okanagan Lake	Accessible	4
50.00292	-119.392	Kelowna	Duck Lake	Accessible	0
50.00292	-119.392	Kelowna	Duck Lake	Accessible	0
49.99840	-119.444	Kelowna	Okanagan Lake	Accessible	8
49.99357	-119.447	Kelowna	Okanagan Lake	Accessible	4
49.98867	-119.389	Kelowna	Duck Lake	Accessible	4
49.98852	-119.390	Kelowna	Duck Lake	Accessible	2
49.98673	-119.450	Kelowna	Okanagan Lake	Accessible	3
49.98329	-119.388	Kelowna	Duck Lake	Inaccessible	0
49.97599	-119.423	Kelowna	Glenmore Road	Accessible	6
49.97036	-119.436	Kelowna	McKinley Reservoir	Accessible	4
49.96130	-119.412	Kelowna	Landfill	Accessible	6
49.96079	-119.411	Kelowna	Landfill	Accessible	7
49.95703	-119.414	Kelowna	Landfill	Accessible	6
49.95200	-119.462	Kelowna	Okanagan Lake	Inaccessible	0
49.93543	-119.503	West Kelowna	Okanagan Lake	Accessible	0
49.92906	-119.391	Kelowna	Carney Pond	Inaccessible	0
49.92881	-119.391	Kelowna	Carney Pond	Accessible	0
49.92864	-119.391	Kelowna	Carney Pond	Accessible	6

Latitude	Longitude	Locality	Site	Access	Addling Total	
49.92858	-119.391	Kelowna	Carney Pond	Accessible	į	5
49.92792	-119.392	Kelowna	Carney Pond	Accessible	(0
49.92791	-119.392	Kelowna	Carney Pond	Accessible	į	5
49.92699	-119.391	Kelowna	Carney Pond	Accessible	(6
49.92436	-119.512	West Kelowna	Okanagan Lake	Accessible	3	3
49.90126	-119.537	West Kelowna	Okanagan Lake	Accessible	(0
49.89324	-119.533	West Kelowna	Okanagan Lake	Accessible	į	5
49.89226	-119.450	Kelowna	Golf Course	Accessible	(6
49.88351	-119.445	Kelowna	Kelowna	Accessible	(6
49.87843	-119.516	Kelowna	WR Bennett Bridge	Accessible	į	5
49.87843	-119.516	Kelowna	WR Bennett Bridge	Accessible	9	9
49.87841	-119.516	Kelowna	WR Bennett Bridge	Accessible	į	5
49.87840	-119.516	Kelowna	WR Bennett Bridge	Accessible	;	7
49.87839	-119.517	Kelowna	WR Bennett Bridge	Accessible	į	5
49.87837	-119.516	Kelowna	WR Bennett Bridge	Accessible	į	5
49.87836	-119.516	Kelowna	WR Bennett Bridge	Accessible	(6
49.87835	-119.517	Kelowna	WR Bennett Bridge	Accessible	-	7
49.87834	-119.519	Kelowna	WR Bennett Bridge	Accessible	-	7
49.87831	-119.517	Kelowna	WR Bennett Bridge	Accessible	(6
49.87829	-119.517	Kelowna	WR Bennett Bridge	Accessible	8	8
49.87828	-119.516	Kelowna	WR Bennett Bridge	Accessible	(6
49.87827	-119.516	Kelowna	WR Bennett Bridge	Accessible	4	4
49.87826	-119.517	Kelowna	WR Bennett Bridge	Accessible	4	4
49.87824	-119.517	Kelowna	WR Bennett Bridge	Accessible	4	4
49.87822	-119.520	Kelowna	WR Bennett Bridge	Accessible	(6
49.87821	-119.517	Kelowna	WR Bennett Bridge	Accessible	į	5
49.87818	-119.518	Kelowna	WR Bennett Bridge	Accessible	:	1
49.87791	-119.521	Kelowna	WR Bennett Bridge	Accessible		2
49.87791	-119.521	Kelowna	WR Bennett Bridge	Accessible	(6
49.87791	-119.521	Kelowna	WR Bennett Bridge	Accessible	(6
49.87758	-119.520	Kelowna	WR Bennett Bridge	Accessible	-	7
49.87752	-119.522	Kelowna	WR Bennett Bridge	Accessible	(6
49.87752	-119.522	Kelowna	WR Bennett Bridge	Accessible	-	7
49.87542	-119.524	West Kelowna	Okanagan Lake	Accessible	-	7
49.87510	-119.525	West Kelowna	Okanagan Lake	Accessible	(6
49.87460	-119.526	West Kelowna	Okanagan Lake	Accessible	(6
49.86483	-119.533	West Kelowna	Okanagan Lake	Accessible	(6
49.86147	-119.535	West Kelowna	Okanagan Lake	Accessible	!	5
49.84444	-119.492	Kelowna	Okanagan Lake	Inaccessible	(0
49.84078	-119.556	West Kelowna	Okanagan Lake	Unauthorized	(0
49.83759	-119.700	West Kelowna	Glen Rosa	Accessible	(6
49.81497	-119.656	West Kelowna	Hardy Slough	Accessible	!	5
49.81466	-119.622	West Kelowna	Yacht Club	Accessible	!	5
49.81207	-119.503	Kelowna	Okanagan Lake	Accessible	-	7
49.80730	-119.512	Kelowna	Okanagan Lake	Accessible	!	5

Latitude	Longitude	Locality	Site	Access	Addling Total
49.80460	-119.652	West Kelowna	Okanagan Lake	Accessible	5
49.80087	-119.522	Kelowna	Okanagan Lake	Accessible	6
49.78960	-119.546	Kelowna	Okanagan Lake	Accessible	5
49.78898	-119.718	Peachland	Trepanier	Inaccessible	0
49.78894	-119.719	Peachland	Trepanier	Inaccessible	0
49.78889	-119.718	Peachland	Trepanier	Inaccessible	0
49.78267	-119.585	Kelowna	Okanagan Lake	Accessible	0
49.78190	-119.600	Kelowna	Okanagan Lake	Accessible	1
49.77032	-119.657	Okanagan Mountain	OM Provincial Park	Accessible	4
49.76473	-119.691	Okanagan Mountain	OM Provincial Park	Accessible	3
49.74820	-119.718	Okanagan Mountain	Rattlesnake Island	Accessible	6
49.74729	-119.717	Okanagan Mountain	Rattlesnake Island	Accessible	4
49.72624	-119.724	Okanagan Mountain	OM Provincial Park	Accessible	5
49.72550	-119.723	Okanagan Mountain	OM Provincial Park	Accessible	7
49.72437	-119.723	Okanagan Mountain	OM Provincial Park	Accessible	5
49.72374	-119.721	Okanagan Mountain	OM Provincial Park	Accessible	4
49.72364	-119.721	Okanagan Mountain	OM Provincial Park	Accessible	4
49.72363	-119.721	Okanagan Mountain	OM Provincial Park	Inaccessible	0
49.72360	-119.720	Okanagan Mountain	OM Provincial Park	Accessible	4
49.72213	-119.715	Okanagan Mountain	OM Provincial Park	Inaccessible	0
49.72035	-119.713	Okanagan Mountain	OM Provincial Park	Inaccessible	0
49.71957	-119.711	Okanagan Mountain	OM Provincial Park	Inaccessible	0
49.71056	-119.703	Okanagan Mountain	OM Provincial Park	Accessible	4
49.70273	-119.697	Okanagan Mountain	OM Provincial Park	Accessible	5
49.60333	-119.651	Summerland	Summerland Marina	Accessible	1
49.60333	-119.651	Summerland	Summerland Marina	Accessible	1
49.60332	-119.651	Summerland	Summerland Marina	Accessible	3
49.60329	-119.650	Summerland	Summerland Marina	Accessible	6
49.60329	-119.651	Summerland	Summerland Marina	Accessible	8
49.60328	-119.652	Summerland	Summerland Marina	Accessible	4
49.60265	-119.650	Summerland	Summerland Marina	Accessible	5
49.60233	-119.650	Summerland	Summerland Marina	Accessible	3
49.60199	-119.651	Summerland	Summerland Marina	Accessible	3

Nest Summary	Value
Minimum Clutch Size	0
Maximum Clutch Size	8
Mean Clutch Size	4.5 (5)
Total Number of Nests	122
Total Number of Eggs	473

South Okanagan



Latitude	Longitude	Locality	Site	Access	Addling Total
49.506289	-119.58625	Penticton	Penticton Marina	Accessible	0
49.506212	-119.5867	Penticton	Penticton Marina	Accessible	5
49.506178	-119.58691	Penticton	Penticton Marina	Accessible	0
49.506168	-119.58693	Penticton	Penticton Marina	Accessible	0
49.503018	-119.61116	Penticton	CN Tug	Accessible	6
49.495085	-119.61503	Penticton	Golf and Country Club	Accessible	4
49.472553	-119.59529	Penticton	Penticton	Accessible	7
49.458377	-119.58293	Penticton	Penticton	Accessible	7
49.451772	-119.5976	Penticton	Skaha Lake	Accessible	6
49.451438	-119.58226	Penticton	Skaha marina	Accessible	7
49.377797	-119.68561	Twin Lakes	Marron Lake	Accessible	0
49.348727	-119.57275	Okanagan Falls	Christie Island	Accessible	6
49.348667	-119.57259	Okanagan Falls	Christie Island	Accessible	7
49.345262	-119.71647	Twin Lakes	Trout Lake	Inaccessible	0
49.344267	-119.58033	Okanagan Falls	Okanagan Falls	Accessible	6
49.341367	-119.73802	Twin Lakes	Toy Lake	Accessible	0
49.338662	-119.74628	Twin Lakes	Yellow Lake	Accessible	3
49.337434	-119.74267	Twin Lakes	Yellow Lake	Inaccessible	0
49.336902	-119.7516	Twin Lakes	Yellow Lake	Accessible	6
49.334661	-119.75775	Twin Lakes	Yellow Lake	Accessible	0
49.334523	-119.75712	Twin Lakes	Yellow Lake	Accessible	5
49.323933	-119.7213	Twin Lakes	Twin Lakes	Accessible	0
49.305659	-119.54441	Vaseaux Lake	Vaseaux Wetlands	Accessible	5
49.305012	-119.54533	Vaseaux Lake	Vaseaux Wetlands	Accessible	0
49.304573	-119.54264	Vaseaux Lake	Vaseaux Wetlands	Accessible	5
49.304539	-119.54286	Vaseaux Lake	Vaseaux Wetlands	Accessible	5
49.304229	-119.54245	Vaseaux Lake	Vaseaux Wetlands	Accessible	7
49.304223	-119.54534	Vaseaux Lake	Vaseaux Wetlands	Accessible	0
49.289087	-119.57495	Twin Lakes	Sleeping Waters	Accessible	6
49.279023	-119.52746	Vaseaux Lake	Hatfield Island	Accessible	6
49.278962	-119.52716	Vaseaux Lake	Hatfield Island	Accessible	5
49.278954	-119.52712	Vaseaux Lake	Hatfield Island	Accessible	0
49.278950	-119.52712	Vaseaux Lake	Hatfield Island	Accessible	0
49.278925	-119.52693	Vaseaux Lake	Hatfield Island	Accessible	6
49.278863	-119.52688	Vaseaux Lake	Hatfield Island	Accessible	0
49.278845	-119.52738	Vaseaux Lake	Hatfield Island	Accessible	7
49.278840	-119.52723	Vaseaux Lake	Hatfield Island	Accessible	5
49.278839	-119.52754	Vaseaux Lake	Hatfield Island	Accessible	0
49.278803	-119.52724	Vaseaux Lake	Hatfield Island	Accessible	6
49.278802	-119.52752	Vaseaux Lake	Hatfield Island	Accessible	7
49.278789	-119.52706	Vaseaux Lake	Hatfield Island	Accessible	6
49.278784	-119.52681	Vaseaux Lake	Hatfield Island	Accessible	7
49.278764	-119.52673	Vaseaux Lake	Hatfield Island	Accessible	6
49.278747	-119.52733	Vaseaux Lake	Hatfield Island	Accessible	6

Latitude	Longitude	Locality	Site	Access	Addling Total
49.278636	-119.52664	Vaseaux Lake	Hatfield Island	Accessible	6
49.278616	-119.52718	Vaseaux Lake	Hatfield Island	Accessible	7
49.278613	-119.52689	Vaseaux Lake	Hatfield Island	Accessible	1
49.278606	-119.52682	Vaseaux Lake	Hatfield Island	Accessible	0
49.278589	-119.52744	Vaseaux Lake	Hatfield Island	Accessible	0
49.278542	-119.52728	Vaseaux Lake	Hatfield Island	Accessible	7
49.278538	-119.52726	Vaseaux Lake	Hatfield Island	Accessible	7
49.278509	-119.52705	Vaseaux Lake	Hatfield Island	Accessible	7
49.278489	-119.52661	Vaseaux Lake	Hatfield Island	Accessible	6
49.278485	-119.52737	Vaseaux Lake	Hatfield Island	Accessible	0
49.278461	-119.52687	Vaseaux Lake	Hatfield Island	Accessible	0
49.278434	-119.52685	Vaseaux Lake	Hatfield Island	Inaccessible	0
49.278375	-119.5272	Vaseaux Lake	Hatfield Island	Accessible	0
49.278371	-119.52661	Vaseaux Lake	Hatfield Island	Accessible	6
49.278326	-119.52686	Vaseaux Lake	Hatfield Island	Accessible	7
49.278308	-119.52717	Vaseaux Lake	Hatfield Island	Accessible	6
49.278233	-119.52652	Vaseaux Lake	Hatfield Island	Accessible	7
49.278220	-119.52677	Vaseaux Lake	Hatfield Island	Accessible	1
49.278197	-119.52666	Vaseaux Lake	Hatfield Island	Accessible	3
49.278182	-119.52655	Vaseaux Lake	Hatfield Island	Accessible	5
49.278166	-119.52691	Vaseaux Lake	Hatfield Island	Accessible	7
49.278141	-119.52651	Vaseaux Lake	Hatfield Island	Accessible	6
49.278099	-119.52694	Vaseaux Lake	Hatfield Island	Accessible	4
49.278038	-119.52687	Vaseaux Lake	Hatfield Island	Accessible	8
49.277997	-119.52693	Vaseaux Lake	Hatfield Island	Accessible	8
49.277994	-119.52684	Vaseaux Lake	Hatfield Island	Accessible	7
49.277906	-119.52643	Vaseaux Lake	Hatfield Island	Accessible	5
49.277896	-119.5268	Vaseaux Lake	Hatfield Island	Accessible	6
49.277801	-119.52644	Vaseaux Lake	Hatfield Island	Accessible	2
49.277684	-119.5266	Vaseaux Lake	Hatfield Island	Accessible	7
49.277558	-119.52617	Vaseaux Lake	Hatfield Island	Accessible	8
49.277285	-119.52591	Vaseaux Lake	Hatfield Island	Accessible	5
49.277266	-119.52651	Vaseaux Lake	Hatfield Island	Accessible	7
49.277249	-119.52642	Vaseaux Lake	Hatfield Island	Accessible	6
49.277230	-119.52613	Vaseaux Lake	Hatfield Island	Accessible	6
49.277212	-119.52599	Vaseaux Lake	Hatfield Island	Accessible	8
49.277207	-119.52599	Vaseaux Lake	Hatfield Island	Accessible	5
49.277114	-119.52643	Vaseaux Lake	Hatfield Island	Accessible	7
49.277110	-119.52621	Vaseaux Lake	Hatfield Island	Accessible	7
49.277022	-119.526	Vaseaux Lake	Hatfield Island	Accessible	8
49.276998	-119.5263	Vaseaux Lake	Hatfield Island	Accessible	5
49.276957	-119.52605	Vaseaux Lake	Hatfield Island	Accessible	5
49.276946	-119.52605	Vaseaux Lake	Hatfield Island	Accessible	1
49.276945	-119.52584	Vaseaux Lake	Hatfield Island	Accessible	5

Latitude	Longitude	Locality	Site	Access	Addling Total
49.276872	-119.5263	Vaseaux Lake	Hatfield Island	Accessible	7
49.276845	-119.5258	Vaseaux Lake	Hatfield Island	Accessible	6
49.276818	-119.52623	Vaseaux Lake	Hatfield Island	Accessible	5
49.276775	-119.52608	Vaseaux Lake	Hatfield Island	Accessible	4
49.276764	-119.52589	Vaseaux Lake	Hatfield Island	Accessible	1
49.276747	-119.5262	Vaseaux Lake	Hatfield Island	Accessible	5
49.276707	-119.52571	Vaseaux Lake	Hatfield Island	Accessible	6
49.276705	-119.52563	Vaseaux Lake	Hatfield Island	Accessible	5
49.276689	-119.52596	Vaseaux Lake	Hatfield Island	Accessible	2
49.276659	-119.52602	Vaseaux Lake	Hatfield Island	Accessible	6
49.276604	-119.52583	Vaseaux Lake	Hatfield Island	Accessible	5
49.276558	-119.52601	Vaseaux Lake	Hatfield Island	Accessible	5
49.276530	-119.52571	Vaseaux Lake	Hatfield Island	Accessible	5
49.276530	-119.52592	Vaseaux Lake	Hatfield Island	Accessible	0
49.276493	-119.52594	Vaseaux Lake	Hatfield Island	Accessible	5
49.276486	-119.52563	Vaseaux Lake	Hatfield Island	Accessible	2
49.276467	-119.52573	Vaseaux Lake	Hatfield Island	Accessible	5
49.276459	-119.52583	Vaseaux Lake	Hatfield Island	Accessible	6
49.276436	-119.52561	Vaseaux Lake	Hatfield Island	Accessible	5
49.276396	-119.52568	Vaseaux Lake	Hatfield Island	Accessible	0
49.276369	-119.52582	Vaseaux Lake	Hatfield Island	Accessible	6
49.276352	-119.52557	Vaseaux Lake	Hatfield Island	Accessible	0
49.276337	-119.52569	Vaseaux Lake	Hatfield Island	Accessible	6
49.276317	-119.52583	Vaseaux Lake	Hatfield Island	Accessible	2
49.276288	-119.52586	Vaseaux Lake	Hatfield Island	Accessible	5
49.276269	-119.5255	Vaseaux Lake	Hatfield Island	Accessible	5
49.276246	-119.52569	Vaseaux Lake	Hatfield Island	Accessible	7
49.276224	-119.52563	Vaseaux Lake	Hatfield Island	Accessible	4
49.276214	-119.52551	Vaseaux Lake	Hatfield Island	Accessible	0
49.276185	-119.52548	Vaseaux Lake	Hatfield Island	Accessible	0
49.276170	-119.52561	Vaseaux Lake	Hatfield Island	Accessible	3
49.276154	-119.52581	Vaseaux Lake	Hatfield Island	Accessible	7
49.276136	-119.52581	Vaseaux Lake	Hatfield Island	Accessible	0
49.276122	-119.5255	Vaseaux Lake	Hatfield Island	Accessible	7
49.276099	-119.52558	Vaseaux Lake	Hatfield Island	Accessible	0
49.276097	-119.52565	Vaseaux Lake	Hatfield Island	Accessible	4
49.276064	-119.52561	Vaseaux Lake	Hatfield Island	Accessible	2
49.276058	-119.5255	Vaseaux Lake	Hatfield Island	Accessible	5
49.276054	-119.52549	Vaseaux Lake	Hatfield Island	Accessible	7
49.276052	-119.52561	Vaseaux Lake	Hatfield Island	Accessible	0
49.276013	-119.52545	Vaseaux Lake	Hatfield Island	Accessible	0
49.276000	-119.52566	Vaseaux Lake	Hatfield Island	Accessible	6
49.275956	-119.52554	Vaseaux Lake	Hatfield Island	Accessible	4
49.028130	-119.46111	Osoyoos	Osoyoos Lake Island	Accessible	5

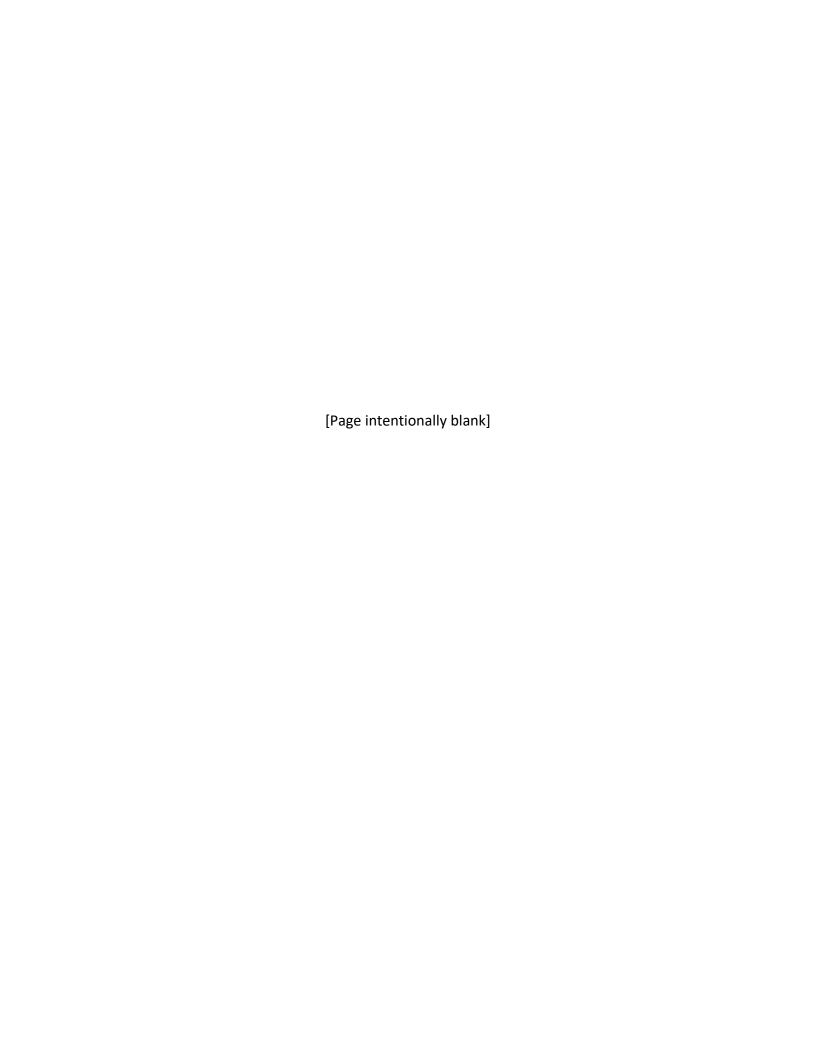
Latitude	Longitude	Locality	Site	Access	Addling Total
49.028014	-119.46102	Osoyoos	Osoyoos Lake Island	Accessible	6
49.027998	-119.46097	Osoyoos	Osoyoos Lake Island	Accessible	7
49.027988	-119.46122	Osoyoos	Osoyoos Lake Island	Accessible	5

Nest Summary	Value
Minimum Clutch Size	0
Maximum Clutch Size	8
Mean Clutch Size	4.5 (5)
Total Number of Nests	135
Total Number of Addled Eggs	577

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APPENDIX B

Select Project Photographs





Boat Nest (Vernon)



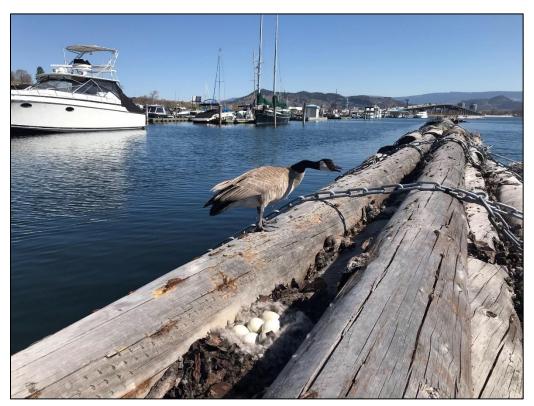
Commonage Road Wetland (Vernon)



Okanagan Lake (Okanagan Centre, Kelowna



Okanagan Lake (Westside, Central Okanagan)



West Kelowna Yacht Club



Accessing Nest on Osprey Platform (Penticton)