Summary of 2022 Canada Goose Management Program: Egg Addling and Population Surveys

Okanagan Valley Goose Management Program

MAINTAINING THE BALANCE
BETWEEN PEOPLE AND GEESE

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Executive Summary

This document provides a summary of activities conducted by EBB Environmental Consulting Inc. (EBB) as part of the 2022 Okanagan Valley Goose Management Program. This year the program included egg-addling and post-addling gosling surveys, including an aerial survey on July 8. The egg-addling program consisted of pre-addling pairs surveys and nest surveys in March followed by an intensive addling period throughout April and the first half of May.

Crews addled 1241 eggs from 327 nests. Of these, 36 nests were inaccessible due to safety concerns and four nest sites did not have authorization to access. Post-addling ground surveys indicated that an estimated 7% of the population was comprised of young-of-the-year. The aerial survey indicated that goose population growth has not occurred since the last comprehensive survey, and remains at approximately 2000-2500 geese.

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Table of Contents

List of Figures

List of Tables

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 2022, 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 described control options for resident Canada geese. The plan was drafted in 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).

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 boundaries. 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.

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 rooftops; osprey nesting platforms; ripped stuffing from patio/houseboat furniture; and other materials (e.g., Figure 1, Appendix B).

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 debris and down (Kalamalka Lake)

2.0 Methodology

2.1 Administration

2.1.1 Permits

EBB obtained permits from Environment and Climate Change Canada (ECCC) 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 supplied a letter of authorization for access to traditional lands.

ECCC requires individual landowner authorization forms for activities that occur on private lands, in addition to the federal Damage or Danger permit. 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). Other 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 landowner preference. Copies of all authorizations must 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 set up in 2007 for public to call with nest locations and other questions. These contacts stay 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 estimate 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 15, 2022. 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. 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). 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 ECCC 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 methods were compared in 2011. In general, the crew found 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 (Hatfield Island, 2022).

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 (Figure 4; HSUS 2009).

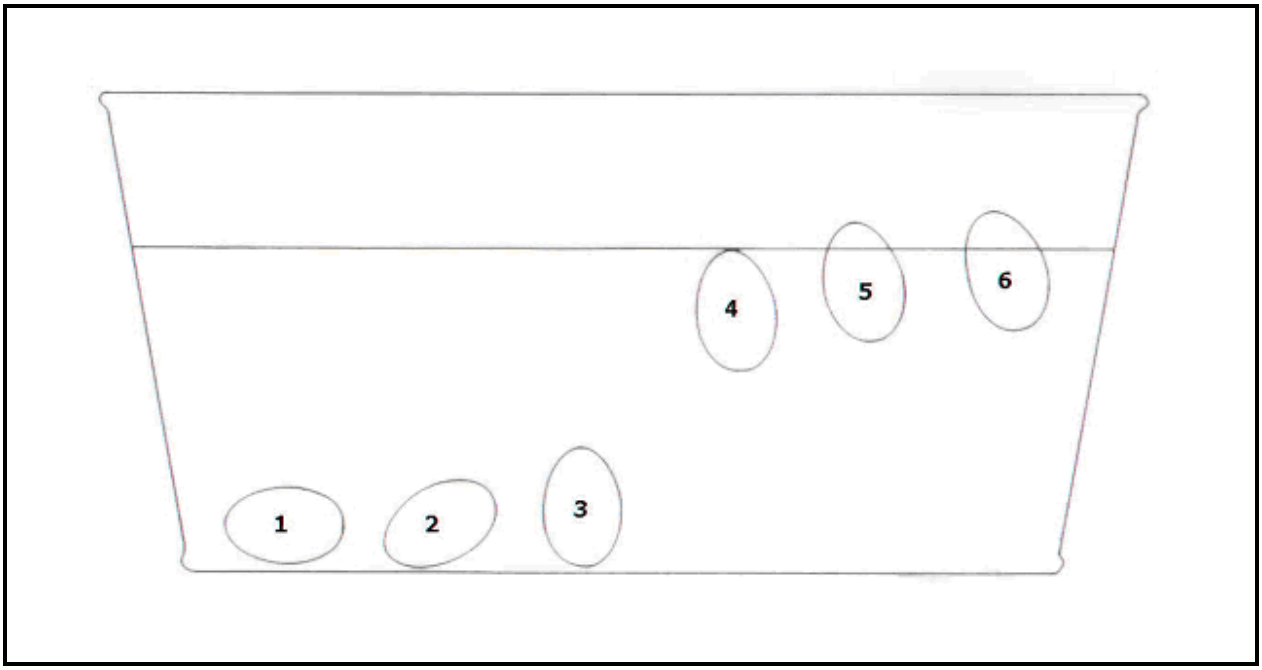

Figure 4. Cross-Section of a Float Test: Stages 1-3 represent eggs incubated for less than 2 weeks; Stages 4-6 represent eggs incubated for 14-27 days (Diagram from HSUS Canada Goose Egg Addling Protocol).

2.2.2.3 Covid-19 Related Restrictions

This year, survey and addling protocols were not impacted by Covid-19 provincial health orders to the same extent as in 2020 and 2021 when the province was in "lockdown". This year it was up to the discretion of the crew to use physical distancing measures where required, including access to nests on residential property.

2.2.3 Additional Surveys

2.2.3.1 Gosling Surveys

Follow-up ground surveys for goslings were conducted at the end of May and early 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.

2.2.3.2 Aerial Survey

Covid-19 restrictions and wildfire activity prevented aerial surveys from being completed since 2018. This year, one survey was conducted on July 8, towards the end of annual moult when geese were concentrated on water bodies. A crew of two biologists flew the length of the Valley, circling over each wetland and along the shorelines of the major lakes. Geese were counted from

the air, but also photographed for verification. The route was mapped during the flight using GPS, with each count location recorded as a specific UTM coordinate.

2.3 Leg Band Data

EBB crews observed geese for leg-bands (Figure 5). Some leg-band data returns were also 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 website) 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 1241 eggs from 327 nests. An additional 64 eggs were identified that had been predated and did not require addling. 36 nests were inaccessible due to safety concerns (e.g., unsafe location such as a cliff, or log boom) and four nests were not addled due to lack of authorizations to access the nests (e.g., landowner did not want the nest addled or landowner was absent can could not provide authorization).

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 4.5 (4 to 5) eggs, which is consistent with other years of the program and is the average for the Canada geese, in general.

Table 2. Okanagan Valley Egg Addling Data Summary

Nest Element	Value
Minimum Clutch Size	0
Maximum Clutch Size	10
Mean Clutch Size	4.5
Number of Accessible Nests	287
Number of Inaccessible Nests	40
Total Number of Addled Eggs	1241
Number of Geese Prevented from Entering Population (approximately 75% of addled eggs)	931

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,
- Debris piles, and
- Incineration and garbage bins

3.2 Media and Public Involvement

A press release was provided to the City of Kelowna communications department for distribution to media outlets at the onset of the addling program (April 7). It was also provided to communications staff of participating jurisdictions.

This year we received 35 emails and 10 calls from the public regarding egg-addling, and 3 requests for interviews from media. Additional calls and emails are ongoing and include topics such as:

- Injured goose or other wildlife observations
- Reporting goslings
- Vernon goose kill
- Hunting and hunting seasons,

- Geese at beaches and parks, and
- Feeding of geese.

3.3 Gosling Surveys

During ground surveys, population composition was 1007 adults and 79 goslings (7.3% young overall; Table 3). The highest numbers of geese were observed in the District of Lake Country (Kaloya Regional Park), North Okanagan Regional District (north arm of the lake viewed from Westside Road), and Vaseux Lake.

3.4 Aerial Survey

EBB crew observed 1776 geese. Geese were observed on all water bodies (Figure 8) with highest numbers in the north arm of Okanagan Lake and Vaseux Lake (Figure 9). Figures 10 provides a heat map of the distribution to clarify areas that were most used by molting geese. The biologists who conducted the surveys were very experienced, but it is still unlikely that all geese were counted. Taking missed geese/error into account, it is likely approximately 2000-2500 geese were present during the moult, which indicated that, at minimum, population growth remains flat.

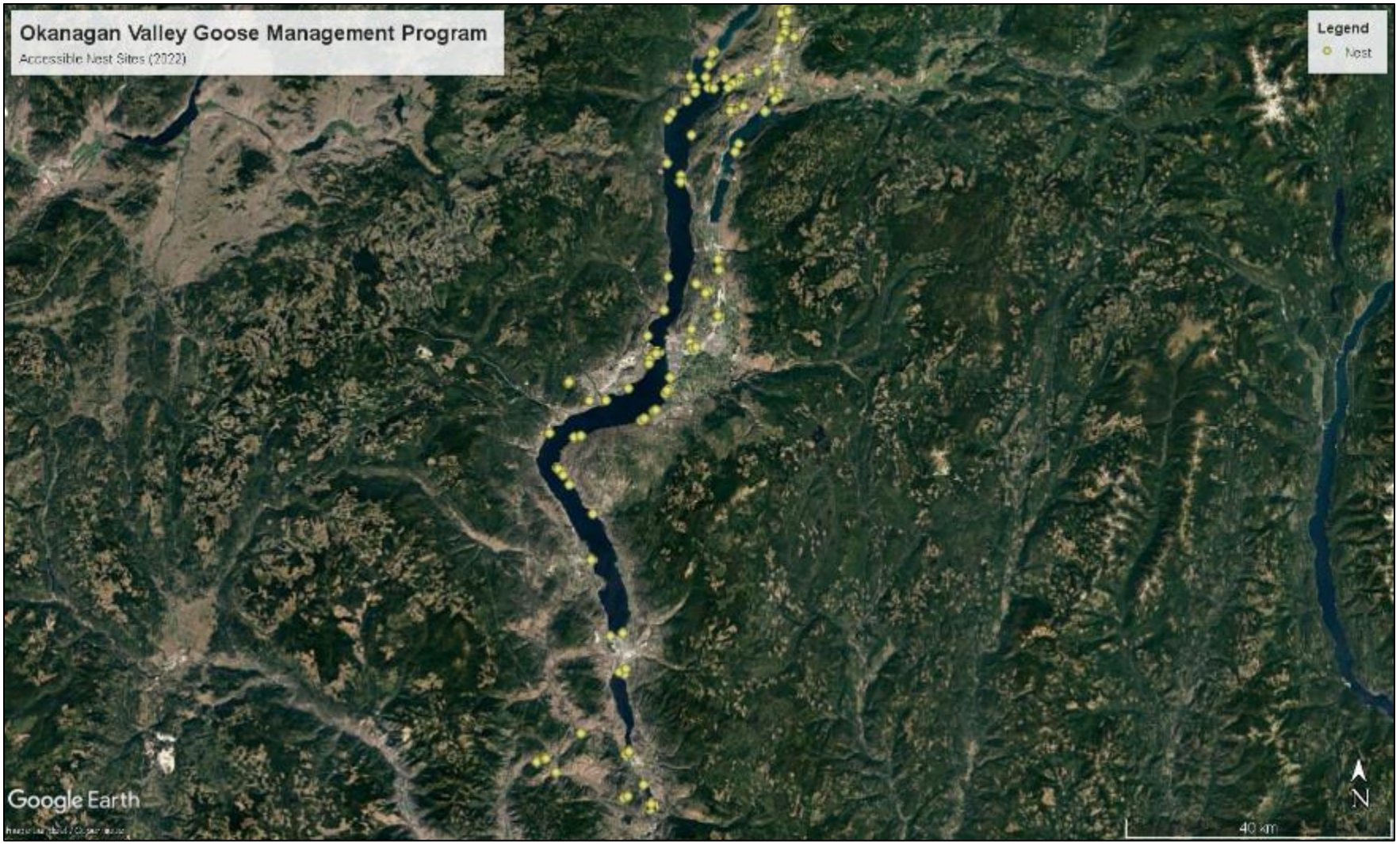

Figure 6. Accessible nest sites (addled) during the 2022 field season (valley overview)

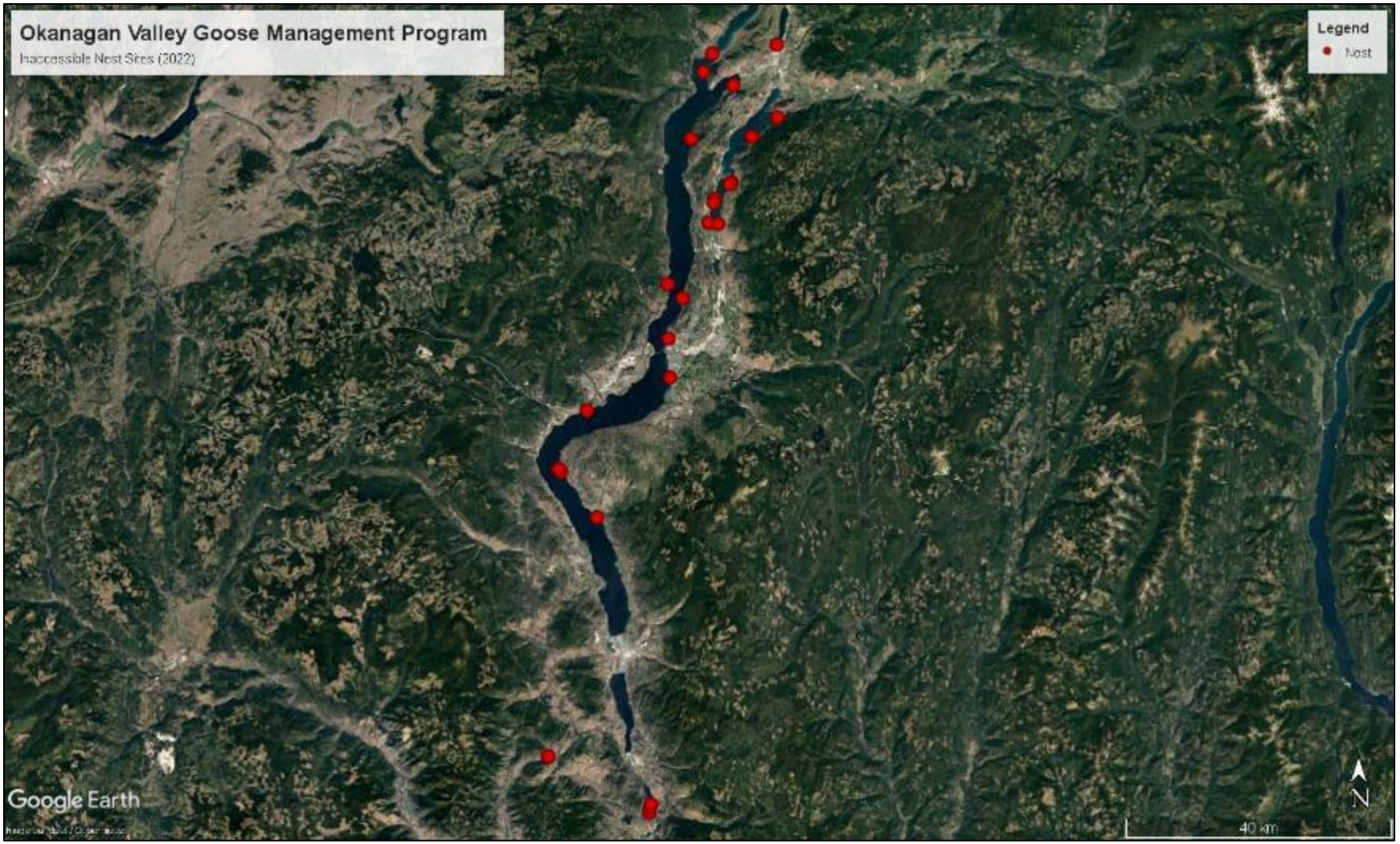

Figure 7. Inaccessible nests (not addled) during 2022 field season

Table 3. Summary Data for 2022 Post-addling Population Ground Surveys

Region	Site	Adults	Juveniles	Total	Estimated Clutches
Osoyoos	Osoyoos Lake	0	0	0	
Oliver	Tuc-el-nuit Lake	0	0	0	
RDOS	Vaseux Lake	204	0	204	
RDOS	Trout Lake	3	2	5	1 clutch
Okanagan Falls	Christie Memorial Park	4	0	4	
Penticton	North Skaha Lake	12	0	12	
Penticton	SS Sicamous	2	0	2	
Penticton	Penticton Marina	0	0	0	
Naramata	Manitou Park	22	0	22	
Summerland	Peach Orchard Beach Park	31	0	31	
Summerland	Highway 97 Shoreline	9	6	15	1 clutch
Peachland	Cenotaph Park	40	0	40	
Peachland	Trepanier Outlet	5	0	5	
West Kelowna	Cove Marina	0	0	0	
West Kelowna	Gellatly Landing Park	0	0	0	
West Kelowna	Marina Park	0	0	0	
West Kelowna	West Kelowna Yacht Club	12	0	12	
West Kelowna	Powers Point	0	0	0	
West Kelowna	Rotary Park (Gellatly Bay)	0	0	0	
West Kelowna	Shelter Bay Marina	1	0	1	
Kelowna	Waterfront Parks	14	16	30	3 clutches
West Kelowna	Traders Cove Park	2	0	2	
Kelowna	Ellison Lake	34	0	34	
Lake Country	Beasley Park	54	20	74	4 clutches
Lake Country	Oyama Rail Trail	28	0	28	
Lake Country	Young Wetland	63	0	63	
Lake Country	Kaloya Regional Park	74	26	100	5 clutches
Lake Country	Butterworth Road	19	0	19	
Coldstream	Kal Lake	8	7	15	2 clutches
Vernon	Paddlewheel Park	31	2	33	1 clutch
Vernon	Kin Beach	80	0	80	
Vernon	South Swan lake	51	0	51	
Vernon	North Swan lake	4	0	4	
NORD	Westside Road	200	0	200	
Total		**1007**	**79**	**1086**	**7.3% Young**

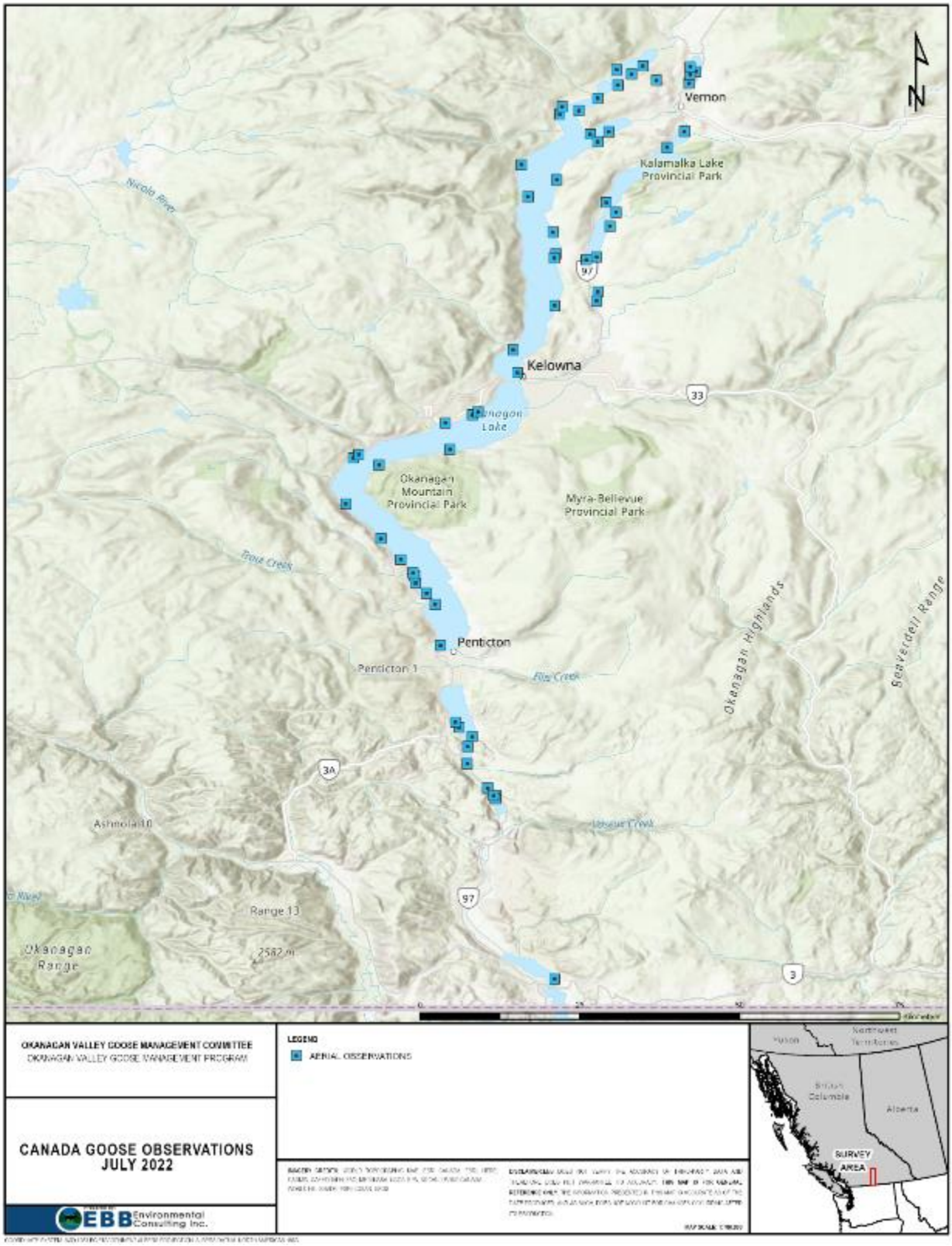

Figure 8. Aerial survey observation points (July 8, 2022)

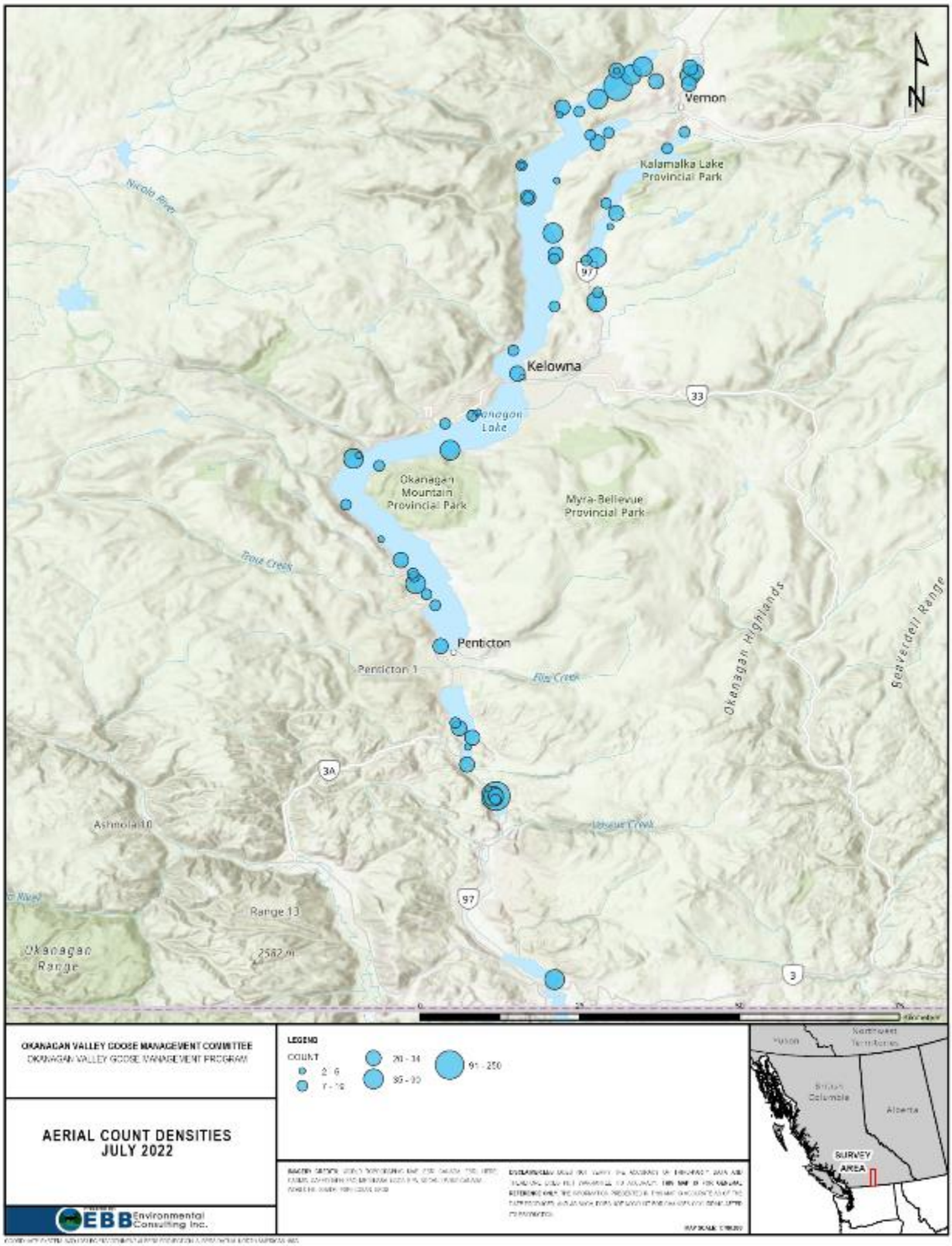

Figure 9. Aerial survey goose density (July 8, 2022)

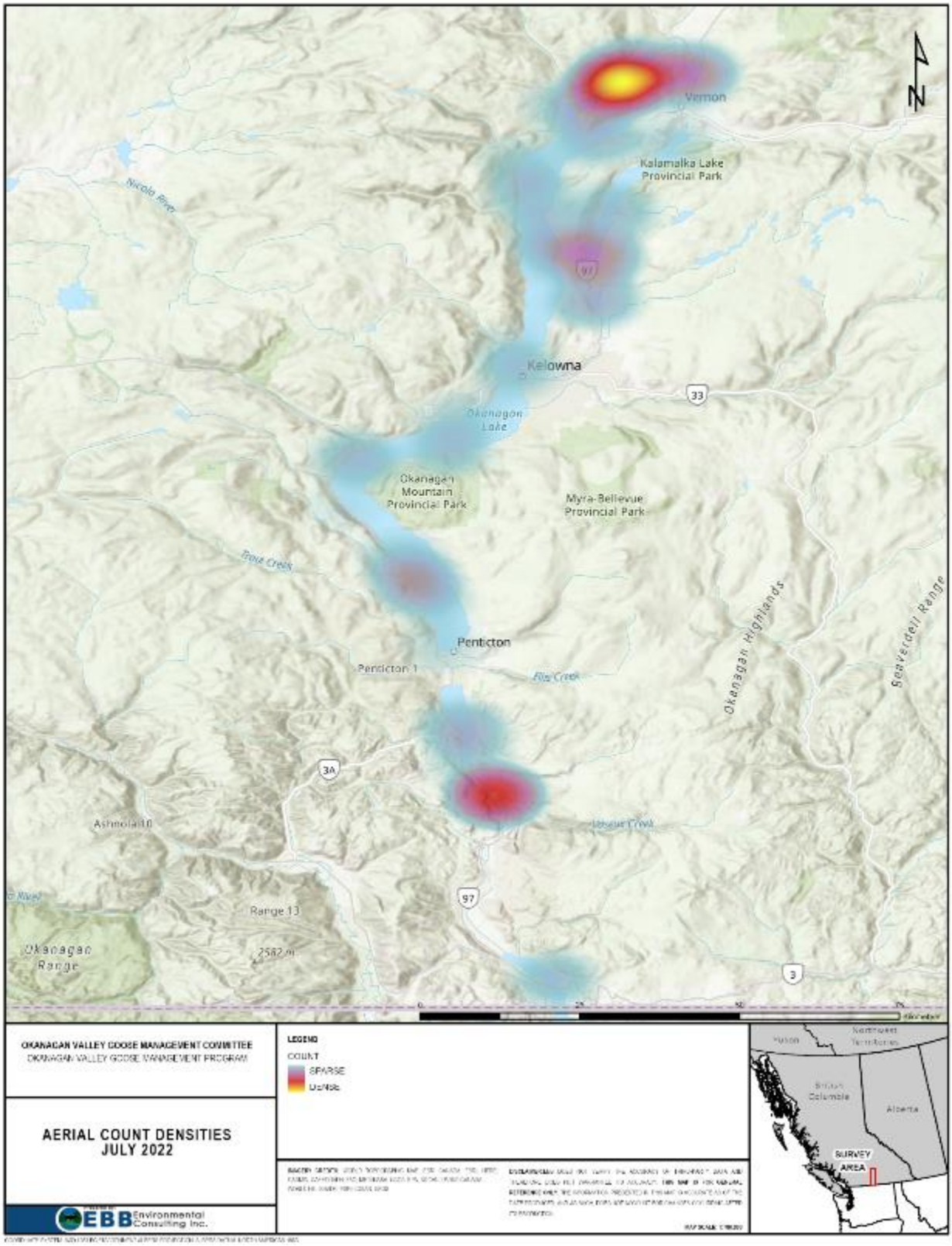

Figure 10. Aerial survey goose density expressed as a heat map to clarify key areas where geese congregated during moult (July 8, 2022).

4.0 Summary and Discussion

This year 1241 eggs were addled in the Okanagan Valley. Taking natural mortality into account, addling prevented close to 1000 new geese from entering the population. Cumulatively, over the span of the addling program, greater than 15,000 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 patterns, it is likely that the addling program has influenced nest distribution since the onset of the program. This year we had more nests in inaccessible locations—we may be pushing geese to find newer locations that are more challenging for us (as perceived predators) to reach. We also identified a lower number of nests than average, which may indicate a change in distribution and/or that some geese have stopped nesting through natural attrition and are not being replaced.

As in previous years, EBB found that the highest density and number of nests were in the Vaseux Lake Migratory Bird Sanctuary (98 nests; 480 eggs). Vaseux Lake accounts for approximately one third of the eggs addled each year. Following the addling program, Vaseux Lake naturalists contacted the OVGMP with reports of large families of geese. The families did not originate from the lake and may have transited to the lake for moult. The OVGMP and naturalists plan to work together in the spring of 2023 to gain access and authorizations to survey lands around the lake that may contain nest sources.

Gosling survey results help us identify areas where efforts should increase 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 provided us with an indicator of overall program success and where we should be directing our field survey/nest-finding efforts. This year we estimated 7.3% young for the valley-wide population.

Gosling survey data indicated the largest improvement continued to be in Vernon, with large numbers of adult geese but few goslings. The aerial survey supported the gosling survey findings with the largest numbers of geese in the north arm of Okanagan Lake, the District of Lake Country and Vaseux Lake.

The leg-band observation database continues to grow, but the number of banded geese is a diminishing resource. Data are still helpful and the distribution of data points continues to indicate that population control of these geese 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: Continued addling pressure at known/developing colony sites (e.g., Mackay Reservoir) to prevent nesting colony expansion and hatch success.

  Action: Coordinator to continue to assist with 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

- Work with Vaseux Lake naturalists to increase nest finding around Vaseux Lake

  Action: Contact naturalists in February to arrange for spring site meetings to increase local access

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

  Action: Coordinator to keep trying to contact 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

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

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

Action: Advise against 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.

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APPENDIX A

Egg Addling Data: Regional Summaries

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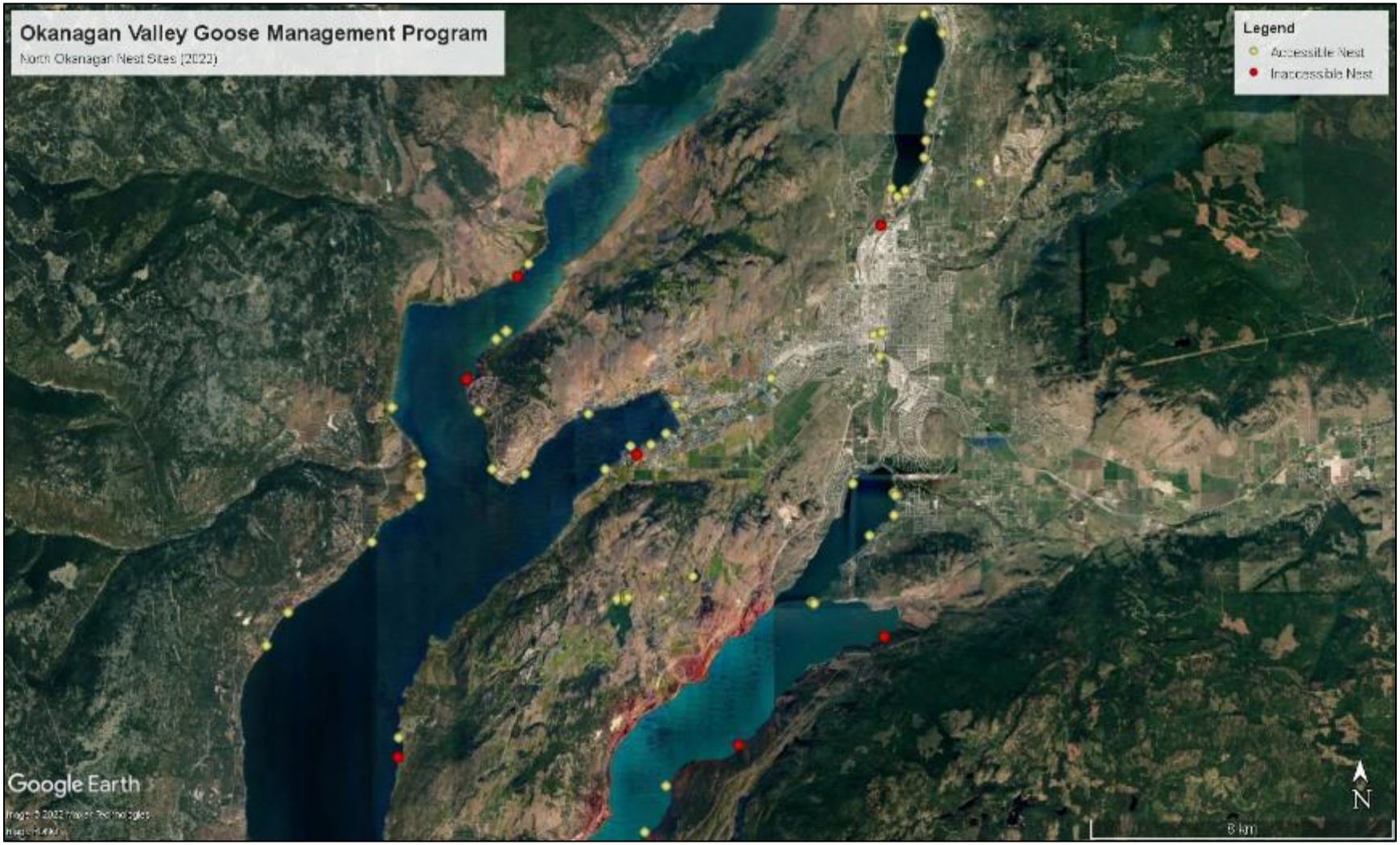
North Okanagan

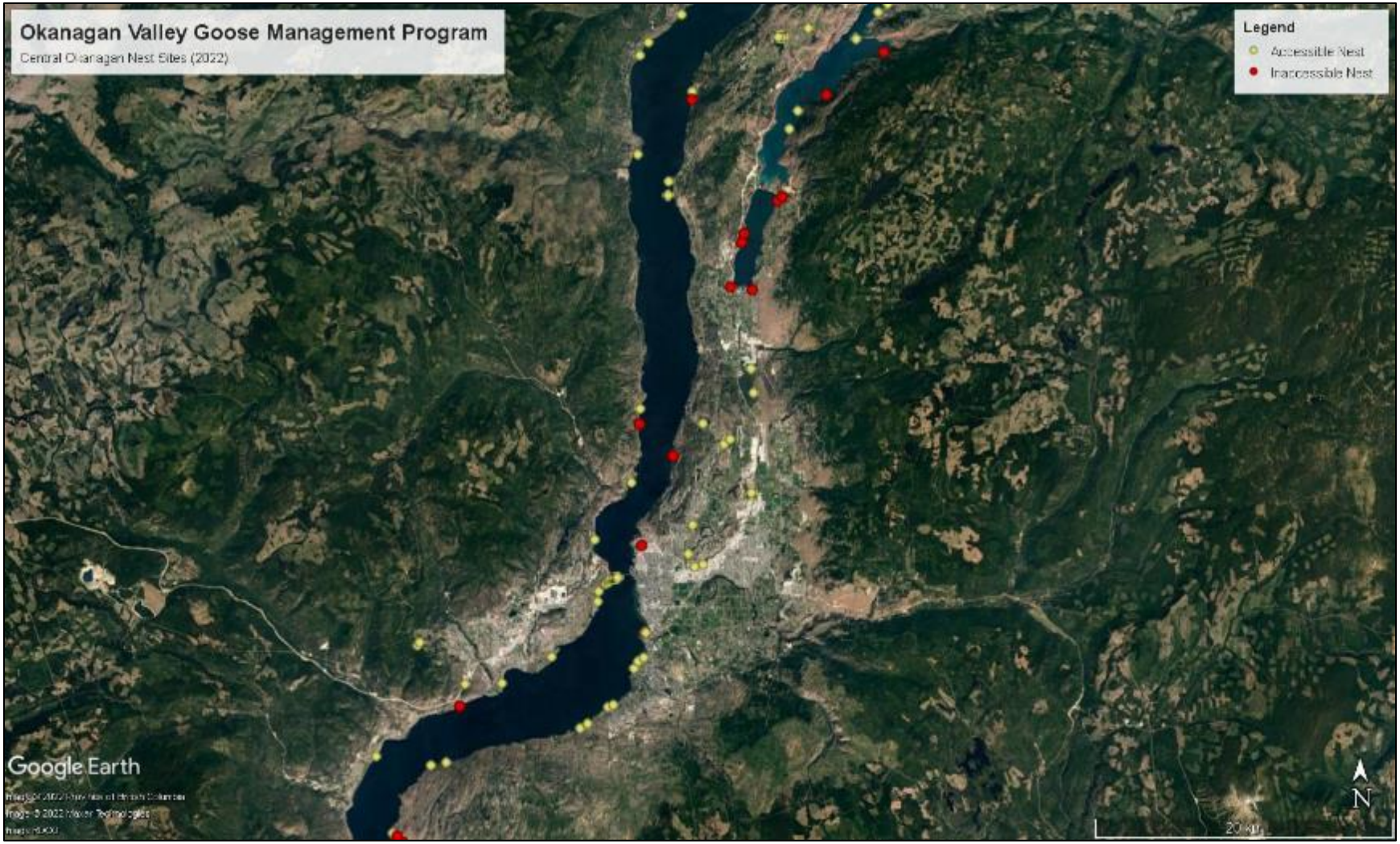


Latitude	*Longitude*	*Locality*	*Site*	*Access*	*Total Addled*
50.15663869	-119.3481078	Vernon	Kalamalka Lake - Vernon	Accessible	0
50.16801162	-119.4465466	Kelowna	Okanagan Lake - Kelowna	Accessible	4
50.18967365	-119.4952865	Vernon	Okanagan Lake - Vernon	Accessible	5
50.19745887	-119.4873414	Vernon	Okanagan Lake - Vernon	Accessible	6
50.19967216	-119.2938732	Vernon	Kalamalka Lake - Vernon	Accessible	4
50.19981022	-119.294548	Vernon	Kalamalka Lake - Vernon	Accessible	0
50.20038428	-119.3631168	Vernon	Mackey Reservoir	Accessible	8
50.20049957	-119.3631562	Vernon	Mackey Reservoir	Accessible	5
50.20050156	-119.3630168	Vernon	Mackey Reservoir	Accessible	4
50.20050388	-119.3661906	Vernon	Mackey Reservoir	Accessible	0
50.20051856	-119.3630277	Vernon	Mackey Reservoir	Accessible	7
50.20057079	-119.3660753	Vernon	Mackey Reservoir	Accessible	6
50.20062789	-119.363076	Vernon	Mackey Reservoir	Accessible	9
50.20063757	-119.3630061	Vernon	Mackey Reservoir	Accessible	2
50.20064729	-119.3661572	Vernon	Mackey Reservoir	Accessible	7
50.2006507	-119.3660139	Vernon	Mackey Reservoir	Accessible	0
50.20065098	-119.3630579	Vernon	Mackey Reservoir	Accessible	2
50.20077007	-119.3660794	Vernon	Mackey Reservoir	Accessible	6
50.20079579	-119.3660888	Vernon	Mackey Reservoir	Accessible	0
50.2009767	-119.3621833	Vernon	Mackey Reservoir	Accessible	7
50.20099073	-119.3620678	Vernon	Mackey Reservoir	Accessible	2
50.20101274	-119.3657043	Vernon	Mackey Reservoir	Accessible	7
50.20104283	-119.3621723	Vernon	Mackey Reservoir	Accessible	3
50.20106936	-119.3621982	Vernon	Mackey Reservoir	Accessible	8
50.20114462	-119.3628836	Vernon	Mackey Reservoir	Accessible	5
50.20120009	-119.3628725	Vernon	Mackey Reservoir	Accessible	6
50.20127072	-119.3629299	Vernon	Mackey Reservoir	Accessible	1
50.20129306	-119.3629901	Vernon	Mackey Reservoir	Accessible	2
50.20130007	-119.3630034	Vernon	Mackey Reservoir	Accessible	5
50.20130162	-119.3629851	Vernon	Mackey Reservoir	Accessible	4
50.20134206	-119.3629194	Vernon	Mackey Reservoir	Accessible	5
50.20135836	-119.3629493	Vernon	Mackey Reservoir	Accessible	4
50.20594678	-119.3382081	Vernon	Rose's Pond	Accessible	7
50.21404658	-119.4564404	Vernon	Okanagan Lake - Vernon	Accessible	0
50.22030715	-119.2639773	Coldstream	Kalamalka Lake - Coldstream	Accessible	4
50.22478795	-119.4388428	Vernon	Okanagan Lake - Vernon	Accessible	7
50.22552447	-119.2641527	Coldstream	Kalamalka Lake - Coldstream	Accessible	0
50.22775491	-119.2792394	Vernon	Kalamalka Lake - Vernon	Accessible	6
50.23015372	-119.4000026	Vernon	Okanagan Lake - Vernon	Accessible	10
50.23114887	-119.3704408	Vernon	Okanagan Lake - Vernon	Accessible	1
50.23122288	-119.4120661	Vernon	Okanagan Lake - Vernon	Accessible	0
50.23247149	-119.4381828	Vernon	Okanagan Lake - Vernon	Accessible	6
50.23659884	-119.3611022	Vernon	Okanagan Lake - Vernon	Accessible	4

Latitude	*Longitude*	*Locality*	*Site*	*Access*	*Total Addled*
50.23696356	-119.3535606	Vernon	Okanagan Lake - Vernon	Accessible	7
50.23958819	-119.3479962	Vernon	Okanagan Lake - Vernon	Accessible	1
50.24424766	-119.3766721	Vernon	Okanagan Lake - Vernon	Accessible	0
50.24484887	-119.4171657	Vernon	Okanagan Lake - Vernon	Accessible	4
50.24563319	-119.4491605	Vernon	Okanagan Lake - Vernon	Accessible	1
50.24577826	-119.4488983	Vernon	Okanagan Lake - Vernon	Accessible	0
50.24578586	-119.4491194	Vernon	Okanagan Lake - Vernon	Accessible	3
50.24642601	-119.344354	Vernon	Vernon	Accessible	6
50.25256629	-119.3093358	Vernon	Big Chief	Accessible	6
50.25770724	-119.269175	Vernon	Polson Park	Accessible	5
50.26170435	-119.4104209	Vernon	Okanagan Lake - Vernon	Accessible	1
50.26183807	-119.4106694	Vernon	Okanagan Lake - Vernon	Accessible	4
50.26279908	-119.2715149	Vernon	Vernon	Accessible	6
50.26333705	-119.2683208	Vernon	Vernon	Accessible	9
50.26365438	-119.4069004	Vernon	Okanagan Lake - Vernon	Accessible	8
50.2636594	-119.4068953	Vernon	Okanagan Lake - Vernon	Accessible	2
50.26368185	-119.4072809	Vernon	Okanagan Lake - Vernon	Accessible	1
50.27666616	-119.4042566	Vernon	Okanagan Lake - Vernon	Accessible	8
50.27949446	-119.3987373	Vernon	Okanagan Lake - Vernon	Accessible	7
50.29524606	-119.2626332	Vernon	Swan Lake	Accessible	6
50.29673114	-119.2596302	Vernon	Swan Lake	Accessible	6
50.29720299	-119.2648417	Vernon	Swan Lake	Accessible	5
50.29856736	-119.2324121	Vernon	Cool's Pond	Accessible	5
50.29858083	-119.2321494	Vernon	Cool's Pond	Accessible	3
50.30446493	-119.2526182	Vernon	Swan Lake	Accessible	6
50.30843779	-119.2519293	Vernon	Swan Lake	Accessible	6
50.31735763	-119.2508298	Vernon	Swan Lake	Accessible	3
50.31963461	-119.2498015	Vernon	Swan Lake	Accessible	6
50.33000397	-119.2606405	Vernon	Swan Lake	Accessible	4
50.33371804	-119.2457749	Vernon	Swan Lake	Accessible	6
50.33410469	-119.2459436	Vernon	Swan Lake	Accessible	8
50.33825365	-119.2525244	Vernon	Swan Lake	Accessible	4
50.16342591	-119.4467488	Kelowna	Okanagan Lake - Kelowna	Inaccessible	0
50.16626314	-119.3213636	Vernon	Kalamalka Lake - Vernon	Inaccessible	0
50.19173853	-119.2677591	Vernon	Kalamalka Lake - Vernon	Inaccessible	0
50.19951192	-119.2934986	Vernon	Kalamalka Lake - Vernon	Inaccessible	0
50.21549467	-119.2730301	Coldstream	Kalamalka Lake - Coldstream	Inaccessible	0
50.22497498	-119.2635482	Coldstream	Kalamalka Lake - Coldstream	Inaccessible	0
50.2345756	-119.358704	Vernon	Paddlewheel Park	Inaccessible	0
50.27651347	-119.4028281	Vernon	Okanagan Lake - Vernon	Inaccessible	2
50.28845636	-119.2685728	Coldstream	Kalavista Park	Inaccessible	0
50.25239557	-119.421583	Vernon	Okanagan Lake - Vernon	Unauthorized	0

Nest Summary	*Value*
Minimum Clutch Size	0
Maximum Clutch Size	10
Mean Clutch Size	4.3
Total Number of Nests	85
Total Number of Eggs	328

Central Okanagan



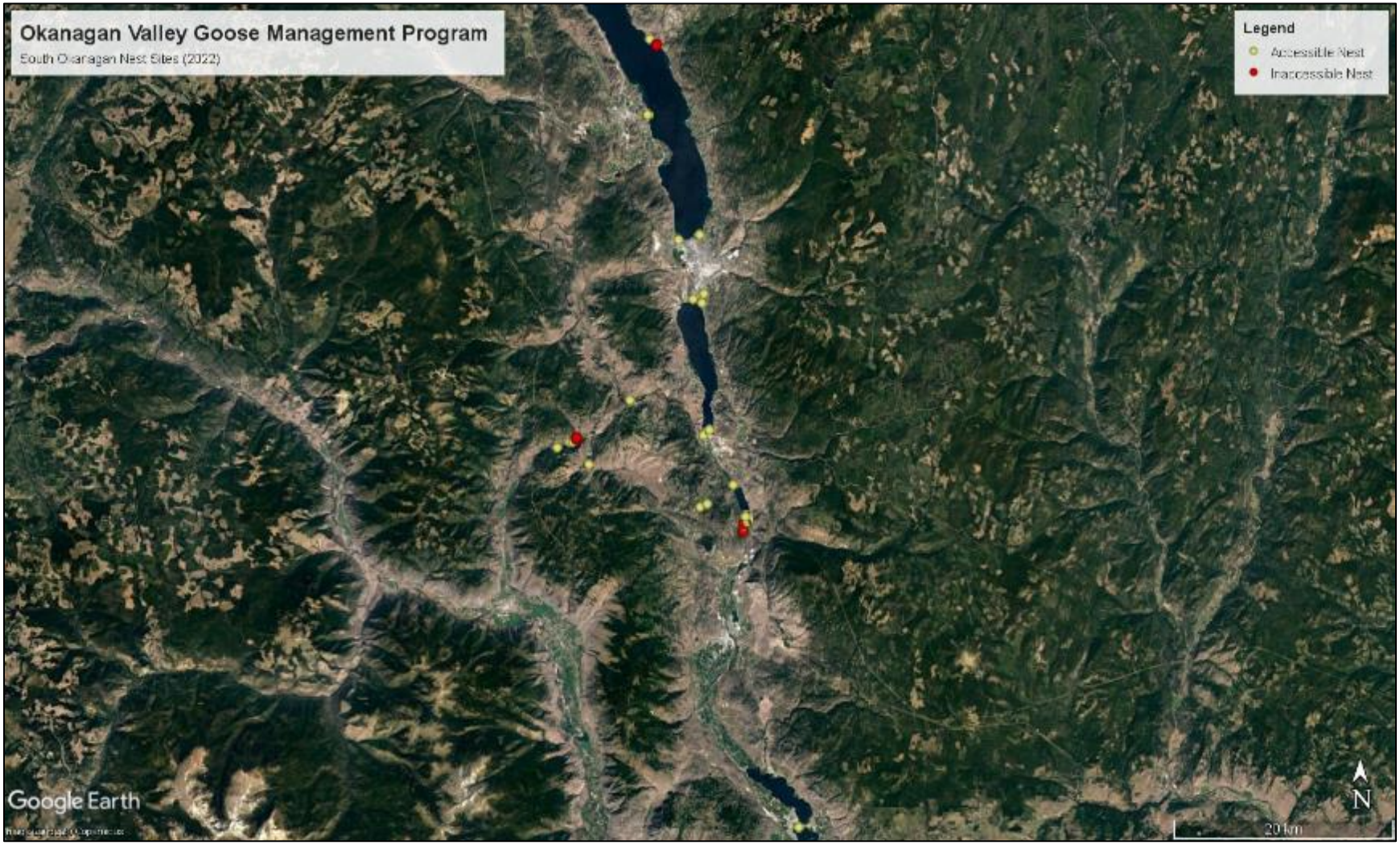
Latitude	*Longitude*	*Locality*	*Site*	*Access*	*Total Addled*
49.60277	-119.65	Summerland	Summerland Marina	Accessible	5
49.60287	-119.65	Summerland	Summerland Marina	Accessible	5
49.60303	-119.65	Summerland	Summerland Marina	Accessible	0
49.60333	-119.652	Summerland	Summerland Marina	Accessible	0
49.60341	-119.65	Summerland	Summerland Marina	Accessible	0
49.60343	-119.651	Summerland	Summerland Marina	Accessible	0
49.70303	-119.697	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Accessible	0
49.71578	-119.71	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Accessible	2
49.72021	-119.713	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Inaccessible	0
49.72363	-119.721	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Inaccessible	0
49.72363	-119.721	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Inaccessible	0
49.7238	-119.721	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Accessible	5
49.72389	-119.718	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Inaccessible	0
49.72389	-119.72	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Accessible	4
49.72403	-119.72	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Inaccessible	0
49.72564	-119.723	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Accessible	4
49.76627	-119.688	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Accessible	0
49.76803	-119.674	Okanagan Mountain	Okanagan Lake - Okanagan Mountain Park	Accessible	0
49.77149	-119.738	Peachland	Pentownia	Accessible	6
49.78869	-119.55	Kelowna	Okanagan Lake - Kelowna	Accessible	1
49.79148	-119.543	Kelowna	Okanagan Lake - Kelowna	Unauthorized	0
49.80135	-119.524	Kelowna	Okanagan Lake - Kelowna	Accessible	5
49.80169	-119.661	Peachland	Okanagan Lake - Peachland	Inaccessible	0
49.80265	-119.519	Kelowna	Okanagan Lake - Kelowna	Accessible	0
49.8148	-119.656	West Kelowna	Hardy Slough	Accessible	0
49.81537	-119.622	West Kelowna	West Kelowna Yacht Club	Accessible	1
49.8244	-119.5	Kelowna	Okanagan Lake - Kelowna	Accessible	7
49.82858	-119.496	Kelowna	Okanagan Lake - Kelowna	Accessible	1
49.83089	-119.491	Kelowna	Okanagan Lake - Kelowna	Accessible	5
49.83118	-119.576	West Kelowna	Okanagan Lake - West Kelowna	Accessible	1
49.83777	-119.7	West Kelowna	Glenrosa	Accessible	6
49.83951	-119.698	West Kelowna	Glenrosa	Accessible	5
49.84586	-119.49	Kelowna	Hotel Eldorado	Accessible	1
49.84592	-119.49	Kelowna	Okanagan Lake - Kelowna	Inaccessible	0
49.86416	-119.534	West Kelowna	Okanagan Lake - West Kelowna	Accessible	3
49.87031	-119.533	West Kelowna	Okanagan Lake - West Kelowna	Accessible	0
49.87458	-119.526	West Kelowna	Okanagan Lake - West Kelowna	Accessible	5
49.87554	-119.524	West Kelowna	Okanagan Lake - West Kelowna	Inaccessible	0
49.87708	-119.523	West Kelowna	Okanagan Lake - West Kelowna	Accessible	4

Latitude	*Longitude*	*Locality*	*Site*	*Access*	*Total Addled*
49.87757	-119.521	West Kelowna	WR Bennett Bridge	Accessible	0
49.87771	-119.519	Kelowna	WR Bennett Bridge	Accessible	7
49.87807	-119.517	Kelowna	WR Bennett Bridge	Accessible	5
49.87807	-119.518	West Kelowna	WR Bennett Bridge	Accessible	4
49.87813	-119.518	West Kelowna	WR Bennett Bridge	Accessible	5
49.87813	-119.518	West Kelowna	WR Bennett Bridge	Accessible	4
49.87815	-119.522	Kelowna	WR Bennett Bridge	Accessible	7
49.87819	-119.517	Kelowna	WR Bennett Bridge	Accessible	6
49.87819	-119.517	Kelowna	WR Bennett Bridge	Accessible	3
49.8782	-119.518	West Kelowna	WR Bennett Bridge	Accessible	5
49.8782	-119.518	West Kelowna	WR Bennett Bridge	Accessible	7
49.87823	-119.517	Kelowna	WR Bennett Bridge	Accessible	8
49.87824	-119.518	West Kelowna	WR Bennett Bridge	Accessible	5
49.87825	-119.517	Kelowna	WR Bennett Bridge	Accessible	1
49.87825	-119.517	Kelowna	WR Bennett Bridge	Accessible	6
49.87828	-119.517	Kelowna	WR Bennett Bridge	Accessible	10
49.8783	-119.517	Kelowna	WR Bennett Bridge	Accessible	2
49.8783	-119.517	West Kelowna	WR Bennett Bridge	Accessible	4
49.87831	-119.517	Kelowna	WR Bennett Bridge	Accessible	6
49.87832	-119.516	West Kelowna	WR Bennett Bridge	Accessible	2
49.87832	-119.517	West Kelowna	WR Bennett Bridge	Accessible	2
49.87832	-119.516	Kelowna	WR Bennett Bridge	Accessible	4
49.87837	-119.519	West Kelowna	WR Bennett Bridge	Accessible	5
49.87839	-119.516	Kelowna	WR Bennett Bridge	Accessible	6
49.87839	-119.516	Kelowna	WR Bennett Bridge	Accessible	6
49.87839	-119.516	Kelowna	WR Bennett Bridge	Accessible	5
49.87843	-119.516	Kelowna	WR Bennett Bridge	Accessible	5
49.87844	-119.516	Kelowna	WR Bennett Bridge	Accessible	1
49.87846	-119.516	Kelowna	WR Bennett Bridge	Accessible	8
49.87851	-119.515	Kelowna	WR Bennett Bridge	Accessible	5
49.87852	-119.515	Kelowna	WR Bennett Bridge	Accessible	7
49.87854	-119.516	Kelowna	WR Bennett Bridge	Accessible	5
49.87858	-119.515	Kelowna	WR Bennett Bridge	Accessible	6
49.87859	-119.515	Kelowna	WR Bennett Bridge	Accessible	1
49.88501	-119.444	Kelowna	Kelowna	Unauthorized	0
49.88635	-119.436	Kelowna	Kelowna	Accessible	5
49.89064	-119.451	Kelowna	Kelowna Golf and Country Club		0
49.89267	-119.45	Kelowna	Kelowna Golf and Country Club		0
49.89271	-119.45	Kelowna	Kelowna Golf and Country Club		2
49.89762	-119.493	Kelowna	Kelowna	Unauthorized	0
49.89788	-119.484	Kelowna	Brandt's Creek Waste Treatment	Accessible	0
49.89788	-119.484	Kelowna	Brandt's Creek Waste Treatment	Accessible	0
49.90104	-119.537	West Kelowna	Okanagan Lake - West Kelowna	Inaccessible	0
49.90994	-119.446	Kelowna	Brandt's Creek	Accessible	5

Latitude	*Longitude*	*Locality*	*Site*	*Access*	*Total Addled*
49.92741	-119.391	Kelowna	Carney Pond	Accessible	4
49.92759	-119.392	Kelowna	Carney Pond	Accessible	3
49.92779	-119.392	Kelowna	Carney Pond	Accessible	0
49.92793	-119.392	Kelowna	Carney Pond	Accessible	5
49.9282	-119.392	Kelowna	Carney Pond	Accessible	4
49.92862	-119.391	Kelowna	Carney Pond	Accessible	5
49.92863	-119.391	Kelowna	Carney Pond	Accessible	4
49.92876	-119.391	Kelowna	Carney Pond	Accessible	6
49.92884	-119.391	Kelowna	Carney Pond	Accessible	7
49.92899	-119.391	Kelowna	Carney Pond	Accessible	5
49.92906	-119.391	Kelowna	Carney Pond	Accessible	5
49.93512	-119.503	West Kelowna	Okanagan Lake - West Kelowna	Accessible	0
49.95113	-119.464	Kelowna	Okanagan Lake - Kelowna	Inaccessible	0
49.95807	-119.417	Kelowna	Glenmore Landfill	Accessible	0
49.96097	-119.411	Kelowna	Glenmore Landfill	Accessible	8
49.96997	-119.495	West Kelowna	Okanagan Lake - West Kelowna	Inaccessible	0
49.97035	-119.436	Kelowna	McKinley Reservoir	Accessible	6
49.97907	-119.495	West Kelowna	Okanagan Lake - West Kelowna		0
49.98865	-119.389	Kelowna	Duck Lake	Accessible	0
50.00301	-119.391	Kelowna	Duck Lake	Accessible	5
50.00303	-119.392	Kelowna	Duck Lake	Accessible	4
50.04985	-119.39	Lake Country	Oyama Rd	Inaccessible	0
50.0517	-119.411	Lake Country	Wood Lake Campground	Inaccessible	0
50.07824	-119.4	Lake Country	Wood Lake	Inaccessible	0
50.08338	-119.398	Lake Country	Wood Lake	Inaccessible	0
50.10282	-119.367	Lake Country	Oyama Rd	Inaccessible	0
50.10546	-119.363	Kelowna	Oyama Rd	Inaccessible	0
50.10608	-119.469	Kelowna	James Grant Island	Accessible	4
50.10614	-119.469	Kelowna	James Grant Island	Accessible	1
50.10625	-119.469	Kelowna	James Grant Island	Accessible	1
50.10625	-119.469	Kelowna	James Grant Island	Accessible	1
50.10636	-119.469	Kelowna	James Grant Island	Accessible	3
50.11446	-119.468	Kelowna	Okanagan Lake - Kelowna	Accessible	0
50.12146	-119.457	Lake Country	Carr's Landing	Inaccessible	0
50.13058	-119.497	Fintry	Okanagan Lake - Fintry	Accessible	0

Nest Summary	Value
Minimum Clutch Size	0
Maximum Clutch Size	10
Mean Clutch Size	3.5
Total Number of Nests	118
Total Number of Eggs	332

South Okanagan



Latitude	*Longitude*	*Locality*	*Site*	*Access*	*Total Addled*
49.65993195	-119.6396828	Naramata	Okanagan Lake - Naramata	Inaccessible	0
49.66446847	-119.648374	Okanagan Mountain	Okanagan Lake - Naramata	Inaccessible	0
49.02792849	-119.4610956	Osoyoos	Osoyoos Lake Island	Accessible	6
49.02792849	-119.4610956	Osoyoos	Osoyoos Lake Island	Accessible	2
49.02792849	-119.4610956	Osoyoos	Osoyoos Lake Island	Accessible	7
49.2672631	-119.5304481	Vaseux Lake	Vaseux Lake	Inaccessible	0
49.27155759	-119.5295695	Vaseux Lake	Vaseux Lake	Inaccessible	0
49.27339357	-119.5294391	Vaseux Lake	Vaseux Lake	Inaccessible	0
49.2758758	-119.525595	Vaseux Lake	Hatfield Island	Accessible	0
49.27599105	-119.5255586	Vaseux Lake	Hatfield Island	Accessible	2
49.27600746	-119.5255539	Vaseux Lake	Hatfield Island	Accessible	6
49.27602136	-119.5255099	Vaseux Lake	Hatfield Island	Accessible	4
49.27605037	-119.5255475	Vaseux Lake	Hatfield Island	Accessible	0
49.27605688	-119.5256818	Vaseux Lake	Hatfield Island	Accessible	6
49.27605832	-119.5255893	Vaseux Lake	Hatfield Island	Accessible	5
49.27607829	-119.52562	Vaseux Lake	Hatfield Island	Accessible	5
49.27608198	-119.5256878	Vaseux Lake	Hatfield Island	Accessible	2
49.27610161	-119.5254606	Vaseux Lake	Hatfield Island	Accessible	2
49.27611083	-119.5255454	Vaseux Lake	Hatfield Island	Accessible	4
49.27614506	-119.5256459	Vaseux Lake	Hatfield Island	Accessible	5
49.27619194	-119.5259912	Vaseux Lake	Hatfield Island	Accessible	6
49.27620273	-119.5255219	Vaseux Lake	Hatfield Island	Accessible	6
49.27627401	-119.525704	Vaseux Lake	Hatfield Island	Accessible	6
49.27627729	-119.5256968	Vaseux Lake	Hatfield Island	Accessible	6
49.2762955	-119.5253519	Vaseux Lake	Hatfield Island	Accessible	4
49.2762978	-119.525484	Vaseux Lake	Hatfield Island	Accessible	2
49.27632661	-119.5255409	Vaseux Lake	Hatfield Island	Accessible	5
49.27633878	-119.5256611	Vaseux Lake	Hatfield Island	Accessible	6
49.27635853	-119.5256431	Vaseux Lake	Hatfield Island	Accessible	5
49.27642657	-119.525624	Vaseux Lake	Hatfield Island	Accessible	7
49.27643917	-119.5257837	Vaseux Lake	Hatfield Island	Accessible	7
49.27646693	-119.525777	Vaseux Lake	Hatfield Island	Accessible	5
49.27648913	-119.5257484	Vaseux Lake	Hatfield Island	Accessible	7
49.27651242	-119.5255985	Vaseux Lake	Hatfield Island	Accessible	9
49.27652545	-119.5256175	Vaseux Lake	Hatfield Island	Inaccessible	0
49.27670302	-119.5257883	Vaseux Lake	Hatfield Island	Accessible	7
49.27676084	-119.5258101	Vaseux Lake	Hatfield Island	Accessible	6
49.27677403	-119.5257374	Vaseux Lake	Hatfield Island	Accessible	1
49.27678755	-119.5261085	Vaseux Lake	Hatfield Island	Accessible	1
49.27681155	-119.5261876	Vaseux Lake	Hatfield Island	Accessible	2
49.27681906	-119.526109	Vaseux Lake	Hatfield Island	Accessible	6
49.27688446	-119.5262504	Vaseux Lake	Hatfield Island	Accessible	5
49.27688724	-119.526236	Vaseux Lake	Hatfield Island	Accessible	6
49.27690578	-119.5262994	Vaseux Lake	Hatfield Island	Accessible	4

Latitude	*Longitude*	*Locality*	*Site*	*Access*	*Total Addled*
49.27690888	-119.526018	Vaseux Lake	Hatfield Island	Accessible	9
49.27695135	-119.5260007	Vaseux Lake	Hatfield Island	Accessible	3
49.2769777	-119.525957	Vaseux Lake	Hatfield Island	Accessible	6
49.27699285	-119.5258891	Vaseux Lake	Hatfield Island	Accessible	5
49.27705717	-119.5263177	Vaseux Lake	Hatfield Island	Accessible	7
49.27706139	-119.526263	Vaseux Lake	Hatfield Island	Accessible	6
49.27712481	-119.5262505	Vaseux Lake	Hatfield Island	Accessible	7
49.27714921	-119.52605	Vaseux Lake	Hatfield Island	Accessible	5
49.27722865	-119.5264405	Vaseux Lake	Hatfield Island	Accessible	6
49.27727511	-119.5260015	Vaseux Lake	Hatfield Island	Accessible	8
49.27736102	-119.526534	Vaseux Lake	Hatfield Island	Accessible	4
49.27738089	-119.5266341	Vaseux Lake	Hatfield Island	Accessible	6
49.27739398	-119.5263299	Vaseux Lake	Hatfield Island	Accessible	5
49.27742265	-119.5261163	Vaseux Lake	Hatfield Island	Accessible	6
49.27760557	-119.5261839	Vaseux Lake	Hatfield Island	Accessible	7
49.27774319	-119.5263616	Vaseux Lake	Hatfield Island	Accessible	7
49.27790287	-119.5264814	Vaseux Lake	Hatfield Island	Accessible	6
49.2779269	-119.5267659	Vaseux Lake	Hatfield Island	Accessible	2
49.27800422	-119.5265652	Vaseux Lake	Hatfield Island	Accessible	5
49.278038	-119.5269413	Vaseux Lake	Hatfield Island	Accessible	6
49.27812779	-119.5268884	Vaseux Lake	Hatfield Island	Accessible	5
49.27815087	-119.5264727	Vaseux Lake	Hatfield Island	Accessible	10
49.27818942	-119.5269984	Vaseux Lake	Hatfield Island	Accessible	7
49.27823821	-119.5269993	Vaseux Lake	Hatfield Island	Accessible	5
49.27836058	-119.5270939	Vaseux Lake	Hatfield Island	Accessible	6
49.27836771	-119.5264716	Vaseux Lake	Hatfield Island	Accessible	8
49.27837406	-119.5272917	Vaseux Lake	Hatfield Island	Inaccessible	0
49.27839645	-119.5273594	Vaseux Lake	Hatfield Island	Accessible	6
49.27847422	-119.5273745	Vaseux Lake	Hatfield Island	Accessible	7
49.27847735	-119.5273233	Vaseux Lake	Hatfield Island	Accessible	4
49.27848323	-119.5267847	Vaseux Lake	Vaseux Lake	Accessible	7
49.27848627	-119.5272411	Vaseux Lake	Hatfield Island	Accessible	4
49.27848835	-119.5271615	Vaseux Lake	Hatfield Island	Accessible	6
49.27856809	-119.527315	Vaseux Lake	Hatfield Island	Accessible	7
49.27861	-119.5271783	Vaseux Lake	Hatfield Island	Accessible	7
49.27863802	-119.5273414	Vaseux Lake	Hatfield Island	Accessible	4
49.27864483	-119.5266651	Vaseux Lake	Hatfield Island	Accessible	6
49.27864893	-119.5272986	Vaseux Lake	Hatfield Island	Accessible	2
49.27868191	-119.5268219	Vaseux Lake	Hatfield Island	Accessible	6
49.2786923	-119.5273192	Vaseux Lake	Hatfield Island	Accessible	6
49.27869719	-119.5268713	Vaseux Lake	Hatfield Island	Accessible	0
49.27869855	-119.5268744	Vaseux Lake	Hatfield Island	Accessible	4
49.27870817	-119.5269435	Vaseux Lake	Hatfield Island	Accessible	7
49.27871931	-119.5266708	Vaseux Lake	Hatfield Island	Accessible	4

Latitude	*Longitude*	*Locality*	*Site*	*Access*	*Total Addled*
49.2787364	-119.5269235	Vaseux Lake	Hatfield Island	Accessible	6
49.27876522	-119.5272793	Vaseux Lake	Hatfield Island	Accessible	6
49.27878082	-119.5269138	Vaseux Lake	Hatfield Island	Accessible	7
49.27879423	-119.5276021	Vaseux Lake	Hatfield Island	Accessible	7
49.27881826	-119.5275935	Vaseux Lake	Hatfield Island	Accessible	6
49.27884349	-119.5270644	Vaseux Lake	Hatfield Island	Accessible	6
49.27885749	-119.5274963	Vaseux Lake	Hatfield Island	Accessible	3
49.27886235	-119.5269808	Vaseux Lake	Hatfield Island	Accessible	6
49.2789399	-119.5271101	Vaseux Lake	Hatfield Island	Accessible	6
49.27895353	-119.527188	Vaseux Lake	Hatfield Island	Accessible	4
49.27897496	-119.5269701	Vaseux Lake	Hatfield Island	Accessible	6
49.27898417	-119.5271108	Vaseux Lake	Hatfield Island	Accessible	1
49.27899529	-119.5274366	Vaseux Lake	Hatfield Island	Accessible	6
49.279027	-119.5273627	Vaseux Lake	Hatfield Island	Accessible	6
49.28659897	-119.583943	Twin Lakes	Mahoney Lake	Accessible	6
49.289108	-119.5751431	Twin Lakes	Sleeping Waters	Accessible	7
49.30457104	-119.54296	Vaseux Lake	Vaseux Lake	Accessible	0
49.32074977	-119.7222999	Twin Lakes	Twin Lakes	Accessible	6
49.33423685	-119.7614903	Twin Lakes	Yellow Lake	Accessible	0
49.33446879	-119.7627381	Twin Lakes	Yellow Lake	Accessible	5
49.33875754	-119.7466749	Twin Lakes	Yellow Lake	Accessible	0
49.33881301	-119.7423936	Twin Lakes	Yellow Lake	Accessible	5
49.34096897	-119.7372386	Twin Lakes	Toy Lake	Inaccessible	0
49.34221533	-119.7376821	Twin Lakes	Toy Lake	Inaccessible	0
49.34465291	-119.5801206	Okanagan Falls	OK Falls River	Accessible	3
49.34866515	-119.5726885	Okanagan Falls	Christie Island	Accessible	6
49.34887665	-119.5726608	Okanagan Falls	Christie Island	Accessible	6
49.34887665	-119.5726608	Okanagan Falls	Christie Island	Accessible	7
49.37266757	-119.6714235	Twin Lakes	Marron Lake	Accessible	0
49.45144097	-119.582452	Penticton	Skaha Marina	Accessible	7
49.45441595	-119.5933174	Penticton	S Beach Garden Campground	Accessible	5
49.45890671	-119.5797782	Penticton	Sandbridge	Accessible	5
49.50241911	-119.6116732	Penticton	CN Tug	Accessible	9
49.50635494	-119.586159	Penticton	Penticton Marina	Accessible	5
49.50647456	-119.5853365	Penticton	Penticton Marina	Accessible	0

Nest Summary	Value
Minimum Clutch Size	0
Maximum Clutch Size	10
Mean Clutch Size	5.1
Total Number of Nests	124
Total Number of Addled Eggs	581

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APPENDIX B

Select Project Photographs

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North Okanagan Lake (any basin/bowl on a dock can host a nest)

Kalamalka Lake (mitigation collapsed)

Okanagan Lake (West Kelowna Yacht Club)

Penticton (debris on roofs easily forms into a nest)

Old nesting platform to encourage nesting at Vaseux Lake (we are arranging for these to be removed)