

Evaluation of the Hunting Transformation Project

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EXECUTIVE SUMMARY

The Hunting Transformation Project is a multi-year initiative, moving all of the Fish and Wildlife Branch hunting services to an online system. Phase one of the project focused on moving Limited Entry Hunting (LEH) and hunter registry online, as both processes required Fish and Wildlife staff to interpret thousands of hand written applications. With LEH and hunter registry going online in April 2016, the Fish and Wildlife Branch has started to develop phase two of the project, which includes licencing, compulsory inspection and compulsory reporting. The objective of this research was to determine how the Fish and Wildlife Branch could improve upon its implementation of the Hunting Transformation Project. Evaluating phase one of the project is important because the Fish and Wildlife Branch will be implementing phase two of the project in 2017, and merging the system with angling in the future.

Objective

The research question was: What is the level of satisfaction with the service quality of the Hunting Transformation Project? Users include: Service BC, FrontCounter BC, Fish and Wildlife staff, vendors, and hunters. These five groups use the online system to, purchase applications, support hunters, or create the LEH draw. Service quality was determined through a measurement tool known as e-GovQUAL, which uses the dimensions: reliability, efficiency, citizen support and trust to measure service quality. As E-GovQUAL outlines, reliability focused on the accessibility of the system, efficiency focused on the ease of use and navigation, citizen support focused on user assistance, training, and communication, while trust focused on the security of the system.

Methodology

In measuring satisfaction with service quality, this project used both qualitative and quantitative research methods. As a qualitative method, focus group discussions were held with Service BC, FrontCounter BC and Fish and Wildlife staff. Service BC and FrontCounter BC representatives were purposely selected to participate in the focus group discussion, based on their availability and experience using the system. These focus groups were held, via conference call, to allow individuals to call into the discussion from their own office. The focus group with Fish and Wildlife staff was held in-person and included the Biometrics Unit, which represented the system's primary users at the branch. This sample was selected based on convenience, as everyone in the Biometrics Unit works in the same office. The three focus group discussions included five questions and took an hour to discuss. Overall, there were five representatives from Service BC, five representatives from FrontCounter BC and three representatives from Fish and Wildlife.

Along with the focus group discussions, surveys were also used for data collection. Surveys were sent, via email link, to 58,865 hunters, 85 vendors, 270 Service BC and 100 FrontCounter BC staff. This sample represented all Service BC and FrontCounter BC staff, along with all participating hunting vendors and all hunters who applied for LEH online. Based on analysis conducted by the Fish and Wildlife Branch, it was found that 73 percent of all hunters applied online. The surveys themselves were housed on Fluid Survey and the email link to users was sent through a generic Fish and Wildlife email. The surveys were open from August 4th, 2016 to August 18th, 2016. In that time, 6,783 hunters, 17 vendors, 51 Service BC and 21 FrontCounter BC agents responded to the surveys.

Key Findings

After comparing the results between the focus groups and surveys, a number of key issues were identified. Firstly, accessibility was the number one issue among all users, with 31 percent of hunters, 51.0 percent of Service BC, 52.4 percent of FrontCounter BC, and 58.8 percent of vendors having issues accessing the site. This access issue was due largely to the site's traffic as large numbers of hunters applied for LEH online. Next, when focusing on efficiency, the majority of users were able to easily navigate and use the online system, however, the main issue with ease of use and navigation was the shared/group application process. There were difficulties joining hunters to their group, as the process for using the group ID was not intuitive. Hunters thought the group name field would link their applications, overlooking the separate page for joining a shared/group hunt. Related to issues with the shared/group hunt was the Fish and Wildlife website, which all users found difficult to navigate. Job aids and videos were added to the website to support hunters; however, based on the survey results, 42.1 percent of hunters were not aware of these materials. In regards to citizen support, hunters, Service BC, and FrontCounter BC could easily access assistance. The majority of assistance for hunters was related to the BCeID, at 52.2 percent, followed by accessing the site at 36.0 percent. The majority of assistance for Service BC and FrontCounter BC was for the shared/group applications at 55.0 percent. The final dimension of trust was found to cause confusion, as the purpose of the BCeID was not communicated to hunters. Respondents did not find it easy to register for the BCeID, making it the number one reason why hunters required assistance.

Along with identifying issues with the service quality, e-GovQUAL highlighted a number of successes with the Hunting Transformation Project. The Fish and Wildlife Branch provided multiple service avenues for hunters who did not want to use the online system, the system was easy to navigate, the job aids were helpful for Service BC and FrontCounter BC, while the LEH synopsis was helpful to hunter. Users who received training found the sessions to be helpful and thought they had enough time to learn about the changes.

Recommendations

There are a number of steps the Fish and Wildlife Branch can take to improve on the service quality of the hunting system. The branch should focus its attention on the accessibility of the system and consider purchasing new hardware to manage the high traffic. The branch should improve its efficiency by implementing a hybrid model of Ontario and Saskatchewan's shared/group application process, allowing hunters to apply for a hunt on behalf of their group. The branch should improve its citizen support by providing direct communication to hunters through email, improving the Fish and Wildlife website, and by providing support material in the next LEH synopsis. Training could be improved by involving the Service BC and FrontCounter BC trainers in system testing, along with having a group of pilot vendors test the system. Lastly, trust could be improved in the system by implementing a communication campaign on the BCeID, clarifying its purpose. By improving each dimension of e-GovQUAL, the Fish and Wildlife Branch will move one step closer to providing a quality hunting service for the future.

1.0 INTRODUCTION

1.1 General Problem

The Fish and Wildlife Branch has been managing hunting, through paper processes, for over 40 years. While these paper processes were effective in the 1970s, the new digital era has outdated these practices. In 2015, the Fish and Wildlife Branch received 182,052 paper applications for the Limited Entry Hunting (LEH) Draw (Limited Entry Hunting synopsis, 2016, p. 2). This is a lottery based system, where hunting authorizations are awarded to resident hunters, based on a random draw. Prior to the online system, all LEH applications were manually checked by the Fish and Wildlife Branch, before being entered into the draw. This required staff to interpret thousands of hand written applications and verify that the draw rules were in compliance. Each year, one in four LEH applications had an error which required Fish and Wildlife staff to make a judgement call about whether to include it in the draw or not (LEH synopsis, 2015, p. 1). These decisions delayed the draw results, caused additional work for staff, and resulted in applications not making it into the draw. This has been an ongoing issue, since the introduction of paper applications. The Fish and Wildlife Branch has attempted to implement an online system in the past, however, the system was never fully developed, due to lack of funding.

In response to these issues, the Fish and Wildlife Branch is implementing a multi-year Hunting Transformation Project. This initiative will move all of the Fish and Wildlife Branch hunting services to an online system with the goal of providing a faster, more convenient service to hunters. Phase one of the project was launched on April 25, 2016, and included LEH applications and hunter registry. The online system allowed hunters to track their LEH applications online and receive an email notification once the draw had been completed. With Hunter Registry going online, hunters have been able to manage and edit their own hunting profile. This was intended to reduce the inconvenience hunters faced, having to visit a Service BC location to update their hunting information. For hunters that do not want to use the online service, they can go to Service BC, FrontCounter BC, or a participating vendor location and receive assistance.

With LEH and hunter registry going live in April 2016, the Fish and Wildlife Branch has started to develop phase two of the Hunting Transformation Project, which includes licencing, compulsory inspection and compulsory reporting. Before implementing the second phase of this project, phase one of the project was evaluated and recommendations have been made to improve BC's hunting services.

1.2 Project Objectives and Research Question

The objective of this project was to determine how the Fish and Wildlife Branch could improve upon its implementation of the Hunting Transformation Project. This was accomplished through surveys to hunters, vendors, Service BC and FrontCounter BC staff. Along with the surveys, focus groups were conducted with Service BC, FrontCounter BC, and Fish and Wildlife staff. The main purpose of these focus groups was to determine staff's level of satisfaction with the online system, project communication and training. The surveys also determined user satisfaction with the online system, focusing on ease of use and system support. With phase two of the project being implemented the following year, these survey and focus group responses will shape the recommendations for phase two.

The Fish and Wildlife Branch implemented multiple approaches to communicating the project with internal staff. Firstly, the branch emailed a monthly newsletter, updating staff on the project's progress and milestones. The branch held conference calls for regional managers, Service BC and FrontCounter BC, throughout the eight months, leading up to go-live. Presentations were also made to Regional Biologists, Conservation Officers, and Fish and Wildlife staff. To ensure that all questions were answered, an internal FAQ was developed, along with a poster, which outlined the details of the project.

Prior to communicating with the public about the project, the Fish and Wildlife Branch consulted with the BC Wildlife Federation (BCWF), a non-profit organization representing hunters, and with First Nation communities across the province. Engaging with the key stakeholder groups initiated the discussion that hunting services were moving online. In regards to external communication to hunters and vendors, the Fish and Wildlife Branch developed two posters. The first poster informed hunters that paper applications were no longer be sold and the second poster outlined the details of BC Hunting Online. The Fish and Wildlife Branch also sent out 80,000 awareness notices in the hunter harvest surveys and had two provincial press releases, one in December and one in April. Lastly, the branch attended the BC Hunting Show at the Abbotsford Tradex. This show hosted approximately 34,000 hunters and anglers from across the province. To spread awareness, the Fish and Wildlife Branch handed out information notices, answered questions, and provided a demo of BC Hunting Online. If hunters did not hear about the system prior to go-live, the Fish and Wildlife Branch outlined the details of BC Hunting Online in the LEH synopsis, which hunters use to find their hunt codes and apply for the draw. Vendors were sent the two public posters, developed by the branch, along with a job aid, informing vendors of their new role within e-licencing. Vendors were also communicated to, via web conference. These web conferences provided vendors with a walkthrough of the system and gave them the opportunity to ask questions.

In regards to internal training, the Fish and Wildlife Branch hired a contractor to develop the internal training material, including a system user manual. Along with the user manual, all Service BC and FrontCounter BC locations were given job aids, which provided a screenshot walkthrough for navigating the system. The Fish and Wildlife Branch also provided training to Service BC and FrontCounter BC through a Train the Trainer session. This session was offered to the Service BC and FrontCounter BC trainers, who would then train their staff on the system. The Train the Trainer session took place over six hours, outlining the internal Wildlife Information and Licencing Database (WILD) system, BC Hunting Online, and vendor site or e-licencing. Internal Fish and Wildlife Staff also received training from the system developers, in a similar format to Train the Trainer. The system developers spent an entire day walking staff through all three sites, demonstrating how to create a new hunter in the system, apply for limited entry hunting, and create the LEH draw. Hunters and vendors did not receive any training in the system; however, a vendor manual, job aids and videos were created to guide hunters and vendors through the system.

The research question posed was: What is the level of satisfaction with the service quality of the Hunting Transformation Project? Users included: Service BC, FrontCounter BC, Fish and Wildlife staff, vendors, and hunters. These five groups use the online system to, purchase applications, support hunters, or create the LEH draw. Service quality will be determined through a measurement known as e-

GovQUAL, which uses the dimensions: reliability, efficiency, citizen support and trust to measure service quality (Papadomichelaki & Mentzas, 2012, p. 98). Out of these four dimensions, the focus will be on efficiency and citizen support as the Fish and Wildlife Branch can directly improve its training and communication material for phase two of the project.

1.3 Project Client

The client for this project is the Fish and Wildlife Branch, which resides in the Ministry of Forest, Lands and Natural Resource Operations. The Fish and Wildlife Branch is responsible for managing hunting and fishing activities across the province. This is done through the *Wildlife Act*, the Hunting and Trapping Regulations Synopsis and the Freshwater Fishing Regulations Synopsis. These regulations outline the number of species available for harvesting and where the public can hunt and fish. The Branch is also responsible for administering licences, managing the Guide Industry, and collecting harvest data. This data is used to make decisions on the land base and conserve fish and wildlife for future generations.

1.4 Rationale

Evaluating phase one of the Hunting Transformation Project is important because the Fish and Wildlife Branch will be implementing phase two of the project in 2017, and merging the system with angling in the future. This report provides recommendations on how to improve future phases of the Hunting Transformation Project and summarizes satisfaction with the service quality. Based on the sample's feedback, the Fish and Wildlife Branch will be able to advocate for future enhancements to the system and improve its training and communication material. The surveys and focus groups identified what training and communication materials were most useful and outlined how the users would prefer to receive this information in the future.

2.0 BACKGROUND

Limited Entry Hunting is a system by which hunting authorizations are awarded to resident hunters, based on a random draw (Limited Entry Hunting Synopsis, 2016, p. 1). Every LEH application costs \$6.30, including tax, and can be purchased online or through a Service BC, FrontCounter BC or a participating vendor location. LEH seasons are introduced as a way to limit the number of hunters or limit the number, class or sex of animal that may be harvested (LEH synopsis, 2016, p. 1). LEH seasons may precede or coincide with the general open season for the same species, but there are typically differences in animal class or season dates. There are three LEH draws a year: the spring draw, the special sheep draw and the fall draw. The fall draw is the most popular draw, with the Fish and Wildlife Branch issuing 26,843 authorizations in 2015 (LEH synopsis, 2016, p.2).

The hunting opportunities available for LEH are outlined in the yearly synopsis, published by the Fish and Wildlife Branch. These hunting opportunities are arranged in the synopsis by species, animal class, region and management unit (LEH synopsis, 2016, p. 2). Hunters are allowed to enter one application per species, in a calendar year. The only exception is the Special Sheep draw, which allows for an unlimited number of applications. This draw differs from the spring and fall draw because there is one authorization for a single mountain sheep hunt. Winning the special sheep authorization allows a hunter to carry an additional mountain sheep tag, in excess of the regular bag limit (LEH synopsis, 2016,

p. 5). The hunter's odds of winning a sheep authorization, if successful, are also not reduced if they apply for mountain sheep in the fall draw.

British Columbia's draw is based on an enhanced odds system, meaning that a hunter's odds are reduced, if successful for the same species in the previous year(s) (LEH synopsis, 2016, p. 2). For elk in region 1 or 2 and moose anywhere in the province, a hunter's odds are reduced by 66 percent for three years after being successful (LEH synopsis, 2016, p. 2). For all other species, other than deer, a hunter's odds are reduced by 50 percent for the following year (LEH synopsis, 2016, p. 2). Every hunt in the synopsis also has its own odds, meaning that hunters are more likely to be successful, when applying for certain hunts. For example, hunt code 0001 had odds of 101.1:1 in 2015, meaning that 1 out of 101 hunters will win an authorization (LEH synopsis, 2016, p. 5). These odds are much lower than hunt code 4297, which had 6.5:1 odds in 2015 (LEH synopsis, 2016, p. 9). These odds change year to year and are based on how many hunters applied for that specific hunt. Each hunt is identified using a unique four digit hunt code, which lists the details for that hunt. Hunt codes are added to an LEH application, under a first and/or second hunt choice, depending on the hunter's preference.

All hunts in the draw are open for individual applicants, but there are some hunts that allow for group or shared applications. Group hunts are available for all species, with the exception of moose and bison, which are only available as individual or shared and Region 1 and 2 elk, which are only available as individual (LEH synopsis, 2016, p. 3). As a group hunt, applicants are entered in the draw as a single application. A maximum of four individuals can enter a group hunt, but groups can exist with two or three individuals. If the group application is successful and there are enough remaining authorizations, every hunter in the group is allocated an authorization (LEH synopsis, 2016, p. 3). In the event that there are not enough authorizations available for everyone in the group, the group will not be granted their authorization. Prior to the implementation of the online system, hunters would write the serial number of their group member's application in the space allocated for the group hunt. With the online system, hunters join a shared or group hunt through a group ID, which is automatically generated once the first applicant creates the group hunt. All subsequent hunters then use the group ID to retrieve the hunt information and then make payment through their own profile.

Shared hunts differ from group hunts, and they are only available for moose and bison. When applying for a shared hunt, each member is entered into the draw as a separate application, meaning that four hunters have four opportunities to win an authorization (LEH synopsis, 2016, p. 3). In a shared hunt, groups of two are awarded one authorization and groups of three and four are awarded two authorizations. This differs from a group hunt, where one application is entered into the draw, with the possibility of all group members winning an authorization. It is important to note that in shared hunts, no group member can harvest more than one species, meaning that if a group of four wins two authorizations, another hunter in the group would have to harvest that second animal.

Prior to the implementation of the online system, any resident of British Columbia, holding a valid Hunter Number was eligible to apply for LEH. A resident could not apply for an LEH authorization if the resident's hunting licence or Hunter Number was at the time of applying, suspended, cancelled or the resident had outstanding fines under the *Wildlife Act* or *Firearms Act* (LEH synopsis, 2015, p. 1). To

obtain a Hunter Number, hunters would have to visit a Service BC location and prove residency, with a BC drivers licence, BC care card, or BCID. A resident, as outlined in the 2016 LEH synopsis is: “A person who is a Canadian citizen or a permanent resident of Canada, whose only primary residence is in British Columbia, and has been physically present in British Columbia for the greater portion of each six calendar months out of the twelve calendar months immediately preceding the date of making an application” (p.2). Individuals also qualify as a resident if they are not a Canadian citizen or a permanent resident of Canada, but their primary residence is in BC and they have been physically present in British Columbia for the greater portion of each six calendar months out of the twelve calendar months immediately preceding the date of making an application (LEH synopsis, 2016, p. 2). Along with proving residency, hunters would have to prove hunter safety education by showing their Conservation Outdoor Recreation Education (CORE) certificate to a government agent. CORE is British Columbia’s hunter safety training and is a course educating the public on hunting laws/regulations, animal identification, and firearm safety. With the completion of CORE and proof of residency, hunters were issued a Hunter Number Card, acting as a form of hunter registration. If a hunter ever lost their Hunter Number, they would have to go to Service BC and complete a statutory declaration form stating what happened to the card.

The only resident hunters that were not required to have a Hunter Number were First Nations. The province recognizes that First Nations may establish their aboriginal right to harvest wildlife for food, social, and ceremonial purposes within their traditional areas (LEH synopsis, 2016, p. 2). Under the *Wildlife Act*, “Indian” means a person who is defined as a status Indian under the *Indian Act* (Wildlife Act, 1996). First Nations residing in British Columbia are not required to obtain a hunting licence or a species licence under the *Wildlife Act* (Wildlife Act, 1996). Those who wish to exercise their aboriginal right to hunt within their traditional area are not limited to follow regulations regarding species bag limit, but they are required to comply with regulations related to public health and safety. First Nations who wish to hunt outside of their traditional territory must comply with the Hunting Regulations, with the exception of carrying a hunting licence. This means that First Nations must apply for LEH if they wish to hunt a species, not available during the general open season and outside of their territory. With the paper LEH applications, First Nations were required to write INDIAN in the space allotted for the Hunter Number (LEH synopsis, 2015, p. 2). This was done so that the system, running the draw, would not reject the application for being incomplete.

With the implementation of the online system, hunters are now required to have a Fish and Wildlife ID (FWID), with active Resident and Hunting Credentials (LEH synopsis, 2016, p. 1). The Fish and Wildlife ID is a nine digit number, replacing the six digit Hunter Number. All hunters, with a Hunter Number, are granted a FWID with three additional digits added to their Hunter Number. Existing hunters are also granted active credentials because their Hunter Number proves hunter education. New hunters, without a Hunter Number, can obtain their FWID, with active credentials, by showing a Service BC or FrontCounter BC agent the proper documentation or by uploading the documents through their online profile. New hunters must show proof of residency, such as a drivers licence, proof of age, which is optional if the proof of residency has a birth date, and proof of hunter education, such as the CORE certificate. The credential review process can take up to three business days, if done online, or approved

instantly, through a government agent. Hunters will be required to prove residency, every three years, after being granted their residency credential. This is to prevent out of province hunters from applying for LEH. Hunters must have both credentials as active, before they are eligible to apply for LEH. If a hunter does not want to apply online, they can visit a Service BC, FrontCounter BC, or participating vendor location and receive assistance completing the application.

One change with the online system is the requirement that all First Nation hunters, applying for LEH, must first register for an FWID. Prior to the online system, First Nation hunters were not required to have a Hunter Number, and therefore, were not data converted into the online system. As a result, all First Nation hunters must apply for their hunting credentials. First Nations are not required to provide evidence of hunter safety training, but must provide proof of residency. Instead of providing proof of hunter education, First Nations can upload or show proof of status. This proof includes a status card or a letter from the Band Office or First Nations Government confirming status (LEH synopsis, 2016, p. 2). Once the credentials are approved, First Nation hunters are granted status exemption, under their hunting credential.

2.1 Creating the Limited Entry Hunting Draw

Moving BC's hunting services online has not only changed how people apply for LEH, but it has also changed how the Fish and Wildlife Branch sets up the draw. What was previously a process largely coordinated through the sharing of excel files, has now become a streamlined system, with the Wildlife Information and Licensing Database (WILD) automatically initiating the draw process. There are a number of key positions that interact with the WILD system, including: the application administrator, the regulations officer, and the regional biologists. When first initiating the draw, the application administrator is responsible for creating a new draw year, using the system to associate the previously approved hunts into the new draw year. Once this is completed, the regulations officer will update the hunt opportunities and add new hunts to the draw year. Most of the hunts in the draw do not change year to year, but new hunts may be added or existing hunts removed if a species' population starts to change or a species is overhunted. The regulations officer will add all of the hunt details and then associate the hunt to the draw year. Prior to the implementation of the online system, new hunts would be added to an excel file, but with the online system, hunts are added to an online grid, outlining the details for every hunt.

Once the regulation officer updates the hunt opportunities, the regional biologists must update the tentative authorizations on the hunt grid. Tentative authorizations are approximate numbers for how many species will be authorized in the draw. Regional biologists determine these tentative authorizations, based on research conducted in the field and using harvest questionnaire data from the previous hunt year. Upon completing the tentative authorizations, the regulations officer will export the hunt grid to an excel file for approval by the Minister. After receiving approval, the application administrator will create the draw in the system. This is where the application administrator will associate the hunts from the draw year into the fall or spring draw and specify the application dates. The application administrator will also create the success parameters for every species and specify which species will be available for a substitute hunt. Currently, substitute hunts are only available for grizzly, allowing hunters who select the substitute option, to win an authorization in an area outside of their

first and second hunt choice. Substitute hunts were initially created because some grizzly hunts were under-subscribed, while others were over-subscribed. By providing a substitute hunt option, hunters who are not successful in their first and second choice still have the opportunity to hunt in another area of the province.

Once the draw has been set up, the regulations officer will enter the final authorization numbers. Similarly to the tentative authorization numbers, the regulations officer receives the final authorization numbers from the regional biologists. The final authorization numbers dictate the actual number of authorizations that will be awarded for every hunt. However, before the numbers are finalized, they must be signed off by the director of the Fish and Wildlife Branch. The final authorizations are typically signed off and entered after the draw deadline. Once the final authorizations are in the system and all applications have been entered, the draw is executed, officially running the algorithm that determines LEH success. The system will then generate the authorization, after the algorithm has been run and the Fish and Wildlife Branch will mail all successful applicants their authorization. With the online system, hunters will also receive a generic email from the branch, notifying hunters to check their profile for the results.

Limited Entry hunting seasons are not unique to BC, all provinces across Canada have LEH seasons to limit the number of hunters or limit the number of animal that may be harvested. With British Columbia being the latest province to move LEH services online, there is a unique opportunity to learn from how other provinces manage their wildlife.

3.0 CROSS JURISDICTIONAL ANALYSIS

There has been an ongoing trend, across Canada, to move hunting services online. Provinces such as Alberta, Saskatchewan, and Ontario all provide hunters the opportunity to apply for LEH and purchase hunting licences online. This next section will analyze Alberta, Saskatchewan, and Ontario's online system, making comparisons to British Columbia.

3.1 Alberta

Alberta's online hunting and angling system is known as AlbertaRELM.com. This site provides hunters and anglers access to a range of services, including the Wildlife Identification Number (WIN) card, licences, and the LEH draw. The WIN card is ten digit identification number, making it similar to the FWID; however, the WIN card is only valid for five years (My Wild, 2015). All Alberta hunters must complete the Conservation and Hunter Education Course and possess a WIN card before they can purchase a licence, or apply for the draw. The WIN card is initially purchased from a vendor and then mailed to the hunter. At the point of purchase, hunters are issued a temporary card, until they receive their permanent card (My Wild, 2015). British Columbia's FWID does not expire like Alberta's WIN card, but the Resident Credential, associated with the FWID, expires every three years. Another difference between the WIN card and FWID number is that the FWID is automatically generated, free of charge, once the hunter signs into the system for the first time. The FWID becomes visible on the hunter's profile, once both credentials are approved by a government agent. Unlike the Alberta card system, the FWID can be printed by the hunter or displayed on their personal electronic device.

Alberta's LEH draw is held every June, allowing hunters to apply for a limited number of special licences. These special licences allow successful applicants to hunt specific species, in defined areas and during specific season dates. Alberta's draw is based on a priority system, where a hunter's odds are increased every year they are unsuccessful for a special licence (Alberta Hunting Draws, 2015, 7). The first, second, and third choice of the highest priority applicant is considered before the choice of any applicant with a lower priority. Once a hunter is drawn for a species, their priority for that particular species drops to zero (Alberta Hunting Draws, 2015, p. 7). If a hunter applies in a group, the priority of that application is associated with the hunter whose priority is the lowest. If a hunter does not apply for the draw; their priority for the following year stays the same (Alberta Hunting Draws, 2015, p. 7). The draw selection itself is completed one draw code at a time, with each management unit having a quota for the maximum number of applicants that can be selected. Alberta's system first tries to fill the available quotas with the first choice of the highest priority applicant, continuing this process for the second and third hunt choice. If there are more applicants than licences, the available licences are randomly distributed among those applicants (Alberta Hunting Draws, 2015, p. 7).

Similarly to BC, certain hunts have better odds of success than others. In Alberta, the wildlife management unit selected can determine the odds of success. If a hunter applies for a management unit that receives a low number of applications, but has a high quota of licences, that hunter's odds will be higher than an area with a high number of applications and a low quota (My Wild, 2015). Unlike BC's draw, Alberta allows non-resident Canadians to submit applications for a limited number of species. Non-resident Canadians must apply with at least one resident hunter to be eligible for the draw, with the exception of the Non-Resident Trophy Sheep Draw. If a non-resident Canadian is successful obtaining a special licence, they must be accompanied by a licenced host hunter, who is a resident of Alberta (My Wild, 2015).

3.2 Saskatchewan

In 2015, Saskatchewan incorporated an automated Hunting, Angling, and Trapping Licence (HAL) system. This system allows hunters to submit their LEH applications online and purchase hunting or angling licences (Saskatchewan, 2016, p. 3). Similarly to BC, the HAL system allows hunters to update their personal information and view their draw results. The HAL system also allows hunters to edit their application any time prior to the application deadline. These changes can include adding or removing hunt choices, changing preference order, and adding or removing group members (Saskatchewan, 2016, p. 3). Before being eligible to apply for LEH, Saskatchewan hunters must have a HAL ID (Saskatchewan, 2016, p. 1). This ID is a nine digit number, used to access the online system and purchase hunting licences. When creating a HAL ID, Saskatchewan residents must have a valid Saskatchewan Health Services Card and enter their name exactly as it appears on the card. The HAL ID is similar to the FWID, being automatically generated when a hunter enters in their personal information and accesses the HAL system.

When applying online, hunters are given the option to select up to six hunt choices in order of preference. The number of hunts selected increases a hunter's odds for being selected in the draw. If a hunter's application is selected, their first hunt selection is considered their first priority hunt. If all licences for that hunt have been issued, a hunter second hunt choice is considered. If no quota is

available for any hunt choice, then a hunter's application is not drawn (Saskatchewan, 2016, p. 5). When submitting a group LEH application, a group initiator will enter the HAL ID and birthdate of all hunters that wish to join the hunt. This is different to BC, which requires the group initiator to share a group ID with their hunting partners and then have the partner complete the application through their profile. Up until the draw deadline, only the group initiator will have the ability to edit the application details.

Similarly to Alberta, Saskatchewan's draw is based on a priority system, opposed to BC's enhanced odds system. In Saskatchewan, applications are entered into priority pools, which provide a higher priority to applicants who have not been drawn for a number of years (Saskatchewan, 2016, p. 4). These priority pools are established based on the last time a hunter was successful for a particular species. There are four different classifications of pools including: Super A pool, A pool, B pool, and C pool (Saskatchewan, 2016, p. 4). Super A pool is the highest priority pool, consisting of hunters that were not successful in the A pool from the previous year. A pool consists of applicants who were drawn three years previously, B pool consists of applicants who were drawn two years ago, and C pool consists of applicants that were drawn last year (Saskatchewan, 2016, p. 4). If successful in the draw, applicants are responsible for purchasing the hunting licence for that species through their HAL profile.

3.3 Ontario

To hunt or apply for the big game draw (LEH) in Ontario, hunters must be a resident of Ontario with a valid hunting Outdoors Card. The Outdoors Card is a plastic identification card, used for both hunting and angling services (Ontario, 2016, p. 16). Individuals are required to carry the Outdoors Card every time they hunt or fish. An Outdoors Card is valid for three years, expiring on December 31st of the third year (Ontario, 2016, p. 16). The only exceptions to the Outdoors Card are First Nations and resident hunter apprentices, who are accompanied by a licenced hunter (Ontario, 2016, p. 16). Similarly to BC, First Nation individuals hunting for food, social or ceremonial purposes within their traditional area do not require an Outdoors Card or in BC's case, a FWID. All First Nations hunting outside of their traditional area must have a hunting version Outdoors Card with the appropriate licences (Ontario, 2016, p. 16). If a hunter is between the ages of 12 and 18, they are not required to carry an Outdoors Card, but are required to have a Hunter Apprenticeship Safety Card (Ontario, 2016, p. 22). This card is issued through Ontario's Hunter Apprenticeship Safety Program, allowing individuals to develop their hunting skills, while under direct supervision of an adult. The individual must pass the Ontario Hunter Education Course to be eligible for the Apprenticeship Safety Card (Ontario, 2016, p. 22). Along with most resident hunters, all non-resident hunters must have an Outdoors Card. The Non-Resident Outdoors Card is similar to the resident Outdoors Card, with the exception that non-residents of Ontario are only issued an H1 version of the card (Ontario, 2016, p. 20). Similarly to resident hunters, non-residents must carry their Outdoors Card in addition to their hunting licence.

All new hunters without an Outdoors Card must go to a participating ServiceOntario location. Hunters must show proof of hunter education and proof of passing the Canadian Firearms Safety Course, if applying for the H1 Outdoors card. Any hunters with an Outdoors Card, prior to January 1, 2006, have been automatically granted the H1 Outdoors Card (Ontario, 2016, p. 17). Temporary Hunting Outdoor Cards are issued to new hunters while they wait for the plastic card to be mailed. The

temporary card is valid for hunting during the general open season, as long as the hunter has their hunting licence tags (Ontario, 2016, p. 17). The Outdoors card is similar to the WIN card, being a physical card that hunters purchase. One difference is that Ontario hunters must prove hunter education and residency, before receiving their card. In this way, the Outdoors card is similar to the FWID because both IDs require the hunter to prove credentials. Ontario recognizes two types of resident hunters, under two classes of Outdoors Cards. The class of H1 allows the cardholder to hunt with all methods permitted under the *Fish and Wildlife Conservation Act, 1997* (Ontario, 2016, p. 17). The class of H2 differs from H1, allowing cardholders to hunt using all methods listed under the *Fish and Wildlife Conservation Act*, with the exception of guns (Ontario, 2016, p. 17).

In Ontario, the big game draw is used to distribute hunting opportunities for moose, deer and elk. Each species has its own application period with deer opening between March 1 and June 30th, moose between April 20 and May 31st, and elk between May 1 and June 10th (Ontario, 2016). In order to apply for the draw, hunters must purchase the correct hunting licence and have a valid Outdoors Card. Hunters have three options to apply for the draw including: an automated phone system, an online service, or hunters can go to a participating ServiceOntario location or licence issuer (Ontario, 2016, p. 35). These service avenues are similar to British Columbia, offering LEH services online, or through a ServiceBC, FrontCounter BC, or vendor location. When applying over the phone, hunters are required to have their Outdoors Card number and credit card number. The same is also required for the online service; however, the benefit of applying online in Ontario is that hunters can change their application if they make a mistake (Ontario, 2016, 40).

When applying for the draw, there are three different application types, including: individual, group leader and group member. Hunters applying as a group are responsible for identifying a group leader. This group leader will initiate the group application by entering the hunt code for the group's choice (Ontario, 2016, p. 55). The group leader is then provided with a group reference number to identify the group. The leader then shares this reference number to the group members so that they can be added to the group. Each group member is responsible for entering the reference number to become associated with the group application (Ontario, 2016, p. 55). BC uses a similar concept for their group hunt; however, BC does not have a formal distinction between group leader and group members.

When it comes to actually running the draw and distributing the authorizations, Ontario's system is most like Saskatchewan's system, with two priority pools determining the likelihood of success. Pool 1 has the highest priority, consisting of hunters who have consistently applied and gone the longest number of years without receiving an authorization/ validation tag (Ontario, 2016, p. 39). The draw processes all first and second hunt choices, for Pool 1 applicants, before considering Pool 2 applicants. Pool 2 authorizations are dependent on the number of hunters left in the draw and the number of authorizations available (Ontario, 2016, p. 39). Once the draw has been run and the authorizations are distributed, hunters receive their special licence in the mail.

As illustrated above, all three provinces have taken different approaches to hunter registry and LEH. The purpose of this cross jurisdictional analysis was not to recommend that BC change its registry

and LEH system, but rather recognize that other provinces have moved their hunting services online and that BC can learn from these jurisdictions.

4.0 LITERATURE REVIEW

The Hunting Transformation Project is one example of a larger government trend known as electronic government or e-government. For the purposes of this report, e-government will be defined as: “the use of information and communication technologies by government for the purpose of improving the quality of the services and information provided to citizens” (Sa, Rocha, Perez, 2016, p. 153). This definition highlights the fact that e-government is not a technology, but rather the use of technology, to provide a more convenient service to the public. The benefit of e-government and online technologies is that the public can access services at their convenience and make their own decisions for the needed service. E-government is also said to reduce the service costs for both government and the public (Hall & Owens, 2011, p. 38).

Along with the benefits of e-government, there are challenges with technology creating a digital divide, where certain populations are more likely to have access to e-services (Reddick & Turner, 2012, p. 3). The digital divide is typically related to the demographic of certain populations, such as differences in race, age, education, and income (Belanger & Carter, 2009, p. 132). A study conducted by the U.S. National Telecommunications and Information Administration (NTIA) (2011), found that Caucasians had the highest access to internet at 68.3 percent, followed by Blacks at 49.9 percent, and Hispanics at 45.2 percent (p. 11). As Belanger and Carter (2009) indicated, elderly individuals, 55 and over, typically have less access to internet (p. 132). This was further supported by the NTIA (2011) study, which found that 18-24 year olds had the highest access to internet at 80.5 percent, followed by individuals aged 35-44 years old at 73.7 percent. The lowest level of access was for individuals aged 55 and over at 50.3 percent (p. 10). Individuals with university or college education, living in urban areas, are also more likely to have access to internet compared to high school educated individuals living in rural areas (Belanger & Carter, 2009, p. 132). NTIA’s (2011), study found that 84.2 percent of individuals with a Bachelor’s Degree or more had access to the internet, followed by 51.4 percent with high school education, and 15.2 percent of individuals with education below grade nine (p. 9). When comparing internet access between urban and rural communities, urban communities have a higher percentage of internet access at 70.3 percent, compared to rural communities at 60.2 percent (NTIA, 2011, p. 16). Belanger and Carter (2009), identified income as the last access divide (p. 133). NTIA (2011), analyzed income based on a total family income range. Their research found that 89.6 percent of families with an income of \$150,000 and over had internet, compared to 73.6 percent of families between \$50,000 - \$74,999, and 31.1 percent of families below \$15,000 (p. 8).

In addition to the demographic divide, there is also a large portion of the population that lack the skills necessary to effectively interact with online government services. Mossberger, Tolbert, and Stansbury, (2003), identified two components of the skill divide, including, technical competence and information literacy (p. 40-41). Technical competence is the ability of an individual to operate a computer or electronic device (Mossberger et al., 2003, p. 40). Examples include, being able to navigate a website or e-service. Dijk (2005) refers to this technical competence as an individual’s operational skills (p. 75). Dijk’s research found that age was the most significant determinant of operational skills, with individuals over 55 having the lowest operational skills (p. 80). This was followed by income and

education being the next highest determinants. Those with higher education and income were found to have more operational skills, compared to individuals with less income and education - high school or less (Dijk, 2005, p. 78).

Information literacy is the ability to recognize when information is needed and having the ability to search for and use information on the internet (Mossberger et al., 2003, p. 41). One example of information literacy includes, choosing key words for information searches. Research has found that minorities, over 50, with a high school education or less are more likely to need computer assistance when it comes to navigating a website or purchasing an online product (Belanger & Carter, 2009, 133). Dijk (2005) argues that differences in demographics are related to what is taught in schools (p. 89). In today's society, young people and students grow up with technology and learn how to use it at an early age. This is a major difference from people in their 50's or older, who did not grow up taking computer classes or being immersed in technology. For those that were not taught on a computer in school, Dijk (2005) argues that formal education loses its significance and that people over 50 become more reliant on computer courses (p. 90). Most importantly is that the individual practices what they learned from school or computer courses and develop their skills through trial and error (Dijk, 2005, p. 90). For individuals that do not have the skills or access to internet, traditional methods of service delivery exist, such as visiting a government office, or calling a government agency over the phone.

Citizens use various service channels to interact with government services. Ebbers, Pieterse and Noordman (2008), identified websites, telephone and front desk as the three most common service channels for accessing government services (p. 184). Studies, such as the one conducted by Reddick and Turner (2012), have examined citizens' use and satisfaction with e-government compared to traditional service channels. This study found that traditional service methods had lower levels of satisfaction because citizens were frustrated with delays at government offices or navigating interactive voice responses (p. 5). In a study conducted by Van Riel, Liljander and Jurriens (2001), convenience in comparison with traditional services was the most important determinant of overall satisfaction (p. 364). This study also found that customers use traditional services as the benchmark standard for e-services (Van Riel et al., 2001, p. 364). Reddick (2010), found that individuals are more likely to go online for information, but will visit a government office or call a support line if they need a problem solved (p. 59). Reddick (2010) recommends that government agencies pay attention to this cross-channel integration because research shows that citizens use multiple service avenues (p. 9). Government must also ensure that citizens receive the same message, across service channels, so that everyone receives the same response to a query or transaction (Reddick, 2010, p. 9). Given the large amount of resources that are invested in public sector service delivery, it is important to assess the level of satisfaction with a service.

The measurement of customer satisfaction has emerged from the field of Total Quality Management (TQM). The TQM School emphasizes customer satisfaction as a quality component studying satisfaction from a product and quality viewpoint (Grigoroudis & Siskos, 2010, p. 10). Oliver (1997) defines satisfaction as, "the consumer's fulfillment response. It is a judgement that a product or service provides a pleasurable level of consumption-related fulfillment (p. 8). Other researchers, such as Parasuraman et al (1985), argue that customer satisfaction is a perception and that additional effort is required to collect, measure, and analyze satisfaction (p. 41). Satisfaction is related to the overall consumer behaviour, making the use of a single measure unreliable. According to Grigoroudis and Siskos

(2010), it is best to use multiple satisfaction measures to determine the underlying reasons behind the customer's satisfaction or dissatisfaction (p. 13). This may require researchers to calculate the frequency of a customer's response through surveys and then conduct follow up interviews to uncover the underlying reason for their response.

Service evaluation differs from customer satisfaction, being an attitude towards a service, whereas satisfaction is specific to a single transaction within a service (Parasuraman, Zeithaml & Berry, 1988, p. 16). When evaluating the overall quality of a service, the best known measurement is the SERVQUAL model (Barrera, Garcia & Moreno, 2014, p. 186). Developed in 1988 by Parasuraman, Zeithaml and Berry, this model encompasses five dimensions of service quality, including: tangibles – The physical facilities and appearance of personnel, reliability – The ability to perform the service dependably and accurately, responsiveness – The willingness to help customers, assurance – The knowledge and courtesy of employees, and empathy – The individualized attention provided to the customer (p. 23). These dimensions are a refined scale of the previous ten dimensions, developed in 1985 (Sa, Rocha, Perez, 2016, p. 150). The purpose of SERVQUAL is to measure the perceived quality of a service through the customers' evaluation. While SERVQUAL was developed before the age of e-services, researchers have attempted to apply this model to online services (Barrera, Garcia & Moreno, 2014, p. 186). The issue with applying the five dimensions of SERVQUAL to an online service is that not all dimensions apply if there is no human to human interaction (Parasuraman, Zeithaml, & Malhotra, 2005, p. 214). Dimensions such as empathy can only be evaluated through personal contact, which does not apply to online services. Tangibles also do not apply because there is no physical facility or personnel to evaluate (Parasuraman, Zeithaml, & Malhotra, 2005, p. 215). In developing a scale for online service quality, Parasuraman et al, created the E-S-QUAL measurement. E-S-QUAL outlines four dimensions including: efficiency – The ease and speed of accessing and using the site, fulfillment – The extent to which the site fulfills its order delivery, system availability – The technical functioning of the site, and privacy – The degree to which the site protects the customers' information (Parasuraman, Zeithaml, & Malhotra, 2005, p. 215). It is important to note that E-S-QUAL is only focused on websites that sell products and that this scale cannot be applied to all e-services (Jun, Liangliang, & Fubin, 2009, p. 516).

E-government websites can be different from other service sites. Firstly, e-government services do not have the same level of competition as other e-services because e-government services are usually only provided through an official government website (Jun, Liangliang & Fubin, 2009, p. 516). Secondly, most e-government services require more personal information than non-government e-services, emphasizing the importance of having a secure site. Lastly, some services provided through e-government websites are not really a service, but rather a responsibility that everyone must do, like pay taxes (Jun, Liangliang & Fubin, 2009, p. 516). Papadomichelaki and Mentzas (2012) developed the initial e-GovQUAL measurement with six attributes, which was scaled back to four dimensions, including: reliability, efficiency, citizen support, and trust (p. 98). The first dimension is reliability which is defined as the citizen's confidence in the site regarding, on time delivery, accessibility, and availability (Papadomichelaki & Mentzas, 2012, p. 101). Accessibility is the degree to which the system is usable to the majority of individuals. Availability refers to the degree to which a system suffers interruption in its service to citizens (Papadomichelaki & Mentzas, 2012, p. 101). The second dimension is efficiency, which refers to the speed of the search engine, the clarity of the site's structure, and the detail of the site itself (Papadomichelaki & Mentzas, 2012, p. 107). Citizen support is the third dimension and refers to the help

provided by the organization to assist citizens in finding information or completing their transaction. This help may consist of guidelines, help pages, and Frequently Asked Questions (Papadomichelaki & Mentzas, 2012, p. 102). Support may also come in more traditional forms, such as: in person assistance, telephone or fax. When evaluating in person assistance, measurements can be used such as, the knowledge of the employees, the availability of employees, and the promptness of their replies (Papadomichelaki & Mentzas, 2012, p. 102). The last dimension of e-GovQUAL is trust, which consists of the privacy and security of the e-service. Privacy is related to the protection of personal information and anonymity, whereas security is defined as protecting the user from risk of financial fraud (Papadomichelaki & Mentzas, 2012, p. 102).

Figure 1 outlines the dimensions of the three service measurements covered in the literature above:

Figure 1

Instrument	Researcher	Dimensions
SERVQUAL	Parasuraman, Zeithaml and Berry (1988)	Tangibles, Reliability, Responsiveness, Assurance and Empathy
E-S-QUAL	Parasuraman, Zeithaml and Berry (2005)	Efficiency, Fulfillment, System Availability and Privacy
E-GovQUAL	Papadomichelaki and Mentzas (2009)	Reliability, Efficiency, User Support and Trust

5.0 CONCEPTUAL FRAMEWORK

As identified in the literature review, there are a number of tools, developed by academics, to evaluate services and e-services. For the purposes of this report, E-GovQUAL was used as the guideline for evaluating service quality. This measurement was selected over SERVQUAL and E-S-QUAL because it was developed specifically for e-government services like the Hunting Transformation Project. While SERVQUAL and E-S-QUAL are benchmark measurements in their specific line of service delivery, they do not consider the unique characteristics of e-government services. These characteristics include providing services that are only offered by government and requiring more personal information than typical e-services (Jun, Liangliang & Fubin, 2009, p. 516). E-GovQUAL was built on four dimensions, including: reliability, efficiency, citizen support and trust (Papadomichelaki & Mentzas, 2012, p. 98). These four dimensions were used to categorize the survey and focus group questions, with each question relating to a specific dimension. As E-GovQUAL outlines, reliability questioned the accessibility and availability of the system, efficiency questioned the ease of use and navigation, citizen support questioned the help support available, and trust questioned the security and privacy of a hunter’s profile. These dimensions were used to answer the overarching research question: What is the level of satisfaction with the service quality of the Hunting Transformation Project?

E-GovQUAL was inspired by SERVQUAL, which has been a proven measurement for in-person service quality (Barrera, Garcia & Moreno, 2014, p. 186). Although SERVQUAL has undergone extensive analysis by academics, there is limited research analyzing the E-GovQUAL model. For the purposes of

this report, E-GovQUAL was limited in its dimensions for the vendor, Service BC, and FrontCounter BC surveys. While dimensions such as reliability and efficiency apply, trust did not directly apply because government agents and vendors were not entering their own personal or payment information. In both cases the government agent or vendor are taking payment through their own cash handling process, outside of the online system. As a result, trust was not included in the focus groups or survey questions to internal staff. E-GovQUAL was also be modified to include training and communication material as a measurement of citizen support. While E-GovQUAL does include Frequently Asked Questions (FAQ) and guides as examples of citizen support, training and communication material was be added as a subcategory to gauge the user's satisfaction with the material. This was justified as most government agents relied on the training and communication material to stay updated on the project, navigate the system and provide support to hunters and vendors. In considering the research methodology, the dimensions of E-GovQUAL will be used as a framework for developing the qualitative and quantitative questions to users.

6.0 METHODOLOGY

Social research has three common purposes being: exploration, description, and explanation. Exploration is used to familiarize the researcher with a topic, descriptive is used to describe what was observed, and explanation is used to explain why the observations occurred (Babbie & Benaquisto, 2010, p. 88). The purpose of this research was exploratory as the Fish and Wildlife Branch was interested in identifying the level of service quality with the online hunting system. Both qualitative and quantitative research methods were used to explore service quality, using the dimensions of e-GovQUAL as a measurement of quality.

The distinction between qualitative and quantitative research methods is essentially the difference between numerical and non-numerical data (Babbie & Benaquisto, 2010, p. 24). In quantitative research, data is collected using standardized tests, questionnaires, and surveys (Kipo, 2013, 260). By administering the same test to everyone, quantitative research measures reliability (Venkatesh & Brown, 2013, p. 32). Reliability describes how likely the findings could be replicated if the test was to be repeated (Babbie & Benaquisto, 2014, p. 144- 147). In qualitative research, data is collected through focus groups, open-ended interviews, documentary analysis, and participant observation (Masue et al., 2013, p. 212). Qualitative findings measure consistency, which is the extent to which qualitative research is credible and trustworthy (Venkatesh & Brown, 2013, p. 32).

This particular study used focus groups to gather qualitative data from Service BC, FrontCounter BC and Fish and Wildlife staff. Focus groups are a method of interviewing where a small sample is brought together to discuss a specific topic or issue (Babbie & Benaquisto, 2014, p. 330). The purpose of these discussions is to explore a topic as a group and build on each other's ideas, opposed to describing or explaining a particular issue. These discussions are typically led by a moderator, who helps facilitate the discussion and ensure that no one dominates the conversation (Babbie & Benaquisto, 2014, p. 330). In this study, the researcher acted as the moderator. The researcher was accompanied by a note taker, who recorded the discussion and ensured that the main points were documented.

The focus groups with Service BC and FrontCounter BC were a one hour conference call so that participants could call into the meeting from their office. The focus groups included one session for Service BC and FrontCounter BC, with five participants in each group. These two focus groups were

purposely selected to represent different regions in the Province. This was done by extending an email invitation to all the regional Service BC and FrontCounter BC offices, inviting government agents to join the focus group. Working with the Service BC and FrontCounter BC representatives, individuals were selected based on their availability and experience using the system. The focus group with Fish and Wildlife staff was held at the Fish and Wildlife headquarters in Victoria. This sample included the Biometrics Unit, made up of individuals who work directly in the system to set up the draw and support hunters through the application process. This sample was selected, based on convenience, as everyone works in the same location. As a result, the Fish and Wildlife focus group was held in-person, opposed to a conference call.

Along with conducting focus groups with Service BC and FrontCounter BC, a survey was also sent out, via Fluid Survey, to allow all internal staff the opportunity to express their thoughts on the project. The survey was sent out to 270 Service BC agents and 100 FrontCounter BC agents. In total, the survey received 72 responses, 51 from Service BC and 21 responses from FrontCounter BC. The results from the survey were compared with the transcripts of the focus groups to provide both qualitative and quantitative results. While surveys captured the opinions of a larger audience, the focus groups built on the survey questions and identified how staff would prefer to receive information and where improvements need to occur for phase two.

A limitation with the focus groups was the size of the samples. Both the Service BC and FrontCounter BC groups included five participants, which does not representative the opinions of all government agents. The Biometrics Unit was also not representative of all Fish and Wildlife staff, but did represent the unit most involved in setting up the draw and supporting hunters. Sample size is a limitation for all focus groups; however this study mitigated this limitation by providing surveys to all Service BC and FrontCounter BC staff. The Biometrics focus group also included three individuals, who provided phone support to hunters, making this group representative of the branch's primary support team. Another limitation was that the Service BC and FrontCounter BC sessions were held via conference call. Ideally focus groups are held in-person, but this was not realistic with regional offices being spread across the province. Lastly, focus group discussions have the potential of only capturing the opinions of those who dominate the conversation. This limitation was mitigated by the moderator, who engaged all participants and ensured that everyone had a chance to express their opinion.

Prior to running the focus groups, the researcher introduced the topic and goals of the study. The introduction also covered the guidelines for discussion so that the participants knew the expectations. The researcher then started the discussion by posing an open-ended question to the group. These questions were open-ended so that the group could build on each other's comments. The conversation points were recorded as participants discussed the questions. This ensured that the conversation was documented for further analysis. Qualitative analysis is the non-numerical examination and interpretation of observations, for the purpose of identifying common themes and patterns (Babbie & Benaquisto, 2014, p. 373). Searching for patterns or similarities and dissimilarities is the most common approach to analyzing qualitative research. This often requires the researcher to identify the frequency of how often an observation occurs (Babbie & Benaquisto, 2014, p. 375). In regards to the focus group questions to Service BC, FrontCounter BC and Fish and Wildlife staff; all focus group questions were the same. This allowed the researcher to analyze common similarities or dissimilarities between the three groups.

In gauging the public’s satisfaction with the online service quality, this study utilized surveys as a quantitative method of data collection. Surveys include the use of questionnaires – a document of questions, designed to identify information for analysis (Babbie & Benaquisto, 2014, p. 231). Survey research is generally used for large sample sizes, where the population is too large to observe directly. There are different types of survey methods including: online, interview and phone surveys. Online surveys are typically self-administered, meaning that respondents are asked to complete the survey themselves (Babbie & Benaquisto, 2014, p. 243). This differs from interview and phone surveys, which requires a face-to-face or over the phone encounter. While self-administered surveys are cheaper and more efficient, interview surveys are effective for complicated surveys, which may require additional explanation. For the purposes of this study, online surveys were used to gather public data as the Fish and Wildlife Branch has the email of all hunters that applied online. An immediate concern with online surveys is the representativeness of the sample; this is a limitation of the online surveys because the data only represents hunters who have a computer and email address.

Through analysis conducted by the Fish and Wildlife Branch, it was discovered that 73 percent of all LEH applicants applied online, with the remaining 27 percent either applying at a vendor, Service BC or FrontCounter BC location. This study sent a survey to all hunters who entered an email address into the system or applied for LEH online. In total, 58,865 hunters were invited to participate in the survey, with 6,783 responding. All hunters from this sample were emailed a link to Fluid Survey, where the survey was housed. Vendors received a similar link to Fluid Survey, for their own survey. An email was sent to the vendor’s business email, which Service BC uses to update vendors on system updates. There are 372 hunting and/or fishing vendors across the Province. The survey was sent to 85 of these vendors because not all vendors had an email address or provided LEH services to hunters. Out of these 85 vendors, 17 vendors ended up responding to the survey. Prior to the online system, vendors would sell the LEH paper applications to hunters. With the introduction of the online system, vendors now submit LEH applications, on behalf of a hunter. By inviting vendors to complete their survey, the Fish and Wildlife Branch can gauge vendor satisfaction with the online system. Vendors did not receive the same level of training as Service BC and FrontCounter BC so this analysis also will determine if vendors felt confident working in the system.

The survey link to hunters and vendors was sent out through a generic Fish and Wildlife email. This email included a statement of informed consent, outlining how the completion of the survey was treated as consent for data collection. Upon completion of the surveys, the hunter and vendor data was exported into two separate excel files for analysis. Quantitative analysis is the numerical representation of data for the purpose of describing an observation (Babbie & Benaquisto, 2014, p. 395). For the purposes of this study, a univariate analysis was applied to the excel files. This is the analysis of a single variable, for the purpose of description (Babbie & Benaquisto, 2014, p. 401).

Figure 2 breaks down the survey sample size, number of responses, and the response rate of each user:

Figure 2

User	Hunters	Service BC	FrontCounter BC	Vendors
Sample Size	58,865	270	100	85

Number of Responses	6,783	51	21	17
Response Rate	11.5%	18.9%	21.0%	20.0%

7.0 RESULTS

7.1 Focus Groups

The focus group discussions with Service BC, FrontCounter BC, and Fish and Wildlife staff took place over three days, with each discussion lasting an hour. In total, five agents participated from Service BC, five participated from FrontCounter BC, and three individuals participated from the Fish and Wildlife Branch. There were five questions posed in each group, focusing on internal communication, training and the online system. This section will outline each of the questions and summarize the response from each group.

Communication

The first set of questions focused on internal communication. These questions were: How did you receive information regarding the Hunting Transformation Project? Was this information useful? How would you prefer to receive information? Participants from Service BC responded, stating that they received most of their information from emails forwarded by their Service BC manager. These emails were from the Fish and Wildlife Branch and would include status updates on the project. Along with the emails from Fish and Wildlife, Service BC would hold a monthly meeting to review new information and updates. Service BC participants found the emails were informative, but thought that key application dates were not included. Participants used the Special Sheep Draw as an example, stating that the open and close dates were never communicated or clearly written in the LEH synopsis. Participants also found there was a lack of communication after the draw deadline, specifically for when hunters would receive their authorizations. Hunters would come into Service BC asking about their species authorization, but could not be helped because agents were not told when or how the authorizations would be distributed. Service BC participants used the BC Hunting website to find additional information on hunting services, but found that the website was poorly designed. They thought that navigating the website was difficult and that the information did not consider its primary audience, being hunters. Participants stated that the website looked very professional, but that the information did not clearly outline the steps for obtaining a FWID or BceID. They thought that the log-in and BceID sign up were not obvious and should be centered similar to the angling website. Overall, Service BC participants stated that their preferred method of communication is email from the Fish and Wildlife Branch.

FrontCounter BC participants received most of their information, regarding the Hunting Transformation Project, through emails from FrontCounter BC and the Fish and Wildlife Branch. Participants found that some of the information was useful, but claimed that most of the information was outdated for the new system. One example given was the Frequently Asked Questions (FAQ), which was considered out of date once the system was launched. Participants also discussed how they received contradicting information early in the project, being told that they had to register for a personal BceID to view the hunter portal. This was later corrected, but participants stated that they had

challenges accessing BC Hunting Online. Participants found that they had to prompt the Fish and Wildlife Branch to send information and that there was not enough two-way communication between FrontCounter BC and Fish and Wildlife. When asked to give an example, participants said that they did not receive any information regarding the draw deadline and would typically have to wait two business days for an official response from the branch. When asked how FrontCounter BC would prefer to receive information, they replied that email was most effective, but that emails needed to be circulated earlier and more frequently between organizations. Participants thought that these emails should provide an additional recap section to allow staff to quickly understand the context of the information.

The Fish and Wildlife participants were first told about the Hunting Transformation Project in an announcement, made by executive, several years ago. They were surprised that the decision was made to put the fall draw online and thought that the smaller spring draw would have helped identify the current issues with the shared/group applications. Participants received most of their information on the project through section meetings held every week. These meetings gave staff an opportunity to ask questions on the project and receive updates. Participants expressed concerns that these section meetings were no longer occurring and estimated that it has been almost two months since their last meeting. Participants also expressed concerns that they felt disconnected from the project and that there was very little consultation with staff. They thought that decisions were made by upper level staff and consultants, with no collaboration or team effort. The example given was the current workshops for phase two, where staff was working with consultants to develop system requirements; however, participants felt that decisions had already been made prior to the workshops. In the future, participants want to continue with the section meetings as their way of learning about the project. They also want these meetings to dictate some direction as some participants were unsure of their role within the project.

Training Sessions

The second set of questions focused on the training sessions. These questions were: What worked well in the training sessions? What did not? What would you do differently? Service BC participants thought that the practice sessions and demo both worked well in training. They found it helpful to first watch the trainer run through a scenario and then try to replicate the steps. While the demos worked well, participants thought that the training sessions were rushed and they did not have enough time to get familiar with the system. There were also issues with connectivity and ensuring that the trainees had the correct access, prior to the training session. Participants found it difficult to manage the User Acceptance Testing (UAT) test cases, while also participating in the training sessions. They thought that UAT should have occurred before training, allowing the system to be fully developed before government agents learned how the system works. As part of UAT, participants thought that a small group of vendors should have tested the vendor site to identify any functions that may cause confusion. When asked what participants would do differently, they thought that the training sessions should be two hours, opposed to two and a half hours because it was difficult to pull staff away from the counter for extended periods of time. Along with reducing the time of the session, they thought that more sessions should be offered, allowing those who are not comfortable with the system to have an opportunity to practice.

When asking FrontCounter BC participants about training, they thought that the training sessions were not very helpful and did not prepare them for go-live. When asked why they did not go well, participants responded that instructions did not make it clear that a full day session was required. One participant joined the session in the afternoon and felt lost through the rest of the session because they did not have a created hunter. All the participants in the session also found it frustrating to be trained with staff at varying skill levels. Individuals being trained were at different steps in the process, which delayed the staff that understood the system and confused those who were struggling. Participants also found that the training session did not thoroughly cover all LEH application types, such as the group/shared applications. They felt like the shared/group section was rushed and did not fully explain the difference between the group name and group ID. Participants also found that the training lacked background information on the policies, business rules, and overall reasons for the changes to LEH and hunter registry.

When asked how FrontCounter participants would prefer to receive training, they thought that training sessions should be broken up by an individual's role within the system. This break down would have a separate session for FrontCounter BC, FrontCounter BC Call Centre, and Service BC. Along with having the sessions broken up, they thought that the sessions should be recorded and distributed as an additional aid to staff. Participants also discussed the desire to be trained in person opposed to over conference call. They thought this would result in more personalized training and feedback. Participants thought that the system testers should be the head trainers for the province because they are the most knowledgeable about the system. Lastly, FrontCounter BC participants expressed an interest in testing the system and being involved in UAT testing. While there were a few weeks of UAT prior to go-live, not all participants had the opportunity to be a tester.

When asking the same question to Fish and Wildlife, participants said they were not satisfied with the training session. Firstly, they thought that the training session was rushed and did not give staff enough time to practice all the scenarios. There were also issues with the data used in the test environment. Participants found the training session was difficult to understand because the data in the system was incorrect. One example was how all hunts were defaulted to individual hunts when they should have been set to group, with the exception of moose and bison. When asked what participants would do differently, they thought that multiple training sessions should be offered, allowing for more time to practice. Participants also wanted the training sessions to incorporate real data so that they can focus on the overall processes, opposed to test data that was incorrect. Lastly, participants expressed an interest in being more involved in testing the system and identifying issues before the system is launched.

Support Material

The third set of questions focused on the training/support material. These questions were: Not including the training sessions, what training material was most useful for you when doing your job? Is there any material/format you would prefer? Was there any material you needed, that was not available? Service BC participants found that the job aids were the most useful training material for supporting hunters. They thought the screen shots were helpful and that the job aid was easy to work through. Participants also thought that the LEH manual was useful, but would mainly use the manual as

a secondary support to the job aid. Along with job aid and LEH manual, participants thought that instant messaging was a useful tool to communicate with Fish and Wildlife staff. In regards to any material that was needed, but not available, participants thought that they did not have a thorough understanding of all the LEH business rules. They thought that a document listing all the business rules would be helpful because it was frustrating to learn by trial and error. Their example was how an LEH application must have the same species for their first and second hunt choice. Lastly, participants thought that hunters would have benefitted from a job aid on the BceID registry. This job aid would provide a screen by screen walk through of how to register for a basic BceID and the reason for registering.

FrontCounter BC participants found that the jobs aids were the most useful training aid. When asked about the LEH user manual, participants said that they did not use the manual, preferring to look at the screen shots in the job aid. For phase two, participants expressed the need for Fish and Wildlife to release the job aid prior to go live. Participants stated that the job aid was not finalized until go-live, which made learning the system increasingly difficult. One piece of training material that FrontCounter BC participants could not access was support material for hunters. Participants did not know that support material existed on the website, claiming that the website is difficult to navigate and confusing. One participant said that they had to take their own screen shots of BC Hunting Online so that they could guide hunters through the system. When asked how they would improve the website, participants thought that the site should mirror the angling site, making the log in button and support material centered and on the main page.

Fish and Wildlife participants found that the job aid developed for hunters was the most useful support aid. This job aid was used during go-live to support hunters who were struggling through the system. When asked about the LEH user manual, participants did not know a user manual existed and did not know where it was being stored. They thought that the training materials were provided too close to go-live, which was not enough time to fully review the materials. For phase two, participants wanted to continue receiving job aids for support. They thought that the website needed to be redesigned so that hunters could easily access the job aids on their own.

System Ease of Use and Navigation

The fourth set of questions focused on the online system. These questions were: What functions were easy to perform in WILD? What functions were difficult? Service BC participants thought that it was too easy for hunters to create duplicate profiles in the system. They found that hunters were coming into the office to activate their FWID, not knowing that their FWID was already active. Participants thought that changes to the initial log in page reduced the number of duplicate profiles, but did not stop the problem entirely. Overall, Service BC found that the search functions and LEH applications were easy to perform in WILD. As a future enhancement to the system, participants would like to see a change to the search fields, making FWID the top search bar and moving the middle name search field below the first name search field. Lastly, Service BC participants thought that creating a new hunter in the system should be more intuitive than the plus icon displayed below the search field. They would prefer to see an icon that reads “create new hunter.”

When posing question four to FrontCounter BC, they stated that they were “coming up short for what worked well in the system.” Participants thought that the search function worked well, but found it frustrating to navigate between a hunter’s profile and their LEH applications. They did not think there was a clear back button in WILD and disliked the requirement to save after every function. Participants thought that an auto save function would make the WILD system smoother to operate. Another issue with the system was the shared/group LEH applications. Participants were frustrated with the group ID and how hunters could not tell the difference between an O, 0, I, or 1. They thought the system should also identify which hunter created the shared/group hunt and which hunters have joined the hunt. This would allow staff to identify the correct group ID and join that hunter to the group.

Fish and Wildlife participants found that the system was not intuitive or easy to use. They thought that the technical requirements for the system turned out different than had been originally planned. Participants found the search fields to be an annoyance with Hunter Number being the top search field, opposed to FWID. They also found the 250 search result limit to be an annoyance and thought that this limit should either be expanded or not exist. Participants claimed that the business’s needs were not reflected in the system and that the inability to run large queries makes the system a challenge to use. Staff found that the system was not always available and that regular shut downs prevented them from assisting hunters or doing their job efficiently. Lastly, participants thought that the shared/group application process was poorly designed and that the group name field caused issues with hunters creating their own hunt, opposed to joining a group.

Hunter Concerns

The final set of questions focused on hunter’s concerns. These questions include: What were the most common concerns you heard from hunters? Why were there concerns? Service BC participants found that the number one concern from hunters was registering for a BceID. There was confusion about the difference between a basic and personal BceID with hunters coming into Service BC with the expectation that they needed to show ID to obtain a personal BceID. In reality, hunters had to register for a basic BceID, which is essentially a user name and password hunters create to access BC Hunting Online. This registration can be done online with no requirement to show identification. Service BC participants also found that there were concerns and confusion regarding the process for shared/group applications. Hunters were confused about the difference between the group ID and group name field, not knowing where to enter the group ID which joins that hunter to the group. The group name field was an optional field for hunters to personalize their hunt by giving it a name; however, Service BC participants thought this field only added confusion as hunters were coming into the office with the group name, expecting to join their partner’s hunt.

In regards to the last focus group question, FrontCounter BC also thought that the number one concern from hunters was the BceID. Participants thought that there was no explanation of why the BceID is required or why the hunter number had to change to a FWID. Participants discussed how they would spend up to 30 minutes, walking a single hunter through the BceID process. Hunters would call the BceID help line, only to be re-directed to the FrontCounter BC Contact Centre. Participants discussed how they would hear complaints from hunters, regarding the BceID helpline and how the help line was rude and unhelpful. Some hunters claimed that they were waiting on the phone for an hour before

receiving any assistance. Participants also discussed the technical difficulties with BceID and how the BceID is not supported by Google Chrome. In the end, FrontCounter did not believe that the BceID added any level of security to a hunter's profile and that a profile could be easily accessed with a FWID number. When asked what FrontCounter would do differently, they thought that Fish and Wildlife should not require the BceID and also simplify the FWID by referring to it as the new hunter number.

Fish and Wildlife participants identified the BceID as the number one concern from hunters. Participants discussed how the Government Communications and Public Engagement Branch (GCPE) prevented Fish and Wildlife from communicating the BceID with hunters. This lack of communication caused confusion during go-live as hunters did not know they needed a basic BceID before accessing their profile. Participants recommended that the Fish and Wildlife Branch develop a communication campaign for phase two, focusing on the BceID and the reasons for registration. Also recommended was that definitions for the BceID, Group ID, and FWID be developed for hunters as hunters are calling the branch confused about these terms and using them interchangeably. Another concern identified by participants was the lack of information available regarding the fall 2016 hunting licenses. The branch has been receiving phone calls from hunters, asking if licenses are going online in the fall. Participants recommended that a newsletter be sent to hunters, informing everyone that licenses are paper-based this year and will be moving online in 2017. Lastly, Fish and Wildlife participants discussed the confusion with the shared/group applications and how hunters were accidentally creating their own group hunts when they meant to join a hunt. Participants thought that the LEH application page needed to be redesigned, allowing hunters to enter the group ID on the same page as they would purchase an individual application. They believed that having a separate page for joining a shared/group hunt was one of the main reasons why hunters were confused.

7.2 Surveys

The surveys for hunters, vendors, Service BC and FrontCounter BC were open to participants from August 4th, 2016 to August 18th, 2016. In this time, 6,783 hunters, 17 vendors, 51 Service BC and 21 FrontCounter BC agents responded to the surveys. The next three sections will break down the responses from each group. Service BC and FrontCounter BC received the same survey, so their results will be analyzed together, highlighting any significant differences between the two organizations. Please see appendices 1, 2, and 3 for a full breakdown of the hunter, vendor, and Service BC/FrontCounter BC survey.

7.3 Hunter Survey

Using the framework of E-GovQUAL, the hunter survey had 23 questions, focusing on the accessibility, efficiency, citizen support and the trust of BC Hunting Online. The first six questions of the survey focused on communication to hunters, specifically when and how hunters found out about the changes to the LEH and hunter registry. As stated in the background section, the Fish and Wildlife Branch took a multi-faceted approach to communicate with hunters, which included: a public notice in the harvest survey, posters to vendors, and information displayed at Service BC and FrontCounter BC locations. Figure 3 illustrates that the majority of hunters found out about the changes through friends or family, at 46.9 percent; this was followed by the LEH Hunting synopsis, at 25.2 percent. The lowest

response was for the BC Hunting Show, with 3.1 percent claiming they found out about the changes through the show.

Figure 3: How did you hear about BC Hunting Online?

Response	Chart	Percentage	Count
Limited Entry Hunting Synopsis		25.2%	1690
Fish and Wildlife Website		13.2%	884
Public Notice in Harvest Survey mail out		6.9%	460
BC Hunting Show		3.1%	208
BC Hunting Forum		6.8%	453
Service BC or FrontCounter BC		4.7%	315
Vendor - Hunting Store		11.3%	758
Friends or family		46.9%	3144
		Total Responses	6709

When asking hunters about when they found out about the changes, the responses were evenly distributed, with April having the highest response at 24.1 percent followed by March at 23.5 percent. Communication to hunters first started in December with the awareness posters and harvest survey notice, December received 17.8 percent. Once hunters found out about the changes, 61.7 percent went to the Fish and Wildlife website to find out additional information. The next highest response was the LEH synopsis at 18.8 percent. The LEH synopsis was not available to the public until April so this was not an option for hunters that found out about the changes from December through to March.

Figure 4: When did you hear about the changes to the Hunter Number and LEH?

Response	Chart	Percentage	Count
December		17.8%	1161
January		15.5%	1010
February		19.1%	1249
March		23.5%	1533
April		24.1%	1570
		Total Responses	6523

Figure 5: Where did you go to find out more information?

Response	Chart	Percentage	Count
Fish and Wildlife Website		61.7%	4136
LEH Synopsis		18.8%	1263
Service BC or FrontCounter BC		15.9%	1064
Vendor		8.7%	582
Other, please specify		8.8%	593
		Total Responses	6705



The final questions on communication asked hunters about their understanding of the changes and if the information was easy to access. The majority of hunters agreed/strongly agreed with the statement that information was easy to find, at 42.7 percent. This was followed by a neutral response at 25.2 percent and 32.0 percent of hunters who disagreed/strongly disagreed that information was easy to find. The majority of hunters, 52.9 percent also agreed/strongly agreed that information was available early enough for them to learn about the new system, while 25.5 percent disagreed/strongly disagreed with that statement. In regards to the questions on their understanding of the changes, the breakdown is similar with 51.4 percent of respondents agreeing/strongly agreeing that they understood the changes to the hunter number and 56.0 percent agreeing/strongly agreeing that they understood the changes to LEH. The number of hunters disagreeing with the statements is also similar, with 29.2 percent disagreeing/strongly disagreeing that they understood the changes to the hunter number and 25.8 percent disagreeing/strongly disagreeing that they understood the changes to LEH.

Figure 6: Information about BC Hunting Online

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Information was easy to find	775 (11.5%)	1378 (20.5%)	1692 (25.2%)	2543 (37.9%)	322 (4.8%)	6710
Information was available early enough to give me time to learn about the new system	628 (9.4%)	1073 (16.1%)	1451 (21.7%)	3063 (45.9%)	465 (7.0%)	6680
I understood what changes were coming to Hunter Numbers	674 (10.1%)	1279 (19.1%)	1299 (19.4%)	2941 (44.0%)	495 (7.4%)	6688
I understood what changes were coming to LEH applications	575 (8.6%)	1154 (17.2%)	1215 (18.2%)	3215 (48.1%)	531 (7.9%)	6690
I understood how the changes would impact me	655 (9.8%)	1204 (18.0%)	1474 (22.1%)	2879 (43.1%)	465 (7.0%)	6677



Following the questions on communication, were questions on the accessibility of BC Hunting Online. Accessibility was the first dimension of e-GovQUAL to be measured in the survey. In total, three questions were posed asking about the availability of the site. The first question asked if BC Hunting Online was available when attempting to access their profile. The majority of hunters, 72.1 percent, responded with yes, while 27.9 percent of hunters said no, the system was not available.

Figure 7: Was BC Hunting Online available when you tried to access your profile?

Response	Chart	Percentage	Count
Yes		72.1%	4812
No		27.9%	1861
		Total Responses	6673

Also related to accessibility was the question of accessing their profile on the first attempt. The majority of hunters, 52.3 percent said no, while 47.7 percent said yes, they could access their profile on the first attempt. As a follow-up question, hunters were asked why they could not access their profile on the first attempt. The number one reason why hunters could not access their profile was because BC Hunting Online was unavailable, at 31.0 percent. This was followed by website navigation at 30.0 percent and the BceID registration at 28.0 percent. While website navigation was a close second, hunters did not specify in their written answer if the website navigation was related to navigating the BceID page or the hunting website. As a result, issues with the BceID registration could have been a more prominent issue.

Figure 8: Were you able to access your profile on your first attempt?

Response	Chart	Percentage	Count
Yes		47.7%	3184
No		52.3%	3492
		Total Responses	6676

The BceID is a security feature for all BC government online services, including hunting services. There are different types of BceIDs including a basic, personal, and business ID. For the purposes of hunting services, hunters are required to create a basic account, which is essentially a user name and a password created to access the site. As one of the dimensions of e-GovQUAL, three questions were posed about the BceID to gauge hunter's understanding with the security feature. When asked if hunters understood the difference between their BceID, Hunter Number, and FWID, 55.4 percent agreed/ strongly agreed that they understood the difference, while 25.5 percent disagreed/ strongly disagreed. When asked if hunters believe the BceID adds an extra level of security, the majority of hunters were neutral at 40.9 percent followed by 28.0 percent of hunters who agreed and 16.9 percent who disagreed. Lastly, 43.8 percent of hunters agreed/ strongly agreed that it was easy to register for the BceID, while 35.6 percent disagreed/ strongly disagreed.

Figure 9: BCeID

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I understand the difference between my BCeID and Hunter Number/FWID	558 (8.3%)	1154 (17.2%)	1271 (19.0%)	3035 (45.3%)	676 (10.1%)	6694
I believe the BCeID adds an extra level of security to my profile	641 (9.6%)	1128 (16.9%)	2730 (40.9%)	1868 (28.0%)	313 (4.7%)	6680
It was easy to register for my BCeID	1037 (15.5%)	1345 (20.1%)	1369 (20.5%)	2491 (37.3%)	434 (6.5%)	6676



The next dimension of e-GovQUAL is efficiency, which can be measured through the ease of use and navigation of the system. When asking hunters if they could easily navigate their profile page, 49.9 percent of hunters agreed/ strongly agreed with the statement, while 25.6 percent disagreed/ strongly disagreed. Similarly, 52.8 percent of hunters agreed/ strongly agreed that they could easily navigate the LEH page, while 24.0 percent disagreed/ strongly disagreed. The last statement posed a question about the LEH page and whether or not the table feature and map for looking up hunt codes was useful; 39.9 percent agreed with the statement, while 33.8 percent were neutral, and 12.1 percent disagreed. Through analysis of the survey, it does not appear that the majority of hunters used the table and map feature, with 25.8 percent using the table to find their hunt codes, compared to 67.8 percent of hunters, who used the LEH synopsis.

Figure 10: Ease of Use and Navigation of BC Hunting Online

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily navigate my profile page	595 (9.0%)	1099 (16.6%)	1615 (24.4%)	2954 (44.6%)	354 (5.3%)	6617
I could easily update my personal and contact information	437 (6.6%)	667 (10.1%)	1729 (26.2%)	3349 (50.7%)	424 (6.4%)	6606
I could easily navigate the LEH page	515 (7.8%)	1070 (16.2%)	1535 (23.2%)	3096 (46.9%)	390 (5.9%)	6606
The table and map on the LEH page was useful	469 (7.1%)	797 (12.1%)	2222 (33.8%)	2625 (39.9%)	466 (7.1%)	6579

The last dimension of e-GovQUAL to be measured was citizen support, which was also expanded to include support material, such as job aids. When asking hunter if they received assistance using BC Hunting Online, 68.9 percent said no, while 31.1 percent said yes, they received assistance. Out of the 31.1 percent who required assistance, 52.2 percent of hunters needed assistance with the BCeID. This was followed by accessing BC Hunting Online, at 36.0 percent, and submitting a shared/group application at 31.2 percent.

Figure 11: Did you receive assistance using BC Hunting Online?

Response	Chart	Percentage	Count
Yes		31.1%	2076
No		68.9%	4597
		Total Responses	6673

Different avenues of assistance exist for hunters who are struggling to access their profile or apply for LEH. These avenues include: phone support from FrontCounter BC Call Centre and the Fish and Wildlife Branch, along with over the counter support from a participating vendor or Service BC and/or FrontCounter BC office. If hunters used any of the following support, they were asked to indicate how helpful the assistance was. For those hunters who accessed phone support, 43.8 percent said the support was very helpful, while 25.3 percent said the support was not helpful at all. From the 1,777 hunters who received assistance over the counter at either Service BC or FrontCounter BC, 52.4 percent indicated that the assistance was very helpful, while 17.8 percent indicated that the assistance was not helpful at all. Lastly, 46.2 percent of hunters said that the over the counter support at a local vendor was very helpful, while 20.7 percent said the assistance was not helpful at all.

Figure 12: Assistance

	Not helpful at all	Somewhat helpful	Very helpful	Total Responses
Phone support (FrontCounter BC or Fish and Wildlife Branch)	432 (25.3%)	528 (30.9%)	749 (43.8%)	1709
Over the counter support at FrontCounter BC or Service BC	317 (17.8%)	529 (29.8%)	931 (52.4%)	1777
Over the counter support at my local vendor	310 (20.7%)	496 (33.1%)	693 (46.2%)	1499
Posts on the BC Hunting forum	482 (34.4%)	691 (49.3%)	230 (16.4%)	1403
Friends or family	276 (10.4%)	1032 (38.9%)	1347 (50.7%)	2655

Along with in-person and phone support, the Fish and Wildlife Branch developed support material to assist hunters in navigating their profile and applying for LEH. This support material included: information on the website, job aids, a video, and information in the LEH synopsis. If hunters used any of the following material, they were asked to indicate how helpful it was. The highest response was for the LEH synopsis at 5,019 responses. Out of the hunters that used the synopsis for support, 50.7 percent indicated that the information was very helpful, followed by 44.5 percent who said somewhat helpful and 4.9 percent who said not helpful at all. The next highest response was for the website information, at 4,358 responses. Out of the hunters who accessed the website information for support, 20.0 percent found the information very helpful, followed by 65.0 percent, saying the information was somewhat helpful and 14.9 percent who said not helpful at all. The lowest response rate was for the video, at 1,292 responses. Out of these responses, 6.8 percent of hunters found the video very helpful, while 33.2 percent found it somewhat helpful. The highest level of dissatisfaction was for the video, with 60.0 percent of hunters saying that the video was not helpful at all.

Figure 13: Support Material

	Not helpful at all	Somewhat helpful	Very helpful	Total Responses
Website Information	651 (14.9%)	2834 (65.0%)	873 (20.0%)	4358
Job Aids	795 (58.9%)	488 (36.1%)	67 (5.0%)	1350
Video	775 (60.0%)	429 (33.2%)	88 (6.8%)	1292
LEH Synopsis	244 (4.9%)	2231 (44.5%)	2544 (50.7%)	5019



When asking hunters if they were aware of these support materials, 57.9 percent of hunters said yes, while 42.1 percent said no. Figure 13 shows that 1,350 hunters used the job aid and 1,292 used the video. These numbers are significantly lower than the 5,019 hunters, who used the synopsis. The major difference between the support materials is that the LEH synopsis was available in printed version, while the video and job aid were both on the Fish and Wildlife website.

7.4 Vendor Survey

Similarly to the hunter survey, the framework of e-GovQUAL was applied to the vendor survey as a way to gauge accessibility, efficiency, and citizen support. Trust was the one dimension not measured because the process of obtaining a business BCeID is not new to vendors who provide government services. In total, 85 vendors were emailed the survey link, with 17 vendors completing the survey. The following section will outline the vendor’s responses to the survey.

The first question on accessibility asked vendors if their business had any issues accessing e-licensing, 58.8 percent of respondents said yes, while 41.2 percent said no. When asked about their most significant challenge, 70.0 percent of vendors wrote that they struggled to access the site. This was followed by the shared/group applications at 20.0 percent, and the site crashing at 10.0 percent.

Figure 14: Did your business have any issues accessing e-licensing?

Response	Chart	Percentage	Count
Yes		58.8%	10
No		41.2%	7
		Total Responses	17

Prior to sending out the survey to vendors, the Fish and Wildlife Branch was aware of the challenges users faced with the shared/group application process. When asking vendors if they could easily create a shared/group application, 47.0 percent agreed/ strongly agreed, while 23.6 percent disagreed/ strongly disagreed. When asking if vendors could easily join hunters to a shared/group hunt, 41.1 percent agreed/ strongly agreed, while 29.4 percent disagreed/ strongly disagreed. Lastly, 70.6 percent of vendors agreed/ strongly agreed that they understood how the group ID works, compared to 5.9 percent who disagreed and 11.8 percent who strongly disagreed.

Figure 15: Shared/Group Applications

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
My business could easily create shared/group applications	2 (11.8%)	2 (11.8%)	5 (29.4%)	5 (29.4%)	3 (17.6%)	17
My business could easily join hunters to shared/group hunts	3 (17.6%)	2 (11.8%)	5 (29.4%)	4 (23.5%)	3 (17.6%)	17
My business understands how the Group ID works	1 (5.9%)	1 (5.9%)	3 (17.6%)	8 (47.1%)	4 (23.5%)	17


Following accessibility, the next e-GovQUAL dimension to be surveyed was efficiency. Similarly to the hunter survey, efficiency was measured through the ease of use and navigation of the system. When asking vendors if they could easily navigate the system, 76.5 percent agreed/ strongly agreed, while 11.8 percent disagreed/ strongly disagreed. In regards to submitting LEH applications, 70.6 percent agreed/ strongly agreed that they could easily submit applications, while 11.8 percent disagreed/ strongly disagreed. The final statement asked if vendors could easily update a hunter’s information, with 35.3 percent strongly agreeing, followed by 29.4 percent who agreed and 11.8 percent who disagreed.

Figure 16: Ease of Use and Navigation

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
My business could easily navigate e-licencing	0 (0.0%)	2 (11.8%)	2 (11.8%)	8 (47.1%)	5 (29.4%)	17
My business could easily update a hunter's information	0 (0.0%)	2 (11.8%)	4 (23.5%)	5 (29.4%)	6 (35.3%)	17
My business could easily submit LEH applications	1 (5.9%)	1 (5.9%)	3 (17.6%)	7 (41.2%)	5 (29.4%)	17

The last dimension to be outlined in the vendor survey was citizen support, which also includes support material. The first question on citizen support asked if vendors received any assistance applying for LEH. The majority of vendors, 70.6 percent said no, while 29.4 percent said yes, they received assistance. From the 29.4 percent of vendors that required assistance, 60 percent of assistance was for shared/group applications. This was followed by 20.0 percent of vendors who required assistance for updating a hunter’s profile and 20.0 percent who could not access assistance. When asked if the assistance was helpful, 83.3 percent of vendors said yes, while 16.7 percent said no. For those that specified why the assistance was helpful or not, both respondents answered, stating that the problems still persisted after receiving assistance and that there was no confirmation that an LEH application was completed correctly.

Figure 17: Did your business receive any assistance applying for LEH?

Response	Chart	Percentage	Count
Yes		29.4%	5
No		70.6%	12
		Total Responses	17

When asking vendors if they could easily access assistance, 31.2 percent of vendors said they did not receive assistance. From the remaining 11 vendors, 31.2 percent agreed/ strongly agreed that they could easily access assistance and 31.2 percent disagreed/ strongly disagreed with the statement. Similarly, when asked if vendors could easily complete an LEH application after receiving assistance, 31.2 percent said the statement was not applicable. From the remaining 11 vendors, 31.3 percent agreed/ strongly agreed with the statement, 18.8 percent were neutral, and 18.8 percent disagreed/ strongly disagreed that they could easily complete the application after receiving assistance.

Figure 18: E-Licensing Assistance

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not applicable	Total Responses
My business could easily access assistance	1 (6.2%)	4 (25.0%)	1 (6.2%)	4 (25.0%)	1 (6.2%)	5 (31.2%)	16
My business was able to complete the LEH application after receiving assistance	0 (0.0%)	3 (18.8%)	3 (18.8%)	3 (18.8%)	2 (12.5%)	5 (31.2%)	16

The last question on citizen support focused on the supporting materials. Vendors were asked to rate material, such as: website information, job aids and the video for their level of helpfulness. The highest response rate was for website information, at ten responses, followed by job aids at eight and the video at seven responses. The highest level of satisfaction was also for the website information, with 20.0 percent of respondents stating that the information was very helpful. This was followed by 60.0 percent, who found the information somewhat helpful and 20.0 percent of respondents, who said the website information was not helpful at all. The lowest level of satisfaction was for the video, 0.0 percent of respondents found the video very helpful, while 14.3 percent found the video somewhat helpful. The majority of respondents, 85.7 percent, found the video not helpful at all.

Figure 19: Support Material



	Not helpful at all	Somewhat helpful	Very helpful	Total Responses
Website Information	2 (20.0%)	6 (60.0%)	2 (20.0%)	10
Job Aids	3 (37.5%)	4 (50.0%)	1 (12.5%)	8
Video	6 (85.7%)	1 (14.3%)	0 (0.0%)	7

7.5 Service BC and FrontCounter BC Survey

The survey sent to Service BC and FrontCounter BC included 20 questions; using the framework of E-GovQUAL, the survey posed questions on accessibility, efficiency, and citizen support. Similarly to the vendor survey, the dimension of trust was not added because both Service BC and FrontCounter BC log into WILD using their government log-in. Service BC and FrontCounter BC both received the same survey so the results included a combination of both responses, along with a breakdown between






organizations. In total, the survey was sent out to 270 Service BC and 100 FrontCounter BC agents. The survey received 72 responses, 51 from Service BC and 21 from FrontCounter BC.

Figure 20: Organizational Breakdown

Response	Chart	Percentage	Count
Service BC		70.8%	51
FrontCounter BC		29.2%	21
		Total Responses	72

Prior to asking Service BC and FrontCounter BC about the dimensions of e-GovQUAL, the Fish and Wildlife Branch was interested in when and how Service BC and FrontCounter BC found out about the changes to LEH and hunter registry. As shown by Figure 21, 55.2 percent of Service BC and FrontCounter BC respondents found out about the changes in December. This was followed by February at 14.9 percent. When breaking down the months by organization, 70.2 percent of Service BC agents found out about the changes in December, compared to 20.0 percent for FrontCounter BC. When looking at the breakdown in April, 0.0 percent of Service BC agents found out about the changes in the same month as go-live, compared to 20.0 percent of FrontCounter BC agents, who found out about the changes three weeks before the system was launched.

Figure 21: When did you hear about the changes to the Hunter Number and LEH?

Response	Chart	Percentage	Count
December		55.2%	37
January		10.4%	7
February		14.9%	10
March		13.4%	9
April		6.0%	4
		Total Responses	67

When asking Service BC and FrontCounter BC how they found out about the changes, 69.4 percent said it was through information provided by their own organization. This was followed by co-workers at 16.7 percent and Fish and Wildlife communication at 15.3 percent. When asked if Service BC and FrontCounter BC understood the changes coming to Hunter Numbers, 77.8 percent agreed/ strongly agreed with the statement, while 9.7 percent disagreed/ strongly disagreed. Similarly, when asked about understanding the changes to LEH, 72.2 percent agreed and 12.5 percent disagreed/ strongly disagreed that they understood the changes. Lastly, when asked if Service BC and FrontCounter BC had enough



time to learn about the changes, 57.7 percent agreed/ strongly agreed, while 29.1 percent disagreed/ strongly disagreed.

Figure 22: Hunter Number and LEH Information

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily find information	1 (1.4%)	9 (12.5%)	13 (18.1%)	40 (55.6%)	9 (12.5%)	72
I had enough time to learn about the new changes	3 (4.2%)	17 (23.9%)	10 (14.1%)	37 (52.1%)	4 (5.6%)	71
I understood what changes were coming to Hunter Numbers	0 (0.0%)	7 (9.7%)	9 (12.5%)	46 (63.9%)	10 (13.9%)	72
I understood what changes were coming to LEH applications	0 (0.0%)	9 (12.5%)	11 (15.3%)	44 (61.1%)	8 (11.1%)	72
I understood how the changes would impact how I do my job	1 (1.4%)	9 (12.5%)	14 (19.4%)	41 (56.9%)	7 (9.7%)	72

The first question of e-GovQUAL asked Service BC and FrontCounter BC if they had any issues accessing WILD. The slim majority said yes, at 51.4 percent, while 48.6 percent said no, they did not have issues accessing WILD. As a follow up question, respondents were asked about their most significant challenge, 35.0 percent said that it was system slowness, followed by a system component crashing at 26.0 percent.

Figure 23: Did you have any issues accessing WILD?

Response	Chart	Percentage	Count
Yes		51.4%	37
No		48.6%	35
		Total Responses	72

Following accessibility, the next dimension to be measured was efficiency. Similarly to the other surveys, efficiency was measured through the ease of use and navigation of the system. When asked if Service BC and FrontCounter BC could easily navigate WILD, 76.0 percent agreed/ strongly agreed, while 11.3 percent disagreed/ strongly disagreed. Similarly, when asked if Service BC and FrontCounter BC could easily update a hunter’s information, 87.4 percent agreed/ strongly agreed, while 8.4 percent

disagreed/ strongly disagreed with the statement. Lastly, 74.6 percent of Service BC and FrontCounter BC respondents agreed/ strongly agreed that they could easily submit LEH applications, while 8.4 percent disagreed/ strongly disagreed.

Figure 24: Ease of Use and Navigation

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily navigate WILD	1 (1.4%)	7 (9.9%)	9 (12.7%)	41 (57.7%)	13 (18.3%)	71
I could easily update a hunter's information	1 (1.4%)	5 (7.0%)	3 (4.2%)	44 (62.0%)	18 (25.4%)	71
I could easily submit LEH applications	1 (1.4%)	5 (7.0%)	12 (16.9%)	39 (54.9%)	14 (19.7%)	71

Citizen support was the final dimension measured in the Service BC and FrontCounter BC survey. Similarly to the other surveys, citizen support included assistance and the supporting material provided by their organization and the Fish and Wildlife Branch. When asked if Service BC and FrontCounter BC received any assistance submitting LEH applications, the majority said no, at 57.7 percent, while 42.3 percent said yes. Figure 25 illustrates that 35.0 percent of FrontCounter BC agents said they required assistance, while 45.10 percent of Service BC agents required assistance.

Figure 25: Did you receive any assistance submitting LEH applications?

Row Labels	FrontCounter BC	Service BC
No	65.00%	54.90%
Yes	35.00%	45.10%
Grand Total	100.00%	100.00%

As a follow-up question to receiving assistance, Service BC and FrontCounter BC were asked why they required assistance. Out of the 27 responses, 55.0 percent said they needed assistance with shared/group LEH applications, while 37.0 percent said they needed help with system navigation. As stated earlier, 74.6 percent of respondents agreed/ strongly agreed that they could easily submit LEH applications. This response rate drops significantly when asking Service BC and FrontCounter BC about shared/group applications. When asked if they could easily join hunters to shared/group hunts, 45.7 percent agreed/ strongly agreed with this statement, while 25.7 disagreed/ strongly disagreed. Also, when asked if they could easily create a shared/group application, 51.4 percent agreed/ strongly agreed, while 22.8 percent disagreed/ strongly disagreed.

Figure 26: Shared/Group LEH Applications

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily create shared/group applications	4 (5.7%)	12 (17.1%)	18 (25.7%)	32 (45.7%)	4 (5.7%)	70
I could easily join hunters to shared/group hunts	3 (4.3%)	15 (21.4%)	20 (28.6%)	27 (38.6%)	5 (7.1%)	70
I understand how the Group ID works	2 (2.9%)	8 (11.4%)	17 (24.3%)	37 (52.9%)	6 (8.6%)	70

There were a number of avenues available for Service BC and FrontCounter BC to receive assistance. These avenues include: the FrontCounter BC Contact Centre, the Fish and Wildlife Branch, and Service BC/FrontCounter BC office locations. If respondents received assistance from any of the following, they were asked to indicate if the assistance was helpful. The highest response rate was for the Service BC and FrontCounter BC office location, at 37 responses. This was followed by the Fish and Wildlife Branch at 21 responses and the Contact Centre at 14 responses. Along with having the highest response rate, the office locations also had the highest level of satisfaction with 86.5 percent of respondents saying that the assistance was very helpful and 0.0 percent saying the assistance was not helpful at all. In regards to assistance from the Fish and Wildlife Branch, 47.6 percent of respondents found the assistance very helpful, 47.6 percent found the assistance somewhat helpful, and 4.8 percent found the assistance, not helpful at all. The highest number of unsatisfied respondents was for the FrontCounter BC Call Centre, with 28.6 percent of respondents claiming that the assistance was not helpful at all. When asked if Service BC and Front Counter BC participants were able to complete their task after receiving assistance, 52.9 percent agreed, while 5.9 percent disagreed. Lastly, when asked if they could easily access assistance, 45.1 percent agreed, while 13.7 percent disagreed.

Figure 27: WILD Assistance

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily access assistance	1 (2.0%)	7 (13.7%)	15 (29.4%)	23 (45.1%)	5 (9.8%)	51
I was able to complete the task after receiving assistance	1 (2.0%)	3 (5.9%)	14 (27.5%)	27 (52.9%)	6 (11.8%)	51

8.0 ANALYSIS

Prior to conducting the focus groups and sending out the surveys, the purpose of this research was to gauge user satisfaction with the service quality of the Hunting Transformation Project. Service quality was measured through the four dimensions of e-GovQUAL, which includes: accessibility, efficiency, user support, and trust. The following section will analyze each of the user's responses to the four dimensions.

Starting with accessibility, hunters were asked if BC hunting was available when they tried to access their profile and if they were able to access their profile on the first attempt. While the system was available for 72.1 percent of hunters who tried to access their profile, 52.3 percent were not able to access their profile on their first attempt. When asked why they could not access their profile, the highest response was for the system being unavailable at 31 percent. In regards to providing a quality service, these stats raise some concern as the majority of hunters could not access their profile on the first attempt, mainly due to the system being unavailable. During the focus groups with Service BC, FrontCounter BC, and the Fish and Wildlife Branch, one question asked participants what they thought were the most common concerns from hunters. All three groups thought that the BceID registration was the most significant barrier for hunters accessing their profile. While BceID registration did prevent 28 percent of participants from accessing their profile on the first attempt, this issue was not as prominent as the system being unavailable.

Similarly to the hunter responses, when asking vendors, Service BC and FrontCounter BC if they had any issues accessing the site, 58.8 percent of vendors, 51.0 percent of Service BC, and 52.4 percent of FrontCounter BC agents said yes, they did have issues. While the Fish and Wildlife Branch was aware that the system was not functioning optimally due to a high volume of users during the last few hours before the draw deadline, these stats emphasize that user accessibility may be a larger problem than initially predicted. When asking vendors, Service BC and FrontCounter BC about their most significant challenge, 70.0 percent of vendors said that accessing the site was their most significant challenge, while the highest response from Service BC and FrontCounter BC was system slowness, at 35.0 percent, followed by a system component crashing at 26.0 percent. One limitation of e-GovQUAL is that the measurement tool does not provide a framework for what quantifies a quality service, however, based on the majority of users having issues with accessibility; this first dimension does not qualify as quality service.

The next dimension of efficiency that was quantified in the results section was the ease of use and navigation of the system. While all users agreed that they could easily navigate the profile and LEH page, there were challenges with creating and joining a shared/group hunt. From the hunter survey, 30.6 percent of hunters either disagreed/ strongly disagreed that they could easily create or join a shared/group hunt. When asked about the challenges of the shared/group applications, 53.0 percent of hunters said they struggled to understand the application process. This was followed by 35.0 percent who found it difficult to have their group members join. When asked if group members could easily join, a combined 32.2 percent either disagreed or strongly disagreed with the statement. These results were also reflected in the Fish and Wildlife focus group, where participants thought that joining a

shared/group hunt was not intuitive. Participants thought that the group name field should be removed and the function for joining a shared/group hunt should be on the same page as applying for LEH.

In regards to the vendor, Service BC and FrontCounter BC respondents, all three users found the shared/group applications difficult. FrontCounter BC and Service BC both mentioned in the focus groups that the group ID was confusing, being alpha numeric. They also thought that the system should identify the group initiator so that agents can search for the correct group ID. When asking Service BC and FrontCounter BC if they understood how the group ID works, 70.6 percent of Service BC agreed/strongly agreed, while only 36.8 percent of FrontCounter BC agreed/strongly agreed. This major difference between organizations is likely due to training, as the FrontCounter BC focus group said that their training session did not thoroughly cover all application types, such as shared/group applications. When asking FrontCounter BC and Service BC if their training sessions prepared them to navigate WILD, 25.0 percent of FrontCounter BC disagreed/strongly disagreed, while only 6.0 percent of Service BC disagreed/strongly disagreed. Another significant difference between Service BC and FrontCounter BC is in their understanding of the Group ID. Service BC had 70.6 percent of respondents agree/strongly agree that they understood how the group ID worked compared to 36.8 percent of FrontCounter BC.

Vendors had the highest percentage of respondents understand the group ID, with 70.6 percent of respondents either agreeing or strongly agreeing that they knew how the group ID works. While this percentage is significantly higher than Service BC and FrontCounter BC, all three users had similar difficulties joining hunters to shared/group hunts. When comparing responses, 29.4 percent of vendors, 29.4 percent of Service BC, and 15.8 percent of FrontCounter BC either disagreed or strongly disagreed that they could easily join hunters to a shared/group hunt. While vendors did not receive any formal training on e-licensing, and this was a likely factor in vendors not understanding the shared/group process, 70.6 percent of respondents participated in the walk-through session and 78.6 percent agreed that the session was helpful. Overall, ease of use and navigation of the system was intuitive for users; the main issue with ease of use was the shared/group applications, with there still being confusion on the application process and group ID.

The third e-GovQUAL dimension to be analyzed was citizen support, which included training material and assistance. When asking users about where they received assistance and if the assistance was helpful, hunters, Service BC and FrontCounter BC all said that the Service BC/FrontCounter BC office support was the most helpful support avenue, with 52.4 percent of hunters and 86.5 percent of Service BC and FrontCounter BC finding the office support very helpful. Vendors receive the majority of their support from Service BC, receiving information from the Service BC vendor managers. When asking vendors if they found this assistance helpful, 83.3 percent agreed. In regards to accessing support, the majority of Service BC and FrontCounter BC respondents could easily access assistance and complete the task after receiving assistance. The opposite is true for vendors, as 25.0 percent agreed they could easily access assistance. This difference could be related to the number of support avenues available for the user. Hunters had the most support avenues, followed by Service BC and FrontCounter BC. With vendors mainly relying on Service BC, the results show that vendors required additional support. In the surveys, vendors expressed an interest in having a support line, where they could call and access assistance if a hunter is at the counter.

Along with over the counter and phone support, all users had access to supporting materials for assistance. This material was posted on the Fish and Wildlife website, as well as on an internal SharePoint site. Hunters, had access to a job aids, a video, website information and the LEH synopsis. Out of these supporting materials, 74 percent of hunters used the LEH synopsis for assistance. Out of these hunters, 95.2 percent either found the synopsis somewhat helpful or very helpful. The lowest responses were for the video, at 19.0 percent and the job aid at 19.9 percent. Both materials had low levels of satisfaction, with 60.0 percent of hunters finding the video not helpful and 58.9 percent not finding the job aid helpful. The reason for these low levels of satisfaction is likely related to the material being difficult to find on the Fish and Wildlife website. When asking hunters if they were aware of the supporting material, 42.1 percent of respondents said they were not aware. During the focus group discussions, FrontCounter BC and Service BC both discussed how the Fish and Wildlife website was difficult to navigate. They thought that the website had too much information on the right hand column and that key links, such as the log-in link, should be centred similar to the angling site.

When asking Service BC and FrontCounter BC about their awareness of the supporting material, their response was much higher than hunters, with 87.5 percent of respondents being aware of the material. Out of these respondents, the highest level of satisfaction was for the job aid, with 35.5 percent finding the aid very helpful and 62.9 percent finding the aid somewhat helpful. These stats reinforce the focus group results where participants discussed how they relied on the job aid for completing their job. Focus group participants also discussed how they would use the LEH user manual if they had the time to look up a particular section. Based on the surveys, the user manual had the second highest satisfaction rating with 31.4 percent finding the manual very helpful and 62.7 percent finding the manual somewhat helpful. Overall, when analyzing the citizen support dimension, hunters, Service BC and FrontCounter BC felt supported through the system. Vendors had difficulty accessing assistance, but after receiving help, they had high rates of satisfaction. The most notable issue with citizen support was the lack of awareness of supporting material. Almost half of the hunters that responded to the survey were not aware that supporting material existed on the website.

The last e-GovQUAL dimension of trust was applied strictly to the hunter survey. As stated earlier, the security feature of BC Hunting Online is the BCeID, which is a username and password for accessing online government services. Prior to sending out the survey to hunters, the Fish and Wildlife focus group predicted that the BCeID registration would be the number one issue among hunters. Participants thought that hunters did not understand the difference between their FWID and BCeID, claiming that GCPE prevented the branch from communicating about the BCeID. Service BC and FrontCounter BC also mentioned the need to clarify the definitions, as there has been confusion regarding all the different acronyms. While the BCeID was not the most significant issue, it was the number one reason why hunters required assistance. Of the hunters that required assistance, 52.2 percent of assistance was for the BCeID registration. Analyzing the hunter survey, 55.4 percent of hunters understood the difference between their Hunter Number, FWID, and BCeID. When asked if it was easy to register for the BCeID, 43.8 percent of respondents agreed or strongly agreed with that statement. The majority of respondents were also neutral, at 40.9 percent, when asked if they believe the BCeID adds an extra level of security. While it is clear that the BCeID caused confusion among

hunters, if the branch were to focus on a communication campaign regarding the BCeID, hunters would likely understand the purpose and reason behind the BCeID registration.

Outside of the traditional scope of e-GovQUAL, communication and training questions were both included in the surveys. In regards to communication, the Fish and Wildlife Branch was interested in when and how users found out about the changes to LEH and the hunter registry. Analyzing the hunter survey, the majority of hunters found out about the changes in March and April. In March, the Fish and Wildlife Branch attended the BC Hunting Show and handed out information notices. In April, the new Fish and Wildlife website was launched and the LEH synopsis was published. With the exception of friends or family, the LEH synopsis had the highest response for how hunters heard about the changes, at 25.2 percent. This was followed by the Fish and Wildlife website, at 13.2 percent. While most hunters found out about the changes in the two months before go-live, the majority of hunter, at 52.9 percent, agreed or strongly agreed that the information was available early enough for them to understand the changes. These stats show that a concentrated communication campaign, close to go-live, would likely be more effective than a longer communication campaign, stretched over several months.

While the majority of hunters found out about the changes in the last two months, the majority of Service BC and FrontCounter BC respondents found out about the changes in December, at 55.2 percent. The lowest response was for April, at 6.0 percent. When breaking these numbers down between organizations, 70.2 percent of Service BC and 20.0 percent of FrontCounter BC found out about the changes in December. Also, no Service BC respondent found out about the changes in April, while 20.0 percent of FrontCounter BC respondents were still finding out about the changes in April. The majority of Service BC and FrontCounter BC respondents found out about the changes through information provided by their own organization, highlighting the fact that FrontCounter BC needs to ensure that communication material is being circulated as soon as possible. These findings draw similarities with the FrontCounter BC focus group discussions, where participants felt like there was not enough two way communication between the branch and their organization. The Fish and Wildlife focus group also discussed a desire for more communication and involvement as staff were not always sure what their role was within the project.

Along with communication, the Fish and Wildlife Branch was interested in receiving feedback on training. While hunters and vendors did not receive any formal training, Service BC, FrontCounter BC, and Fish and Wildlife staff all attended a training session. Overall, the responses from Service BC and FrontCounter BC were positive with 65.7 percent of respondents agreeing or strongly agreeing that the training sessions prepared them to navigate WILD. Breaking this stat down by organization, 25.0 percent of FrontCounter BC respondents disagreed/ strongly disagreed that they felt prepared to navigate WILD, compared to 6.0 percent for Service BC. This breakdown was also reflected in the focus group discussions, as FrontCounter BC discussed how it was difficult to be trained over conference call. Participants thought that the training sessions should be held in-person, allowing for instant feedback. Service BC did not have any issue with the training session being held over conference call, but would have preferred more time to practice using the system. Fish and Wildlife staff fell between FrontCounter BC and Service BC for their level of satisfaction with the training. While Fish and Wildlife participants did

not express a need to be trained in person, they did have technical issues with the conference call and thought more computers should be available to practice. Fish and Wildlife staff also thought that one session was not enough time to become familiar with the system, claiming that two or three sessions would make them more comfortable.

Another significant difference between Service BC and FrontCounter BC was in their understanding of the Fish and Wildlife business. Service BC has been a longstanding partner with the Fish and Wildlife Branch, providing hunting services to the public while the business was still paper-based. FrontCounter BC is new to hunter registry and LEH, joining the Fish and Wildlife Branch and Service BC as a partner with the introduction of the online system. When asked if the training sessions provided enough information on the Fish and Wildlife business, 54.0 percent of Service BC agreed/strongly agreed, while only 25.0 percent of FrontCounter BC agreed/strongly agreed. This was also a common theme in the focus group discussions, where FrontCounter BC participants discussed how training should have included more business training, as there was confusion about the LEH business rules.

9.0 CONCLUSION

The purpose of this project was to assess the service quality of the Hunting Transformation Project. This was accomplished through focus groups and surveys with the system's users. Using the dimensions of e-GovQUAL, service quality was measured based upon the systems accessibility, efficiency, citizen support, and trust. After analyzing each of the user's responses to each dimension, a number of key issues have been identified. Firstly, accessibility was the number one issue among all users, with 31.0 percent of hunters, 51.4 percent of Service BC and FrontCounter BC, and 58.8 percent of vendors having issues accessing the site. This access issue was largely due to the site's traffic as large numbers of hunters applied for LEH online. Next, focusing on efficiency, the majority of users were able to easily navigate and use the online system. As predicted by the focus groups, the main issue with ease of use and navigation was the shared/group application process. There were difficulties joining hunters to their group, as the process for using the group ID was not intuitive. Hunters thought the group name field would link their applications, overlooking the separate page for joining a shared/group hunt. The Fish and Wildlife website was also difficult to navigate. Related to issues with the shared/group hunt was the Fish and Wildlife website, which all users found difficult to navigate. Job aids and videos were added to the website to support hunters through the shared/group process; however, based on the survey results, 42.1 percent of hunters were not aware of these materials. In regards to citizen support, hunters, Service BC, and FrontCounter BC could easily access assistance. The majority of assistance for hunters was related to the BCeID, at 52.2 percent, followed by accessing the site at 36.0 percent. The majority of assistance for Service BC and FrontCounter BC was for the shared/group applications at 55.0 percent. Vendors were the only user who had difficulty accessing assistance, with 50.0 percent of respondents having issues accessing assistance. The final dimension of trust was found to cause issues, as the purpose of the BCeID was not communicated to hunters.

Through the surveys and focus group discussions, questions also focused on the communication and training of the project. It was discovered that the majority of hunters found out about the changes to LEH and Hunter registry in March and April. The main avenues of finding out information were

through friends or family and the LEH synopsis. FrontCounter BC also found out about the changes close to go-live, with 25.0 percent of respondents finding out about the system in April. This was a significant difference to Service BC, with 70.2 percent of respondents found out about the changes in December. While the majority of hunters, Service BC and FrontCounter BC respondents felt like they had enough time to learn about the changes, 35.0 percent of FrontCounter BC respondents disagreed/ strongly disagreed with that statement. Timing was also found to be an issue in training. Service BC, FrontCounter BC and Fish and Wildlife staff all commented in the focus groups that they wanted more time to practice in the system. In addition to more practice, Fish and Wildlife staff wanted additional training sessions and FrontCounter BC participants wanted to be trained in person.

Along with identifying issues with the service quality, e-GovQUAL highlighted a number of successes with the Hunting Transformation Project. The Fish and Wildlife Branch provided multiple service avenues for hunters who did not want to use the online system, the system was easy to navigate, the job aids were helpful for Service BC and FrontCounter BC, while the LEH synopsis was helpful to hunter. Users who received training found the sessions to be helpful and thought they had enough time to learn about the changes.

Phase two of the Hunting Transformation Project is on a similar timeline to phase one, with more in-scope, such as hunting licences, compulsory inspection, and compulsory reports. In moving forward to the next phase, the Fish and Wildlife Branch will have the opportunity to improve on the system's accessibility, the shared/group application process, the Fish and Wildlife website, and communication on the BCeID. Confusion around these processes caused additional work for staff, who had to support hunters through the BCeID registration and application process, even though supporting material was available on the website. While the draw was run a week earlier than the previous year, improvements can be made to better hunting services.

10.0 RECOMMENDATIONS

Recommendation 1: Invest in new hardware

Through analysis of the focus group and survey results, a number of common issues were identified among users; the most significant issue being access into the system. Before launching the next phase of the project, the Fish and Wildlife Branch should invest in new hardware for their hunting system. The current hardware could not handle the high volumes of traffic during LEH, causing hunters to miss the application deadline, especially if they waited until the last few hours. Purchasing new hardware would not only stop the access issue, but it would also speed up the system, allowing for better customer service from Service BC, FrontCounter BC and vendors.

Recommendation 2: Hybrid model of Ontario and Saskatchewan's Shared/Group LEH Applications

Along with accessing the system, the shared/group application process caused confusion among users. The focus group participants had a number of recommendations to the shared/group applications, such as removing the group name field and having one application page for creating and joining hunts. While these suggestions would eliminate some of the application errors, it does not

address concerns regarding the overall process. Ontario and Saskatchewan both have different processes for shared/group LEH applications. Ontario's shared/group process is similar to BC, using a group reference number to join hunters to a group. The main difference between the two provinces is that Ontario's system identifies the group leader and group members. This clarifies to the group that only one group member initiates the hunt, while the other group members join using the reference number. Saskatchewan's system is unique because the group initiator needs to enter the HAL ID – hunter identification and the birthdate of the group members. This ensures that all group members are associated with the same hunt and prevents any confusion with the use of a group ID or reference number. Hunters in the survey expressed an interest in having the ability to have one group member apply for the entire group. When asked if hunters would be willing to give their FWID number to a hunting partner to allow them to join a shared/group hunt, 76.5 percent said yes.

Before the next LEH season, the Fish and Wildlife Branch should consider changing its shared/group process to a hybrid model of Ontario and Saskatchewan. This model should provide the option for the group leader to apply on behalf of the other group members, using the FWID and last name of all hunters who want to join. This solution would also help those hunters who do not have a computer, but want to join their hunting partner's hunt. For those hunters who do not want to share their FWID, the option for joining a shared/group hunt with the group ID should still be available. The only difference should be that the role of group leader and group member should be clearly defined so that hunters are not accidentally creating a new shared/group hunt when they meant to join an existing hunt. The option to create a new shared/group hunt, join a hunt using the group ID, or have a group member apply on behalf of their group should all be on the same page. This will reduce any confusion regarding system navigation and allow hunters to view all their application options.

Recommendation 3: Make supporting material more accessible

Part of the issue with the shared/group applications was that hunters were not aware of the supporting material on the Fish and Wildlife website. When asked if hunters were aware of material, such as job aids and the video, 41.1 percent of respondents said no. The Fish and Wildlife website was also a discussion topic in the focus groups as participants discussed how the layout of the site made it difficult to find the supporting material or even locate the log in button. Before updating the website with new information for phase two of the project, the Fish and Wildlife Branch should modify its website, making the log in button front and centre, with the supporting material clearly defined. As an additional means of providing information to hunters, the Fish and Wildlife Branch should consider using email as its main form of contact. With the branch now having access to hunter's email, this opens up the option to send hunters a direct link to the supporting material on the website. Hunters can then print off the material if they wish and use it to navigate the system.

While the job aids and video were developed for phase one of the project, based on user satisfaction with the material, it is recommended that the Fish and Wildlife Branch focus on the website material and LEH synopsis as its main sources of information. Suggestions have already been made to improve the website, but there is also an opportunity to improve the LEH synopsis. The LEH synopsis is released every year, with a list of new draw odds. The Fish and Wildlife Branch should consider modifying its LEH synopsis to add the features in Alberta's LEH synopsis. Alberta provides a job aid

within its synopsis, with screen shots of their online system. The majority of hunters, at 67.8 percent, still use the LEH synopsis to find their hunt codes, so adding screenshots to the next addition of the synopsis will help clarify the application process for new and current hunters.

Recommendation 4: Communication campaign on BCeID

Along with making information more accessible, the Fish and Wildlife Branch should consider implementing a communication campaign for the BCeID. In phase one of the Hunting Transformation Project, hunters did not receive communication on the BCeID. This resulted in confusion around the BCeID registration process, as 52.2 percent of hunter who required assistance, needed help with the BCeID. Using the recommended avenues of communication, the Fish and Wildlife Branch should consider adding BCeID information to the Fish and Wildlife website. This information should clearly state that prior to accessing your hunting profile, one must first register for a basic BCeID. Communication should also highlight that the BCeID is required for all online government services and that hunters will need to remember their user name and password to access their account. This communication could also be directly emailed to hunters, with an explanation that if they forget their BCeID for the next LEH season, they have the option to re-set their password or create a new BCeID, linking the new ID to their hunter profile.

Recommendation 5: Involve trainers and vendors in testing

The final recommendation is focused on the training plan of the Fish and Wildlife Branch. While training will be on a tight timeline, due to the scope of phase two, these suggestions could make the training sessions more effective. Firstly, the trainers for Service BC and FrontCounter BC should be a part of the system testing team. The testing team is responsible for identifying defects in the system by testing all business processes. Recognizing that both the Service BC and FrontCounter BC trainers have full time jobs and that hunting services are just one component of their job, they should not be the only testers on the team. However, by providing trainers the opportunity to work through the system, early in the process, they will be more familiar with the new features, prior to training staff. Without even bringing up the idea of testing in the focus group discussions, both Service BC and FrontCounter BC participants discussed an interest to be more involved in testing, suggesting that the testers also train staff. The trainers that are chosen to test the system could also be regionally representative. This would provide both organizations with the option to provide in-person training, as it would be easier for the trainer in a particular region to travel to the office locations around them. Training with support staff should also include a section on the business of the Fish and Wildlife Branch so staff become familiar with the business rules. This suggestion is particularly important for FrontCounter BC staff because they are new to the Fish and Wildlife business.

Vendors did not receive any formal training in phase one, but did benefit from the walk-through conference call. For the next phase, the Fish and Wildlife Branch should continue to provide a walk-through for vendors, with the addition of selecting several vendors to pilot test the new system features. This suggestion could help strengthen the vendor site, as the pilot vendors could identify processes or functions that are not intuitive. When LEH was first launched in the system, vendors were not aware if they had successfully submitted an LEH application, with a few vendors not fully completing the process. By having vendors identify these potential issues early; the system developers could add

additional features, ensuring that vendors can easily navigate the system. In addition to having pilot vendors, the Fish and Wildlife should consider providing a direct support line to vendors during the LEH and hunting season. Vendors commented in the survey that they could not easily access assistance and recommended a direct help-line. During the 2016 fall draw, the Fish and Wildlife Branch provided a help-line to hunters, answering calls after the FrontCounter BC Call Centre closed. This same help-line set up for hunters, could also be used to support vendors. The Fish and Wildlife Branch could email the support line number to all participating vendors, providing an additional support avenue.

In conclusion, there are a number of steps the Fish and Wildlife Branch can take to improve on the service quality of the hunting system. The branch should focus its attention on the accessibility of the system and consider purchasing new hardware to manage the high traffic. The branch should improve its efficiency by implementing a hybrid model of Ontario and Saskatchewan's shared/group application process, allowing hunters to apply for a hunt on behalf of their group. The branch should improve its citizen support by providing direct communication to hunters through email, improving the Fish and Wildlife website, and by providing support material in the next LEH synopsis. Training can be improved by having the Service BC and FrontCounter BC trainers involved in system testing, along with having a group of vendors pilot test the system. Lastly, trust can be improved in the system by implementing a communication campaign on the BCeID, clarifying its purpose. By improving each dimension of e-GovQUAL, the Fish and Wildlife Branch will move one step closer to providing a quality hunting service for the future.

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12.0 APPENDICIES





Appendix 1: Hunter Survey

Appendix 1 is a full breakdown of the hunter survey. Each question in the survey is outlined, along with the statistical results. After each question, the brackets will indicate which dimension the question falls under.

Question 1: What region do you live in?

Response	Chart	Percentage	Count
Vancouver Island		19.3%	1295
Lower Mainland		27.8%	1866
Thompson		9.3%	626
Kootenay		9.5%	641
Cariboo		7.7%	516
Skeena		3.7%	250
Omineca		7.5%	506
Peace		3.7%	249
Okanagan		11.5%	775
		Total Responses	6724

Question 2: How many years have you applied for LEH?

Response	Chart	Percentage	Count
First year		7.0%	473
2-5 years		19.9%	1338
6-10 years		14.1%	951
11 or more years		58.9%	3959
		Total Responses	6721

Question 3: How did you hear about BC Hunting Online? (Citizen Support)

Response	Chart	Percentage	Count
Limited Entry Hunting Synopsis		25.2%	1690
Fish and Wildlife Website		13.2%	884
Public Notice in Harvest Survey mail out		6.9%	460
BC Hunting Show		3.1%	208
BC Hunting Forum		6.8%	453
Service BC or FrontCounter BC		4.7%	315
Vendor - Hunting Store		11.3%	758
Friends or family		46.9%	3144
		Total Responses	6709

Question 4: When did you hear about the changes to the Hunter Number and LEH? (Citizen Support)

Response	Chart	Percentage	Count
December		17.8%	1161
January		15.5%	1010
February		19.1%	1249
March		23.5%	1533
April		24.1%	1570
		Total Responses	6523



Question 5: Where did you go to find out more information? (Citizen Support)

Response	Chart	Percentage	Count
Fish and Wildlife Website		61.7%	4136
LEH Synopsis		18.8%	1263
Service BC or FrontCounter BC		15.9%	1064
Vendor		8.7%	582
Other, please specify		8.8%	593
		Total Responses	6705



Question 6: Information about BC Hunting Online (Citizen Support)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
Information was easy to find	775 (11.5%)	1378 (20.5%)	1692 (25.2%)	2543 (37.9%)	322 (4.8%)	6710
Information was available early enough to give me time to learn about the new system	628 (9.4%)	1073 (16.1%)	1451 (21.7%)	3063 (45.9%)	465 (7.0%)	6680
I understood what changes were coming to Hunter Numbers	674 (10.1%)	1279 (19.1%)	1299 (19.4%)	2941 (44.0%)	495 (7.4%)	6688
I understood what changes were coming to LEH applications	575 (8.6%)	1154 (17.2%)	1215 (18.2%)	3215 (48.1%)	531 (7.9%)	6690
I understood how the changes would impact me	655 (9.8%)	1204 (18.0%)	1474 (22.1%)	2879 (43.1%)	465 (7.0%)	6677





Question 7: Was BC Hunting Online available when you tried to access your profile? (Reliability)

Response	Chart	Percentage	Count
Yes		72.1%	4812
No		27.9%	1861
Total Responses			6673

Question 8: Were you able to access your profile on your first attempt? (Reliability)

Response	Chart	Percentage	Count
Yes		47.7%	3184
No		52.3%	3492
Total Responses			6676




Question 9: If you answered No to the previous question, what was your most significant challenge? (Reliability)

Response	Chart	Percentages	Count
BCeID registration		28%	374
Computer or computer skills		9%	128
System was down		31%	420
Website Navigation		30%	401

Question 10: BCeID (Trust)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I understand the difference between my BCeID and Hunter Number/FWID	558 (8.3%)	1154 (17.2%)	1271 (19.0%)	3035 (45.3%)	676 (10.1%)	6694
I believe the BCeID adds an extra level of security to my profile	641 (9.6%)	1128 (16.9%)	2730 (40.9%)	1868 (28.0%)	313 (4.7%)	6680
It was easy to register for my BCeID	1037 (15.5%)	1345 (20.1%)	1369 (20.5%)	2491 (37.3%)	434 (6.5%)	6676

Question 11: What type of LEH application did you apply for?


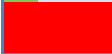

Response	Chart	Percentage	Count
Individual		46.8%	3146
Shared/Group		14.5%	974
Both		38.7%	2598
Total Responses			6718

If you applied for a shared/group hunt, please answer question 12, 13, and 14. If not, please go to Question 15.



Question 12: If you applied for a Shared/Group Hunt (Efficiency)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily create or join a shared/group hunt	552 (15.0%)	576 (15.6%)	679 (18.4%)	1570 (42.6%)	305 (8.3%)	3682
I understood how to use the group ID	380 (10.3%)	560 (15.2%)	687 (18.6%)	1763 (47.7%)	305 (8.3%)	3695
My hunting partners could easily join my shared/group hunt	580 (15.7%)	608 (16.5%)	769 (20.9%)	1431 (38.8%)	300 (8.1%)	3688

Question 13: If you had issues with the shared/group application, what was you most significant challenge? (Efficiency)

Response	Chart	Percentages	Count
Confirmation from joining group		11%	68
Group members couldn't join		35%	216
Understanding the process and Group ID		53%	332




Question 14: Would you be willing to give your FWID number to a hunting partner to allow them to add you as a member of their shared/group hunt?

Response	Chart	Percentage	Count
Yes		76.5%	3219
No		23.5%	991
Total Responses			4210



Question 15: Ease of Use and Navigation of BC Hunting Online (Efficiency)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily navigate my profile page	595 (9.0%)	1099 (16.6%)	1615 (24.4%)	2954 (44.6%)	354 (5.3%)	6617
I could easily update my personal and contact information	437 (6.6%)	667 (10.1%)	1729 (26.2%)	3349 (50.7%)	424 (6.4%)	6606
I could easily navigate the LEH page	515 (7.8%)	1070 (16.2%)	1535 (23.2%)	3096 (46.9%)	390 (5.9%)	6606
The table and map on the LEH page was useful	469 (7.1%)	797 (12.1%)	2222 (33.8%)	2625 (39.9%)	466 (7.1%)	6579






Question 16: How did you find you hunt codes this year?

Response	Chart	Percentage	Count
LEH synopsis		67.8%	4531
Table and map feature on the LEH page in BC Hunting Online		25.8%	1721
Other, please specify		6.4%	426
		Total Responses	6678

Question 17: Did you receive assistance using BC Hunting Online? (Citizen Support)

Response	Chart	Percentage	Count
Yes		31.1%	2076
No		68.9%	4597
		Total Responses	6673

Question 18: If you answered Yes to the previous question, what did you need assistance with? (Citizen Support)

Response	Chart	Percentage	Count
BCeID		52.2%	1133
Accessing BC Hunting Online		36.0%	782
Submitting an individual LEH application		27.2%	590
Submitting a shared/group LEH application		31.2%	678
Other, please specify		18.6%	403
		Total Responses	2170



Question 19: If you received assistance from any of the following, please indicate how helpful the assistance was (Citizen Support)

	Not helpful at all	Somewhat helpful	Very helpful	Total Responses
Phone support (FrontCounter BC or Fish and Wildlife Branch)	432 (25.3%)	528 (30.9%)	749 (43.8%)	1709
Over the counter support at FrontCounter BC or Service BC	317 (17.8%)	529 (29.8%)	931 (52.4%)	1777
Over the counter support at my local vendor	310 (20.7%)	496 (33.1%)	693 (46.2%)	1499
Posts on the BC Hunting forum	482 (34.4%)	691 (49.3%)	230 (16.4%)	1403
Friends or family	276 (10.4%)	1032 (38.9%)	1347 (50.7%)	2655





Question 20: If you used any of the following, please indicate how helpful the material was (Citizen Support)

	Not helpful at all	Somewhat helpful	Very helpful	Total Responses
Website Information	651 (14.9%)	2834 (65.0%)	873 (20.0%)	4358
Job Aids	795 (58.9%)	488 (36.1%)	67 (5.0%)	1350
Video	775 (60.0%)	429 (33.2%)	88 (6.8%)	1292
LEH Synopsis	244 (4.9%)	2231 (44.5%)	2544 (50.7%)	5019



Question 21: Were you aware these materials were available? (Citizen Support)

Response	Chart	Percentage	Count
Yes		57.9%	3667
No		42.1%	2669
		Total Responses	6336

Question 22: How did you find out that the LEH results were available?

Response	Chart	Percentage	Count
Fish and Wildlife email		33.3%	2220
BC Hunting forum		14.7%	977
Friends or family		46.2%	3079
Other, please specify		16.4%	1091
		Total Responses	6658

Question 23: Were you able to look up your draw results on BC Hunting Online?

Response	Chart	Percentage	Count
Yes		89.2%	5919
No		10.8%	718
		Total Responses	6637

Appendix 2: Vendor Survey

Appendix 2 is a full breakdown of the vendor survey. Each question in the survey is outlined, along with the statistical results. After each question, the brackets will indicate which dimension the question falls under.

Question 1: What region is your business located?

Response	Chart	Percentage	Count
Vancouver Island		17.6%	3
Lower Mainland		17.6%	3
Thompson		0.0%	0
Kootenay		17.6%	3
Cariboo		0.0%	0
Skeena		5.9%	1
Omineca		17.6%	3
Peace		5.9%	1
Okanagan		17.6%	3
		Total Responses	17


Question 2: How many LEH applications did your business complete?

Response	Chart	Percentage	Count
Under 50		23.5%	4
50-100		5.9%	1
101-200		29.4%	5
Over 200		41.2%	7
		Total Responses	17


Question 3: Did your business have any issues accessing e-licensing? (Reliability)

Response	Chart	Percentage	Count
Yes		58.8%	10
No		41.2%	7
		Total Responses	17


Question 4: If you answered Yes to the previous question, what was your business's most significant challenge? (Reliability)

Response	Chart	Percentages	Count
Accessing the site		70%	7
Shared/Group applications		20%	2
Site Crashing		10%	1

Question 5: Did your business attend the walk-through conference call, provided by the Fish and Wildlife Branch? (Citizen Support)

Response	Chart	Percentage	Count
Yes		70.6%	12
No		29.4%	5
Total Responses			17

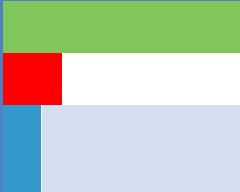
Question 6: If you answered Yes to the previous question, was the conference call helpful? (Citizen Support)

Response	Chart	Percentage	Count
Yes		78.6%	11
No		21.4%	3
Please indicate why or why not		42.9%	6
Total Responses			14

Question 7: If your business used any of the following material, please indicate how helpful the material was (Citizen Support)

	Not helpful at all	Somewhat helpful	Very helpful	Total Responses
Website Information	2 (20.0%)	6 (60.0%)	2 (20.0%)	10
Job Aids	3 (37.5%)	4 (50.0%)	1 (12.5%)	8
Videos	6 (85.7%)	1 (14.3%)	0 (0.0%)	7

Question 8: Did your business hold its own training session for employees?

Response	Chart	Percentage	Count
Yes		70.6%	12
No		17.6%	3
Not applicable (no other employees)		11.8%	2
		Total Responses	17

Question 9: Ease of Use and Navigation (Efficiency)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
My business could easily navigate e-licencing	0 (0.0%)	2 (11.8%)	2 (11.8%)	8 (47.1%)	5 (29.4%)	17
My business could easily update a hunter's information	0 (0.0%)	2 (11.8%)	4 (23.5%)	5 (29.4%)	6 (35.3%)	17
My business could easily submit LEH applications	1 (5.9%)	1 (5.9%)	3 (17.6%)	7 (41.2%)	5 (29.4%)	17

Question 10: Shared/Group Applications (Efficiency)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
My business could easily create shared/group applications	2 (11.8%)	2 (11.8%)	5 (29.4%)	5 (29.4%)	3 (17.6%)	17
My business could easily join hunters to shared/group hunts	3 (17.6%)	2 (11.8%)	5 (29.4%)	4 (23.5%)	3 (17.6%)	17
My business understands how the Group ID works	1 (5.9%)	1 (5.9%)	3 (17.6%)	8 (47.1%)	4 (23.5%)	17

Question 11: Did your business receive any assistance applying for LEH? (Citizen Support)

Response	Chart	Percentage	Count
Yes		29.4%	5
No		70.6%	12
		Total Responses	17

Question 12: If you answered Yes to the previous question, what did your business need assistance with? (Citizen Support)

Response	Chart	Percentages	Count
Accessing Assistance		20%	1
Shared/Group Applications		60%	3
Updating hunter's information		20%	1



Question 13: Was the assistance helpful? (Citizen Support)

Response	Chart	Percentage	Count
Yes		83.3%	5
No		16.7%	1
Please specify why or why not		33.3%	2
		Total Responses	6

Question 14: E-Licensing Assistance (Citizen Support)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not applicable	Total Responses
My business could easily access assistance	1 (6.2%)	4 (25.0%)	1 (6.2%)	4 (25.0%)	1 (6.2%)	5 (31.2%)	16
My business was able to complete the LEH application after receiving assistance	0 (0.0%)	3 (18.8%)	3 (18.8%)	3 (18.8%)	2 (12.5%)	5 (31.2%)	16



Question 15: Did your business use e-licensing to look up hunters' results in the draw?

Response	Chart	Percentage	Count
Yes		82.4%	14
No		17.6%	3
		Total Responses	17









Appendix 3: Service BC/ FrontCounter BC Survey

Appendix 3 is a full breakdown of the Service BC/FrontCounter BC survey. Each question in the survey is outlined, along with the statistical results. For questions where there is a significant difference between Service BC and FrontCounter BC, an additional pivot table is added below the question. After each question, the brackets will indicate which dimension the question falls under.






Question 1: Please select your organization

Response	Chart	Percentage	Count
Service BC		70.8%	51
FrontCounter BC		29.2%	21
		Total Responses	72

Question 2: What region is your office located?






Response	Chart	Percentage	Count
Vancouver Island		18.1%	13
Lower Mainland		6.9%	5
Thompson/ Okanagan		19.4%	14
Kootenay		20.8%	15
Cariboo		4.2%	3
Skeena		13.9%	10
Omineca		12.5%	9
Peace		4.2%	3
		Total Responses	72

Question 3: When did you hear about the changes to the Hunter Number and Limited Entry Hunting (LEH)? (Citizen Support)

Response	Chart	Percentage	Count
December		55.2%	37
January		10.4%	7
February		14.9%	10
March		13.4%	9
April		6.0%	4
		Total Responses	67

Count of Question 3			
Row Labels	FrontCounter		
	BC	Service BC	
January	15.00%	8.51%	
February	25.00%	10.64%	
March	20.00%	10.64%	
April	20.00%	0.00%	
December	20.00%	70.21%	
Grand Total	100.00%	100.00%	

Question 4: How did you hear about the changes to the Hunter Number and LEH? (Citizen Support)

Response	Chart	Percentage	Count
Co-worker		16.7%	12
Information provided by my organization		69.4%	50
Hunting Transformation Newsletter		12.5%	9
Fish and Wildlife Branch Communication		15.3%	11
Other, please specify		4.2%	3
		Total Responses	72

Question 5: Hunter Number and LEH Information (Citizen Support)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily find information	1 (1.4%)	9 (12.5%)	13 (18.1%)	40 (55.6%)	9 (12.5%)	72
I had enough time to learn about the new changes	3 (4.2%)	17 (23.9%)	10 (14.1%)	37 (52.1%)	4 (5.6%)	71
I understood what changes were coming to Hunter Numbers	0 (0.0%)	7 (9.7%)	9 (12.5%)	46 (63.9%)	10 (13.9%)	72
I understood what changes were coming to LEH applications	0 (0.0%)	9 (12.5%)	11 (15.3%)	44 (61.1%)	8 (11.1%)	72
I understood how the changes would impact how I do my job	1 (1.4%)	9 (12.5%)	14 (19.4%)	41 (56.9%)	7 (9.7%)	72

Count of Question 5 | I could easily find information

Row Labels	FrontCounter BC	Service BC
Agree	47.62%	58.82%
Disagree	28.57%	5.88%
Neutral	14.29%	19.61%
Strongly Agree	9.52%	13.73%
Strongly Disagree	0.00%	1.96%
Grand Total	100.00%	100.00%

Count of Question 5 | I had enough time to learn about the new changes

Row Labels	FrontCounter BC	Service BC
Agree	50.00%	52.94%
Disagree	35.00%	19.61%
Neutral	10.00%	15.69%
Strongly Agree	5.00%	5.88%
Strongly Disagree	0.00%	5.88%
Grand Total	100.00%	100.00%

Count of Question 5 | I understood what changes were coming to Hunter Numbers

Row Labels	FrontCounter BC	Service BC
Agree	57.14%	66.67%
Disagree	19.05%	5.88%
Neutral	9.52%	13.73%
Strongly Agree	14.29%	13.73%
Grand Total	100.00%	100.00%



Count of Question 5 | I understood what changes were coming to LEH applications

Row Labels	FrontCounter BC	Service BC
Agree	57.14%	62.75%
Disagree	19.05%	9.80%
Neutral	9.52%	17.65%
Strongly Agree	14.29%	9.80%
Grand Total	100.00%	100.00%

Count of Question 5 | I understood how the changes would impact how I do my job

Row Labels	FrontCounter BC	Service BC
Agree	42.86%	62.75%
Disagree	19.05%	9.80%
Neutral	23.81%	17.65%
Strongly Agree	9.52%	9.80%
Strongly Disagree	4.76%	0.00%
Grand Total	100.00%	100.00%




Question 6: Did you attend any of the question/answer conference call sessions provided by the Fish and Wildlife Branch? (Citizen Support)

Response	Chart	Percentage	Count
Yes		83.3%	60
No		16.7%	12
Total Responses			72



Count of Question 6

Row Labels	FrontCounter BC	Service BC
No	19.05%	15.69%
Yes	80.95%	84.31%
Grand Total	100.00%	100.00%

Question 7: If you answered Yes to the previous question, were the conference calls helpful? (Citizen Support)





Response	Chart	Percentage	Count
Yes		85.5%	53
No		12.9%	8
Please indicate why or why not		35.5%	22
Total Responses			62

Question 8: Did you have any issues accessing WILD? (Reliability)

Response	Chart	Percentage	Count
Yes		51.4%	37
No		48.6%	35
		Total Responses	72

Count of Question 8		
Row Labels	FrontCounter BC	Service BC
No	47.62%	49.02%
Yes	52.38%	50.98%
Grand Total	100.00%	100.00%



Question 9: If you answered Yes to the previous question, what was your most significant challenge?

Response	Chart	Percentages	Count
Connectivity issues		17%	6
Receiving access		20%	7
System component crashing		26%	9
System slowness		35%	12

Question 10: If you used any of the following, please indicate how helpful the material was (Support)

	Not helpful at all	Somewhat helpful	Very helpful	Total Responses
WILD User Manual	3 (5.9%)	32 (62.7%)	16 (31.4%)	51
Job Aids	1 (1.6%)	39 (62.9%)	22 (35.5%)	62
Website Information	7 (12.5%)	39 (69.6%)	10 (17.9%)	56

Question 11: Were you aware these materials were available? (Citizen Support)

Response	Chart	Percentage	Count
Yes		87.5%	63
No		12.5%	9
		Total Responses	72

Question 12: Please tell us about any training sessions you attended (Citizen Support)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I found the training sessions prepared me to navigate WILD	1 (1.4%)	7 (10.0%)	16 (22.9%)	36 (51.4%)	10 (14.3%)	70
I found the training sessions prepared me to answer hunters' questions about the changes to hunting services in BC	4 (5.7%)	10 (14.3%)	17 (24.3%)	32 (45.7%)	7 (10.0%)	70
I found the training sessions provided me with enough information to understand the Fish and Wildlife business	4 (5.7%)	10 (14.3%)	24 (34.3%)	26 (37.1%)	6 (8.6%)	70






Count of Question 12 I found the training sessions prepared me to navigate WILD		
Row Labels	FrontCounter BC	Service BC
Agree	45.00%	54.00%
Disagree	25.00%	4.00%
Neutral	25.00%	22.00%
Strongly Agree	5.00%	18.00%
Strongly Disagree	0.00%	2.00%
Grand Total	100.00%	100.00%

Count of Question 12 I found the training sessions prepared me to answer hunters' questions about the changes to hunting services in BC		
Row Labels	FrontCounter BC	Service BC
Agree	40.00%	48.00%
Disagree	25.00%	10.00%
Neutral	30.00%	22.00%
Strongly Agree	0.00%	14.00%
Strongly Disagree	5.00%	6.00%
Grand Total	100.00%	100.00%

Count of Question 12 | I found the training sessions provided me with enough information to understand the Fish and Wildlife business

Row Labels	FrontCounter BC	Service BC
Agree	25.00%	42.00%
Disagree	25.00%	10.00%
Neutral	40.00%	32.00%
Strongly Agree	0.00%	12.00%
Strongly Disagree	10.00%	4.00%
Grand Total	100.00%	100.00%

Question 13: Please specify why you found the training sessions helpful or not (Citizen Support)

Response	Chart	Percentages	Count
Information gaps		15%	7
Not enough time to practice		29%	13
Q&A was helpful		11%	5
System demonstration was helpful		29%	13
Technical difficulties		13%	6

Question 14: Ease of Use and Navigation (Efficiency)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily navigate WILD	1 (1.4%)	7 (9.9%)	9 (12.7%)	41 (57.7%)	13 (18.3%)	71
I could easily update a hunter's information	1 (1.4%)	5 (7.0%)	3 (4.2%)	44 (62.0%)	18 (25.4%)	71
I could easily submit LEH applications	1 (1.4%)	5 (7.0%)	12 (16.9%)	39 (54.9%)	14 (19.7%)	71

Count of Question 14 | I could easily navigate WILD

Row Labels	FrontCounter BC	Service BC
Agree	60.00%	56.86%
Disagree	10.00%	9.80%
Neutral	20.00%	9.80%
Strongly Agree	10.00%	21.57%
Strongly Disagree	0.00%	1.96%
Grand Total	100.00%	100.00%

Count of Question 14 | I could easily update a hunter's information

Row Labels	FrontCounter BC	Service BC
Agree	75.00%	56.86%
Disagree	5.00%	7.84%
Neutral	10.00%	1.96%
Strongly Agree	10.00%	31.37%
Strongly Disagree	0.00%	1.96%
Grand Total	100.00%	100.00%

Count of Question 14 | I could easily submit LEH applications

Row Labels	FrontCounter BC	Service BC
Agree	60.00%	52.94%
Disagree	10.00%	5.88%
Neutral	25.00%	13.73%
Strongly Agree	5.00%	25.49%
Strongly Disagree	0.00%	1.96%
Grand Total	100.00%	100.00%

Question 15: Shared/Group LEH Applications (Efficiency)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily create shared/group applications	4 (5.7%)	12 (17.1%)	18 (25.7%)	32 (45.7%)	4 (5.7%)	70
I could easily join hunters to shared/group hunts	3 (4.3%)	15 (21.4%)	20 (28.6%)	27 (38.6%)	5 (7.1%)	70
I understand how the Group ID works	2 (2.9%)	8 (11.4%)	17 (24.3%)	37 (52.9%)	6 (8.6%)	70

Count of Question 15 | I could easily join hunters to shared/group hunts

Row Labels	FrontCounter BC	Service BC
Agree	31.58%	41.18%
Disagree	10.53%	25.49%
Neutral	52.63%	19.61%
Strongly Agree	0.00%	9.80%
Strongly Disagree	5.26%	3.92%
Grand Total	100.00%	100.00%



Count of Question 15 | I could easily create shared/group applications

Row Labels	FrontCounter BC	Service BC
Agree	42.11%	47.06%
Disagree	15.79%	17.65%
Neutral	36.84%	21.57%
Strongly Agree	0.00%	7.84%
Strongly Disagree	5.26%	5.88%
Grand Total	100.00%	100.00%

Count of Question 15 | I understand how the Group ID works

Row Labels	FrontCounter BC	Service BC
Agree	36.84%	58.82%
Disagree	21.05%	7.84%
Neutral	36.84%	19.61%
Strongly Agree	0.00%	11.76%
Strongly Disagree	5.26%	1.96%
Grand Total	100.00%	100.00%




Question 16: Did you receive any assistance submitting LEH applications? (Citizen Support)

Response	Chart	Percentage	Count
Yes		42.3%	30
No		57.7%	41

Count of Question 16

Row Labels	FrontCounter BC	Service BC
No	65.00%	54.90%
Yes	35.00%	45.10%
Grand Total	100.00%	100.00%

Question 17: What did you need assistance with? (Citizen Support)

Response	Chart	Percentages	Count
Accessing assistance		7%	2
System navigation		37%	10
Shared/Group applications		55%	15

Question 18: If you received assistance from the following, please indicate how helpful the assistance was (Citizen Support)

	Not helpful at all	Somewhat helpful	Very helpful	Total Responses
FrontCounter BC Contact Centre	4 (28.6%)	7 (50.0%)	3 (21.4%)	14
Fish and Wildlife Branch	1 (4.8%)	10 (47.6%)	10 (47.6%)	21
Service BC/ FrontCounter BC Office	0 (0.0%)	5 (13.5%)	32 (86.5%)	37



Question 19: WILD Assistance (Citizen Support)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total Responses
I could easily access assistance	1 (2.0%)	7 (13.7%)	15 (29.4%)	23 (45.1%)	5 (9.8%)	51
I was able to complete the task after receiving assistance	1 (2.0%)	3 (5.9%)	14 (27.5%)	27 (52.9%)	6 (11.8%)	51

Count of Question 19 I could easily access assistance		
Row Labels	FrontCounter BC	Service BC
Agree	43.75%	45.71%
Disagree	25.00%	8.57%
Neutral	31.25%	28.57%
Strongly Agree	0.00%	14.29%
Strongly Disagree	0.00%	2.86%
Grand Total	100.00%	100.00%

Count of Question 19 I was able to complete the task after receiving assistance		
Row Labels	FrontCounter BC	Service BC
Agree	50.00%	54.29%
Disagree	12.50%	2.86%
Neutral	37.50%	22.86%
Strongly Agree	0.00%	17.14%
Strongly Disagree	0.00%	2.86%
Grand Total	100.00%	100.00%

Question 20: Did you use WILD to look up hunters' results in the draw?

Response	Chart	Percentage	Count
Yes		74.3%	52
No		25.7%	18
Total Responses			70

Count of Question 20		
Row Labels	FrontCounter BC	Service BC
No	23.81%	26.53%
Yes	76.19%	73.47%
Grand Total	100.00%	100.00%