Bend Metro Park & Recreation District

July 15, 2025

Board of Directors

Agenda and Reports

www.bendparksandrec.org

Bend Park & Recreation DISTRICT

play for life

Bend Park & Recreation DISTRICT

Our Vision

To be a leader in building a community connected to nature, active lifestyles and one another.

Our Mission

To strengthen community vitality and foster healthy, enriched lifestyles through parks, trails and recreation.

Our Community Pledge

To reflect our community, welcome and serve equitably, and operate with transparency and accountability.

We Value

COMMUNITY by interacting in a responsive, considerate and efficient manner to create positive patron experiences and impact in the community.

INCLUSION by reducing physical, social and financial barriers to our programs, facilities and services, and making them more equitable for all.

SAFETY by promoting a safe and healthy environment for all who work and play in our parks, trails, facilities and programs.

STAFF by honoring the diverse contributions of each employee and volunteer, and recognizing them as essential to accomplishing our mission.

SUSTAINABILITY by fostering a balanced approach to fiscal, environmental and social assets to support the health and longevity of the district, the environment and our community.

play for life

District Office
799 SW Columbia St., Bend, Oregon 97702 | www.bendparksandrec.org | (541) 389-7275

Board of Directors

July 15, 2025

District Office Building | 799 SW Columbia | Bend, Oregon

AGENDA

4:00 pm EXECUTIVE SESSION

The board will meet in Executive Session prior to the regular meeting pursuant to ORS 192.660(2)(h) for the purpose of consulting with legal counsel regarding current litigation or litigation that is likely to be filed and ORS 192.660(2)(e) for the purpose of discussing real property transactions. This session is closed to all members of the public except for representatives of the news media. News media is asked to contact Sheila Reed to attend sheilar@bendparksandrec.org.

The board will meet at 5:30 pm with virtual links to the regular meeting. The public may provide public input in-person at the meeting or via the virtual Zoom link.

Please use the link below to join the webinar:
https://us02web.zoom.us/j/82090205722?pwd=r2xxgqqqmnmLhVTp9yi3zJyn8cyLI7.1
Passcode:704100

Or Telephone:
1 669 900 6833
Webinar ID: 820 9020 5722
Passcode: 704100

5:30 pm CONVENE MEETING

ROLL CALL

VISITORS

The board welcomes input from individuals at our public meetings about district-related issues. Members of the community who wish to make public comment may attend the meeting in person or virtually. To provide a public comment in person, please fill out one of the brief cards and submit it to staff in the back of the room. To provide public comment virtually, click on the "Raise Hand" option. You will be called into the meeting in the order received. Virtual visitors should turn on their cameras and microphones. All remarks should be limited to 3 minutes or less. If there are questions, follow up will occur after the meeting. Thank you for your involvement.

STAFF INTRODUCTIONS

Shannon Gilman

- Leigh Anne Dennis

WORK SESSION

1. Goose Program Update – *Zara Hickman and Rob Fox (30 min)*
2. Larkspur Parking Recommendation – *Brian Hudspeth (30 min)*

EXECUTIVE DIRECTOR'S REPORT
BOARD MEETING SUMMARY – 7/1/2025
BOARD MEETINGS CALENDAR
GOOD OF THE ORDER
ADJOURN

◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆

Accessible Meeting/Alternate Format Notification

This meeting location is accessible. Sign and other language interpreter service, assistive listening devices, materials in alternate format or other accommodations are available upon advance request. Please contact the Executive Assistant no later than 24 hours in advance of the meeting at sheilar@bendparksandrec.org or 541-706-6151. Providing at least 2 business days' notice prior to the meeting will help ensure availability.

BOARD AGENDA COMMUNICATION

AGENDA DATE:	July 15, 2025
SUBJECT:	Canada Goose Management Program
STAFF RESOURCE:	Zara Hickman, Natural Resources & Trails Manager Robert Fox, Natural Resources Park Maintenance Worker - 2
PREVIOUS BOARD ACTION:	September 6, 2016, Work session
ACTION PROPOSED:	None
STRATEGIC PLAN:	
Priority:	Service
Goal:	Steward fiscal resources, and further environmental and social sustainability.
Strategy:	Continue efforts to be responsible stewards of the natural environment and evaluate and identify opportunities to respond to changing environmental conditions.

BACKGROUND

This board communication will provide a report on the district's resident Canada goose (*Branta canadensis*) management program.

First documented in the 1930's, conflicts with Canada geese occurred consistently throughout Drake Park's history. As a result of increasing waterfowl complaints during the 1980-90s, Bend Park and Recreation District increased its waterfowl management program. Currently, Bend Park and Recreation District has an ongoing Canada goose management program to address goose damage throughout the district, primarily focused on the river parks and Discovery Park. Large concentrations of geese cause damage to the turf, create riverbank erosion, and leave excessive feces.

Attachment A and B provide general information about the goose program. For the board presentation, staff will provide an overview of the district's resident Canada Goose Management Plan, consisting of public education, habitat modification, hatch control, hazing and relocation. Additionally, staff will review the previous year's population trends and current challenges to management strategies which continue to be exacerbated by the avian flu.

BUDGETARY IMPACT

The Natural Resource and Trail Division includes $15,000 for the USDA Wildlife Services to assist the district with goose management annually. A Natural Resource employee spends about 50 percent of their time conducting goose management at a cost of about $20,000 a year. In addition, the Landscape Division spends approximately $5,000 per year cleaning up after geese.

STAFF RECOMMENDATION

None – for information purposes only.

MOTION

None

ATTACHMENTS

Attachment A: BPRD Goose Management Plan
Attachment B: BPRD Goose Management Timeline

CANADA GOOSE MANAGEMENT PLAN
For The
BEND METRO PARK AND RECREATION DISTRICT

Living with Canada Geese in the
Bend Metro Park and Recreation District
Produced Cooperatively by:

The United States Department of Agriculture
Animal and Plant Health Inspection Service
Wildlife Services

And

Bend Metro Parks and Recreation District
Natural Resources Division

Cover Photo: Geese Feed in BMPRD's Drake Park.

This Plan was produced under cooperative agreement, written and managed by:

Mike Slater
Supervisory Wildlife Biologist
United States Department of Agriculture
Animal and Plant Health Inspection Service
Wildlife Services

Eastern Oregon District Office
60015 Smith Loop
LaGrande, Oregon 97850
541-963-7947

and

Paul Stell
Natural Resources Manager
Bend Metro Parks and Recreation

Park Services
1675 SW Simpson
Bend, Oregon 97702
541-388-5435

In consultation with:

Oregon Department of Fish and Wildlife
Migratory Bird Division

Revised in 2009 by:

Jeff Amaral
Wildlife Biologist
United States Department of Agriculture
Animal and Plant Health Inspection Service
Wildlife Services

This Plan will be monitored for efficacy and will be periodically reviewed by Bend Metro Parks and Recreation District, USDA Wildlife Services, and the Oregon Department of Fish and Wildlife.

TABLE OF CONTENTS

1.0 INTRODUCTION

The resident Canada goose population in the United States has experienced tremendous growth in the last 30 years. The North American resident Canada goose population increased approximately 4 fold from 1 million birds in 1990 to over 3.9 million in 2008 (Dolbeer and Seubert, 2009). This growth is evident in Central Oregon, as Canada geese are abundant. In particular, year-round, resident Canada geese thrive in the City of Bend, Oregon. Conflicts occur daily as people encounter goose feces while walking or recreating in Bend's parks. The United States Fish and Wildlife Service (USFWS) indentifies resident Canada geese as those that nest within the lower 48 States in the months of March, April, May, or June, or that reside within the lower 48 States in the months of April, May, June, July, and August.

These parks are managed by the Bend Metro Park and Recreation District (BMPRD). BMPRD regularly receives complaints requesting that Canada goose problems be addressed. Geese populations are generally highest in the parks along the Deschutes River. BMPRD is very proud to provide a healthy home to natural resources including wildlife. However, BMPRD also has a responsibility of managing its parks for multiple uses, including human recreation. BMPRD manages 11 different parks along the Deschutes River within the city limits of Bend. Geese thrive in the parks due to ample food supplies, safety from predators, and available nesting sites. While park visitors enjoy watching wildlife at BMPRD parks, resident Canada geese cause considerable conflict. This conflict is caused by unsightly and potentially unhealthy feces, landscape damage, and at times aggressiveness towards humans. This conflict results in public dismay over inability to use park areas due to feces, aesthetic deterioration, and significant expense to BMPRD in order to address goose damage.

In 2005, BMPRD continued an ongoing discussion with the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) about resident Canada goose control options, and it was decided that an integrated Canada goose damage management program should be officially developed. The result was the first version of this Management Plan. This Plan is being updated in 2009 to reflect the goose management activities of the past four years, changes to Bend's parks, consultation from Oregon Department of Fish and Wildlife (ODFW), and input from members of the public. This plan will document past and current goose damage at BMPRD, outline goose population objectives as determined by BMPRD after consultation with ODFW and WS, assess control techniques, and discuss permitting requirements. Based on the assessment of practical and effective goose damage control options, this plan will outline a course of action that BMPRD can take in order to reduce goose damage.

Many of the revisions and future recommendations included in this updated Plan will be based on the Canada goose survey that was conducted by WS in 2007-2008. WS conducted Canada geese surveys at sixteen sites throughout Deschutes County, including five sites at BMPRD parks. The purpose of the survey was to obtain data regarding the

abundance and movement patterns of resident and migratory Canada Geese, as well as site interaction and property nuisance and damage within Deschutes County.

It is important to note that BMPRD, along with the general public, recognizes that Canada geese have inhabited this region for many years, and it is a goal of this plan to insure they remain a permanent and important part of the BMPRD legacy. This plan is intended to be a means by which an appropriate population of geese can be maintained that will not adversely effect how its citizens can use the community's parks.

2.0 CANADA GOOSE BIOLOGY AND REGULATION

2.1 LOCAL CANADA GOOSE INFORMATION

Canada geese are very common throughout the State of Oregon; Bend in particular, maintains large populations of Canada Geese.

Canada geese can be migratory or resident. There are seven subspecies of Canada geese that reside in Oregon, and only one, the western Canada goose (*Branta canadensis moffitti*) is resident. The two most common subspecies found in Central Oregon are the western Canada geese and the lesser Canada geese (*Branta canadensis parvipes*), which migrate to the region in the winter. The western Canada geese (westerns), also known as Great Basin Canada geese and Moffitt's Canada geese, may migrate or be resident. Most westerns are resident in Central Oregon, and they are prone to living within the safe confines of urban areas. It is resident western Canada geese that wildlife damage management efforts will target at BMPRD.

In the past, ODFW and USFWS completed regional transects and localized surveys for geese in Deschutes County. In addition, WS conducted a year long survey of Canada geese in Deschutes County in 2007/2008. No formal statistical population analysis has been completed with this data because the data points may not fit into traditional population estimate models. However, in 2009, from the survey work completed and from anecdotal observations, WS conservatively estimates that 3,000 to 7,000 resident (western) Canada geese may reside in Deschutes County. In summary, the wildlife management community does not argue that resident Canada goose populations are healthy in Deschutes County.

Figure 1: Islands in Deschutes River next to Drake Park

These resident geese thrive in areas that have ample forage mixed with waterways and vegetation that provides safety and nesting areas. These habitat characteristics are especially important for nesting and subsequent safety of the goslings (Fig. 1). Humans utilize parks that provide excellent habitat for geese, which undoubtedly leads to goose-human conflicts.

It is important to note that Deschutes County is home to one of the largest concentrations of golf courses in the United States. This fact, combined with high concentrations of parks, resorts, and other recreational areas near water, results in ideal goose habitat throughout Deschutes County as well as the City of Bend. Ironically, the urbanization of the Bend area has significantly increased goose habitat while also decreasing the number of predators. This has caused the resident Canada goose populations to increase far beyond levels historically found in the area.

Within close proximity to Bend, there are considerable numbers of land owners and managers that suffer from goose damage, as has been reported to WS. There appears to be an ebb and flow of goose populations from one site to the next as geese travel locally. At BMPRD parks, the 2007/2008 WS survey data show increases in goose populations in late spring and early summer. This occurs because resident geese travel to the river area to nest and rear their goslings. The majority of geese nest in March, April, and early May, although some nesting occurs into the summer months. Their nests average 4-5 eggs. Adults and goslings use the parks as feeding areas as soon as the goslings hatch. Concurrently, many local golf courses and other landowners see a reduction in geese using their properties during the nesting season. This is logical because of the goose population boom at BMPRD during late spring and early summer. Then, as fall arrives, goose populations decline in BMPRD parks but increase at other non-BMPRD sites. For this reason, BMPRD has met with golf course and other property managers to discuss goose problems and possible solutions. These managers have united with respect to interest in goose control activities at BMPRD because some of these geese are the same that are a nuisance to them at other times of the year, as shown by our survey data.

2.2 CANADA GOOSE REGULATION / AGENCY ROLES

2.2.1 USDA Wildlife Services

WS is a federal agency under the U.S. Department of Agriculture that exists to provide federal leadership in managing wildlife damage across the United States. WS is a service agency and has no legal regulatory role in Canada goose management. However, WS works under Memorandum of Understandings and Interagency Agreements with ODFW and the USFWS. These agreements make WS agents of these regulatory agencies with respect to wildlife damage and conflict response. WS responds to complaints of wildlife damage through the use of integrated wildlife

damage management. This management includes the use of both non-lethal and lethal damage management methods. WS activities are supported by Congressional authorizations and appropriate National Environmental Policy Act documents.

WS has been very involved with management of Canada goose conflicts. In Oregon, WS administered a goose damage abatement program for farmers suffering from hundreds of thousands of Canada geese eating and damaging their crops. Oregon WS has also conducted a number of site-specific Canada goose capture programs for resident Canada geese. In other states, WS has also been very involved with intensive goose management programs. Nearest to Oregon, the Washington WS program conducts yearly resident Canada goose control programs in the Puget Sound area. Near Reno, Nevada, WS conducts yearly goose management in the Truckee Meadows area. In all cases, significant relief from goose damage has been provided.

2.2.2 U.S. Fish and Wildlife Service

All Canada geese, including resident Canada geese, are classified as migratory birds, and therefore Canada geese are protected under the Migratory Bird Treaty Act. The USFWS is the federal agency that is responsible for managing all migratory birds. The USFWS manages Canada geese by monitoring, conducting habitat management, hunt management and other actions. They are also responsible for issuing Depredation Permits when needed to control Canada geese. It is illegal for anyone to cause harm to birds covered by the Migratory Bird Treaty Act without a properly issued permit.

Wildlife Services operates under a USFWS depredation permit when lethal Canada goose control is conducted. This permit also allows relocation of geese and addling/oiling of eggs.

2.2.3 Oregon Department of Fish and Wildlife

Under state statute, ODFW is tasked with managing all wildlife within the state. Therefore, ODFW is involved with Canada goose management in cooperation with USFWS. Although, ODFW's regulatory management role for Canada goose management under the Migratory Bird Treaty Act is not as extensive when compared to USFWS. ODFW migratory bird managers are involved with various aspects of goose management in many advisory roles and are working with WS on evaluating goose conflict management options. ODFW administers legal goose hunting on behalf of the USFWS within management structures of the Pacific Flyway Council. ODFW maintains a seat on the Pacific Flyway Council, a regulatory body that helps govern management of waterfowl in the Pacific

Flyway. The USFWS typically consults with ODFW before depredation permits are issued for Canada geese.

2.2.4 National Environmental Policy Act Considerations

The National Environmental Policy Act (NEPA) requires all federal agencies to consider the impact of their activities on the environment. NEPA consideration can take one of three forms: an Environmental Impact Statement (EIS), Environmental Assessment (EA), or Categorical Exclusion (CE).

EIS's and EA's consider a range of alternatives to remedy a need for action. These documents also provide for a public input process, analysis of impacts, and an informed decision. Ultimately, activities can proceed when either a Finding of No Significant Impacts or a Record of Decision is issued.

CE's are a category of actions that are determined by the managing agency in its NEPA implementing regulations that exclude limited activities from the need for a further analysis in an EIS or EA.

WS issued a Final EIS on the national APHIS-Wildlife Services program (WS) (USDA, 1994) and Record of Decision published in 1995. The Final EIS received minor updates in 1997 (USDA, 1997a, revised).

The USFWS is responsible for the NEPA consideration of overall Canada goose management. The USFWS prepared an environmental impact statement in cooperation with WS in response to growing impacts from the overabundant populations of resident Canada geese. Alternatives were fully described and evaluated in the Final EIS (FEIS), and a Record of Decision (ROD) and Final Rule were published by the USFWS on August 10, 2006 (Federal Register Vol. 71, No. 154: 45964- 45993). In accordance with the CEQ regulations (40 CFR 1506.3) WS adopted the 2005 USFWS FEIS entitled Resident Canada Goose Management to support its program decisions for its involvement in the management of damages from resident Canada geese. In 2007 WS published a ROD, entitled Resident Canada Goose Management in the United States, adopting the 2005 USFWS FEIS.

The USFWS final rule and WS Record of Decision allows WS to take action under specific rules for depredation and control orders when designated by authorized parties, and/or to work under USFWS issued depredation permits and special Canada goose permits.

3.0 CANADA GOOSE BENEFITS AND CONFLICTS

Canada geese are included on a long list of wildlife that offers many benefits to humans yet can also cause significant conflict with humans. It is important to recognize that both positive and negative values can exist, and appropriate management can keep goose numbers in accord with human activities.

3.1 BENEFITS OF CANADA GEESE

In Bend, Canada geese are enjoyed by many and considered an area icon to some. Studies show that the American public understands the intrinsic value of wildlife. BMPRD management recognizes that Canada geese, along with other wildlife, provide the public with aesthetic enjoyment. The presence of wildlife indicates a healthy environment and ecosystem, which is also of value to the public. In rural areas goose hunting provides recreational opportunities.

3.2 SPECIFIC CONFLICTS WITH CANADA GEESE AT BMPRD PARKS

BMPRD conflicts with Canada geese involve the unaesthetic and unpleasant nature of goose feces, possible health concerns over the feces, landscape damage caused by excessive goose feeding, and aggressiveness of Canada geese toward humans.

3.2.1 DISEASE RISKS

WS conducted research (Clark, 2000) that assessed the prevalence of pathogens in Canada goose feces. Feces were collected from Oregon properties including one location at a BMPRD park. While Oregon samples had considerably less pathogens in goose feces than other states, some Oregon samples were found to contain Salmonella and Citrobacter pathogens. Other research has shown goose populations, in general, to commonly carry pathogens such as *E. coli* and Camplyobactor. *E. coli* exists in many strains, some dangerous to humans and some not. Humans can also develop "swimmers itch" (as described by the Centers for Disease Control, www.cdc.gov) when swimming in goose-occupied waters, and other stomach illnesses and skin irritations are known to occur when humans contact goose feces. Swimmers itch is caused by a parasite that utilizes geese as hosts. It results in a short term immune reaction that causes mildly itchy spots to form on the skin. There have been incidences of Swimmer's itch in Oregon (Macy, 1952).

This analysis of disease risk should not be used to stir panic. However, there certainly exists potential for human health issues to arise from coming in contact with goose feces, even though prevalence of highly pathogenic diseases in goose feces appears to be low in Oregon. Disease risk from goose feces varies from year to year and season to season.

Summer is the season when pathogens are most prevalent. This is also the season when most humans will interact with geese at BMPRD sites.

This section on disease risks would not be complete without discussing the highly pathogenic H5N1 Avian Influenza virus. To date, highly pathogenic H5N1 has not been detected in the United States. Most human infections by the virus have occurred when humans live in close contact with infected poultry, primarily in Asia. Two modes of virus transmission to the United States seem most likely. The first is illegal importation of poultry to the United States by humans. The second is natural migration of birds, primarily waterfowl, along the Pacific Flyway. Birds from infected regions of Asia and birds from the United States may mix in Alaska and the northern portion of the Pacific Flyway. If birds are infected in Alaska, their migration down the Pacific Flyway could possibly expose resident Canada geese in Bend to the virus. This considered to be unlikely, but warrants mention here. WS is very active in disease sampling and has collected thousands of samples to test for H5N1 Avian Influenza.

3.2.2 AESTHETIC DETERIORATION

With or without disease risk, most park users consider goose feces unsightly and in conflict with other recreational uses of the park. Many articles and editorials in local Bend media indicate the public frustration over goose feces at recreational areas in BMPRD parks. Goose feces stain clothing very easily, as many BMPRD park users have complained of. According to BMPRD managers acres of park property are unusable by humans because of goose feces. Goose feces affects activities ranging from picnicking to “playing catch”. Canada geese also shed their primary feathers once yearly, and when this occurs in late May and June, these feathers can be unaesthetic and discourage the use of parks by the public.

BMPRD spends thousands of dollars annually for labor and equipment to remove goose feces and/or feathers from local parks.

3.2.3 LANDSCAPE DAMAGE

Canada geese become persistent at foraging in certain areas of a park. This persistent feeding behavior results in landscape damage that often requires significant re-seeding of lawn areas. Seed is difficult to get established because the geese feed on new grass growth and disturb the loose soil. Open areas are also prone to weeds, and when areas become de-vegetated; they are more prone to erosion and above-ground water runoff (some of which may carry goose feces). High nutrient runoff can create algal blooms, water quality problems, and fish die-offs. Geese also create and use trails when traveling to and from the river, contributing to

erosion. Geese often nest in very unusual locations, including rooftops, which can lead to maintenance issues for park facility management as well as surrounding land owners.

3.2.4 AGGRESSIVENESS/DANGER TOWARDS HUMANS

When Canada geese are nesting or rearing goslings, they can be especially aggressive towards perceived threats. This "fight-or-flight" instinct can cause humans, especially children, to be fearful of Canada geese when the geese choose to fight. Normally, this aggressiveness is an attempt to scare humans or other potential dangers away from goslings, but occasionally humans are "flogged" by goose wings and/or pecked at by the geese.

Geese can also cause human safety dangers when crossing roads. Motor vehicle accidents occasionally happen when drivers brake suddenly for crossing geese (Fig. 2).

Figure 2: Geese in roadway next to Drake Park

Bird species, especially waterfowl, pose a significant threat to aviation. Specifically, Canada geese present a large hazard to aircraft due to their abundance, size and flocking behavior. About 1,500 Canada geese strikes were reported with US civil aircraft from 1990-2008. Deschutes County is home to three public airports; Redmond Municipal Airport, Bend Municipal Airport and Sunriver Airport. As Canada goose numbers increase, so does the risk to aircraft.

4.0 GENERAL CANADA GOOSE DAMAGE CONTROL OPTIONS

There are many options for Canada goose damage management in many different settings. The inherent problem with controlling Canada geese is that they are very difficult to disperse away from conflict sites. Canada geese develop a strong affinity to specific sites, and they can be prolific. Some damage management methods are more suitable to particular sites than others due to practicality and efficacy.

4.1 NON-LETHAL CONTROL TECHNIQUES

Following is a list of available non-lethal Canada goose control methods, with associated information as to efficacy, practicality, and social impacts at BMPRD:

- Physical Harassment- This method has typically involved park staff herding the geese into the river. Repeated harassment, in theory, will cause the geese to move to areas in which they are not harassed. This method can draw attention from the public and has been looked upon negatively. It also required committing approximately one half of a fulltime employee to chase the geese and clean up after them. This is no longer practical or effective.
- Lights and Lasers- Several goose harassment tools involve the use of lights and lasers. A variety of lights and lasers have been shown to disperse geese. Many of the devices used are improvised, although some, like the barricade flashers, are available to purchase. Newer technology using lasers has shown some success in moving geese, especially for nighttime roost dispersal. One handheld laser device casts a green or red laser where geese may be roosting or loafing in the darkness. These units can cost over $1,000 to purchase, and success of using the device is inconsistent. These lasers work at night or low light conditions, and are primarily designed to disperse birds from roosting or loafing sites. Other lights have shown to be mostly ineffective, especially as a long-term tool.
- Flags, Mylar Tape, and Balloons- Flagging, mylar flash tape, and scare-eye balloons can sometimes cause geese to move from areas. Although these methods are inexpensive, they typically only yield short-term relief.
- Sound-Making Devices- Sound-making devices can by effective for short to moderate time periods, but they must be evaluated for practicality including the potential to disturb other wildlife or humans and legality of using the devices in some locations. There are many sound-making devices on the market that are designed to discourage geese from areas:
    - Propane Cannons- These devices use a propane tank and fire cannon-like reports on a timer or by remote.

- Pyrotechnics- Several pyrotechnic devices are available for wildlife harassment. These devices fire from starter pistol size launches or shotguns, and produce loud bangs or a whistling/screaming sound.
- Electronic Harassment Devices- There are several electronic harassment devices available for attempting to deter geese from areas. Most devices elicit a distress sound (in this case the distress sound of a Canada goose). One product, the *Goosebuster*, can be effective for a specific area. However, resident geese that are acclimated to a site such as BMPRD don't generally respond well to electronic devices. In addition, these devices only cover a limited area and are prone to theft of vandalism. To cover BMPRD goose damage areas, approximately 10-20 units would need to be purchased at a price of $900 each.

Sound-making devices can be expensive and are only practical in areas where the noise will not disturb other humans or wildlife. Like other harassment techniques, geese can habituate to noise making devices over time. Additionally, cannons and pyrotechnics face legal and social issues in some municipalities.

- Other Physical Harassment Devices- Paintball guns, rubber buckshot, remote-controlled toy boats, and water guns have been used with success to haze Canada geese. The benefit of using these methods is that geese feel or see a negatively-reinforcing stimulus, and this can yield increased results for scaring geese from areas. While using these methods can work as a hazing tool, one must consider the social issues of using these devices. Also, geese habituated to a site will not respond as well to these hazing devices. Paint ball use can result in geese being painted odd colors, which should be avoided. Clear paintballs are available and are recommended.
- Repellents- Multiple repellent products exist that repel geese from foraging areas. Many of these repellents incorporate the chemical known as Methyl Anthranilate, which is a grape flavored food additive. The repellent is applied to grass that geese feed on. The idea is that if grass in an area is not palatable, the geese will leave that area and find a location where the forage is more palatable. Although sometimes effective, rain and irrigation will wash the product from the grass blades. Also, blade growth can outgrow treated blade surfaces, reducing effectiveness. Even under ideal conditions, regular application is necessary. For these reasons, success of these products is inconsistent. The products are also relatively expensive at roughly $100 per acre per treatment. Other products use different chemicals and maybe more successful, such as *Flight Control*.

- Dogs- Many golf courses have used dogs, primarily border collies, to haze geese with varying success. WS supports the use dogs to haze geese when properly implemented. Use of dogs effectively requires serious consideration of the following issues as identified by Castelli and Steggs (2000) in the Wildlife Society Bulletin and by WS field observation:
    - Most hazing dogs will not swim, and geese merely seek water for refuge. When the dogs leave, geese will often return to the lawn. If the dog does enter the water, it can easily be out-swum by the geese.
    - Hazing dogs may reduce goose use of a site, but goose use is increased in surrounding areas. This is an important issue to be considered in Bend given other landowners in Bend with goose problems.
    - Hazing dogs can be very expensive (several thousand dollars), and then the user has to maintain the dog at significant additional expense and with logistical problems.
    - The dog requires a handler, consistent training, exercise, and boarding year round that can contribute greatly to goose management costs.
    - Multiple dogs may be necessary at BMPRD to achieve sufficient coverage.
    - It is not recommended to use dogs during the molt due to the potential for dogs to catch and kill goslings or molting geese. Legal liabilities for the dog can be a concern.
- Fencing/Wire Grids- Fencing along waterways and wire grids over waterways has shown to reduce goose use of certain sites, especially use from juvenile geese. WS has extensive experience with these methods. Fencing inhibits the ability of geese to walk into protected areas, and the wire grids inhibit a goose's ability to fly in and out of water. Fencing and gridding can be relatively expensive and conflict with human user needs and aesthetics.
- Habitat Management- Goose numbers can be reduced from sites by changing landscaping and habitat features. Walls between water and lawn areas can inhibit the ability of geese to walk into and out of feeding areas. Brush rows between areas of water and grass can yield the same results. In addition to brush rows acting as a barrier, they also reduce the geese's ability to detect predators. Geese prefer open grassy areas where they can detect predators at great distances. Therefore, plantings of shrubs that break up sight lines along expanses of lawn areas may reduce goose use. Nesting areas can be manipulated to reduce vegetative cover. Areas of lawn consistently and severely used by geese can be re-landscaped with less palatable products. Habitat management can be quite

expensive and sometimes impractical if it conflicts with other desired uses of the area. Where practical, habitat management can be effective in reducing long-term goose use.

- Egg Addling/Oiling- Addling or oiling (with corn oil) of eggs prevents the embryo from developing. This method is considered by humane standards as being a non-lethal method. Addling or oiling of eggs is preferred over egg destruction because geese will commonly re-nest if their eggs are destroyed early in egg development. This method is highly effective at reducing recruitment of goslings, but one must find and have access to the goose nests. It is recommended that approximately three weeks after the eggs have been addled/oiled, the nest be revisited and the nest and eggs destroyed. Adult geese typically do not re-nest after incubating for three weeks, and this may trigger a molt migration. Some resident Canada geese undergo a molt migration in late spring when they migrate from the lower 48 states to Canada to molt. These molt migrating geese are primarily non-breeding subadults and failed-nesting adults. If molt migration can successfully be initiated by addling/oiling nests and then by destroying the nests, then there will be fewer geese present to cause human-goose conflicts until the geese return in the Fall. The molt migration will cause the geese to be more vulnerable to hunting during the return migration in the Fall.
  Egg oiling and addling is conducted by WS under a depredation permit issued by USFWS. WS recommends this work be conducted by official wildlife professionals to ensure the work is being conducted efficiently and at the appropriate stage of egg development, and because scrutiny can occur when the public observes this method being implemented. Recent changes by the USFWS allows qualifying entities to register online with the USFWS website to oil eggs without a traditional depredation permit. All individuals conducting egg oiling must be designated as agents through the website. Date and location of all eggs oiled must be recorded and reported to USFWS.
- Contraception- BMPRD and WS have used the contraceptive drug, Nicarbazin, to slow the growth rate of Canada geese populations. The nicarbazin product used is OvoControl G, manufactured by Innolytics, LLC. BMPRD participated in the 2004 initial study of OvoControl G. Results of the project showed that when applied correctly, geese that fed on bait treated with OvoControl G hatched less than 50 percent of the eggs laid. Because contraceptives focus on management of Canada goose recruitment, it is important to recognize that contraception does not remove geese, but will slow the growth rate of geese over time. Contraception is a tool to help maintain goose numbers once other control measures have reduced populations to acceptable levels. A primary advantage of using

OvoControl G is that it can reduce hatching of goose eggs when adult geese are feeding away from nests that humans can not find to oil/addle. Use of OvoControl G is relatively labor intensive, and therefore expensive.

4.2 GOOSE CAPTURE / PHYSICAL CONTROL METHODS

When geese become acclimated to certain locations, the only option for effective control is often the removal of geese. The removal of geese can enhance harassment and deterrent methods for remaining geese as well as newcomers. Removal of geese via capture can be either lethal or non-lethal. Due to high populations of Canada geese and associated damage complaints, relocation of geese is not ideal in most situations. Adult geese also tend to return to their original capture site, even when they are moved hundreds of miles away. For this reason, USFWS, ODFW, and WS biologists typically only support relocation of Canada goose juveniles. Juvenile geese are less likely to have imprinted on a particular area and thus tend to stay at a relocation site. When WS captures Canada geese, the disposition of those geese is determined by USFWS and ODFW. If these managing agencies require geese to be euthanized, then WS is required to follow those instructions.

Following is a list of goose capture methods:

- Funnel Traps- Once a year, Canada geese lose their flight feathers and grow new feathers in roughly one month. This loss of feathers is called molt which typically occurs in June. When this occurs, geese can be herded into drive trap pens. This method can raise public attention because of the noise and activity of the geese when penned. Therefore, some public relations issues may occur. Geese can be relocated or euthanized off site. This method is labor intensive due to the need for enough manpower to herd and surround the geese as well as load the geese into cages, etc. The public generally is receptive to this method because the geese can be utilized for human consumption. Local food banks have been identified that can receive geese.
- Alpha-Chloralose- Alpha Chloralose (AC) is an avian drug used by WS in waterfowl capture. The drug is administered in treated bread baits or on whole corn. The geese are anesthetized 20-45 minutes following ingestion of the treated bait. They can be relocated or euthanized, but they cannot be recovered for human consumption due to drug residues in the bird's tissues. AC is a flexible tool that can be used in many situations. The advantage of this tool is that it can potentially be used at any time of the year. Another advantage of AC is that it allows the user to remove a few geese at a time. Setting up a funnel trap to capture geese is too labor intensive for a small number of geese, but baiting a few bread baits is quick and easy. Few problems with public relations

occur with the use of this drug capture method, as this method typically draws less attention then funnel trapping. AC regulations state that the drug cannot be used to capture birds of a huntable population during or 30 days prior to a legal hunting season. AC can still be used if the risk of geese flying from the capture site after ingesting baits is insignificant. WS will assess this risk before use. AC will only be used by WS personnel that are certified AC applicators.

- Shooting- Shooting is an effective method for controlling geese. Shooting is normally best used as reinforcement for non-lethal hazing tools such as pyrotechnics. WS works closely with local law enforcement agencies. Oregon House Bill 2636 of 2009, which becomes effective January 1, 2010, exempts employees of USDA in the course of lawful taking of wildlife from criminal laws related to possession and discharge of firearms in all law enforcement jurisdictions in Oregon. This allows WS to use firearms within city limits in all Oregon cities. Safety is a top priority when WS is using firearms. WS has a firearms training and certification program and has an excellent safety record. Geese removed using this method can be recovered for human consumption.
- Netting/Net Gun/Rocket Nets- Canada geese can be netted in certain situations using hand-held nets. Also, WS uses air cannon nets to capture geese. The cannon net is set up in an appropriate area and geese are baited in front of the net. The net is fired remotely and compressed air sends the net over the geese. This method can receive a fair amount of public attention and requires cages to relocate or euthanize the geese off site. Geese captured using this method can be recovered for human consumption.

Appendix A includes a list of suppliers for goose control products.

5. PAST BMPRD GOOSE MANAGEMENT EFFORTS

Problems caused by Canada geese are not new to BMPRD. Documents from the 1930's show efforts by the Bend City Council to resolve goose problems in Drake Park. Efforts to manage Canada geese continued through the rest of the century, and in 1990, a wildlife damage management recommendation document was produced on behalf of BMPRD by the U.S. Department of Agriculture's Animal Damage Control (ADC) program and Pacific Power's Environmental Service Department. ADC is the former name of WS. This document was supported by the Bend Wildlife Advisory Group, a group of varying agency representatives and interest groups that are primarily interested in wildlife management at Bend's parks.

In 2000, WS began providing additional technical assistance to BMPRD regarding goose damage management. This lead to WS conducting various techniques in the field to

reduce resident Canada geese numbers. WS has conducted three goose research projects on BMPRD parks. The first, in 2000, involved goose feces collection as part of a WS National Wildlife Research Center (NWRC) project to assess prevalence of specific pathogens in goose feces. In 2004, NWRC conducted a goose contraception project that WS Field Operations managed. This project involved feeding geese Ovocontrol G, a commercial available product that reduces egg hatch in Canada geese. The third project was a Deschutes County goose survey conducted in 2007/2008.

Some control of Canada geese occurred at BMPRD in the 1980's and early 1990's. Since then, no lethal goose control has occurred. Through the years, BMPRD has routinely made an effort to curb their goose problems, including:

- Hazed geese physically and with dogs
- Built and maintained retaining walls between parkland and the river. These walls inhibit the ability of juvenile Canada geese to access the grassy lawns.
- Encouraged, by use of flyers and other media, park users to refrain from feeding wildlife.
- Purchased and operated expensive machinery to vacuum goose feces.
- Paid employees for countless hours washing goose feces and repairing landscape damage.
- Rounded-up geese during their flightless stage, with the assistance of the ODFW, and translocated them.
- Administered cutting edge technology in goose control by using OvoControl G, a goose contraceptive drug.
- Used corn oil to oil goose eggs to prevent development.
- Applied non-toxic chemical goose repellants (Methyl Anthranilate) to lawn areas.

Every year BMPRD spends thousands of dollars addressing goose damage. Costs include labor for goose feces clean-up, equipment to sweep the turf areas and for services provided by WS. There are also additional expenses to repair landscape damage caused by geese and for other goose harassment tools. In 2009, BMPRD spent $22,000 addressing Canada goose damage.

6.0 SITE DESCRIPTIONS AND SURVEY DATA / ANALYSIS

6.1 SITE DESCRIPTION

BMPRD manages many parks, of which eleven are adjacent to the Deschutes River. It is these eleven parks that are most susceptible to goose damage although most damage occurs in four primary parks. The eleven parks are listed below, from North to South along the Deschutes River:

Riverview Park- This Park is a small wayside park on a bluff above the river that suffers from little goose damage although geese inhabit the river area below.

Pioneer Park- Pioneer Park suffers from considerable goose damage. The park offers grassy lawns with direct river frontage. Public use is relatively high.

Pacific Park- Pacific Park (Fig. 3) is directly upstream from Pioneer Park, and although goose numbers are not extreme, damage is very extensive to the small grassy area. Public use is moderate.

Brooks Park- Brooks Park is just downstream and across the river from Drake Park. This small park suffers from moderate goose damage. Public use is moderate.

Drake Park- Drake Park (Cover photo, Fig. 1 and Fig. 2) is one of Bend's oldest parks and the center piece of the community. This is a large park with extensive lawns fronting the Deschutes River. Drake Park has a beach area that is utilized by geese and other waterfowl. Public use is extremely high, and goose numbers are extremely high. Most efforts at goose damage management begin in this park.

Figure 3: Pacific Park

Harmon Park/Pageant Park- These two parks border each other, directly across from Drake Park. These parks will be considered together. Although there is fencing between the recreational areas and the river, geese fly into the park area to feed on grass. Human use is high because of playground and other recreational opportunities.

Columbia Park- This Park is upstream from Drake Park between Drake Park and the Old Mill District. This park suffers little goose damage because of fencing, embankment, and trees. However, geese occasionally may use the park.

Clyde McKay Park- This Park is directly downstream of the Old Mill District Dam. This park experiences high use, especially during the summer. This park suffers from moderate to heavy goose damage. It has a heavily used sandy beach area that is highly susceptible to goose feces.

Riverbend Park- This new park was built in 2009 and is the largest river front park managed by BMPRD. It has extensive lawn area and has experienced high goose activity. Goose activity, as well as human activity, is expected to be high.

Farewell Bend Park- This Park is upstream from the Old Mill District, adjacent to the river. The elongated park is separate from the river by native vegetation and goose use is relatively low. Human use is high.

In addition to the above parks, the Old Mill District is also relevant to the goose control issue because it is located between BMPRD park lands. Geese using this private land area also contribute to problems for BMPRD, and vice- versa. This section of private land is operated as a business/shopping area with landscaping and habitat conducive to goose activity. The Les Schwab Amphitheater is present on the west side of the river, and the amphitheater area is largely grassy. There is ample nesting area in the Old Mill District area.

Most goose control activities will likely occur at Drake, Pioneer, Pacific, and McKay parks due to persistent activity at those particular parks. Brooks and

Riverbend parks also consistently have geese. However, any of the BMPRD parks are prone to damage.

6.2 OBSERVATIONAL, TRANSECT, SURVEY AND ANECDOTAL DATA

6.2.1 OBSERVATIONAL SURVEYS (Point-Counts)

WS has conducted numerous informal observational surveys of BMPRD goose populations. This survey data is recorded in WS Specialist Field Diary's and on the WS Management Information System database. While this sort of data is informal and not useful for official regional goose population estimating purposes, it has provided WS and BMPRD with an ongoing understanding of goose population dynamics throughout the BMPRD sites. These observations have served to prioritize goose damage management activities. Table 1 shows one example of a two-day point-count survey performed by WS on April 12 and 13, 2005. This survey was useful in demonstrating that geese in the area are hard to count during nesting season because of the broad areas that they nest in.

Table 1: Observational WS goose survey at BMPRD conducted in April, 2005.

Park/Area Name	4/12/05 Number of Geese	4/13/05 Number of Geese
Riverview Park	3	2
Pioneer Park	20	10
Pacific Park	8	4
Brooks Park	7	7
Harmon/Pageant Parks	35	0
Drake Park	38	35
Columbia Park	0	4
Clyde McKay Park	8	7
Farewell Bend Park	18	18
Old Mill District Area	32	33
Total	**169**	**120**

These informal point-count surveys have been performed for over five years and contribute to WS's institutional knowledge of goose biology in the area, including dynamics such as movements, nesting areas, production, and other valuable factors. This information has proven to be most useful in making day-to-day decisions on goose conflict management at BMPRD.

6.2.2 ODFW TRANSECT DATA

ODFW Headquarters manages a transect survey count, a survey that counts the number of specific wildlife individuals in a certain standardized acreage area. This system is one means of gathering data that can be

extrapolated to produce overall population estimates. Population estimates using transect data are only accurate when considering many transects over a large area. Transect data would be inaccurate if used to make a population estimate for a small area, such as BMPRD. While this data is collected and is valuable in large scale population estimates, WS and ODFW agree that it is not a suitable method for estimating local resident Canada geese numbers.

6.2.3 ODFW DESCHUTES RIVER SURVEY DATA

Between May 2003 and June 2005, local biologists from the Bend ODFW office conducted population surveys of geese along the Deschutes River in Bend. They conducted the surveys in four sections, and the overall survey area mostly encompassed BMPRD lands. Table 2 highlights the survey numbers[1].

Table 2: ODFW Deschutes River Goose Survey Data at BMPRD, May 2003-June 2005.

DATE	TOTAL GEESE	TOTAL ADULTS	TOTAL JUVENILES
13-May-03	173	105	68
21-May-03	376	310	66
17-May-04	333	272	61
26-May-04	606	547	59
02-Jun-04	654	584	70
11-Jun-04	644	610	34
16-Jun-04	794	744	50
08-Jul-04	472	0	0
04-Aug-04	100	0	0
05-Aug-04	142	0	0
08-Sep-04	141	0	0
21-Sep-04	24	0	0
06-Oct-04	104	0	0
19-Oct-04	55	0	0
03-Nov-04	217	0	0
16-Nov-04	330	0	0
30-Nov-04	498	0	0
12-Dec-04	41	0	0
31-Dec-04	818	0	0
14-Jan-05	427	0	0
29-Jan-05	107	0	0
13-Feb-05	99	0	0
26-Feb-05	202	0	0
22-Mar-05	89	0	0

[1] ODFW Deschutes River goose survey information provided by Chris Carey, ODFW High Desert (Bend) Regional Office.

06-Apr-05	127	0	0
20-Apr-05	172	147	25
04-Jun-05	716	658	58
15-Jun-05	632	614	18

6.2.4 WS GOOSE SURVEY 2007-2008

The 2007-2008 Deschutes County Canada Goose Survey conducted by WS is the most comprehensive goose survey in Deschutes County to date (Appendix C). Canada goose surveys were conducted for one year by WS beginning in July 2007 and ending in July 2008. The purpose of this survey was to obtain data regarding the abundance and movement patterns of resident and migratory Canada Geese, as well as site interaction and property nuisance within Deschutes County. The survey was conducted at sixteen locations throughout the county, including five BMPRD parks. Surveys were conducted once a week to record the number of geese present at each survey site. Some geese were banded before the survey with colored leg bands specific to the survey site where they were banded. These bands were documented during the surveys and provided data on movement patterns of the geese between survey sites.

It is important to note that geese move throughout the County amongst locations that were surveyed and some that were not. The survey was intended to provide general information about geese abundance through time and space. This survey provided accurate data on the number of geese present at the surveyed parks. In addition to the geese number data, trends were observed in the data and are discussed in this section.

WS survey data showed high numbers of resident Canada Geese in BMPRD parks. Drake Park had the highest goose numbers of any BMPRD park, averaging 136 geese per survey with a high of 473. Pioneer Park consistently had many geese. The average number of geese per survey was 24 and the high was 126. Farewell Bend Park averaged 18 per survey and had a high of 111. McKay Park had an average of 12 geese and a high of 99. Pacific Park averaged 7 geese per survey and had a high of 42.

For the purpose of the Deschutes County Canada Goose Survey, the surveyed geese were described as one of four groups; Core Residents, Local Residents, Regional Residents and Migrants. These are non-scientific terms that WS created during our analysis to better explain the geese behaviors that were observed during the survey. The surveyed geese exhibited different behaviors, some more detrimental than others. WS found that it was beneficial to the survey participants to describe different groups of geese in order to help manage the resident geese population to provide the most relief from conflicts.

Through this survey WS was able to observe seasonal fluctuations in Canada goose numbers at the various survey sites. We observed some interesting correlations. During the molt, goose numbers soared at Drake Park and goose numbers became relatively low at most other survey sites. This indicates that resident Canada geese in the area are attracted to Drake Park for protection during the molt. The molt typically occurs in June. This is also the time when successful breeders will have goslings. As would be expected, gosling numbers were by far highest in BMPRD river front parks.

Another interesting observation that the survey demonstrated was the consistent presence of specific geese at certain parks. The goose survey identifies these geese as 'Core Residents.' These geese were usually present at a particular site with great regularity throughout most or all of the year.

The weather seemed to influence geese at BMPRD parks. When Deschutes County experienced a severe weather system, such as very cold weather and significant snow fall, far fewer geese were observed at BMPRD. At the same time, much higher goose numbers were recorded in Redmond, which receives considerably less snow than Bend.

Based on banding data, geese were observed traveling between BMPRD parks and three locations in Bend, including the Old Mill District, Rock Arbor Villa and Awbrey Glen Golf Club. This shows that geese move between locations within Bend. Some geese banded at BMPRD parks were harvested during hunting season in the Bend area, Redmond area, Sisters area and one in south Washington State. This demonstrates that geese are moving throughout the county and utilizing different parks, golf courses and resorts. It also shows that geese banded in Bend can travel great distances from the area.

The survey results help us better understand the dynamics of Bend's Canada goose population and provides insight on how to best manage the geese, such as, when and where to target specific groups of geese and which management techniques are most appropriate in certain situations.

7.0 GOOSE CONTROL OBJECTIVE FOR BMPRD

The purpose of this plan is to enable BMPRD to manage the population of Canada geese to minimize conflicts between geese and park users and maximize the enjoyment of the parks by its users. BMPRD recognizes that philosophies vary from person to person regarding Canada goose damage management that includes reducing the number of geese using the park system. Therefore, a key aspect of this Plan is the identification of a goose population that is acceptable to BMPRD management, based on consultation with

ODFW, WS and public input. This, combined with quantification of goose conflict, will allow BMPRD managers to select a number of geese that need to be removed in order to accomplish BMPRD objectives. BMPRD must be able to manage goose numbers so that minimal conflict occurs with humans. A primary reason for development of this plan is indeed a result of public dismay and complaints regarding goose feces and other goose conflicts.

WS and BMPRD have continued to communicate about removal of Canada geese and what the associated number of geese removed should be. In 2006, there was consultation with ODFW and the approach at that time was to identify a maximum number of geese. Recently, it has become apparent that the most responsible approach is to identity the number of geese that need to be removed to meet BMPRD objectives, regardless of minimums or maximums of geese present. This approach is most responsible because WS has been able to identify approximate numbers of geese that tend to be "Core Resident Geese". These are the geese that tend to either never leave a specific park or only leave that park for short periods of time. It is felt that these geese cause the most conflict because of their acclimation to and consistent use of the parks.

For purposes of this plan, BMPRD will begin with the intention of removing resident Canada geese, with special emphasis on core, resident Canada geese that cause the most persistent problems. Once this population is controlled, further goose control needs will be evaluated based upon reduction levels of conflict, park user complaints, etc. Initially, BMPRD will intend on removing up to 201 resident Canada geese through the first year throughout the BMPRD. This number was determined after considering the average number of geese present (based on the WS 2007-2008 Goose Survey) at BMPRD in the months of April, May, June, and August. Geese residing in the conterminous United States during these months are considered resident Canada geese by the USFWS. BMPRD intends to only target Core and Local Resident Canada Geese. The focus of control efforts will be in the four primary parks that suffer from the most goose damage.

These objectives will be periodically reviewed with respect to accomplishing the overall goal of reducing goose conflicts and damage costs, and the numbers identified in this plan may be adjusted upward or downward in the future in order to accomplish the alleviation of resident Canada goose damage. Changes will be presented to local ODFW management for concurrence, and a written letter of concurrence will be filed.
This plan may be re-visited at any time, and Canada goose population objectives may be considered for adjustment if:

- Conflicts and related complaints from the public park users remain unacceptably high, as determined by BMPRD management.
- Costs incurred by BMPRD in cleaning up goose feces or repairing other goose-related damage have not significantly decreased from current estimates. This will also be determined by BMPRD management.

This document will be presented to ODFW and USFWS managers for concurrence that goose control activities resulting in this population level will not seriously jeopardize the existence of Canada geese in Central Oregon. Objectives of this plan will also be

presented in a public forum. See Appendix B for certification of ODFW management concurrence and certification of public meeting.

8.0 SPECIFIC GOOSE DAMAGE MANAGEMENT PLAN FOR BMPRD

Following is an integrated strategy of goose management methods chosen to be used by BMPRD to attempt to achieve the desired control of adult Canada geese on the river frontage parks. Experience has shown us that it is absolutely vital to use a variety of management tools to control Canada geese. These tools must be used regularly and in a manner to prevent habituation.

8.1 HABITAT MANAGEMENT

- Vegetation Management- Vegetation that is close to the ground will be reduced in those areas that have shown to be goose nesting areas. Such areas include those close to the river or other water as well as islands in the river. Vegetation management can include complete removal of certain shrubs or trees, mowing, or pruning upward from the ground for approximately two feet to eliminate nesting areas. Vegetation management, which will need to be coordinated with the City of Bend Water Overlay Zone, may begin upon approval of this plan. Landscaping can also be used to disrupt sightlines of geese utilizing an area. Geese may be less comfortable using an area if they have limited visibility to watch for predators, which primarily consist of dogs in BMPRD parks. Three foot high shrubs, as well as boulders, may be used along the shoreline at regular intervals to break up sightlines.
- Barriers- BMPRD may continue to construct new walls and maintain existing walls between the river and lawn areas. This can be accomplished as budget allows, but this method will not be practical in all parks. Priority parks for this method are Drake Park and Pioneer Park. Fencing will be evaluated as either a permanent or seasonal method for reducing access to park lawns by geese. Fencing will not be feasible in many parks due to its likelihood to diminish recreational enjoyment. Barrier installation will be ongoing.
- Landscape Design Changes- Landscape designs that are unattractive to geese should be considered at all new parks as well as existing parks that have significant goose damage. The use of landscaping substrates or vegetation that is less attractive to geese can be considered for parks. This could include removal of grass in favor of rock, bark chips, or other substrate, or it could include planting of shrubbery that would not create goose nesting habitat. Again, these methods could diminish recreational enjoyment and are not feasible in most cases. Farewell Bend Park has a strip of undeveloped native vegetation between the turf and the river. This seems to have been very effective at making the park less desirable for geese. Turf areas are preferred in park design because they offer tremendous recreational value for park users.

8.2 NON-LETHAL GOOSE MANAGEMENT TECHNIQUES

Non-lethal goose management techniques will be used in conjunction with more aggressive control techniques. Geese currently using BMPRD parks are extremely acclimated to the parks, and therefore the non-lethal methods are not likely to be effective during initial stages. However, once populations are reduced to the desired level, then non-lethal harassment methods will be used more intensively in order to deter new geese from becoming acclimated to BMPRD parks. Following is a list of non-lethal goose management tools for use by BMPRD:

- Egg oiling/addling- BMPRD will continue to oil or addle Canada goose eggs in order to reduce recruitment of new Canada geese to the parks. This non-lethal method will be implemented during the nesting period in order to reduce the number of geese needing to be controlled by other means. Eggs/nests will be destroyed approximately three weeks after they have been oiled/addled to encourage molt migration. Research has shown that urban park resident geese are less likely to molt migrate then geese living in other non-urban areas (Luukkonen et. al., 2004). However, nest destruction is an easy way to attempt to trigger a molt migration that is likely worth the effort, even if the number of molt migrants is low. The molt migration would result in fewer geese at BMPRD during the summer months (BMPRD highest public use season) and increased vulnerability to the geese from hunting on their return migration in the fall. BMPRD will ensure that egg oiling/addling is implemented legally in accordance with laws and regulations established by USFWS.
- Contraception- BMPRD will continue the use of Contraception as a goose management tool. OvoControl has been used at BMPRD during the nesting season with success. OvoControl is an EPA regulated product and requires a permit from USFWS.
- No Feeding Wildlife- Prohibit feeding of wildlife, including geese, and enforce this policy. Post signs informing park users of this ordinance. Update ordinance to include fines for feeding wildlife.
- Dogs- Use of official dogs to harass Canada geese from BMPRD grounds appears to be a promising option. Dogs are advantages because of minimal disturbances to park users and neighbors. This is in contrast to audio harassment techniques such as, pyrotechnics, propane cannons and distress call recordings. Dogs are not without their drawbacks including time investment, cost and area to be covered. Dogs can be part of an effective integrated Canada goose management plan.
- Repellents- Repellents will be used at problem areas as needed and appropriate. The repellent will be applied by sprayer or fogger. BMPRD may use the method as part of an integrated goose management program in the most heavily-damaged areas. However, cost of the product may reduce large-scale use of the repellent. Repellants, such as Flight Control Plus, can be used before park events to keep geese off the grass during these critical times.
- Lasers- Use of a laser device to harass any birds roosting on lawn areas is recommended as feasible. This technique is only effective in low light conditions and is designed to disperse geese from their nesting areas. Lack of nighttime employees could limit the effectiveness of this tool. If early laser use shows

success, then the laser will be used as part of a long-term goose management strategy.

- Electronic Harassment Devices- The *Goosebuster,* an electronic harassment device can be used where appropriate, such as high problem areas where the audio will not negatively affect park users or neighbors. Theft and vandalism are also concerns.
- Other Harassment Devices for Experimentation- Due to unproven efficacy or practicality, other harassment methods will occasionally be experimented with. BMPRD may choose to experiment with the use of paintball guns, water guns, scare devices, or any other harassment device that is available. Methods such as pyrotechnics, balloons, flash tape, lights, and effigies will generally not be used because of issues such as negative public receptiveness, researched ineffectiveness, and/or risk of theft or vandalism. A remote controlled boat is worth considering to further haze geese once they have entered the river, this can be used with other harassment techniques such as dogs. Full consideration of budgetary, social, environmental, and political aspects will occur prior to using other miscellaneous goose damage management tools.

8.3 CAPTURE AND REMOVAL OF CANADA GEESE

Because Canada geese are extremely habituated to the BMPRD parks, the initial response by BMPRD to goose damage will be to reduce Canada goose numbers by approximately 201 geese. Goose reduction will remove many of the most acclimated geese. These are geese that WS experience shows are not likely to positively respond to non-lethal harassment methods. Goose reduction will also remove geese that would likely return to the site even if hazing were to be successful. All goose capture requires a USFWS Depredation Permit. Disposition of captured Canada geese will be either relocation or euthanasia, dependent upon instruction from USFWS and/or ODFW. If relocation is authorized, then juvenile geese will be banded and relocated. Past experience relocating adults has proven ineffective. The adults have returned to BMPRD. Geese euthanized will be recovered for human consumption when possible and be given to local food banks. Providing food for the hungry was a topic that regularly came up during the BMPRD public input period.

Canada geese will be captured using the following methods:

- Funnel Traps – Around June adult Canada geese are flightless due to the molt and the juveniles have not yet fledged. BMPRD sees its highest geese numbers during this time. Funnel traps are very effective this time of year when geese are flightless and can be captured using a funnel trap. This method will be used in locations that are conducive to funnel trapping with respect to public interaction, vandalism, etc. This method will be used when larger numbers of geese need to be captured in a short timeframe. Use of funnel trapping will be best accomplished by wildlife professionals with experience, such as WS and/or ODFW and aided by BMPRD staff and volunteers. Geese captured using this method can be recovered for human consumption.

- Alpha-Chloralose (AC) - AC will be used by BMPRD to remove smaller numbers of geese, remove geese when they have the ability to fly, or when geese need to be removed over a period of time in a metered fashion. AC will only be used by WS personnel that are certified AC applicators. Geese captured using AC cannot be recovered for human consumption by law.
- Cannon Nets- Nets will be used opportunistically. If, for some reason, funnel trapping or AC is not effective, then use of a net gun, cannon net or rocket net can be used as an alternative capture method. Geese can be captured and relocated or euthanized and recovered for human consumption.
- Shooting- Use of precision firearms by WS may be used on a limited basis if geese using BMPRD properties need to be removed under the objectives of this plan and will not respond to other capture methods. If the use of firearms is deemed to be appropriate, any such use will be coordinated with the City of Bend Police Department prior to use and will be accomplished in discrete areas where no public or bystander safety issue arises. WS employees are authorized to use firearms and undergo biennial firearms safety training.

It is a BMPRD goal that Canada goose populations will be reduced per the objective by June 30, 2011, or shortly thereafter.

Consistent hazing using a variety of techniques will be necessary to discourage remaining geese from utilizing riverfront parks if lethal control is conducted. Due to the urban nature of most parks, audio scare devices are not a great choice. This results in fewer harassment options available and makes the feasible options that much more important. Dogs may be one of the best options, perhaps used in conjunction with a remote controlled boat. Other harassment techniques will be important and require experimentation. Paint ball guns may be a useful option. Habitat modification, where feasible, will be helpful as well.

8.4 MONITORING AND COST BENEFIT ANALYSIS

ODFW and WS will continue to monitor goose populations by tracking numbers and learning more about their habits related to local migration. BMPRD will continue to track costs related to goose damage to determine how these costs are affected over time by control activities. BMPRD will monitor the effects of control activities on park use and the level of satisfaction of the park users. It is expected that information about user satisfaction will be mostly anecdotal gained through conversations with park users and observations by staff.

9. LITURATURE CITED

Castelli, P. M., and S. E. Sleggs, 2000. Efficacy of border collies to control nuisance Canada geese. Wildlife Society Bulletin 28: 385-392.

Clark, L. 2000. A review of pathogens of agricultural and human health interest found in Canada geese. Pages 325-334 in K.A. Fagerstone, G.W. Witmer, editors, Proceedings of the 10th Wildlife Damage Management Conference, 2003, Hot Springs, Arkansas.

Dolbeer, R. A., and J. L. Seubert. 2009. Canada goose populations and strikes with civil aircraft, 1990-2008: challenging trends for aviation industry. Special Report, U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services. Washington D.C. USA. 14 pages.

Federal Register. 2006. Migratory Bird Hunting and Permits; Regulations for Managing Resident Canada Goose Populations. Final Rule. Federal Register 71: 45964-45993.

Luukkonen, D. R., H. H. Prince, and R. C. Mykut. 2004. Harvest of molt migrant giant Canada geese from southern Michigan. Pages 203–211 *in* T. J. Moser, R. D. Lien, K. C. VerCauteren, K. F. Abraham, D. E. Andersen, J. G. Bruggink, J. M. Coluccy, D. A. Graber, J. O. Leafloor, D. R. Luukkonen, and R. E. Trost, editors. Proceedings of the 2003 international Canada goose symposium, Madison, Wisconsin, USA.

Macy, R. W. 1952. Studies on schistosome dermatitis in the Pacific Northwest. Northwest Medicine 51: 947-950.

U.S. Fish and Wildlife Service. 2000. Waterfowl population status, 2000. U.S. Department of the Interior, Washington, D.C., USA.

Appendix A

Source of Supplies

Note: This list may be incomplete as suppliers leave and enter the market. This list includes vendors of goose management supplies known to the Oregon WS program:

Electric Wire Systems

Avi-Away Division
Monard Molding, Inc.
P.O. Box 279
Council Grove, KS 66846

Electrepel
491-495 Bergen St.
Brooklyn, NY
(718) 783-5943

Netting/Plastic Wires

Phillystran, Inc
151 Commerce Dr.
Montgomeryville, PA 18936-9628
(215) 368-6611
www.phillystran.com

National Netting
1-800-233-7896
bruceking@mindspring.com

Benner's Gardens
6974 Upper York Rd.
New Hope, PA 18938
(800) 753-4660

A to Z Net Man
P.O. Box 2168
South Hackensack, NJ 07606

Almac Plastics, Inc.
6311 Erdman
Baltimore, MD 21205-3585
(301) 485-9100

Multiple Supplies (Companies that carry multiple supplies including above items, and/or pyrotechnics, scare effigies, electronic harassment, or other scare techniques)

Margo Supplies
P.O. Box 5400
High River, Alberta, Canada T1V 1M5
(403) 652-1932
www.margosupplies.com

Wildlife Control Technology, Inc.
2501 N. Sunnyside Ave.
Fresno, CA 93727
(800) 235-0262
www.wildlife-control.com

Reed-Joseph International
P.O. Box 894
Greenville, MS 38702
(800) 647-5554
www.reedjoseph.com

Bird-X
300 N. Elizabeth St.
Chicago, IL 60607
(800) 662-5021
www.bird-x.com

Sutton Ag Enterprises
746 Vertin Ave.
Salinas, CA 93901
(408) 422-9693

ECO LOGIC
310 Production Court
Louisville, KY 40299
(888) 828-9318

Weitech, Inc.
251 W. Barclay Way
P.O. Box 1659
Sisters, Oregon 97759
(541) 549-0205

Av-Alarm
675-D Conger St.
Eugene, OR 97402
(541) 342-1271

Gempler's
1210 Fourier Dr., Suite 150
P.O. Box 44993
Madison, WI 53744
(800) 382-8473
www.gemplers.com

Nasco
901 Janesville Ave.
Fort Atkinson, WI 53538-0901
(800) 558-9595
www.eNASCO.com

Bird Gard, LLC.
254 West Adams Ave.
Sisters, Oregon 97759
(888) 332-2328
www.birdgard.com

Bird-Tec
4074 155th Ave.
Hersey, MI 49639
(866) 247-3832

Western Wildlife Control
P.O. Box 932
Canby, Oregon 97013-0932
(800) 628-6529

Oregon Vineyard Supply
2700 St. Joseph Rd.
McMinnville, OR 97128
(503) 435-2700

Dogs

Mike and Jan Canaday
221 E. Cherry Lane
Coalinga, CA 93210
(559) 935-8309
www.GOOSEDOG.com
canadaybc@onemain.com

Geese Police
P.O. Box 656
Howell, NJ 07731
(732) 938-9093

Appendix B

Certification of ODFW Approval and Public Meeting

Certification of ODFW Approval of BMPRD Goose Management Plan

---------- ----------
ODFW Regional Wildlife Manager, Bend, Oregon Date

Certification of Public Meeting (File copy of sign-in sheet)

---------- ----------
Authorized Manager, BMPRD Date

Appendix C

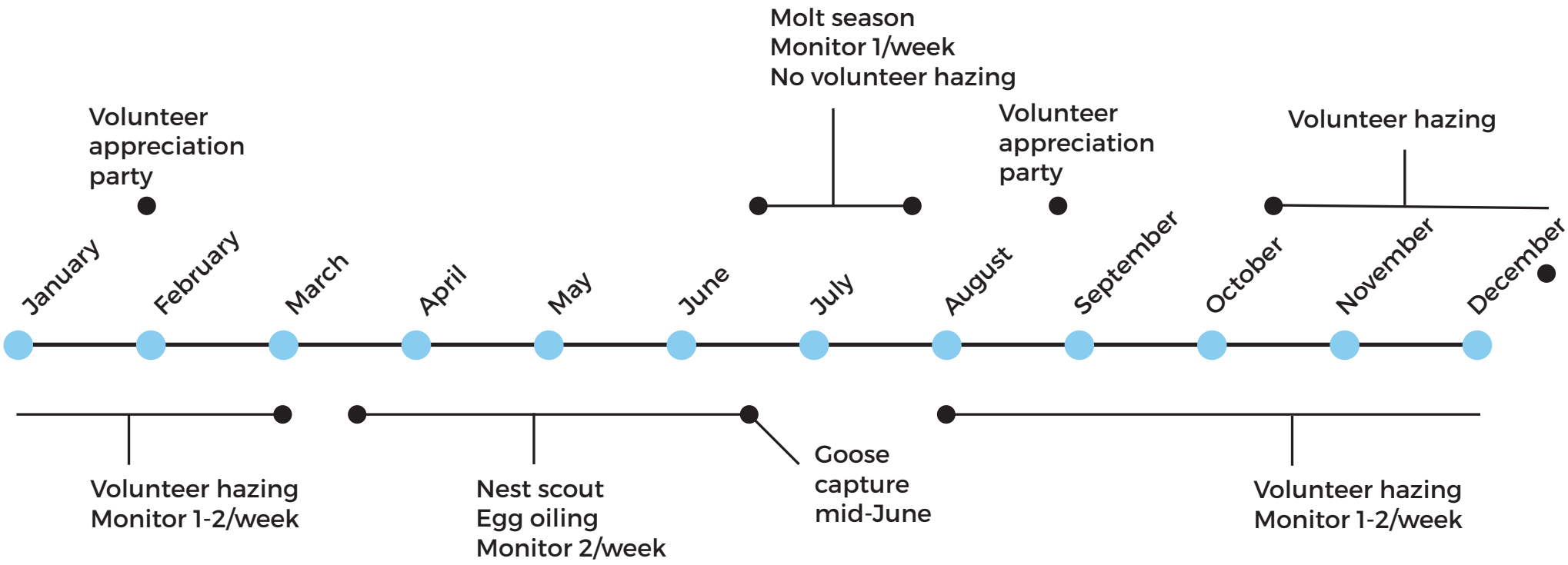
Raw survey data for BMPRD – Overall goose numbers

	Pioneer BMP	Drake BMP	Pacific BMP	Farewell Bend BMP	McKay BMP
7/30/2007		116	0	0	
8/8/2007	12	73	1	0	0
8/13/2007	10	45	0	2	0
8/20/2007	0	36	0	1	0
8/27/2007	11	65	0	13	0
9/3/2007	0	42	0	0	0
9/10/2007	0	39	33	24	0
9/17/2007	0	34	0	1	0
9/24/2007	0	67	16	7	0
10/1/2007	0	71	0	1	
10/8/2007	1	125	0	0	11
10/15/2007	7	97	2	24	9
10/22/2007	81	102	0	37	13
10/29/2007	2	323	0	43	10
11/5/2007	22	307	8	111	15
11/12/2007	0	127	38	19	0
11/19/2007	57	211	21	22	74
11/26/2007	83	172	0	27	99
12/3/2007	25	110	19	53	23
12/10/2007	126	106	21	41	29
12/17/2007	76	139	42	81	31
12/24/2007	49	92	17	36	13
12/31/2007	27	92	0	14	7
1/7/2008	26	38	0	21	0
1/14/2008	40	52	8	15	12
1/21/2008	36	84	21	50	50
1/28/2008	54	73	9	62	8
2/4/2008	24	74	14	40	10
2/11/2008	21	87	28	34	9
2/18/2008	18	73	0	30	10
2/25/2008	17	84	8	39	11
3/3/2008	10	189	18	22	9
3/10/2008	30	315	0	15	19
3/17/2008	10	100	4	0	0
3/24/2008	2	73	6	0	0
3/31/2008	12	71	6	0	0
4/7/2008	12	85	4	1	0
4/14/2008	3	31	2	4	0
4/21/2008	1	33	6	0	0
4/28/2008	3	26	0	4	0
5/5/2008	4	85	0	0	0
5/12/2008	7	49	7	0	0
5/19/2008	30	98	2	0	57
5/26/2008	46	218	5	0	83

6/2/2008	24	319	0	0	9
6/9/2008	4	392	0	0	0
6/16/2008	63	473	0	0	0
6/23/2008	65	465	0	0	0
6/30/2008	44	389	0	0	0
7/7/2008	29	241	0	0	4
7/14/2008	7	169	0	23	2

	Pioneer BMP	Drake BMP	Pacific BMP	Farewell Bend BMP	McKay BMP
Total	1209	6743	365	915	627
Average	24.6	136.8	7.2	18.0	12.8
High	126	473	42	111	99
Low	0	26	0	0	0
Median	14.5	92	2	7	4

Goose Program Timeline



BOARD AGENDA COMMUNICATION

AGENDA DATE:	July 15, 2025
SUBJECT:	Larkspur Parking Study
STAFF RESOURCE:	Brian Hudspeth, Director of Planning & Development
PREVIOUS BOARD ACTION:	None
ACTION PROPOSED:	None
STRATEGIC PLAN:	
Priority:	Community
Goal:	Deliver positive patron and community experiences by offering services that are accessible, responsive to patron feedback, and welcoming to all.
Strategy:	Develop and redevelop parks, trails and facilities to ensure they are welcoming and inclusive.

BACKGROUND

In October of 2020, the district completed the transformation of the former Bend Senior Center into the new multi-generational Larkspur Community Center (LCC). The LCC is located at Larkspur Park and prior to its construction the site had 157 onsite parking spaces to serve both the Senior Center and the community park.

During design for the LCC, the design team extensively studied parking capacity and needs. Recreation staff developed an operating model for the new center to determine the number of necessary parking stalls. The model considered the building size, projected drop-in use, and planned programming. The results lead to a recommended parking count above the city of Bend's code. The district, through a conditional use permit, was able to build additional parking spaces beyond the code limits, which resulted in a total parking count of 240 stalls. These parking stalls serve both the Larkspur Community Center and Larkspur Park.

The LCC opened for public use in the spring of 2021. Since that time, the facility programming and drop-in has increased, and it is now operating near maximum capacity during peak times and days of the week. Facility users have shared complaints about the lack of parking during these popular use times. In response, staff responded by adjusting planned programming during peak periods to help ease parking demand.

In 2023, the district decided to locate the new Art Station building within Larkspur Park, without additional parking in the concept due to the type of programs and timing offered by the Art Station. However, since then the programming at the LCC has increased and facility patrons are raising concerns about the additional parking demand the new Art Station could place on existing parking.

To get a better understanding of the parking patterns at the LCC, the district hired Transight

Consulting, a local transportation engineering firm, to conduct a parking study. Transight performed parking counts in April 2025. Along with parking counts, they also used programming data and Placer A.I. data to prepare their report findings (see Attachment A).

The report suggests the district consider a modest increase of 25 to 35 parking spaces to accommodate increased parking demands from the Art Station. The spaces will also supplement the parking needed by visitors to the LCC and the park.

Any new parking onsite will require a permit from the city and may also require additional land use approvals. The city code uses a maximum parking standard, which is already exceeded by the current parking levels on site.

During the work session, staff will share information about the parking study and initial ideas for adding parking. Staff are seeking board feedback on the potential to add parking for the Art Station.

BUDGETARY IMPACT

The fiscal year 2026-30 Capital Improvement Plan includes $4,058,765 of System Development Charge (SDC) funds for the new Art Station building. Rough order of magnitude cost to build 25-35 new parking spaces is between $300,000 to $400,000 of additional in SDC funds.

STAFF RECOMMENDATION

Staff believe adding some parking to accommodate the Art Station is warranted and recommend further investigation of what it would take to build. Next steps would include hiring an engineering firm to develop concept designs, prepare refine costs estimates, and research permit requirements.

MOTION

None

ATTACHMENT

Attachment A – June 9, 2025, Parking Study by Transight Consulting LLC.

TRANSIGHT CONSULTING, LLC
Transportation Engineering and Planning Services

Date:	June 9, 2025
To:	Henry Stroud, Bend Parks and Recreation
From:	Joe Bessman, PE
Project Reference No.:	2049
Project Name:	Larkspur Community Center Parking Study

PROJECT PURPOSE

The purpose of this memorandum is to summarize the findings and recommendations of a parking study conducted at the Larkspur Community Center location in Bend, Oregon. This study was prepared in response to public comments related to difficulty finding parking at the site. The Larkspur Community Center is located on the northeast corner of the SE Reed Market Road/SE 15th Street intersection and is provided access from both of these abutting three-lane arterial streets. The site address is 1600 SE Reed Market Road, Bend, Oregon 97702, Tax Lot 181203CC05600. The overall site is 18.42 acres.

SITE BACKGROUND

The site was originally the location of the 13,946 square-foot Bend Senior Center, which catered primarily to adult activities, meetings, and classes. The original site was accessed only from SE Reed Market Road with parking available from the eastern lot. This site also served as the southern trailhead for the Larkspur Trail, which connects the site north to Pilot Butte State Park and west along SE Reed Market Road to the Central Oregon Historic Canal Trail near SE American Lane. The outdoor play structure in the southeast corner of the site provides an extensive (and accessible) outdoor play area for children, including covered picnic areas, grass areas, a basketball court, and bocce ball court.

The BPRD site was expanded in 2019 by an additional 35,977 square-feet to the north of the existing building and renamed the Larkspur Community Center to reflect its expanded uses serving a broader demographic. In addition to the prior uses, the site now also includes a fitness center and indoor swimming pool, with the southwest and northwest parking areas, and the SE 15th Street access constructed to support this expanded use.

Access into the fitness center requires payment at the reception area, but there are activities within the site that are open to the public and free of charge. The facility is open from 6:00 a.m. to 8:00 p.m. Monday through Friday, with reduced hours on Saturday and Sunday. Transit access is available to the site from Cascades East Transit Routes 5 and 6, and trails, sidewalks, and bicycle lanes connect the site to surrounding residential areas, though vehicular access serves as the predominant travel mode. Figure 1 illustrates the location of the site within southeast Bend for context.

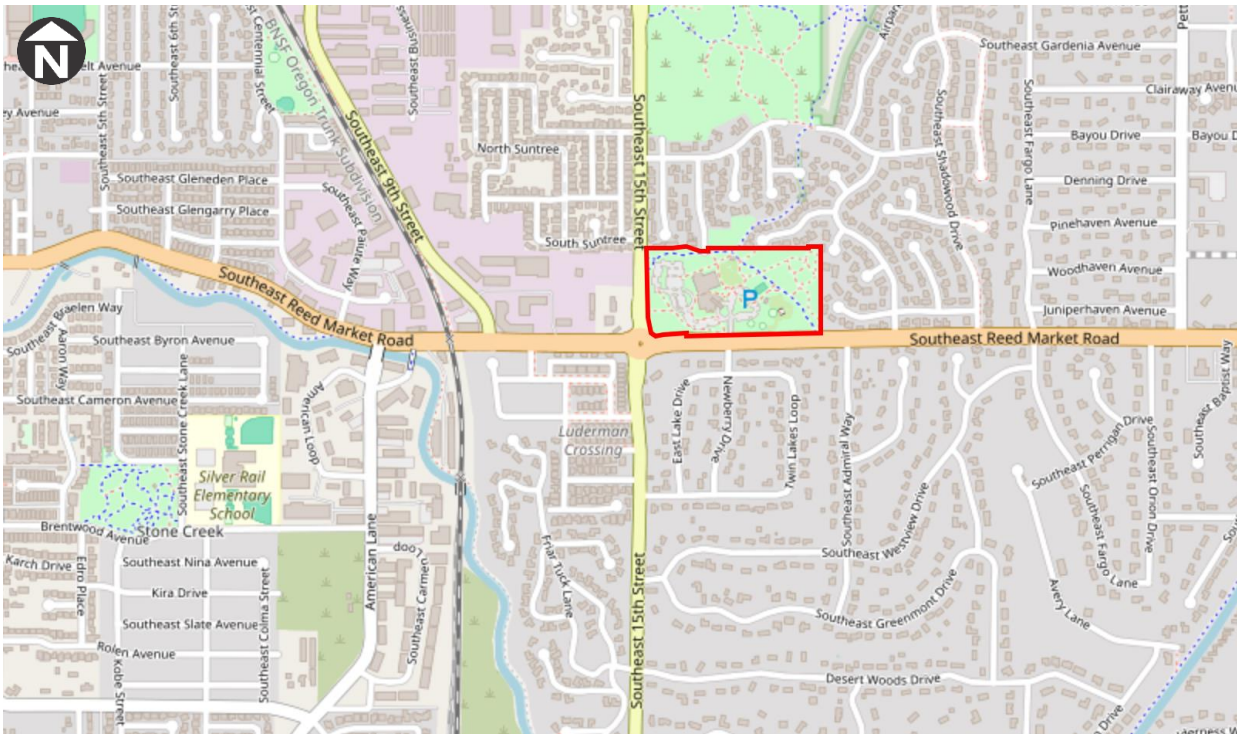


Figure 1. Site Vicinity Map. *Source: Deschutes County DIAL.*

PARKING STUDY APPROACH AND LITERATURE REVIEW

At the outset of this project there were several questions that BPRD staff sought to address:

- Whether or not there was a parking deficiency;
- If there was a parking shortage what was the extent and duration of this condition;
- How much additional demand is not being served; and
- Whether the parking was discouraging visitors from accessing the facility.

The first step within the parking assessment was to obtain and summarize existing access data for the Larkspur Community Center. Visitor logs were obtained from BPRD, but it was recognized that not all visitors are required to check in at the reception area; employees do not check in, and the check-in process does not provide information on travel mode or carpooling, or encompass use of the site for Larkspur Trailhead access or the outdoor play facilities. Accordingly, the visitor registration logs were only reviewed as an indicator of the general seasonal and daily access profiles of the site (predominantly capturing the fitness center component) that could be used to target data collection efforts rather than as a comprehensive dataset.

Review of visitation data from January 2024 through December 2024 (see Figure 2) shows that peak Larkspur (indoor facility) activity occurs in March (spring break) with a dip in June at the end of the school year. Activity increases during the mid-June through July period, with fall activity similar to levels experienced during the spring.

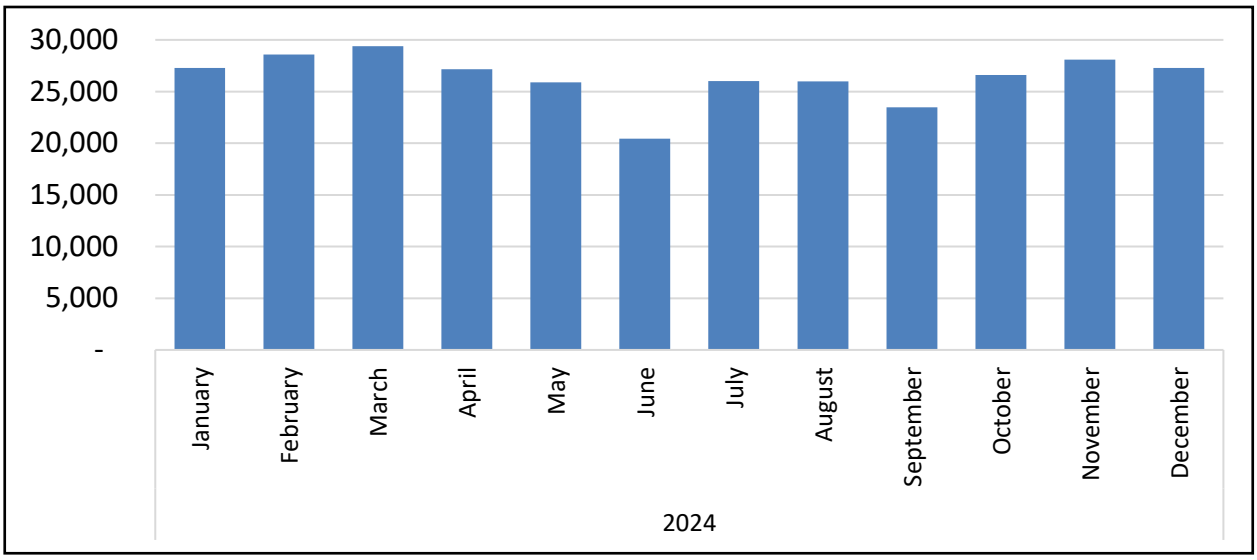


Figure 2. Larkspur Community Center Weekly Visits. *Data Source: BPRD.*

Visitation data was also plotted as a function of percentage change from the average (see Figure 3). This data clearly shows that the mid-April data collection targeted for the site reflects above-peak demands for the Larkspur Community Center.

Figure 3. Larkspur Community Center Weekly Visits vs. Average Visits. *Data Source: BPRD.*

These charts shown in Figures 2 and 3 indicate that data collection during the spring will be reflective of above-average conditions at the site. While it will not reflect the peak visitation week it will provide information that will be more reflective of "high typical" conditions.

Day of the week registration information was reviewed to identify which days would provide the highest overall parking impact on the site and best serve to inform this survey. The data shows peak activity on Mondays, with fairly steady conditions between Monday and Wednesday, with reduced demands on Thursday and Friday and continuing into the weekend (see Figure 4).

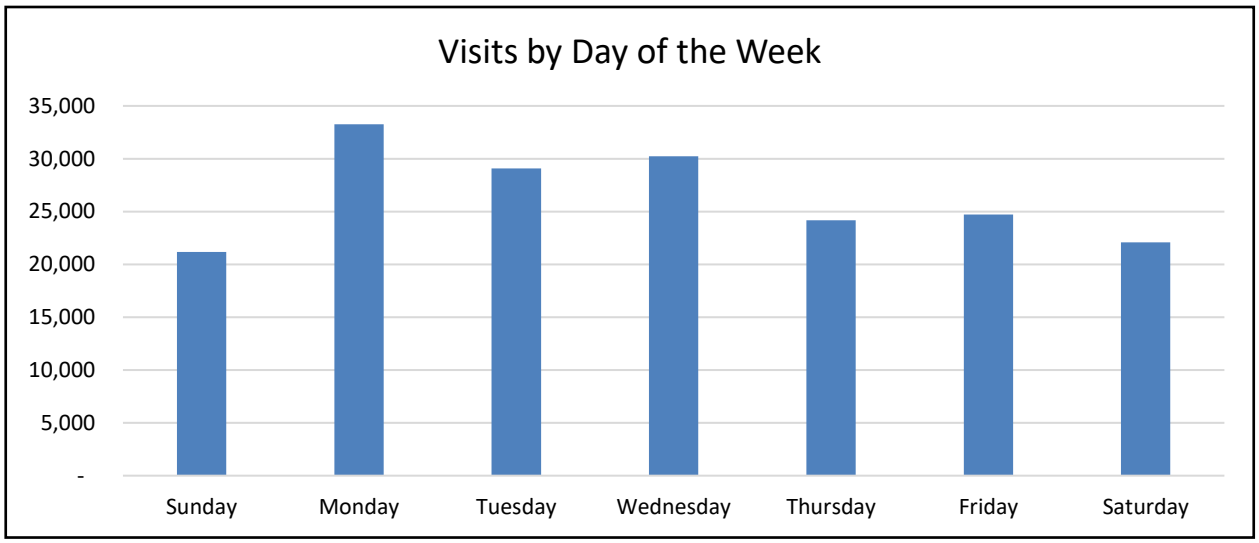


Figure 4. Larkspur Community Center Day of Week Registration Data. *Source: BPRD.*

Time of day registration information was also reviewed at the Larkspur Community Center, as shown in Figure 5. The data shows the site experiencing a late morning peak around 10:00 a.m.. Again, as many site visitors are not required to register this data does not provide an overall profile of the site (or include parking at the adjacent trailhead/park).

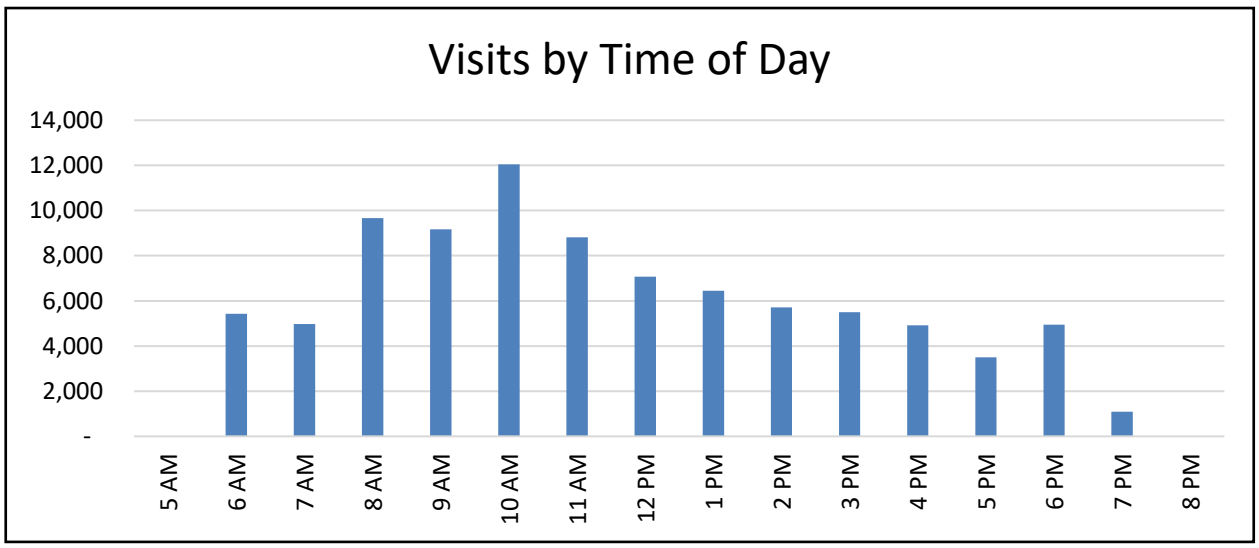


Figure 5. Larkspur Community Center Time of Day Information. *Source: BPRD*

BPRD also provided information on typical visit duration from this same registration dataset. The longer that a visitor is on-site, the longer the parking will remain occupied. Lower duration visits will result in higher parking turnover, enabling the site to support more visitors over the course of the day with the same parking supply. This information shows that most people are on-site between 30 and 104 minutes, with an average dwell time of 85 minutes.

Additional information on community centers was reviewed from the Institute of Transportation Engineers' (ITE) standard reference *Parking Generation, 6th Edition*. This reference manual contains summarized parking surveys across the US and Canada of other similar sites. Within the reference manual there are three land use groups that could reflect some portion of the activities present at the Larkspur Community Center, as defined below:

> **ITE Land Use 492: Health/Fitness Club** - *A health/fitness club is a privately-owned facility that primarily focuses on individual fitness or training. It typically provides exercise classes, fitness equipment, a weight room, spa, lockers rooms, and a small restaurant or snack bar. This land use may also include ancillary facilities, such as a swimming pool, whirlpool, sauna, limited retail, and tennis, pickleball, racquetball, or handball courts. These facilities are membership clubs that may allow access to the general public for a fee.*
>
> **ITE Land Use 493: Athletic Club** - *An athletic club is a privately-owned facility that offers comprehensive athletic facilities. An athletic club typically has courts for racquet sports (e.g., tennis, racquetball, pickleball, squash, handball); a basketball court; a sauna or spa; and fitness, exercise, and weightlifting rooms. Athletic clubs typically provide a swimming pool or whirlpool. They often offer diverse, competitive team sport activities and social facilities. These facilities are membership clubs that may allow access to the general public for a fee.*
>
> **ITE Land Use 495: Recreational Community Center -** *A recreational community center is a stand-alone public facility similar to and including YMCAs. These facilities often include classes and clubs for adults and children, a day care or nursery school, meeting rooms and other social facilities, swimming pools and whirlpools, saunas, tennis, racquetball, handball, pickleball, basketball and volleyball courts; outdoor athletic fields/courts, exercise classes, weightlifting and gymnastics equipment, locker rooms, and a restaurant or snack bar. Public access is typically allowed and a membership fee may be charged.*

As defined above, limited data is available to identify the specific facilities that comprise these land use classifications, and the ITE dataset does not provide information on demographics and proximity to other competing locations. Either ITE Land Use 492 or 495 appear to best reflect the types of services and amenities present at the Larkspur Community Center, but neither classification reflects the range of uses and classes present at the Larkspur site. While ITE Land Use 495 reflects a public use and ITE Land Use 492 includes data from private facilities, this is not expected to serve as a distinguishing factor at the Larkspur Community Center given the quality of the facility and the recreational market it serves.

Review of ITE parking information within both the *Health/Fitness Club* and the *Recreational Community Center* reflect similar parking trends. However, the Recreational Community Center dataset shows two distinct peaks that are similar in magnitude, with the first in the late morning and the second in the early evening hours (see Figure 6). This data is reflective of the trends experienced at the Larkspur Community Center as was shown in Figure 5 so was applied as the most similar comparative.

The Recreational Community Center dataset within the ITE Parking Generation Manual is based on surveys of 12 separate locations ranging from 18,000 square-feet to 127,000 square-feet. The surveys included five sites within the general range of the Larkspur Community Center, though the specific site amenities at the surveyed facilities likely vary from those at Larkspur. This ITE dataset shows the following parking information and the estimated number of parking stalls utilized based on the overall Larkspur building size of 49,923 square-feet:

- Average Parking Demand: 1.8 Stalls/KSF (90 Stalls)

- Range of Observed Parking Demands: 1.40/KSF to 2.94/KSF (70 to 147 Stalls)
- 85th Percentile Parking Demand: 2.32/KSF (116 Stalls)

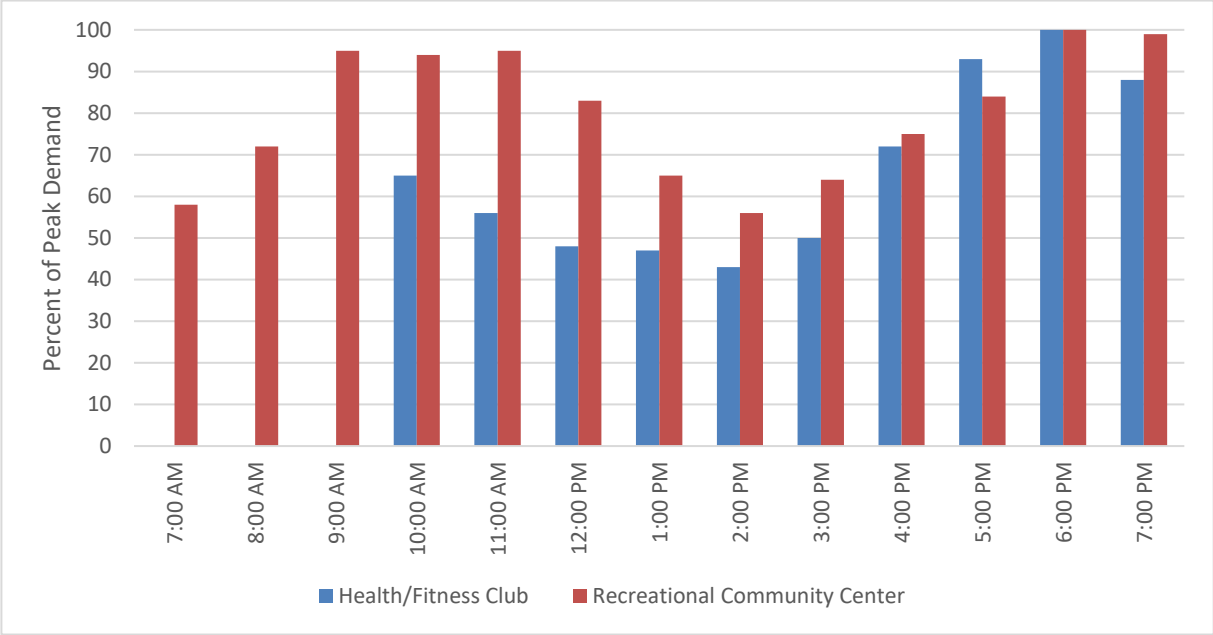


Figure 6. ITE Parking Demand Profiles of Health/Fitness Clubs and Recreational Community Centers.

Parking demands for the outdoor play area and trailhead element of the site could be separately estimated from the ITE manual, but data for parks is very limited and actual demands are more specific to the site location and amenities. ITE parking information for Public Parks (ITE 411) is based on the overall acreage, showing a range of demand from 0.53 stalls per acre to 5.52 stalls per acre and an average rate of only 0.77 stalls per acre. These parking demands will vary based on weather conditions and whether or not schools are in session. With about eight- to nine-acres of the site dedicated to the public park uses, this would indicate a broad range, with an average parking demand of about +7 stalls, or an 85th percentile parking demand of +47 stalls.

The combination of the Larkspur Community Center and the Public Park component would show an 85th percentile parking demand of 163 parking stalls (116 + 47). This is about two-thirds the current supply present at the site.

Summary of Literature Review

Based on review of the materials provided by BPRD and available within national publications, the following was identified:

- Recreational community centers will experience peak parking demands around the late morning (or evening commute) hours.

- Monday experiences the highest overall number of visitors of any day of the week, with this level similar to conditions on Tuesday through Wednesday. Thursday access and parking demands through the weekend are lower.
- Late April reflects an above-average time period to conduct data collection efforts. April is not the peak month of the year but appears to reflect an 92 percent of the peak March access.
- The Larkspur Community Center provides about a third more parking supply than the observed 85th percentile demands at other similar community centers and public parks.
- Parking demands for the adjacent play structure and Larkspur Trail Head provide additive demands on the Larkspur Community Center. These uses will vary seasonally based on weather conditions and the school calendar. Facility events and classes will also impact parking demands at the site.

This information obtained from the BPRD data and the literature review was used to develop the data collection strategy and field observation periods for the Larkspur Community Center.

PARKING INVENTORY

The first step in the conduct of the parking study was to develop a detailed inventory of the available parking supply at the Larkspur Community Center. The site was visited and inventoried to identify the specific quantity and types of available parking within the site. Based on the location of the two primary building entrances and the play structure, the site was divided into three areas: 1) Northwest, 2) Southwest, and 3) East, so that the surveys could identify both the total site demands as well as whether there are more constrained areas or internal classifications of parking within the site. The field review noted that there are four classifications of parking present on the site:

1) Accessible Parking Stalls. The site contains posted and marked accessible stalls near both entrances, complete with loading areas and notations identifying whether the stalls are van accessible.
2) Limited Mobility Stalls. These stalls are not formal ADA stalls and do not include adjacent loading areas, but are located near the building entrances and are for persons with limited mobility.
3) Bus Parking. The looped area near the east entrance is designated for bus loading. No buses were observed throughout the data collection period, but this space was observed being used for visitor drop-off.
4) Unrestricted Stalls. All remaining stalls are considered “unrestricted,” as they provide no time or mobility limitations to their use.

The parking inventory is summarized in Table 1 and shown visually in Figure 7. Within the inventory there was one stall within the eastern lot that was not clearly marked; the stall contained faded ADA markings but it appeared that the supplemental sign had been removed. This stall was classified as an accessible stall within this survey as it included an adjacent loading area, and in older aerial photographs had been designed and used for this purpose.

Table 1. Larkspur Parking Inventory

Parking Summary	Northwest (15th Street Entrance)	Southwest (Either Entrance)	East (Reed Market Entrance)	Total (All Areas)
Accessible Stalls	4	4	7	15
Mobility Impaired	0	6	4	10
Bus Loading	West Loop	0	East Loop	East Loop
Unrestricted Stalls	93	65	57	215
Total Parking Supply	**97**	**75**	**68**	**240 + Drop-off/Loading Loops**

Figure 7. Larkspur Parking Inventory Map. *Aerial Source: Deschutes County DIAL.*

PARKING DEMAND DATA COLLECTION

In review of the literature review findings, a parking data collection strategy was developed that included a full Monday (7:00 a.m. to 7:00 p.m.) of parking utilization surveys to create an overall demand profile and to provide on-site field observations of the parking and circulation throughout the peak late morning period. This data collection included hourly field measurements of parking demands by area and by classification, and during the peak 9:00 a.m. to 1:00 p.m. period these data intervals were increased to 15-minute periods to more accurately summarize the duration of peak demands. Data collection efforts were conducted by aerial drone and manually compiled to better obtain a visual snapshot of the parking demands and allow post-data collection classification of the demands by parking stall type.

Daily parking utilization surveys were conducted on Monday, April 21, 2025, with supplemental data collection occurring between 10:00 a.m. and noon on Tuesday, April 22, 2025 and Friday, April 25, 2025 to validate the Monday data and site demand trends. Weather conditions on Monday and Tuesday were clear and sunny, with a daytime high temperature of nearly 60 degrees. Friday weather conditions were cooler and rainy, which appeared to impact the Larkspur Trail access and outdoor play structure demands.

Table 2 summarizes the overall parking demand by area and type throughout the day and provides an overall "percentage full" of the site. This shows a peak parking demand at 10:45 a.m., with the lot entirely full with exception of vehicles maneuvering into or out of parking stalls. In addition, there were ten vehicles observed within the site that had either left a parking stall or were circling to find an available parking stall.

Typically, industry standard practice is to consider that when parking demands are in excess of 85 percent full the parking area is considered to be at its capacity. This 15 percent buffer accounts for improperly parked vehicles, ability to use restricted/limited stalls, and other parking nuances (such as snow or material storage), and helps ensure that motorists do not need to circle the lot to find the very last available parking stall. Within a more intuitive or open parking lot (such as at the Larkspur Community Center site) this ratio can often be increased to 90 percent; this higher level would be recommended for application at Larkspur since the entire parking area is interconnected (both for vehicles and for pedestrian circulation back to the building entrances), and most of the spots are openly available for any member of the public.

Parking demand ratios in excess of 90% were observed between 10:30 a.m. and 1:00 p.m. Between 10:45 and noon there were vehicles actively searching for available parking stalls as site demands exceeded 95 percent. During the peak (10:45 a.m.) the site was fully parked in the northwest lot, the southwest lot (with exception of a single accessible parking stall), and the east parking lot, with numerous vehicles circling the lot seeking out parking. Figure 8 illustrates conditions during the peak period parking demand period; similar conditions are present throughout the adjacent time periods that also experienced a parking utilization over 90 percent, which persisted at the site for two hours (10:30 to 12:30 p.m.). These parking profiles and demands were similar within each of the parking areas (capacity opened up within the northwest lot before the others), as shown in Figure 9.

Data collection the following Tuesday and Friday (as also shown in Table 2) identified much lower late morning parking demands, with all of the surveys showing 15% to 25% of the parking remaining. This highlights that while there are time periods where parking demand exceeds supply, this is not a daily occurrence at the site. In addition, since the weather on Tuesday was similar to conditions on Monday, while this plays a role in the parking demands it highlights that there are other contributing factors (likely scheduled events and classes) present that make Monday site demands higher.

Table 2. Summary of Larkspur Community Center Parking Demand (Monday, April 21, 2025)

Time	Northwest Parking Lot			Southwest Parking Lot				East Parking Lot					Vehicles Circling	Total Parking Demand	Percent Full
	ADA	Unrestricted	Total	ADA	Limited	Unrestricted	Total	ADA	Limited	Unrestricted	Bus	Total			
Supply	4	93	97	4	6	65	75	7	4	57	1	68			
Monday, April 21, 2025															
7:00 AM	4	32	36	4	0	27	31	0	2	19	0	21	0	88	37%
8:00 AM	2	40	42	4	0	34	38	1	3	26	0	30	0	110	46%
9:00 AM	3	61	64	1	0	51	52	3	4	40	1	48	0	164	68%
9:15 AM	3	57	60	2	0	50	52	3	4	35	0	42	0	154	64%
9:30 AM	4	62	66	2	2	47	51	2	3	37	0	42	0	159	66%
9:45 AM	4	54	58	2	1	43	46	3	2	32	0	37	0	141	59%
10:00 AM	4	65	69	2	1	50	53	4	4	36	0	44	0	166	69%
10:15 AM	3	69	72	1	3	61	65	3	5	48	0	56	0	193	80%
10:30 AM	4	81	85	2	5	65	72	5	3	55	0	63	0	220	92%
10:45 AM	4	93	97	3	6	64	73	7	4	56	0	67	10	247	103%
11:00 AM	4	91	95	4	6	62	72	7	4	57	0	68	1	236	98%
11:15 AM	4	92	96	3	6	61	70	6	4	57	0	67	2	235	98%
11:30 AM	3	93	96	4	6	64	74	6	3	56	1	66	4	240	100%
11:45 AM	4	88	92	4	5	64	73	6	4	55	0	65	2	232	97%
12:00 PM	4	88	92	3	5	63	71	6	4	55	0	65	0	228	95%
12:15 PM	4	83	87	3	2	63	68	6	3	56	0	65	0	220	92%
12:30 PM	4	78	82	4	4	63	71	7	3	53	1	64	0	217	90%
12:45 PM	4	77	81	4	5	59	68	4	4	51	0	59	0	208	87%
1:00 PM	4	83	87	3	5	61	69	4	4	51	0	59	0	215	90%
2:00 PM	4	59	63	3	1	45	49	4	4	44	0	52	0	164	68%
3:00 PM	3	60	63	1	2	43	46	4	3	39	0	46	0	155	65%
4:00 PM	2	48	50	2	1	46	49	0	3	39	0	42	0	141	59%
5:00 PM	3	50	53	1	1	48	50	2	2	40	0	44	0	147	61%
6:00 PM	0	31	31	1	1	43	45	0	1	33	0	34	0	110	46%
7:00 PM	1	19	20	0	0	18	18	0	1	22	0	23	0	61	25%
Tuesday, April 22, 2025															
10:00 AM	4	68	72	2	4	47	53	4	4	45	0	53	0	178	74%
11:00 AM	4	65	69	2	3	43	48	1	2	41	0	44	0	161	67%
12:00 PM	3	55	58	4	4	53	61	2	3	45	0	50	0	169	70%
Friday, April 25, 2025															
10:00 AM	4	68	72	2	4	47	53	4	4	45	0	53	0	151	63%
11:00 AM	4	65	69	2	3	43	48	1	2	41	0	44	0	203	85%
12:00 PM	3	55	58	4	4	53	61	2	3	45	0	50	0	172	72%

Figure 8. Observed Peak Parking Demand, 10:45 a.m.

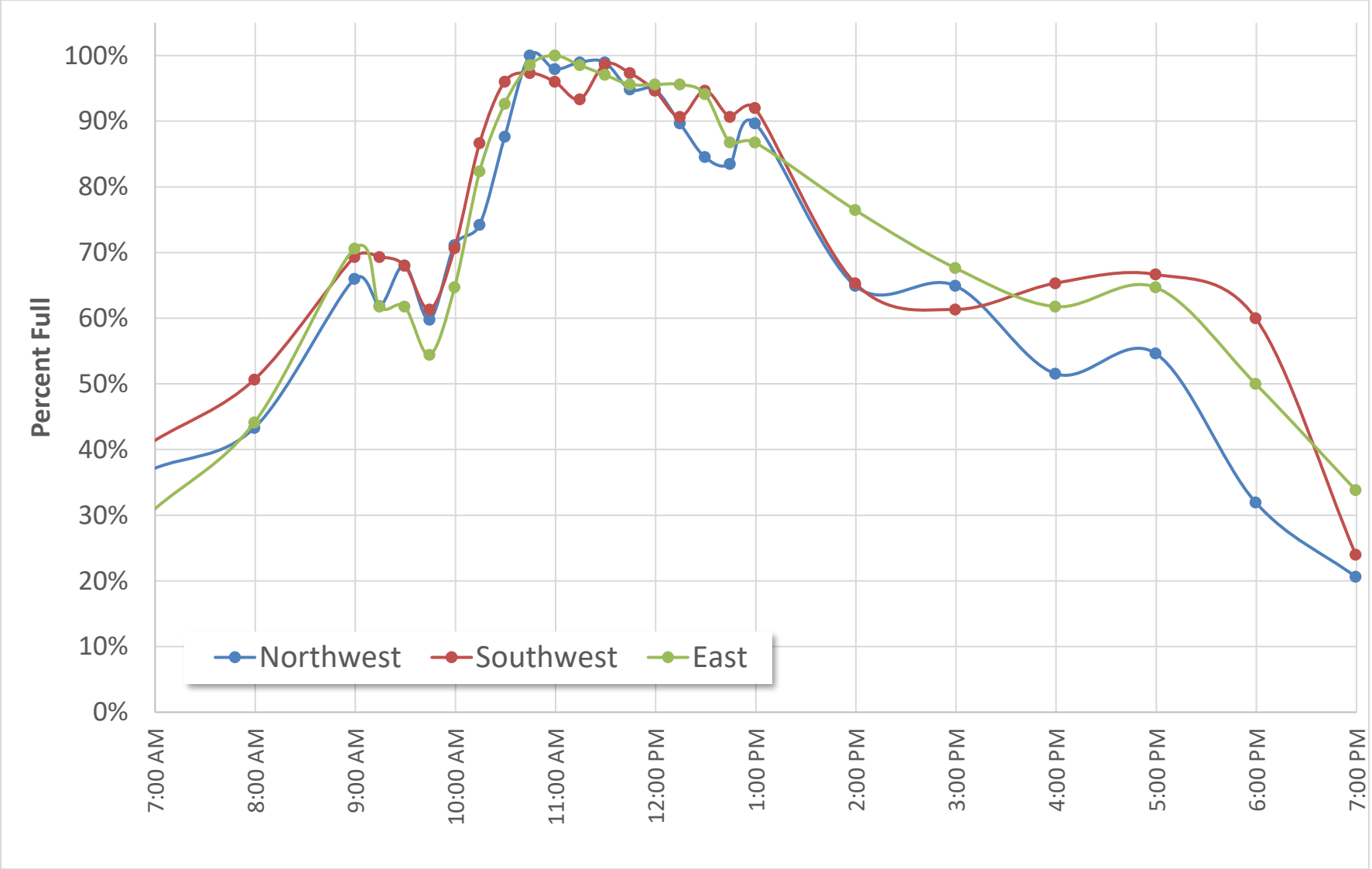


Figure 9. Larkspur Community Center Parking Demands by Parking Area (Refer to Figure 7).

FINDINGS AND RECOMMENDATIONS

Between the literature, field review, and parking demand surveys conducted at the Larkspur Community Center it is apparent that there are limited time periods at the site where parking demands exceed capacity. This spillover demand only occurred during the Monday observations, but these "full" parking lot conditions persisted for about two hours. This indicates that the site would benefit from changes in parking supply or reductions in demand, which could be best accomplished as follows (see Figure 10):

- BPRD could consider review of programmatic changes within its class schedule on Mondays between 10:00 a.m. and 1:00 p.m. and reduce scheduled activities during this period, or swap busier classes with other off-peak time periods.
- Staff parking should occur in the back of the northwest lot so that closer parking stalls are available for site patrons. Field observations noted a high proportion of older visitors, and high use of the limited mobility and accessible parking stalls throughout the day.
- If there are fleet or maintenance vehicles that are stored on-site these should be relocated as practical.
- Both looped drop-off areas experienced low utilization while encumbering a large portion of the overall parking area. Reconfiguration of these areas to provide additional "Limited Mobility" stalls in close proximity to the facility entrances would be a beneficial use of this space. The western bus loop could even be retained while adding parallel parking along the western edge with restriping (or reconstructing the loop to provide interior 90-degree parking). Similarly, the loop in the eastern parking lot could be modified to include limited-mobility parking and a shortened drop-off or time-limited area for deliveries. Note that parallel parking along a loop is a more challenging maneuver, so a wider striped parking width of nine- to ten-feet would be helpful.
- Within the eastern parking lot there is a hatched stall adjacent to the Limited Mobility Parking. It is recommended that this be converted to another Limited Mobility stall through restriping.
- The parallel parking within the eastern lot is situated within a wide parking aisle. It appears that restriping this parallel parking to perpendicular parking with minor changes in curbing could add about 5 or 6 parking stalls and provide a more consistent parking configuration.
- The parking in the eastern lot includes several stalls that are overly (and unnecessarily) wide. This could be restriped for a gain of +1 or +2 stalls.
- The angled parking within the southwest lot provides an unnecessary one-way circulation complexity within the parking lot. While it would take more work to replace this with perpendicular stalls than other changes noted above, converting these stalls to a perpendicular design and widening the access aisle would also allow an additional bank of parking to its west, for a gain of approximately +12 stalls.

Beyond these items noted above, there are additional locations that could easily be modified with changes to curbing and/or landscaping to make more efficient use of the parking area. My recommendation would be to pursue scheduling changes and the minor restriping modifications as a first step, and then re-assess whether this addresses the parking issue (or implement additional measures). Any physical changes to the parking area will have to address other competing concerns such as runoff treatment and tree preservation which are beyond the scope of this review.

NEXT STEPS

Thank you for the opportunity to provide these transportation materials for further review and discussion, if you have any questions I can be reached at (503) 997-4473 or via email at joe@transightconsulting.com.

Larkspur Community Parking Supply Mitigation Options

1. Designate area for staff parking along periphery of northwest lot
2. Low-priority area for widening to increase parking supply
3. Low-priority area for widening to increase parking supply
4. Consider allowing parallel parking within drop-off loop for limited mobility visitors
5. Low-priority area to remove angled parking and add new parking supply
6. Consider allowing parking within bus loop for limited mobility visitors
7. Restriped hatched space for an additional limited mobility stall
8. Reconfigure parallel parking into perpendicular parking to increase available supply
9. Restripe interior loop to provide more efficient parking layout with typical width stalls.
10. Restripe ADA stall or remove remaining paint to clarify parking designation

Figure 10. Low (Yellow) and High (Green) Priority Parking Supply Mitigation Options.

Board of Directors Meeting Summary

July 1, 2025

District Office Building | 799 SW Columbia | Bend, Oregon

BOARD PRESENT

Nathan Hovekamp
Deb Schoen
Cary Schneider
Donna Owens
Jodie Schiffman

Summary of the July 1 board of directors meeting

The board of directors heard from Visit Bend regarding its Economic Review, swore in board members, elected board member positions, approved Park Rules Ordinance No. 14 and Resolution No. 2025-12, and approved the Executive Director's Evaluation. A video recording is available.

Visit Bend Economic Reports Review

The Board received a presentation on the Visit Bend Economic Report from representatives of Visit Bend and ECO Northwest. The presentation covered the use of Transient Room Tax (TRT) funds allocated to Visit Bend through a contract with the City of Bend. Key areas of focus included the organization's emphasis on people, economy, and place, along with community concerns about over-tourism, the economic impact of tourism, and the implementation of a destination stewardship program. Long-term priorities were also discussed.

The report highlighted the goal of supporting a sustainable strategy to preserve and enhance quality of life and visitor experiences in the Bend region. Data shared included trends related to Deschutes County's population growth, housing prices and production, and regional visitation patterns using PlacerAI data. Findings showed that while residents make up the majority of park and recreation users, during peak times, visitor use matches resident use—contributing to a sense of overcrowding.

The presentation also addressed the economic impact of major tourist attractions, including the Bend White Water Park. The park's total estimated financial output is $26.5 million, with an estimated value benefit of $35.8 million.

Second Reading and Approval of Park Rules Ordinance No. 14

The board approved a second reading of proposed Ordinance No. 14. The reading was done by title only, and the ordinance was presented for a vote. Staff and legal counsel were available to answer questions.

Director Schnieder made a motion to conduct the second reading of Ordinance No. 14 by title only. Director Schiffman seconded. The motion passed unanimously, 5-0. (Schneider, Schoen, Owens, Hovekamp and Schiffman)

Director Schiffman made a motion to adopt Ordinance No. 14. Director Hovekamp seconded. The motion passed unanimously, 5-0. (Schneider, Schoen, Owens, Hovekamp and Schiffman)

Approve Resolution No. 2025-12 – SE Bend Regional Park Site Restrictive Covenant
The Rose property update was presented to the board for a vote. The property includes two tax lots, with a County-approved zone change to RR10 for one lot to support future development. Central Oregon LandWatch raised concerns about the implications of the new zoning. To address these concerns and avoid potential appeals, the district proposed a 20-year restrictive covenant ensuring no residential development on the site.

Director Schoen made the motion to adopt Resolution No. 2025–12 authorizing the executive director to finalize and execute a restrictive covenant on the formerly Exclusive Farm Use - Tumalo/Redmond/Bend zoned portion of Tax Lot 200 of the SE Bend Regional Park Site per the terms and conditions described in the resolution. Director Schiffman seconded. Director Hovekamp abstained, the motion passed 4-0 (Schneider, Schoen, Owens, and Schiffman)

Swearing in of newly elected board members
Directors Schneider, Hovekamp, and Schoen were sworn in as they began their new terms.

Election of Board Chair and Vice-Chair, appointment of Board Secretary and Budget Officer, and approval of board meeting dates and time.
The Board rotates leadership on an annual basis. For the 2025–26 fiscal year, the Board elected Donna Owens as Chair and Cary Schneider as Vice Chair. The Board also recognized and thanked Jodie Schiffman for her leadership during the past year. In addition, the Executive Director was reappointed to serve as Executive Secretary, and the Administrative Services Director was reappointed as Budget Officer. The Board approved continuing the existing meeting schedule with no changes.

Director Schiffman made a motion to nominate Director Owens to serve as chair of the Bend Park & Recreation District Board of Directors for Fiscal Year 2025-2026. Director Schoen seconded. The motion passed unanimously, 5-0. (Schneider, Schoen, Owens, Hovekamp and Schiffman)

Director Hovekamp made a motion to nominate Director Scheider to serve as vice-chair of the Bend Park & Recreation District Board of Directors for Fiscal Year 2025-2026. Director Barram seconded. The motion passed unanimously, 5-0. (Schneider, Schoen, Owens, Hovekamp and Schiffman)

Director Schoen made a motion to appoint Michelle Healy, executive director, to serve as executive secretary of the Bend Park and Recreation District Board of Directors for fiscal year 2025-26. Director Schneider seconded. The motion passed unanimously, 5-0. (Schneider, Schoen, Owens, Hovekamp and Schiffman)

Director Hovekamp made a motion to appoint Kristin Toney, executive director of administrative services, to serve as budget officer of the Bend Park and Recreation District Board of Directors for fiscal year 2025-26. Director Schoen seconded. The motion passed unanimously, 5-0. (Schneider, Schoen, Owens, Hovekamp and Schiffman)

Director Schiffman made a motion that the Bend Park and Recreation District Board of Directors hold regular public meetings on the first and third Tuesdays of each month, beginning at 5:30 p.m. with a work session, followed by a business session, unless otherwise noticed. Director Schneider seconded. The motion passed unanimously, 5-0. (Schneider, Schoen, Owens, Hovekamp and Schiffman)

Approve Executive Director's Evaluation

The board reviewed the Executive Director's performance based on key objectives and annual goals. A self-review was completed by the executive director and each board member conducted an individual evaluation. A 3% performance merit increase was recommended, and board members shared comments and congratulations on a successful first year.

Director Schoen made the motion to approve the executive director's evaluation for 2024-25, approve the goals for next fiscal year and merit increase in accordance with the employment contract. Director Hovekamp seconded. The motion passed unanimously, 5-0. (Schneider, Schoen, Owens, Hovekamp and Schiffman)

Employee Recognition

The board of directors recognized the Recreation Director for his 36 years of service and upcoming retirement. The Executive Director and board members shared personal reflections and expressed their appreciation for his contributions to the district.

Next board meeting is July 15

Board Calendar
2025-2026
This working calendar of goals/projects is intended as a guide for the board and subject to change.

AUGUST 5
Miller's Landing Dedication Event 3 pm
EXECUTIVE SESSION Land 4 pm
WORK SESSION
- Certified Park Recreation Professional (CPRP) Program and Update – *Becky Rexford (10 min)*

CONSENT
- NUID Miles Fox Property Acquisition – *Henry Stroud*

BUSINESS SESSION
- Award Construction Contract for Pine Nursery Phase 5 – *Bronwen Mastro and Jason Powell (15 min)*
- Easton PSA – *Henry Stroud (10 min)*

AUGUST 19
WORK SESSION
- Park Services Report: Hard Surface Program – *Jason Monaghan (20 min)*

BUSINESS SESSION
- Award Construction Contract for Art Station – *Jason Powell and Brian Hudspeth (25 min)*

SEPTEMBER 2
WORK SESSION
BUSINESS SESSION

SEPTEMBER 16 CANCELED FOR NRPA

SEPTEMBER 23 SPECIAL CALL
WORK SESSION
- Natural Resources Intern Presentation

BUSINESS SESSION
- Naming Committee Appointment – *Rachel Colton (15 minutes)*

Future Topics
IGA with NUID for canal trail – *Henry Stroud*
DEI Update – *Bronwen Mastro*