

1	<b>Chapter 2</b>	
2	<b>Natural and Human Environment</b>	
3		
4	Introduction.....	1
5	Natural Environment.....	1
6	Climate.....	1
7	Geology.....	1
8	Water.....	3
9	Vegetation.....	3
10	Fish and Wildlife.....	4
11	Natural Hazards .....	6
12	Map 3: Soils.....	7
13	Map 4: Vegetation Cover.....	9
14	Map 5: Anadromous Waterbodies .....	11
15	Table 3: Stocked Lakes.....	13
16	Human Environment.....	13
17	Recreational Preferences.....	16
18	Graph 1: Overall visitor counts for NLSRA and NLSRS.....	19
19	Graph 2: Public use cabin visitor counts.....	19
20		

# 1 Chapter 2

## 2 Natural and Human Environment

### 3 Introduction

4  
5 This chapter will provide background information on the natural and human environment for  
6 the Nancy Lake State Recreation Area and Nancy Lake State Recreation Site. The natural  
7 and human environment will be considered when making facility, trail, and management  
8 recommendations.  
9

### 10 11 Natural Environment

#### 12 13 Climate

14  
15 The climate for NLSRA and NLSRS is transitional maritime-continental, characterized by  
16 long cool winters and short warm summers. The area lies within the transitional zone,  
17 bounded by the continental zone to the north, west and east, and the maritime zone to the  
18 south. Temperatures for the community of Willow just a few miles north of NLSRA range  
19 from a lowest recorded temperature of -50°F in January 1989 to the highest recorded  
20 temperature of 89°F in July 1999. The average high temperature in June is 68°F while the  
21 average low temperature in December is 1°F. Daily minimum temperatures in summer are  
22 generally between 44 and 47°F.  
23

24 Yearly precipitation for the area around NLSRA is just over 21 inches per year. Precipitation  
25 is usually light in spring and summer and increases in late summer and fall with most of the  
26 precipitation occurring as rain in August. Snow accumulation is more typical of the  
27 continental zone with most of the snowfall occurring between November and March.  
28 December and January are the months most likely to get the heaviest snowfall.  
29

30 Long days in summer and short days in winter have a strong influence on recreation in  
31 Southcentral Alaska. While a recreationist in mid-summer can expect approximately  
32 19 hours of daylight, mid-winter recreational activities which depend on natural daylight, are  
33 restricted to about 5 hours.  
34

#### 35 Geology

##### 36 37 Surface Features

38 Vast sheets of ice once covered the area of the Nancy Lake State Recreation Area and  
39 Recreation Site. This sheet moved down the Susitna Valley from the north, coalesced with

1 glaciers from the Matanuska Valley and Turnagain Arm, and moved down Cook Inlet.  
2 Around 10,000 years ago this ice sheet began receding and the landforms we see today were  
3 revealed. Surface features consist of glacial till and ground moraine deposits (uplands and  
4 ridges) adjacent to scoured depressions or flat areas (lakes, ponds, and wetlands).  
5

6 Elongate ridges and uplands that we see today – in terms of glacial morphology, drumlins  
7 and eskers – are derived from glacially pulverized rock, known as till, that was eroded from  
8 parent material and transported to this site by the glaciers. Within and under glaciers, the till  
9 was formed by both ice and water into the elongate ridges seen today. The direction of ice  
10 flow over this area is evidenced in the northeast/southwest trend of these ridges. Glacial  
11 deposits in this area have been recorded at more than 140 feet in depth.  
12

13 The same glaciers that formed the ridges also formed the lakes and lowland areas.  
14 Significant scouring occurred in the Susitna basin as a result of the tremendous weight and  
15 generally north to south movement of glaciers in the Valley. This glacial scour is evidenced  
16 by the numerous lakes that formed in lower depression areas. Other deperessional or  
17 lowland features were formed in ground moraine deposits under the ice.  
18

### 19 **Soils**

20 The Soil Survey of Matanuska-Susitna Valley Area, Alaska was finalized in 1998. The  
21 updated soil survey reclassified many of the soils identified by earlier surveys for this area.  
22 The planning area is located within two general soil map units: Estelle-Disappoint  
23 Association and Histosols (peatlands). Generally speaking, the majority of upland soils in  
24 the planning area are Estelle soils while the majority of wetland soils are Histosols.  
25 However, there are several classified units of both upland and wetland soils in addition to  
26 those previously mentioned. Upland soils comprise approximately 50% of the total planning  
27 area; wetland soils comprise approximately 29%; and the remaining 21% is surface waters.  
28 See Map 3 on page 2 - 7 for a general depiction of wetland and upland soils.  
29

30 The Estelle-Disappoint Association contains two soils units that are found within the same  
31 unit. Estelle soils are found in areas of deep glacial till that is overlain with wind-blown silt  
32 and volcanic ash. These soils are well drained and can be found throughout the planning  
33 area. These soils have slight to severe restrictive soil features for recreational development  
34 because of slope, percolation, or erodability. Disappoint soils are similarly found in areas of  
35 deep glacial till overlain with silt and volcanic ash. Unlike Estelle soils, Disappoint soils are  
36 found in depressions or at toeslopes and are very poorly drained (wetlands). These soils have  
37 severe restrictive soil features for recreation development because of wetness and large  
38 stones.  
39

40 Histosols are deep organic soils found on low landscape positions and depressions and  
41 includes bogs and fens on glacial till within the planning area. These soils are very poorly  
42 drained (wetlands) and may have water present at the soil surface.  
43  
44

**1 Subsurface**

2 Below the glacially influenced surface formations lie Tertiary aged sedimentary bedrock of  
3 the middle Kenai formation. Below that formation is igneous bedrock of the Jurassic period.  
4 Coal is present at varying quantities and depths.

**6 Water****8 Surface Water**

9 There are 131 lakes within the NLSRA. Sixty seven are over five surface acres in size and  
10 20 are over 40 acres in size. The four largest lakes are Red Shirt Lake (1,183 acres), Nancy  
11 Lake (761 acres), Lynx Lake (315 acres), and Butterfly Lake (310 acres). The Little Susitna  
12 River flows through the southern portion of the recreation area. In addition to being in  
13 NLSRA the Little Su is also legislatively designated as one of the Recreation Rivers. Lakes  
14 and streams within NLSRA make up approximately 4,632 acres (or 21%) of the planning  
15 area.

16  
17 Surface waters generally drain southwesterly into the Susitna River. Only Nancy Lake and  
18 the lakes in the extreme southeastern corner of the recreation area drain into the Little Susitna  
19 River. The lakes north of Nancy Lake Parkway drain westerly into Rolly Creek and then into  
20 the Susitna, while those south of the parkway drain southwesterly into Red Shirt Lake, then  
21 into Fish Creek and the Susitna. Although flooding of the lakes and streams within NLSRA  
22 along natural rivers may pose some hazard problems, flooding from heavy rains or snows are  
23 not considered to be a significant hazard.

24  
25 There are five water rights issued for withdrawal of surface waters in NLSRA. All five  
26 authorizations occur on Nancy Lake.

**28 Subsurface Water**

29 Ground water from three wells within the NLSRA supply water for state maintained  
30 facilities. These wells are located at the State Recreation Site campground, South Rolly Lake  
31 Campground, and at the agency staff/maintenance facility. Numerous private wells exist on  
32 the adjacent private parcels, and range from 25 feet to over 140 feet deep. Hand dug/driven  
33 wells range from 15 feet to over 40 feet.

**35 Vegetation**

36  
37 Most of NLSRA and NLSRS are covered by boreal forest. There are four general forest  
38 cover types in the planning area. The most predominate cover type is a pure White Birch  
39 (*Betula papyrifera*) type; these stands dominate the higher elevation areas particularly on the  
40 well drained eskers and ridges. These stands give way to the second cover type as elevation  
41 is lost and the land forms more closely adjoin the lakes and muskeg areas. This second type  
42 is a White Birch/White Spruce (*Picea glauca*) type. White Birch is the predominate species  
43 in this type with White Spruce being scattered throughout the stand. The third cover type is  
44 recognized as elevation decreases at toe-slopes where ridges give way to rolling to flat  
45 terrain. This type is a transition between and mostly Black Spruce (*Picea mariana*) to a

1 mixture of White Spruce and Black Spruce (*Picea mariana*). Drainage at these sites is better  
2 than the adjoining pure Black Spruce type on the muskegs, but not as well drained as the  
3 White Birch or the White Birch/White Spruce stands upslope. The fourth cover type is the  
4 Black Spruce type; this type occurs on poorly drained soils and is located next to the  
5 numerous lakes and muskegs in the Recreation Area. Cottonwood (*Populus balsamifera*) and  
6 Quaking Aspen (*Populus tremuloides*) along with alder (spp) and willow (spp) are present  
7 but scattered in riparian areas, seep locations, and at the edge of muskegs. See Map 4 on  
8 page 2 - 9 for a depiction of the vegetative cover for the planning area.  
9

10 Since this area is a designated State Recreation Area, timber management and stand  
11 manipulation is generally not appropriate in most circumstances. However, there may be  
12 circumstances where timber management is consistent with management, facility, or visitor  
13 use objectives. Under some extenuating circumstances (i.e. a large wildfire, insect epidemic,  
14 or hazard trees) stand manipulation may be appropriate in order to enhance visitor safety.  
15

## 16 **Fish and Wildlife**

17

18 The rolling hills interspersed with lakes and wetlands provide rich habitat for fish and  
19 wildlife. Few detailed studies specific to this area exist; however some general information  
20 on fish and wildlife does exist. The following information contained in this plan was taken  
21 from general data developed by ADF&G, peer reviewed literature, and is augmented with  
22 personal communication with staff from ADF&G, USFWS, and DPOR.  
23

### 24 **Large Mammals**

25 Several species of large mammals utilize this area's diverse habitat. Species include bears  
26 (black and brown), moose, and wolves. ADF&G data indicates that all of these species are  
27 present within the NLSRA.  
28

29 Both brown and black bears have been sighted in the planning area; however, exact numbers  
30 are not known. Black bears are distributed across much of Alaska, particularly in "open"  
31 forests with mixed habitat types. Similarly, brown bear are distributed across much of  
32 Alaska. However, the preferred type of habitat for brown bear includes large areas of  
33 grasslands that provide high quality foods when other food sources are unavailable. The  
34 planning area contains habitat types suitable to both types of bears.  
35

36 Moose have a circumpolar distribution and inhabit a wide range of habitats in the northern  
37 hemisphere. In Alaska, moose occupy a range of habitats from the North Slope to the Alaska  
38 Peninsula and Southeast Alaska. Moose are commonly sighted throughout the planning area  
39 and utilize all available habitats (uplands, wetlands, and waterbodies). Habitat information  
40 produced by ADF&G indicates concentration areas to be present. Based on this information,  
41 numbers of moose in the planning area can increase during the spring, summer, and winter.  
42  
43

1 Wolves exist in a wide variety of habitats, climates, and terrains across Alaska and have been  
2 sighted in the planning area. Moose is an important food source for wolves but they will  
3 prey upon other small mammals, birds, and fish. All of these prey species are found within  
4 NLSRA.

### 6 **Small Mammals**

7 Small mammals are commonly found in habitats similar to those located in the planning area.  
8 These animals can include: wolverines, coyotes, lynx, martin, weasels (ermine), red foxes,  
9 beavers, hares, squirrels, muskrats, and voles to name a few. Of these animals, hares,  
10 squirrels, beavers, and muskrats are commonly sighted in the area.

### 12 **Birds**

13 Common throughout the planning area, birds utilize all available habitat types. The upland  
14 areas and transitional habitats provide habitat for migratory and resident songbird  
15 populations. The numerous wetlands, ponds, and lakes provide habitat for several species of  
16 water birds including multiple species of ducks, Canada geese, common and Pacific loons,  
17 red-necked grebes, and trumpeter swans. Open meadows are frequented by sand hill cranes  
18 in the summer. ADF&G habitat information indicates that waterfowl and swan nesting,  
19 molting, and brood rearing occurs in portions of the recreation area. Common loons have  
20 been observed on many of the lakes and nesting is known to occur on several waterbodies.  
21 Similarly, red necked grebes have been observed nesting and brood rearing on several  
22 waterbodies.

### 24 **Fish**

25 Many of the waterbodies have both resident and anadromous fish populations. Resident fish  
26 species include burbot, Dolly Varden, rainbow trout, whitefish species, and Northern pike.  
27 With one exception – Northern pike – the listed species are native to these waters. Northern  
28 pike have recently become established in the Susitna River watershed where they are  
29 considered an invasive species. Since their introduction they have spread to many  
30 waterbodies, including those in the recreation area. A voracious predator, Northern pike  
31 negatively impact native fish populations in waters where they are introduced. Several  
32 waterbodies have seen a reduction or elimination of native salmon and trout species where  
33 pike have become established.

34  
35 Twenty five waterbodies are identified as anadromous in the *Atlas to the Catalogue of*  
36 *Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes*<sup>1</sup>. These  
37 waterbodies support various habitat needs for fish species including spawning and rearing  
38 habitats. Anadromous fish species include chinook, coho, pink, and sockeye salmon. Once  
39 abundant in many of the lakes, salmon populations have been decreased or eliminated where  
40 pike are present. See Map 5 on page 2 - 11 for a depiction of anadromous waterbodies in the  
41 planning area.

---

<sup>1</sup> Alaska Department of Fish and Game (ADF&G) publication available online or in hard copy at certain locations across the state.

1 Ten waterbodies have been stocked by ADF&G. Four of these lakes – North & South Rolly,  
2 Rhein, and Tanaina – were stocked with rainbow trout in 2011. See Table 3 on page 2 - 13  
3 for information on stocked lakes.  
4

## 5 **Natural Hazards**

### 6 **Wildland fires**

7 Many tree stands within NLSRA are over-mature or have been affected by forest pests.  
8 Because of the prior spruce beetle mortality in the white spruce and the age and condition of  
9 the white birch some active management of the high risk trees may be required to protect the  
10 recreating public. Dead and dying white and black spruce in areas of high public use may  
11 necessitate active forest management to reduce the threat of wildfire. The type and  
12 composition of understory species also affects the rate spread of wildland fires. Modification  
13 of the understory may be necessary to provide vegetative breaks or control areas to help  
14 reduce rate of fire spread in this area. High use areas such as campgrounds and public use  
15 cabins are particularly vulnerable to wildfire due to concentrated and reoccurring public use  
16 where fires are authorized. Most wildfires in the Mat-Su Valley are caused by humans.  
17  
18

### 19 **Hazard Trees**

20 For the same reasons stated above, some trees in close proximity to trails and facilities have  
21 become hazardous to the recreating public. Over-mature, diseased, or declining trees are  
22 susceptible to failure of the bole or limbs. Injuries may occur if a person is present when the  
23 failure occurs. This is particularly true where use is concentrated at campgrounds, remote  
24 campsites, or public use cabins.  
25

### 26 **Water**

27 Much of the recreation in this area is centered on water based recreation activities in both  
28 summer and winter. Unexpected water immersions are possible through a number of  
29 scenarios including boat capsizing, falls overboard, or unsafe ice conditions. These events  
30 may result in hypothermia or drowning. The majority of boating fatalities in Alaska involve  
31 adult males that have capsized a boat or have fallen overboard while recreating. By statute,  
32 persons under 13 must wear their personal flotation device when in an open boat or on the  
33 deck of a boat, and when waterskiing.  
34

### 35 **Cold Temperatures**

36 When recreating in the winter time, people can expect cold temperatures that persist for  
37 extended periods. Average low temperatures for January, February, and March are 1, 3, and  
38 8°F respectively. The lowest recorded temperatures for these same months are -47, -41, and -  
39 43°F respectively. Exposure at these temperatures can result in frostnip or frostbite, or if  
40 prolonged, death.  
41

### 42 **Other Hazards**

43 Other hazards include slip, trip, and fall accidents; encounters with traps; encounters with  
44 wildlife; and, accidents related to discharge of bow and arrow.  
45

1  
2  
3  
4

**Map 3: Soils**



1  
2  
3  
4

**Map 4: Vegetation Cover**

1  
2  
3  
4

**Map 5: Anadromous Waterbodies**

1 **Table 3: Stocked Lakes**

Waterbody Name	Stocked by ADF&G	Most recent year stocked	Species Stocked (past and present)
Big Noluck	Yes	1999	rainbow trout
Delyndia Lake	Yes	1990	coho salmon
Little Noluck	Yes	1992	rainbow trout
Milo Lake	Yes	1972	rainbow trout
Nancy Lake	Yes	1994	sockeye and coho salmon
North Rolly Lake	Yes	2012	rainbow trout
Rhein Lake	Yes	2012	rainbow trout
South Rolly Lake	Yes	2012	rainbow trout
Tanaina Lake	Yes	2012	rainbow trout
Little Susitna River	Yes	1995	Arctic grayling and coho salmon

2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29

## Human Environment

### Population

Just over 50% of the State’s population is within a couple hours drive of NLSRA and NLSRS. See Map 1 on page 1 - 13 for a depiction of the locations of NLSRA and NLSRS within Southcentral Alaska. Most of these people live within the Municipality of Anchorage (291,826); however, a substantial number of people (88,995) reside in the Matanuska Susitna Borough. The population within Alaska increased by 83,299 people between 2000 and 2010. Over 60,000 of these new residents reside in Anchorage and Matanuska Susitna Borough in roughly equal numbers (31,543 Anchorage; 29,673 Matanuska Susitna Borough). This translates into just over 70% of the statewide population growth occurring in Anchorage and the Matanuska Susitna Borough.

### Cultural History

Not long after the glaciers retreated, this rich and diverse area was inhabited by Alaska Natives. While exhaustive archaeological surveys have not been completed for the entire area, some specific areas have been studied and have yielded evidence of past settlement and use. Dating of sites within the Susitna Valley indicates that the first Alaskans may have come into this area approximately 10,000 years before the present day. The oldest sites of these are associated with the American Paleoarctic Tradition, dating from 10,500 to 5,200 years ago. Sites in the Cook Inlet region dating from 3,000 to 1,000 years ago suggest a Pacific Eskimo cultural affiliation with coastal Southcentral and Southwestern Alaska. Linguistic data suggests there were several migrations of Dena’ina into the region starting 1,000 to 1,500 years ago. By between 600 and 500 years ago, they had replaced earlier populations.

1 People were drawn to this area because of plentiful salmon, resident fish populations and the  
2 availability of moose and other animals. Artifacts related to these early inhabitants have  
3 been located within the recreation area and site. In addition to archaeological studies,  
4 detailed information about local village sites and use of the area by the Dena'ina people has  
5 been provided by Shem Pete and his son Billy Pete. This father and son were both residents  
6 of the area. Remnants of Billy Pete's cabin and the village where Shem Pete once lived are  
7 still visible today.

8  
9 The area around Nancy Lake was an important home and cross-roads for Alaska Natives and  
10 early Alaskans. NLSRA and NLSRS are positioned at the transition between the Talkeetna  
11 Mountains to the east and the vast wetlands and flats of the Susitna River to the west.  
12 Initially, this area was inhabited by people that relied on the fish and game resources for  
13 sustenance. These people often traveled with the seasons and natural patterns of the fish and  
14 game they depended upon and established village sites and seasonal camps where harvests  
15 would occur. The recreation area, site, and surrounding lands contain several such sites.  
16 American gold prospectors made their way to the Susitna River by 1896. As prospecting and  
17 gold mining expanded in the Talkeetna Mountains many people traveled the mining trails  
18 including the Nancy Lake-Susitna Trail – a trail that is also recognized as a segment of the  
19 Iditarod Trail. After European contact and settlement, people continued to live, hunt, fish,  
20 and trap in this area. Others were only visitors on their way to destinations elsewhere in the  
21 Susitna Valley or surrounding mountains.

### 22 23 **Surface Estate**

24 The surface estate is the land that you can see in addition to common variety materials. The  
25 NLSRA encompasses just over 22,500 acres of land and water. Of that, approximately 323  
26 acres are private ownership inholdings<sup>2</sup>. At approximately 30 acres, the NLSRS  
27 encompasses a significantly smaller area of land and water. There are no private inholdings  
28 within the recreation site. There are approximately 500 parcels of private land contiguous<sup>3</sup>  
29 with the boundary of NLSRA and NLSRS. Over 400 more private parcels are adjacent<sup>4</sup>  
30 (within ½ mile) to the recreation area and site. See Map 2 on page 1 - 15 for a generalized  
31 depiction of land ownership.

### 32 33 **Subsurface Estate**

34 The subsurface estate includes the lands below the surface and the leasable minerals<sup>5</sup> and  
35 locatable minerals<sup>6</sup> such as gold, coal, oil and gas. The state owns the entire subsurface  
36 estate at NLSRS and NLSRA with the exception of 15 acres on Skeetna Lake where 15 acres  
37

---

<sup>2</sup> Inholdings are defined for the purpose of this document as private properties within the boundary of NLSRA.

<sup>3</sup> Contiguous parcels are located outside of the external boundary of NLSRA or NLSRS but share a common boundary with NLSRA or NLSRS.

<sup>4</sup> Adjacent parcels lie near the external boundary of NLSRA or NLSRS but do not share a common boundary with NLSRA or NLSRS.

<sup>5</sup> Leasable minerals include deposits of coal, sulfur phosphates, oil shale, sodium potassium, oil, and gas. Leasable minerals do not include the locatable minerals.

<sup>6</sup> Locatable minerals include both metallic (gold, silver, lead, etc.) and non-metallic (feldspar, asbestos, mica, etc.) minerals. Locatable minerals do not include the leasable minerals.

1 of the hydrocarbon estate is owned by the Alaska Mental Health Trust Authority. Because  
2 the lands and waters were withdrawn from the public domain as a special purpose site they  
3 cannot be leased for private or commercial development of the subsurface resources.  
4

### 5 **Recreational Uses**

6 The recreation area is well known in Southcentral Alaska for its canoe trail (Lynx Lake  
7 Loop) and 13 public use cabins. In addition to these well know opportunities, many different  
8 recreational uses occur within NLSRA and NLSRS. These uses vary by location and season.  
9 During ice free periods recreational uses include motorized and non-motorized boating,  
10 hiking, camping, fishing, bike riding, waterskiing, wildlife and nature viewing, photography,  
11 and swimming. When snow and ice conditions allow, winter recreationists enjoy skiing, dog  
12 sledding, skijoring, snowshoeing, skating, snowmobiling, and ice fishing among other  
13 pursuits. A lesser known canoe trail – the Pioneer Loop – provides access to several lakes  
14 north of the Nancy Lake Parkway. Local and regional recreation preferences are discussed  
15 below.  
16

### 17 **Use Trends**

18 Visitor count data for fiscal year 2001 to fiscal 2010<sup>7</sup> was reviewed to see if any trends in  
19 overall use and use of public use cabins were evident. Generally speaking, overall use of  
20 NLSRA reached a ten year high of just over 70,000 people in fiscal year 2002 but has been  
21 declining in recent years to a ten year low of approximately 40,000 people in fiscal year  
22 2010. In contrast, use of NLSRS has increased in recent years to a ten year high of just over  
23 12,000 people in fiscal year 2008 from a low of just under 5,000 people in fiscal year 2004.  
24 See Graph 1 on page 2 - 19 for a depiction of overall visitor use count data.  
25

26 Overall use of the 13 public use cabins at NLSRA has ranged from a low of 4,368 people to a  
27 high of 6,496 people. Generally, use of the cabins has increased recently to over 6,000  
28 people per year for the last two years. Cabins on Nancy Lake are the most readily accessible  
29 and receive the highest levels of use (consistently over 2,000 people per year) while the more  
30 remote cabins at James and Lynx lakes receive the least amount of use (between 274 and 675  
31 people per year). See Graph 2 on page 2 - 19 for a depiction of public use cabin visitor count  
32 data.  
33

34 Taken together, just over 600,000 people have visited NLSRA and NLSRS including over  
35 55,000 people at the public use cabins over a ten year period.  
36

### 37 **Public Access**

38 Access to NLSRA and NLSRS is provided to residents and visitors via the George Parks  
39 Highway. Three primary access routes lead west from the highway into the recreation area  
40 and site – Nancy Lake Parkway, Lynx Lake Road and Butterfly Lake Trail, and Buckingham  
41 Palace Road. A number of lesser routes also access private land or subdivisions on borough  
42 roads or from roads and trails originating on private, borough, or state land.  
43

---

<sup>7</sup> The most recent visitor count data available at the time of plan development was fiscal year 2010.

1 The Nancy Lake Parkway is a 6.5 mile long paved road that provides access to the majority  
2 of developed recreation facilities at NLSRA. The facilities include trailheads, parking areas,  
3 picnic area, and the South Rolly Lake Campground. Among the trailheads are those used to  
4 access the canoe trails. The road is also used for access to private property near Red Shirt  
5 Lake.

6  
7 Lynx Lake Road is a minimally developed and maintained dirt road that is approximately  
8 6 miles long. This road primarily serves as an access route for private property owners on  
9 Nancy, Lynx, Butterfly, Skeetna, and Delyndia lakes. This road leaves the George Parks  
10 Highway at mile 67.3 and generally travels west and south to the boundary of NLSRA. A  
11 small parking area with a traffic control gate has been developed just inside the NLSRA  
12 boundary. From this parking area, the road continues south and east to private property on  
13 the eastern shore of Lynx Lake. From this property, the route continues as a moderately  
14 developed trail to the northeast shore of Butterfly Lake. This trail is commonly known as the  
15 Butterfly Lake Trail. Property owners have been authorized to use both highway vehicles  
16 and ATV's on Lynx Lake Road and Butterfly Lake Trail for access to their private property.  
17 Use of a highway vehicle or ATV is restricted beyond the traffic control gate for all other  
18 people. Only two facilities are accessible from this road and trail – Lynx Lake boat launch  
19 and Butterfly Lake boat launch. The Lynx Lake launch is small and only minimally  
20 developed whereas the Butterfly Lake launch has had no real development.

21  
22 Buckingham Palace Road together with multiple connected local roads provides access to the  
23 NLSRS and to numerous private properties on Nancy Lake. Public access to the surface of  
24 Nancy Lake is provided where local roads terminate at the shoreline. These road access sites  
25 can accommodate a small amount of use but lack sanitation, waste, or parking facilities  
26 common to other water access sites.

## 27 28 **Recreational Preferences**

### 29 30 **Statewide**

31 The Statewide Comprehensive Outdoor Recreation Plan (SCORP) is a document that is  
32 produced to guide recreation-related decisions and policies on a large scale over a 5 year  
33 period from 2009 to 2014. It is necessary to develop the SCORP every 5 years to maintain  
34 the State's eligibility to participate in the federal Land and Water Conservation Fund  
35 program. Among other plan requirements, it assesses the supply and demand for outdoor  
36 recreation on a statewide basis. The public process used to develop information for the  
37 SCORP was extensive and included: 600 telephone surveys conducted in three  
38 representative regions of the state; a survey distributed to park professionals across the state;  
39 and, a survey that was mailed out to 2,357 households across the state. An additional survey  
40 was provided to school districts to get input from the youth of Alaska. The following text  
41 highlights some information contained in the SCORP.

42  
43 The majority of people surveyed indicated that they are generally satisfied with the outdoor  
44 recreation opportunities in their community or within 1 hour of their community. Ninety-six  
45 percent of all respondents indicated that parks and outdoor recreation were important or very

1 important to their life style. The importance of outdoor recreation is reflected in the number  
2 of people that own equipment that facilitates recreation. The type of equipment owned  
3 ranges from relatively small and inexpensive items such as backpacks, tents, bicycles, and  
4 fishing equipment to larger more expensive items such as canoes, rafts, ATV's,  
5 snowmobiles, and recreational vehicles among other types. Hiking is the activity favored by  
6 most people in addition to being the activity most people reported participating in. Other  
7 favorite activities include fishing, hunting, snowmachining, cross country skiing, camping,  
8 biking, ATV riding/4 wheeling, skiing/snowboarding, and running.

9  
10 Many of the activities listed above rely upon a developed facility or trail that allows the  
11 person to engage in the recreational pursuit. A series of questions were asked to better  
12 understand what types of developments and experiences people would support. People  
13 supported development of new facilities to provide recreational opportunities and  
14 experiences to varying degrees while registering opposition to a few. The developments that  
15 drew the most support were: establishment of new parks and recreation areas; and,  
16 expansion of the public use cabin system. Other developments and experiences that were  
17 supported to a lesser degree included: providing toilets at regular intervals along road  
18 systems; development of new trailheads on roads and highways; and, development of more  
19 non-motorized trails. Development of visitor centers drew the least support while several  
20 other types of developments and experiences similarly garnered little support, these included:  
21 development of tourist facilities; more RV campgrounds; more organized recreation  
22 programs; providing more facilities for disabled people; providing more RV dump stations;  
23 and, more boat launches and ramps. Respondents overwhelmingly supported improving the  
24 maintenance of existing facilities before developing new facilities when funding is limited.

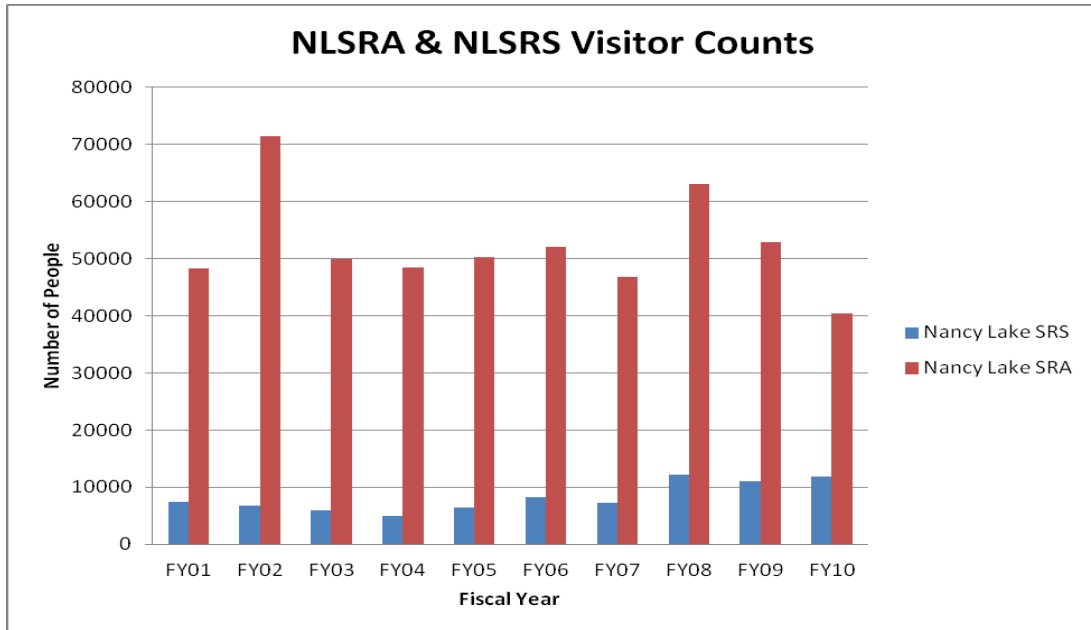
### 25 26 **Local**

27 A questionnaire was developed to help DPPOR better understand people's preferences for  
28 types of recreation and facilities, and to gain a better understanding of access within and  
29 through NLSRA to private property. The questionnaire was made available to be completed  
30 electronically at the NLSRA planning website or people could request a hard copy be mailed  
31 to them. Notice of the availability of the questionnaire was sent to the distribution list of  
32 over 900 people and included property owners in the area, non-governmental organizations,  
33 and other people interested in management of these state resources. The questionnaire was  
34 available for people to complete for over 30 days in the fall of 2010. One hundred and fifty-  
35 one people completed the questionnaire by the September 13<sup>th</sup> deadline. While not taken  
36 directly from the 1981 survey, several questions are variants of those asked in the earlier  
37 survey. This was done to determine if there had been any shifts in preferences since 1981.  
38 The first part of the questionnaire focused on recreation, experiences, and facilities while the  
39 second part was focused on private property, access to that property, and how NLSRA  
40 facilities are used to facilitate private access. Information from the questionnaire is  
41 summarized in the following text while a more detailed review of results is provided in  
42 Appendix D.

- 1 • Of the 151 respondents to the questionnaire, 99% indicated that they recreate, or had  
2 recreated, in NLSRA in the past. Opportunity to escape urban environments was the  
3 primary reason people chose to recreate at NLSRA. Slightly more people recreate  
4 during the summer (88%) than in winter (87%); however, respondents indicate that  
5 recreation occurs in all seasons.
- 6 • Recreation occurs in all areas of the NLSRA with snowmobiling (68%), canoeing  
7 (66%), boating (61%), fishing (54%), and hiking (51%) indicated as the five activities  
8 most engaged in.
- 9 • Respondents indicated that many of the commonly occurring recreational facilities  
10 and uses *were appropriate* at NLSRA with hiking (72%), cross country skiing (69%),  
11 camping (69%), public use cabins (65%), and snowmobile riding (64%) being the  
12 five uses and facilities that drew the most support.
- 13 • Horse riding (33%), dog training (31%), float plane use (29%), education &  
14 interpretation center (16%), and snowmobile riding (15%) drew the most responses as  
15 the five uses and facilities that are *not appropriate* at NLSRA.
- 16 • The “quiet natural setting of the area” is what people like most about NLSRA while  
17 people indicated that the least liked “motorized use in the recreation area” (62% and  
18 33% respectively).
- 19 • Seventy-two percent of respondents indicated that development should remain at  
20 current levels or be increased slightly.
- 21 • Fourteen questions were specific on the types of uses and facilities. Respondents  
22 indicated support for many trail and facility proposals with the exception of  
23 equestrian trails. The question of where to develop new trails and facilities that are  
24 supported by respondents remains problematic with over ½ of respondents indicating  
25 opposition to higher levels of development in Nancy Lake Parkway corridor or in the  
26 Lynx Lake Road and Butterfly Lake Trail area.
- 27 • Fifty-two percent of respondents indicated they were property owners within,  
28 contiguous to, or adjacent to NLSRA. On average these people have owned their  
29 property for 17 years. The five methods of access most commonly used by these  
30 property owners are Snowmobile (79%), highway vehicle both summer and winter  
31 (46% and 43% respectively), canoe (44%), and hiking (42%). Sixty-two percent of  
32 landowners that responded use trails, launches and boat storage areas to access their  
33 private property.
- 34

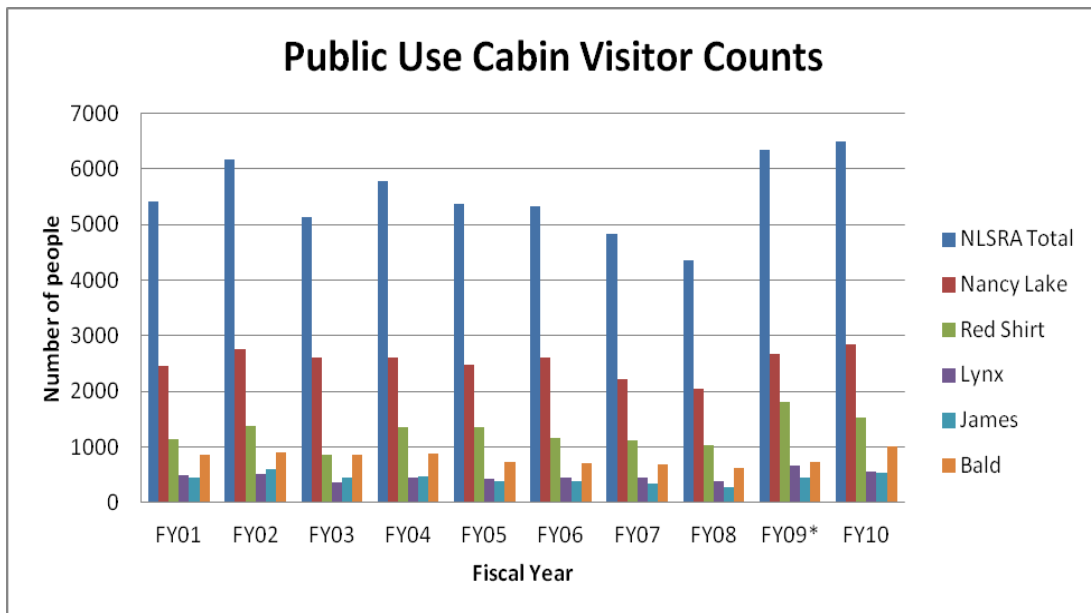


1 **Graph 1: Overall visitor counts for NLSRA and NLSRS**



2  
3  
4  
5

**Graph 2: Public use cabin visitor counts.**



6