



Nabesna Road Audio Tour Script

Sources: National Park Service resources including the Wrangell-St. Elias National Park & Preserve website (www.nps.gov/wrst), the Nabesna Road Guide, NPS brochures, park staff, the Central Alaska Network (<http://science.nature.nps.gov/im/units/cakn/WRST.cfm>) and AK Dept. of Fish & Game Wildlife Notebooks (www.adfg.state.ak.us/pubs/notebook/notehome.php).

The mission of Wrangell-St. Elias National Park and Preserve: To preserve and protect ecological integrity and heritage resources of a vast ecosystem in south-central Alaska, while providing for public use in a wilderness setting. This park was designated to encompass an area large enough to include a diverse range of scenery, high latitude biomes, and landscape processes where humans are considered an integral part of the ecosystem. Ecosystem integrity and carefully planned public use is essential so there is opportunity for the continuation of subsistence lifestyles, future scientific investigations, interpretation of natural forces, and the inspiration and solitude of wilderness experience for present and future generations.

Track Names:

1. Slana Ranger Station to Slana River Bridge
2. Slana River Bridge to 4-Mile Road Junction
3. 4-Mile Road Junction to the Park/Preserve Sign at Mile 5.6
4. Park/Preserve Sign at Mile 5.6 to Copper Lake Trailhead
5. Copper Lake Trailhead to Dead Dog Hill
6. Dead Dog Hill to Caribou Creek Trailhead
7. Caribou Creek Trailhead to Rock Lake Rest Area
8. Rock Lake Rest Area to the Camping Area at Twin Lakes
9. The Camping Area at Twin Lakes to Lost Creek Trailhead
10. Lost Creek Trailhead to Jack Creek Rest Area
11. Jack Creek Rest Area to Skookum Volcano Trailhead
12. Skookum Volcano Trailhead to Reeve's Field
13. The End of the Road!
14. Wrangell-St. Elias National Park Visitor Center, in Copper Center
15. Chitina, the McCarthy Road, and Kennecott Mill Town
16. Conservation and Research Efforts in Wrangell-St. Elias National Park & Preserve

Track 1: Slana Ranger Station to Slana River Bridge

(Music starts and fades out)

Welcome to Wrangell-St. Elias National Park & Preserve, America's largest national park! What has brought you here? Are you just passing by? Are you curious? Are you here to explore? If you're looking for a chance to experience Alaskan wilderness, you've come to the right place. You're about to embark on a trip down the Nabesna road: built for a gold mine, yet today providing access to so much more. There is much to discover here! As you drive this road, you'll catch a glimpse into the interior of Alaska. Today, you may see moose grazing on willow twigs, a herd of caribou trotting through a meadow, or a pair of swans gliding across a lake. As you drive, you'll see majestic mountains, shaped by glaciers and volcanoes, set within breathtaking landscapes. There is also a fascinating history of people who have made this land their home, both in the past and in the present.

The Nabesna Road stretches for 42 scenic miles, and it's much the same today as it was when it was built back in 1934. Generally, the Nabesna Road is passable by any two-wheel drive vehicle. But sometimes, especially after it has rained, the road may become rough and you may need a four wheel drive vehicle. Please be cautious and take care, as there may be uneven surfaces, potholes, and washouts present.

Driving the Nabesna Road can be an adventure! Have fun and take it slow. Soak it in. Pull over, step out of your vehicle, and take a deep breath of the Alaskan air. Drink in the beauty. And take notice of the rich interplay of the wildlife, people, and landscape around you—all held within the wilderness of Wrangell-St. Elias National Park and Preserve.

(Music fades in and ends)

This concludes Track 1. At this time, go ahead and pause or stop this recording. Proceed to Track 2 during your drive between the Slana River Bridge and 4-Mile Road Junction.

Track 2: Slana River Bridge to 4-Mile Road Junction

(Music starts and fades out)

You've just crossed over the Slana River, which drains off of the Mentasta Mountains, located to your left as you drive the road. This pristine river empties into the Copper River just two miles downstream from the Slana Bridge, making the Slana River part of the Copper River watershed. This watershed shapes the dramatic landscape of Wrangell-St. Elias, and it is the lifeblood of the park's varied ecosystems.

With an abundance of wide open spaces and hundreds of miles of streams draining into the Copper River watershed, Wrangell-St. Elias is home to a tremendous array of fish resources. The Copper River and most of its tributaries are migration routes for sockeye, coho, and king salmon, and pink and chum salmon can be found in the park as well.

Adult salmon begin this migration cycle by swimming upstream from the Gulf of Alaska to build a nest, spawn, and deposit their eggs. These fish return to the stream where they were born, bringing a gift of life. After spawning the fish die, but their decomposing bodies become food for other animals, and enrichment for streamside soil and plants within the Copper River watershed.

(the sound of running water, babbling stream)

Within Wrangell-St. Elias National Park & Preserve, migrating salmon provide a major resource for subsistence and sport harvest fisheries. Throughout the summer, biologists keep track of the numbers of returning salmon. Careful monitoring is essential, to guarantee that healthy salmon populations are maintained.

Within the rivers, creeks, and lakes along the Nabesna Road, there are other fish to be discovered, including grayling, Dolly Varden, and burbot. If you'd like to fish along the Nabesna Road, pick up a copy of the current fishing regulations at the Slana Ranger Station. While you're there, a park ranger can tell you where to obtain an Alaska State fishing license, which is required for all anglers age 16 or older, or about other resources within the world-famous Copper River basin!

(Music fades in and ends)

This concludes Track 2. At this time, go ahead and pause or stop this recording. Proceed to Track 3 during your drive between 4-Mile Road Junction and the Park/Preserve Sign at Mile 5.6.

Track 3: 4-Mile Road Junction to the Park/Preserve Sign at Mile 5.6

(Music starts and fades out)

Did you know that you could file a homesteading claim in Alaska as recently as 1986? 4-Mile Road leads into Slana Settlement, which was home to one of the last opportunities for homesteading federal land in the United States. In 1983, the Bureau of Land Management opened over 10,000 acres of land to homesteading, where people could claim the land they staked for \$2.50 an acre. In order to keep the land, homesteaders had to meet certain requirements, such as occupancy and improving the land. About 800 claims were filed, but more than half were soon abandoned. Harsh, long, frigid Alaskan winters took their toll. Many people tried to live in hastily built cabins and tents, with temperatures dipping down to negative 60 degrees F. Then came the harsh realization that jobs were scarce and the land was not suitable for farming. Only about 100 claims were eventually patented, and today about 50 residents live in the settlement year-round. The Homesteading Act no longer exists in the United States, including Alaska. However, the idea is so popular that many people still think that they can file homesteading claims here. It is such a popular question that the Alaska Department of Natural Resources lists it in their "Frequently Asked Questions" page. Alaska continues to draw adventuresome people from all over the world, like the pioneers before them, hoping for a new beginning, and hoping to find land to explore and enjoy.

(Music fades in and ends)

This concludes Track 3. At this time, go ahead and pause or stop this recording. Proceed to Track 4 during your drive between the Park/Preserve Sign at Mile 5.6 and Copper Lake Trailhead.

Track 4: Park/Preserve Sign at Mile 5.6 to Copper Lake Trailhead

(Music starts and fades out)

Just past mile marker 5, you'll see a sign indicating that both sides of the road are now park lands. While driving the scenic Nabesna Road, you'll be within the boundaries of Wrangell-St. Elias National Park & Preserve, but occasionally you'll be passing through private, state, or native-owned land. When Wrangell-St. Elias was established in 1980, there were already people living in this area. So how was it possible to establish a 13-million acre national park here? The Alaska National Interest Lands Conservation Act, also known as ANILCA, was passed in 1980, and created this park as well as other national parks, monuments, and forests in Alaska. This landmark legislation protects ecosystems and wilderness while protecting the rights of private land owners. ANILCA also provides opportunities for Native and non-Native rural residents of Alaska to pursue and sustain traditional ways of life. So what does this mean? With the passage of this law, a new vision of parks and conservation was established where people were viewed not as separate from nature but rather a part of it. This means that protection is not exclusively for natural and cultural resources - it also extends to people, their lifestyles, and their associations with the land.

The north side of the road, on your left, is "National Preserve" and the south side of the road, on your right, is "National Park". What's the difference? The primary difference between lands designated as park versus preserve has to do with hunting regulations. Within the National Preserve only, sport hunting is allowed. Within both the National Park and the National Preserve, subsistence hunting is allowed. Subsistence is the customary and traditional use of wild, renewable resources by local rural Alaska residents, for personal or family consumption. A simple way to put it? Subsistence is local people living off the land.

Subsistence is an important way of life in Alaska. Many rural Alaskans live off the land, relying on fish, animals, and other wild resources. Nowhere else in the United States is there such a heavy reliance upon wild foods. For many Alaskans, subsistence is more than just economics. It is about who they are and a way of life.

(Music & Sounds)

Alaska Natives have used these resources for food, shelter, clothing, transportation, handicrafts, and trade for thousands of years. There are four distinct Alaska Native groups with ties to the lands of Wrangell-St. Elias National Park and Preserve. Historically, the Ahtna and Upper Tanana Athabascans resided in the interior of the park. The Eyak and the Tlingit lived in villages on the coast of Alaska. No one knows for sure when humans first reached the Copper River Basin of Interior Alaska, but by 8,000 years ago, caribou hunters began visiting Tangle Lakes, located fifty miles northwest of the park boundary. As glacial ice retreated, humans eventually entered the Wrangell Mountains. Archaeological evidence has established a record of

continuous human presence in the middle Copper Basin for the past 1,000 years, although it was probably occupied much earlier. Some believe that the area was originally settled by the Eyak. The Ahtna, however, replaced them long ago.

Historically, the Ahtna population in the Copper Basin was small and scattered because game was never plentiful enough to support large groups. The Ahtna traveled the river corridors, foothills, and passes of what we currently refer to as the Wrangell Mountains for thousands of years prior to European arrival in the area. They lived in semi-permanent camps, leaving for weeks at a time to hunt and to gather berries, birch wood, and other resources. Trade routes with other native peoples were well established. Copper, found near the present-day town of McCarthy, was used for tools and for trade with other native groups. Most villages contained twenty to thirty members of a family clan and were situated near a major river.

Today the Ahtna, Upper Tanana, Eyak and Tlingit live in or near many of the same villages they did historically. There are thousands of acres of land, within the boundaries of the park, which is owned by native people or native corporations. Local and rural native communities continue to engage in subsistence activities such as hunting, fishing, and berry harvesting. Native people continue to pass on traditional ways of life to future generations while staying closely tied to their home.

(Music & Sounds)

It's a fairly long stretch of road between Mile Marker 5.6 and the Copper Lake Trailhead, so we encourage you to stop along the way and enjoy the views. As you approach the Copper Lake Trailhead, keep in mind that this trail is about 18 miles long, but is only suitable to hiking for the first 2 miles. There is a picnic table at the trailhead, so this would be a nice place to stop for a snack! As always, please dispose of your trash appropriately.

(Music fades in and ends)

This concludes Track 4. At this time, go ahead and pause or stop this recording. Proceed to Track 5 during your drive between Copper Lake Trailhead and Dead Dog Hill.

Track 5: Copper Lake Trailhead to Dead Dog Hill

(Music starts and fades out)

After stopping for a snack at the Copper Lake Trailhead, get ready for a panoramic treat! Up ahead you will be rewarded with sweeping views of the Wrangell Mountains. As you approach these views, can you imagine what it might have been like to first explore this area? The first official American exploration and some of the first recorded geographic observations of the western Wrangell Mountains were made by Lt. Henry T. Allen of the U.S. Army in 1885. In March of that year, Allen and his companions landed at the mouth of the Copper River and began one of the most remarkable journeys in the history of Alaskan exploration. Mapping as they went, the party ascended the Copper River, crossed the Alaska Range through Suslota Pass, and then proceeded down the Tetlin, Tanana, Koyukuk, and Yukon Rivers to end up at the Bering Sea in Western Alaska. When they were not on homemade rafts on a river, they walked the entire distance of over 1500 miles!

Before going north over the Alaska Range, Allen explored the upper Copper River Basin, the Chitina River Valley, and the western Wrangell Mountains in what is now Wrangell-St. Elias National Park & Preserve. During his summer in the area, Lt. Allen measured the heights and assigned names to many of the high Wrangell peaks. Although many of these peaks already had local Ahtna names, today we know most of them, including Mount Drum and Mount Sanford, by the names given by Lt. Allen.

(Music & Sounds)

While catching the first glimpses of the Wrangell Mountains, you'll be seeing the source of the mighty Copper River. If you were to fly over the mountains and land in the great ice fields of the Wrangells, you would find yourself on top of the Copper Glacier. The meltwater of this glacier gives rise to the Copper River, which flows off the Wrangell Mountains, twisting and turning through epic landscapes, and eventually reaching the Gulf of Alaska. Along much of its length, the Copper River marks the western boundary of Wrangell-St. Elias National Park & Preserve, giving life to land, people, and wildlife throughout its watershed.

(Music & Sounds)

As you continue driving this stretch of the road, gaze to the south, or the right side of the road, and you'll be rewarded with fantastic views of the Wrangell Mountains. The rocks of the Wrangell Mountains hold stories that tell the geological history of this landscape. This mountain range is made up of thousands of lava flows that erupted from large volcanoes during the last 26 million years. Much of the geological evidence lies undiscovered, buried under thick ice fields or blankets of volcanic ash. Rivers and glaciers have both exposed and carried away clues to the region's ancient history. The rocks, ash, and ancient mud flows contain a myriad of colors, patterns, shapes, and layers that beg a curious onlooker to take a closer look.

The Wrangell peaks are among the highest mountains in North America and some of the largest, by volume, in the world. Mount Sanford, which is the looming giant with the glaciated, conical summit to the southwest, holds about 250 cubic miles of lava. That is an impressive figure when you compare it to Mt. St. Helens, in Washington, which holds about 8 cubic miles of lava, and Mt Rainier, also in Washington, which holds about 45 cubic miles of lava. Many of the volcanoes within the Wrangell Mountains are shield volcanoes, which generally produce large volumes of fluid, less-viscous lava that flows easily into gentle slopes. Because the lava flows more easily, shield volcanoes tend to have less violent eruptions.

Mt. Sanford is one of the tallest mountains in the United States with an elevation of 16,237 feet. This is a young volcano, which began to form approximately 900,000 years ago. The initial eruptive activity initiated from at least 3 volcanic centers, which built up layers of lava and ash flows. Eventually the volcanic activity shifted to one central vent, building up more layers into the massive structure that we see today. Mt. Sanford certainly is a very large mountain of rugged landscapes! On the spectacular south face of the volcano, the mountain rises 8000 feet in one mile. That is one of the steepest areas of relief in North America.

To the left of Mt. Sanford, can you see the rounded icy dome of Mount Wrangell? Mt. Wrangell, with a summit of 14,163 feet, is a good example of a shield volcano and is exciting because it is the park's only active volcano. On clear, steady days, you might see steam plumes rising from the summit! If you look closely at Mt. Wrangell and compare it to other peaks in the Wrangell Mountains, you'll see that it clearly displays the obvious gentle slopes of a shield volcano. Why don't any of the other shield volcanoes look like this? At about 600,000 years old, Mt. Wrangell is the youngest volcano in this part of the mountain range and has not been exposed to erosion for as long as the other volcanoes. Many of the other superstructures have been scraped away by glaciers, water, wind, and other forces of erosion. As you drive, watch for other smaller peaks within the Wrangell Mountains. Some of these peaks are evidence of once massive shield volcanoes, but their summits have been eroded away and sculpted by the forces of time.

In a short while you will be approaching a couple of rest areas. Just past mile 16 there is a picnic table at Kettle Lake, and a little further on is Dead Dog Hill rest area. You might consider stopping at these rest areas, drinking in the scenery, and getting a good look at the magnificent Wrangell Mountains.

(Music fades in and ends)

This concludes Track 5. At this time, go ahead and pause or stop this recording. Proceed to Track 6 during your drive between Dead Dog Hill and Caribou Creek Trailhead.

Track 6: Dead Dog Hill to Caribou Creek Trailhead

(Music starts and fades out)

As you drive away from this rest area, look closely at the wetlands and the boreal forest that surrounds you, as you may catch a glimpse of a moose—especially around the water. Moose are experts at camouflage, so while you're searching you may find signs of other wildlife. This stretch of the Nabesna Road can be an excellent area to watch for migrating birds. With thousands of acres of boreal spruce forest, muskegs, lakes, rivers, alder and willow thickets, alpine meadows, and icefields, Wrangell-St. Elias provides rich habitat for birds. In fact, more than 230 species of birds make this place their home throughout the year.

Long summer days, wide open spaces, and abundant food sources lure long-distance migrants through the Copper River basin each spring, and many of these birds stay to nest. Trumpeter swans and a myriad of other waterfowl begin arriving in late April, even before the ice and snow melts. By early May, forests are alive with birdsong as warblers and thrushes arrive and quickly establish nesting territories. By August, many birds are already beginning their long journey back to southern wintering grounds. As days shorten and the frigid winter of the Alaskan interior arrives, only the hardiest species, like chickadees and pine grosbeaks, remain.

(Music & Sounds)

Have you considered taking a hike today? One option is the Caribou Creek Trail, featuring spectacular scenery, solitude, and wildlife. If you decide to hike, be sure to take snacks, sunscreen, bug spray, and plenty of water. Be aware of unpredictable weather and trail conditions, and please pack out all of your trash. Since there may be bears in the area, be sure to make some noise or you might consider carrying bear spray if you have it. Even though the Caribou Creek trailhead is at mile 19.2, parking is available a short distance back at mile 18.9. You should be approaching this parking area soon! Have fun and enjoy the scenery!

(Music fades in and ends)

This concludes Track 6. At this time, go ahead and pause or stop this recording. Proceed to Track 7 during your drive between Caribou Creek Trailhead and Rock Lake Rest Area.

Track 7: Caribou Creek Trailhead to Rock Lake Rest Area

(Music starts and fades out)

Whether you're hiking a trail or taking a scenic drive, take a moment to look closely at your surroundings as this area can be rich in wildflowers including fireweed, blue bells, prickly rose, and Alaska cottongrass. Because Wrangell-St. Elias National Park & Preserve is so large, and it has a varied climate and geology, there is a high variety of plant communities here. In fact, the diversity of plants in Wrangell-St. Elias is unsurpassed by any other park unit in Alaska! Within the park, there are over 1200 known plant species, with many of them considered rare by the National Park Service. So take care where you step, and watch for some hidden gems that may be right beneath your feet!

(Music & Sounds)

Speaking of plants, have you taken a good look at the forest around you? It's hard to find a single image that describes Alaska's boreal forest. It's a land of multiple, sometimes contrasting scenes: A stand of slender black spruce trees, scattered across a landscape of lush moss and lichen... A grove of aspen, glowing yellow on the hillside... A moonlit willow thicket, laced with animal footprints through the snow...

The boreal forest, also called "taiga", is often portrayed as a monotonous blanket of spindly evergreens, covering the hills and valleys of the far north. In reality, it's a complex mosaic of forest types—from sunny aspen groves to spruce bogs—intermingled with meadows, marshes, lakes, and rivers, and supporting a wide variety of animals. Black spruce and white spruce are the most common conifers in this huge ecosystem, accompanied by quaking aspen, paper birch, and balsam poplar. Common shrubs include willow, alder, cranberry, rose, and blueberry. What shapes this ecosystem? Cold weather, long winters, permafrost, and forest fires all contribute to the tapestry of Alaska's boreal forest.

Visitors often wonder why the trees in the boreal forest look strange. Some trees look weak and spindly. Others are tall and straight. The absence and presence of permafrost profoundly influences tree growth in the boreal forest. Permafrost, or permanently frozen ground, develops when soil remains frozen for two or more years. Permafrost may occur one to ten feet below the surface and be 100 to 200 feet thick! During the summer, some soil thawing occurs in the upper layers of the ground. The presence and depth of this thawing affects the size and survival rate of trees and other plants.

Where permafrost is deep or not present at all, the soils are well drained, warmer, and richer in nutrients. Trees that grow here tend to be a rapidly growing mixed-species forest of white spruce, birch, poplar, and quaking aspen, and these trees usually grow tall and straight.

Where the ground does not thaw and permafrost is near the surface, the soils are cold, saturated with surface water that cannot drain, and are lower in nutrients. The primary trees that

survive in these conditions are black spruce, and they are slow growing and stunted. As a result, those trees often look weak and spindly.

As you travel throughout Alaska, look at the forest around you and see if you can find areas where permafrost might be present and other areas without permafrost.

(Music & Sounds)

You're about to pull in to the Rock Lake Rest Area, which contains a vault toilet, picnic table, and trash bin for your convenience. Plus there are great views! How could you ask for anything more? But there is more. How about the chance to stay overnight in a rustic cabin, within Wrangell-St. Elias National Park & Preserve? There is a public-use cabin nearby called the Viking Lodge. The Viking Lodge was built in the early 1970s by a homesteader of Danish descent. The rustic cabin has 2 bunks, a small kitchen table and chairs, a barrel wood stove, and a large loft area. The cabin was refurbished for public use by the National Park Service, and is in good condition with a new outhouse.

The Viking Lodge is about a 10-minute walk from this rest area. In order to use the Viking Lodge, you must have a reservation, which can be made up to six months in advance. Please talk to a ranger at the Slana Ranger Station to inquire about making reservations for this popular public use cabin. We hope you can come back to enjoy it!

(Music fades in and ends)

This concludes Track 7. At this time, go ahead and pause or stop this recording. Proceed to Track 8 during your drive between Rock Lake Rest Area and the Camping Area at Twin Lakes.

Track 8: Rock Lake Rest Area to the Camping Area at Twin Lakes

(Music starts and fades out)

Along with the Viking Lodge, there are several other public-use cabins located within Wrangell-St. Elias. Most of these cabins are old mining or hunting cabins that have been restored by the National Park Service. Most are located in remote locations, accessible only by aircraft, and require hikers or campers to make appropriate backcountry trip plans. These cabins are first come, first served, and if you'd like to learn more about them, please ask a park ranger.

Imagine coming to the park to stay in one of these public-use cabins. You're all settled in and relaxing on the porch, listening to the surrounding sounds of the Alaskan wilderness. Perhaps you'll hear a Great Horned Owl, or the wind softly whistling through the black spruce trees. Maybe you'll be lucky enough to see a cow moose emerge from a distant willow thicket with her young calf by her side.

Wrangell-St. Elias National Park & Preserve is part of a vast area of unspoiled wild lands. Nearly 10 million acres, or 15,000 square miles, of Wrangell-St. Elias are designated and managed as wilderness - the largest in the U.S. National Park system. This wilderness area is larger than some states and small countries, and is home to a wide array of wildlife and a complex intact ecosystem.

Wilderness areas preserve the primeval character and pristine nature of wild spaces. They offer outstanding opportunities for solitude, recreation, and unconfined exploration. Many Alaskans depend on wilderness lands for their livelihood. Recognizing these special needs, the Alaska National Interest Lands Conservation Act established provisions for wilderness areas that are different than those found outside of Alaska. The law permits people to use airplanes, snow machines, and motorboats to access land for subsistence activities such as hunting and fishing, as part of the Alaskan wilderness experience.

Perhaps National Geographic photographer George F. Mobley described it best when he said:

Long before recorded history, the human experience was conceived in and born of wilderness. In the deepest recesses of our hearts resonates a longing to reach out and once again grasp those primal areas. It is reassuring to know that the experience is available in those places of truly majestic wilderness - places like Wrangell-St. Elias."

(Music & Sounds)

When you reach the Camping Area at Twin Lakes, keep in mind that this is a great place to spend an hour...or to spend the night! Within this camping area there are several picnic tables, vault toilets, fire rings, and campsites that provide a nice spot for camping. While picnicking, camping, or enjoying other recreational activities, please remember to practice "Leave No Trace" principles. These include packing out your trash, respecting wildlife, being considerate of other visitors, leaving what you find, and minimizing your impact on the natural world.

However long you decide to stay, please be aware that just past Twin Lakes, the Nabesna Road becomes increasingly rough. Up ahead, you will cross several creeks. High water levels are sometimes produced by rain or hot weather that accelerates melting snow upstream. Because these creeks change course frequently and carry sediment and debris, it is not practical to install a bridge or culverts...so the streams must be forded. Although the stream beds usually provide a fairly solid gravel footing, be careful to avoid sandy or muddy areas. During high water, a 4-wheel drive is highly recommended. At times, the creek crossings may be too risky for any vehicle to safely pass.

If you have concerns about your vehicle, consider this: the Camping Area at Twin Lakes is more than half way down the Nabesna Road. If this is your turnaround point, you've already seen some spectacular scenery and have experienced an excellent overview of Wrangell-St. Elias National Park & Preserve!

(Music fades in and ends)

This concludes Track 8. At this time, go ahead and pause or stop this recording. Proceed to Track 9 during your drive between the Camping Area at Twin Lakes and Lost Creek Trailhead.

Track 9: The Camping Area at Twin Lakes to Lost Creek Trailhead

(Music starts and fades out)

In the next couple of miles, you will be crossing 3 creeks: Trail Creek, Lost Creek, and Boyden Creek. A lot of sediment and debris coming down these creeks are coming from glacial moraines, consisting of ancient gravel deposits. These moraines were formed during the Wisconsin Glaciation, which was the last great ice age. This glaciation reached its maximum advance about 18,000 years ago when ice and snow covered much of Alaska, almost all of Canada, and extended well into the northern United States.

Wrangell-St. Elias National Park & Preserve holds the nation's largest glacial system. Glaciers cover over 25 percent, or approximately 5,000 square miles, of the park. The Nabesna Glacier, which is over 75 miles long, is the world's longest interior valley glacier! Glaciers are the headwaters for many of the river systems that flow throughout the park. They are heavy with glacier silt and sediment, causing them to braid as one channel begins to fill with sediment, forcing the water to switch to a new channel. Glaciers themselves are often referred to as rivers of ice. They flow down mountain valleys and, in the case of tidewater glaciers, into the sea. We don't generally expect to see movement or experience the results of this movement, but glaciers, like other geologic forces, are dynamic.

As you travel the Nabesna Road, imagine the forces and processes of change that created the beautiful scenery and then remember that those same forces continue their work today. This place looks different now than it did hundreds of years ago or even six months ago...what will it look like when you next visit?

(Music & Sounds)

There are two trail options coming up, both named after the creek that they follow. The Lost Creek Trail, which is the second trailhead, can be a good option for someone who wants to plan a short backpacking trip. The Lost Creek trailhead is located on the on the left, or north side of the road, a short distance after you drive across Lost Creek. This trail leads hikers out of the creek drainage into the ridges above, where there are camping spots surrounded by spectacular views. Anytime you decide to take a trip into the backcountry, you'll need to do some extensive trip planning. Be sure to invest in a map, food and water, proper equipment including camping gear and food storage, and an ample supply of good sense! We also advise becoming familiar with the Leave No Trace principles. Stop at the Slana Ranger Station to start planning your trip up Lost Creek, or to inquire into other backcountry trips.

(Music fades in and ends)

This concludes Track 9. At this time, go ahead and pause or stop this recording. Proceed to Track 10 during your drive between Lost Creek Trailhead and Jack Creek Rest Area.

Track 10: Lost Creek Trailhead to Jack Creek Rest Area

(Music starts and fades out)

One thing that makes Alaska so special is that bears flourish here, and there is a chance that you may be lucky enough to see one. But even if you don't see a bear, odds are that you won't be far from one, because Alaska is bear country!

Both Black and Grizzly bears are found throughout Wrangell-St. Elias. The awe-inspiring Grizzly bear is a mighty predator, but there are several misconceptions about this animal. One common question is: "Are Grizzly bears the same as Brown bears?" Yes! They are the same species but they are often differentiated by their location. People tend to refer to Brown bears as living in the coastal areas of Alaska, while they refer to Grizzly bears as living in the interior of Alaska. So why are they called Grizzly bears? These bears are primarily yellowish-brown in color. But some have white-tipped hairs, giving them a grizzled appearance, thus giving them the name Grizzly bear.

Grizzly bears are large predators at the top of the food chain, but did you know that most of their diet consists of grasses, roots, berries, nuts, insects, salmon, and ground squirrels? Occasionally they will prey on large mammals like moose, caribou, or Dall sheep. Even though Grizzly bears are enormous (they can weigh up to 1000 pounds), they are deceptively capable of running very fast. They've been clocked at 40 miles per hour!

Another misconception is that you can distinguish a Grizzly bear from a Black bear by their color. A Grizzly bear can be brown, yellowish-brown, black or even blond. Black bears are usually black, but occasionally they can be brown or cinnamon. Since you can't use color as a defining factor, the best way to identify a bear is by its shape. Grizzly bears are usually much larger than Black bears, and they have a prominent shoulder hump, smaller ears, and longer, straighter claws. Grizzly bears need those long claws for digging up roots and grasses, and those long claws are not very useful for climbing trees. In fact, you'll probably never see an adult Grizzly bear perched up in a tree!

(Music & Sounds)

If you decide to go for a hike in bear country, be sure to make your presence known. Bears can be dangerous to humans if they are surprised or if a person accidentally gets between a mother and her cub. Grizzly bears can conceal themselves remarkably well in the low brush along the hill sides. Especially if they're eating berries! So if you're hiking through vegetation or in terrain where it's hard to see, make noise and if possible, travel with a group.

Basic bear safety rules include: never approach a bear, observe them from a safe distance, give them plenty of room, avoid surprising bears, do not run from bears, and secure food and garbage so bears cannot get it. If you decide to camp in bear country, be sure to use a bear-resistant food container, as proper food storage is required in the park. Some people prefer to hike with bear spray as a deterrent against possible attacks from an aggressive bear.

Most people who see a bear in the wild consider it the highlight of their trip. The presence of these majestic creatures is a reminder that we are in the midst of true wilderness.

(Music & Sounds)

The Jack Creek Rest Area, which you're approaching, is a quiet place to spend the night, complete with camp sites, picnic tables, a vault toilet, and trash cans. This stretch of road receives less traffic and is often a place to camp in solitude. There are numerous game trails to follow up and down stream as well as beaver ponds nearby. Just imagine enjoying a quiet evening, with family and friends, fishing for grayling in Jack Creek.

(Music fades in and ends)

This concludes Track 10. At this time, go ahead and pause or stop this recording. Proceed to Track 11 during your drive between Jack Creek Rest Area and Skookum Volcano Trailhead.

Track 11: Jack Creek Rest Area to Skookum Volcano Trailhead

(Music starts and fades out)

As you drive away from the Jack Creek Rest Area, be sure to look up at the rocky ridges and mountainsides for your chance to spot Dall sheep. Wrangell-St. Elias National Park & Preserve contains one of the largest concentrations of Dall sheep in North America – some 15,000 sheep in more than three million acres of habitat. These bright, white sheep have curling horns, and inhabit high alpine ridges, meadows, and extremely rugged terrain. Dall sheep use these areas for feeding, resting, and avoiding predators. Dall sheep spend their lives on these ridges, and when they sense danger they move to cliffs and crags to escape predators. The females give birth to their young on these slopes and the lambs are sure-footed just hours after being born! Although Dall sheep usually stay at higher elevations, in the Jack Creek area they are known to descend to springs and mineral licks and to cross the road. Careful observers can often spot small groups on the mountainsides over the next few miles. Watch for bright, white objects on the mountainsides, but don't mistake them for patches of snow!

(Music & Sounds)

You're about to reach the Skookum Volcano Trailhead. This trail leads through an extinct, deeply eroded volcanic system and provides an opportunity to examine volcanic geology close-up. This route is 2.5 miles one-way, reaching a beautiful pass at 5,800 feet. The total elevation gain is 2800 feet, making this trail moderately difficult. Hikers will enjoy opportunities for wildlife viewing, spectacular scenery, alpine plants, and volcanic geology. Over the course of millions of years, erosion has exposed dramatic examples of rhyolite and dacite domes, andesite lava flows, vents, and many erosion-resistant dikes. If you choose to take this hike, as always bring along snacks, water, sunscreen, and bugspray. Enjoy your hike!

(Music fades in and ends)

This concludes Track 11. At this time, go ahead and pause or stop this recording. Proceed to Track 12 during your drive between Skookum Volcano Trailhead and Reeve's Field.

Track 12: Skookum Volcano Trailhead to Reeve's Field

(Music starts and fades out)

The jagged peaks south of the road are dominated by volcanic rocks ejected from the Skookum Creek Volcano. Volcanic ash and hot gasses formed a fiery cloud which flowed down the flanks of an ancient volcano, to produce the tan and light gray rocks that you see today. Several volcanic vents produced lava that flowed downslope and solidified to produce the more massive pinkish-tan rocks. Radioactive dating of these rocks by United States Geologic Survey investigators show that Skookum Creek Volcano was active between two and four million years ago. Look at all the deep canyons and steep slopes that surround you. These canyons and slopes show that erosion has been very effective in wearing down the land during the last two million years.

(Music & Sounds)

In a couple of miles, you will reach Reeve's Field, where you'll be rewarded with views of Devil's Mountain to the east and the Nutzotin Mountains to the southeast. Reeve's Field actually has some powerful historical and national significance! During 1941, trucks hauled equipment from Valdez to this rustic strip along the Nabesna River. Pilot Bob Reeve cut everything into pieces, loaded it into his Boeing Trimotor, flew it to Northway, about 40 miles away, and then had it rebuilt. This effort was organized to build the Northway Airport, a critical stopover in ferrying aircraft to the Soviet Union during WWII. By November, he had transported all the materials for a full-scale airport. It was good timing. One month later, the attack on Pearl Harbor gave Northway new relevance, and it became a critical element in the defense of Alaska.

(Music fades in and ends)

This concludes Track 12. At this time, go ahead and pause or stop this recording. Proceed to Track 13 once you've reached Reeve's Field.

Track 13: The End of the Road!

(Music starts and fades out)

Just ahead, the road will continue through private property. Please respect the owner's privacy, and take care not to park on their property or airstrip without their permission. Approximately a quarter mile beyond this private property, there is a gravel parking area. If you'd like to explore further, this is the best place to park your car, as the road is not maintained beyond this point.

The last stretch of the Nabesna Road makes for interesting hiking, and with the final miles comes the original reason for the road: the Nabesna Gold Mine. Carl Whitham staked the claims for this gold mine in 1925, which produced 73,000 tons of gold ore valued at \$1,870,000 until it closed in 1947. Limited, small scale mineral extraction has occurred since that time, and today the Nabesna Mine is still privately owned and not open to the public.

If you'd like to do a hike nearby, park your car at the parking area, walk about a third of a mile up the road, turn right onto a tree-canopied trail, and head towards the Rambler Mine. The trail is somewhat steep, but the effort rewards you with spectacular views of the Nabesna River Valley and the Mentasta and Nutzotin Mountains. Please be advised that it is not considered safe to enter the mine opening, tunnels, surrounding buildings, and other structures that are in a state of disrepair and that may be hazardous.

(Music & Sounds)

Now that you've made it down the Nabesna Road, you've caught a glimpse into the beauty of Wrangell-St. Elias National Park & Preserve. But you certainly haven't seen it all. This park encompasses over 13 million acres of natural beauty and historical wonders. There are other regions and districts to explore, and we hope you can spend more time discovering the rich interplay of wildlife, scenic beauty and culture that are brought together within Wrangell-St. Elias National Park & Preserve!

(Music fades in and ends)

Proceed to Track 14 if you'd like information about the Wrangell-St. Elias National Park Visitor Center in Copper Center. If you'd like information about Chitina, the McCarthy Road, and Kennecott Mill Town, skip to Track 15. Or if you'd like to find out about Conservation and Research Efforts that are happening in the park, skip to Track 16.

Track 14: Wrangell-St. Elias National Park Visitor Center , in Copper Center

(Music starts and fades out)

The Wrangell-St. Elias National Park Visitor Center is located along the Richardson Highway , also known as Hwy 4, at mile 106.8, near historic Copper Center, Alaska. The visitor center is about 200 miles east of Anchorage, 15 miles south of Glennallen, and 105 miles north of Valdez. Services available in Copper Center include a post office, lodging, gas station, food store, tire repair, and telephones.

The Visitor Center Complex provides information about the entire park. View the park movie in the theater, enjoy the exhibits, gaze at the Wrangell Mountains from the bluff overlook, and become oriented with the large 3-D interactive map display. While you're there, visit the Ahtna Cultural Center where you can learn about Ahtna culture through exhibits, artifacts, and personal stories.

Take a look through the Alaska Geographic Bookstore for a wide selection of books, maps, and films about Wrangell-St. Elias National Park and Preserve. As the park's official nonprofit partner and bookstore, Alaska Geographic offers an extensive collection of titles on the park's natural and cultural heritage, provides financial support for interpretive programs and other educational offerings, and works to connect visitors with Alaska's magnificent wildlands.

Park rangers are available to answer questions, and they provide daily interpretive talks and walks during the summer months. While at the Visitor Center campus, why not take a walk on the Boreal Forest Trail? This is an easy, level, half-mile trail that allows visitors to view volcanic peaks and the Copper River valley, while hiking through the boreal forest.

The visitor center is open year round. During the winter, the visitor center is closed on weekends and on federal holidays. We hope to see you soon!

(Music fades in and ends)

This concludes Track 14. For information about Chitina, the McCarthy Road, and Kennecott Mill Town, proceed to Track 15. Or for information about Conservation and Research Efforts in Wrangell-St. Elias National Park & Preserve, skip to Track 16.

Track 15: Chitina, the McCarthy Road, and Kennecott Mill Town

(Music starts and fades out)

There are only two roads that access Wrangell-St. Elias National Park & Preserve: the Nabesna Road, which you've already done, and the McCarthy Road. The McCarthy Road is a gravel road, located to the south, at the end of the paved Edgerton Highway, also known as Hwy 10.

The town of Chitina is located at the end of the Edgerton Highway and at the start of the McCarthy Road. The Chitina Ranger Station is a good place to obtain the latest information from a park ranger, and to view photos that depict early life in Chitina. Trains, stagecoaches, dog sleds, and steamboats all passed through Chitina on their way to the mining and commerce centers of Alaska during Chitina's boom years, 1910-1938. The heyday of Chitina was directly tied to the operation of the Kennecott mines and the Copper River and Northwestern Railway. The railroad was built to haul copper ore from the Kennecott mines to Cordova, and Chitina provided an intermediate stop for the trains and their passengers. The ranger station is typically open from late May to early September. Services available in Chitina include a post office, gas station, food store, tire repair, café, and payphones.

(Music & Sounds)

Driving the McCarthy Road is an Alaskan adventure! Although maintained by the State of Alaska, the gravel surface makes for slow travel, and this 60-mile road usually takes two hours one way. Other hazards can make it even longer: heavy rain can make the road muddy and slippery, sharp rocks can cause flat tires, and narrow bridges make maneuvering large vehicles difficult. In fact, large vehicles are not recommended. Under normal summer conditions, most two-wheel drive vehicles can make the trip, but be sure to carry at least one spare tire and an adequate jack. There is private land that adjoins many parts of the McCarthy Road, so please respect private property. Highlights along the McCarthy Road include the Kuskulana River Bridge, the Gilahina Trestle, and the Crystalline Hills Trail. For more information about these and other highlights, pick up a copy of the McCarthy Road Guide.

At the end of the McCarthy road, all visitors must park their vehicles and use a foot bridge to cross the Kennicott River. Once across the bridge, you may continue on foot or choose to take a shuttle into the town of McCarthy or up to the Kennecott Mill Town. Limited services in McCarthy and Kennecott include lodging, cafes, mini-mart food store, and recreational outfitters.

(Music & Sounds)

One of the premier sites of Wrangell-St. Elias National Park & Preserve is the historic Kennecott Mill town and mines. Kennecott is located 5 miles from the town of McCarthy but don't worry, there is a regular shuttle service that can bring you there.

The Kennecott Mill town and mine are extraordinary relics from America's past. The historic buildings are set against the magnificent landscape of glaciers and mountains to present a truly astounding vista. The impressive structures and artifacts represent an ambitious time of

exploration, discovery, and technological innovation. They tell stories of westward expansion, World War I politics and economy, the lives of men, women, and children who lived there, and the rise of a multinational corporation. Each link in the historical chain connects to another until we realize that this remote, Alaska mining venture was intricately connected to the world around it.

Many of the buildings in Kennecott have been abandoned for over sixty years. Some are in need of immediate stabilization to keep them standing, while some have deteriorated beyond saving. The National Park Service, along with the local community, has engaged in an ongoing effort to identify buildings that will be stabilized or rehabilitated, and those that will not receive any attention at all. The goal is to protect the historic integrity of the mill town so that future generations will be able to explore Kennecott.

A few buildings will be rehabilitated for modern use. The Recreation Hall was completed in 2004 and it is used for educational programs and community events. Several other buildings are currently receiving repairs to roofs, foundations, and walls. Throughout the mill town you will observe lots of activity during the summer. The stabilization work in Kennecott is expected to take many years. Through the hard work of many dedicated individuals, a unique piece of American history will be preserved.

(Music & Sounds)

Once you reach Kennecott, be sure to visit the Kennecott Visitor Center, housed within the historic general store and post office. While you're there, you can talk to a park ranger, pick up maps and brochures, join a ranger for interpretive walks or talks, plan your backcountry wilderness excursion, or shop in the Alaska Geographic bookstore. There are several trails that originate from Kennecott, and rangers are available to recommend day hikes and answer any other questions that you may have. The visitor center is typically open late May through early September.

(Music fades in and ends)

This concludes Track 15. For information about Conservation and Research Efforts in Wrangell-St. Elias National Park & Preserve, proceed to Track 16.

Track 16: Conservation and Research Efforts in Wrangell-St. Elias National Park & Preserve

(Music starts and fades out)

From history, culture and social science to fisheries, climate change to pollution, and glaciers to geology, Wrangell-St. Elias is a living laboratory where scientists conduct research. The research done within the park's boundaries reflect the diversity of resources found here.

There is a wide range of research and monitoring that has been conducted, or is currently being done on wildlife in the park. There are two herds of caribou that can be found within the northern portion of the Wrangell-St. Elias National Park & Preserve: the Chisana Caribou Herd and the Mentasta Herd. The Mentasta Caribou Herd calves along the northern slopes of Mt. Drum and Mt. Sanford and can be found wintering north of the park boundary. The Chisana Caribou Herd calves between the upper reaches of the Chisana and White Rivers and winters mainly in the Yukon Territory of Canada. Caribou are considered to be a critical species in Alaska's northern ecosystem, and they have been an important source of food for humans for thousands of years. Because of their importance, both the Chisana and Mentasta Caribou Herds continue to be monitored by the park.

The moose is another animal that is monitored at Wrangell-St. Elias. As soon as there is adequate snow cover, which is usually in late October, surveys of this large mammal are conducted from the air. During these surveys, which occur once every three years, biologists fly over randomly selected units in the interior portions of the park. Any moose seen from the air are counted, and then the moose population is estimated for those areas of the park. Moose populations have the potential to respond dramatically to changes in resource conditions and hunting pressure, so it's important for biologists to continue this monitoring. Their data can also provide insight into other issues such as how changes in plant communities or predator populations can influence moose populations.

(Music & Sounds)

There has been substantial and ongoing research, with national significance, which involves studying climate change in Alaska's national parks. Scientists with the National Park Service recognize that monitoring the climate is critical to understanding the condition of park ecosystems. They also recognize that parks need to work together to achieve needed results.

In Alaska, several climate stations have been strategically placed in Wrangell-St. Elias National Park, Denali National Park, and Yukon-Charley Rivers National Preserve. These climate stations provide information on climate patterns and extreme events, such as floods, droughts, and severe temperatures. In addition, the climate stations provide real-time weather data which is of immediate use to parks. Since these climate stations have been installed, Park Service scientists are gathering information about the different environments, and have been tracking changes and using data to answer questions and to create climate change models.

Additional research has been conducted by the Wilderness Society and the University of Alaska. Their studies show that many areas in Alaska are already showing signs of climate change, and show that Wrangell-St. Elias National Park & Preserve is expected to become warmer and drier over the next century. Seasonal changes in climate will have profound impacts on the condition and health of wildlife habitat, lead to increased fire risk, and contribute to the likelihood of wetlands, streams, and lakes drying. Climate change models and other data help park managers anticipate changes in coming decades. By doing consistent monitoring, scientists can provide accurate information to park managers who, in turn, can make optimal decisions for the management of national parks.

Wrangell-St. Elias National Park & Preserve holds icefields, high-country areas cloaked with snow year-round, and the nation's largest system of glaciers. In fact over 25 percent, or approximately 5,000 square miles, of the park is covered with ice. Near the coast, the Malaspina Glacier is North America's largest piedmont glacier, which is a type of glacier that is formed at the base of a mountain rather than enclosed by a valley. Covering an area of 1500 square miles, the Malaspina Glacier is so large that it can only be seen entirely from the air. If warmer winters and longer, more intense melting seasons continue, we may no longer be able to claim these amazing resources. Ultimately the issue of climate change is larger than any one national park—even the largest in the system. However, if we as individuals take action to reduce our contribution to climate change, we will have positive benefits for our parks and their resources. By dealing with the issue of climate change, we will be moving towards a way of life that is in harmony with the natural processes that operate on our planet.

(Music fades in and ends)