Gates of the Arctic Wilderness: 30 Year Perspective

Suzanne Stutzman - Final Report - November 2014

Project Overview

Gates of the Arctic National Park and Preserve was created in 1980, and the first general management plan began in 1984. This year, 2014, is the 50th anniversary of The Wilderness Act. Now is a good time to take a broad look through time and ask:

Has wilderness character has changed significantly in the last 30 years?

What does the future hold for one of the wildest places on earth?

Did the first general management provide useful guidance for managers or not?

I am a wilderness professional and advocate with over 35 years of experience with the National Park Service who volunteered for this special project for the 50th anniversary of the Wilderness Act. I was the team captain for the first general management plan for Gates of the Arctic National Park and Preserve from 1984 – 1986, and later in my career became entirely focused on wilderness stewardship and I was recognized as a regional and national leader in wilderness stewardship. My experience gives me a unique perspective to compare the Gates of the Arctic Wilderness from 30 years ago to the wilderness of today.

I proposed this project to the Superintendent of Gates of the Arctic for the summer of 2014 and received enthusiastic support from Superintendent Dudgeon and his staff. The main components of the project were assembling my photos and notes from 1984, interviewing staff by phone and in the field, field visits to some of the areas I visited in 1984, and writing up my findings on the plan, on wilderness character, and the future. The product is this tangible report to commemorate the 50th anniversary of The Wilderness Act. My goal was not only to satisfy my interest in how things came out but also produce useful information for the National Park Service. What can we learn from the past to help us be good wilderness stewards in the future?

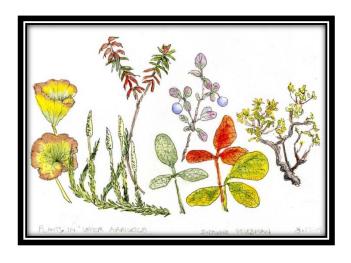


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Part 1. Findings

This section contains the short, focused answers to the questions posed in this project. It includes three recommendations.

Has wilderness character has changed significantly in the last 30 years?

I am summarizing my observations and conclusions regarding the conditions and changes for Gates of the Arctic Wilderness using the structure of the wilderness character framework.

Figure 1. Changes in Wilderness Character

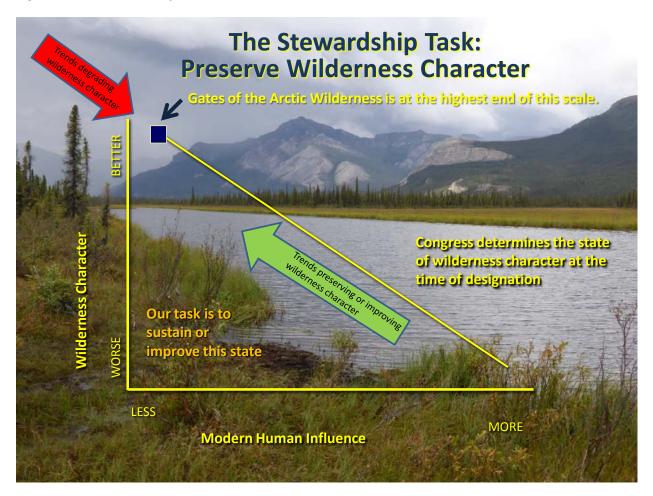
Quality of Wilderness	Observation of conditions and change over 30 years
Character	
Natural	The natural quality of Gates the Arctic Wilderness was and remains high. There is an overall intact ecosystem with predators and prey. Native plant communities are mostly undisturbed, with only a few isolated pockets of invasive species (Walker Lake, Dalton Highway). Air and water quality remain high. Natural fire regimes are the norm. Vegetation and soil disturbances from human activities (mining, camps, airstrips, cabin sites, visitor use) are present but are isolated and relatively small in area. These were present 30 years ago and have been collectively improved by restoration actions, thus improving the natural quality of wilderness. Some isolated impacts of concentrated visitor use persist.
	This wilderness recognizes subsistence use as part of the natural system. The numbers of subsistence users has not significantly changed in the last 30 years, and populations of fish and wildlife remain generally natural and healthy.
Untrammeled	The untrammeled quality of the Gates of the Arctic Wilderness remains high. There have been some manipulations over the last 30 years that diminish the untrammeled quality, primarily to restore natural integrity (clean up of camps, cabin sites, abandoned airstrips, mining activities and other human disturbances, removal invasive species). There has been and continues to be some collaring of wildlife for research purposes, a form of trammeling. Fires are typically allowed to burn and let natural processes proceed. Despite pressure from the State of Alaska to manipulate wildlife habitat and populations, this has not been allowed and protects the untrammeled quality.
Solitude or Primitive and Unconfined Recreation	Gates of the Arctic Wilderness continues to offer premier opportunities for solitude or primitive and unconfined recreation. It remains remote and visitation remains low. There is no required registration and few regulations. Self-reliance is expected, and there are no constructed trails or campsites that would reduce self-reliant recreation. Overall opportunities for solitude remain high, with some degradation from increasing regular air traffic in some valleys. A few pockets of concentrated visitor use have user-created trails and campsites that diminish self reliance and have surges of visitation

Quality of Wilderness Character	Observation of conditions and change over 30 years
	that reduce opportunities for solitude. Communication technology and social media have changed the way many people experience wilderness.
Undeveloped	Gates of the Arctic Wilderness was established with very little physical imprint of mechanized civilization – no permanent roads, few permanent structures or installations. There has been an overall improvement in the undeveloped quality during the last 30 years. After the GMP was complete there were some radio repeater installations, but those have now been removed. There has been acquisition of some of the inholdings resulting in eliminating incompatible uses and removal of some structures. A number of small mining claims have been purchased. Some other unused structures have been removed. The Anaktuvuk Pass land exchange resulted in less subsistence access impact to wilderness lands. A recent NPS action degrading the undeveloped quality was the installation of 4 climate monitoring stations.
	There is ongoing emergency and non-emergency use of helicopters and snowmachines by NPS staff which diminishes the undeveloped quality of wilderness character.
Other features of value	Cultural resource inventories in Gates of the Arctic Wilderness have identified a rich array of cultural resources with an especially high number of archeological sites. Remoteness and light visitation result in a high degree of protection and there has been very little loss or damage. There have been misunderstandings about the difference between cultural resources and recent non-historic materials in wilderness, resulting in removal and loss of some cultural resources.

The wilderness character of Gates of the Arctic Wilderness has had some changes to specific wilderness qualities over the last 30 years, both positive and negative, that have on balance preserved and incrementally improved wilderness character.

What does the future hold for one of the wildest places on earth? The diagram below illustrates the primary stewardship task of wilderness managers: Preserve Wilderness Character. Congress determines the state of wilderness character at the time of designation. The task of wilderness stewardship is to preserve or improve wilderness character – not let the blue square slip down the sloped line. The bar is very high for Gates of the Arctic Wilderness because of its superlative wilderness qualities present and recognized at the time of designation.

Figure 2. The Stewardship Task: Preserve Wilderness Character



The future condition of wilderness character for Gates of the Arctic Wilderness will depend upon how various trends push the blue box further up or down the sloping line. There are many future trends that could either degrade wilderness character or preserve and even improve it. A few major trends are summarized below. What will be the result?



Natural Quality

- Impacts from future external developments, including Ambler transportation corridor and mining district, other future energy development, roads, pipelines, and roads
- Global movements of air pollutants
- Climate change

Untrammeled Quality

Pressure from climate change and from Alaska Fish and Game to manipulate natural resources

Solitude or Primitive and Unconfined Recreation Quality

- Increases in overflights affects solitude
- Continued concentration of visitor use in select areas reduces solitude and self-reliance
- Potential easier access from future roads could increase visitor use and reduce solitude

Undeveloped Quality

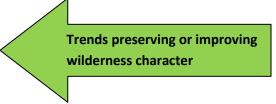
- Continuation of the current trend of approving the administrative use of helicopters, monitoring installations, etc.
- Bureaucratic momentum pushing Gates of the Arctic to become homogonous within the NPS system and lose its wilderness soul

Other Features Quality

Potential easier access from future roads could result in vandalism of cultural resources

Composite Wilderness Character: Wilderness character is more than the sum of its parts

• Incremental degradation



Natural Quality

- Remoteness and size continue to protect natural qualities
- Continued restoration of disturbed sites and removal of non-native species
- Advocacy of local communities and subsistence users for protection of resources

Untrammeled Quality

 Continued refusal to manipulate natural resources to mitigate climate change or manipulate habitat and wildlife populations to enhance hunting

Solitude or Primitive and Unconfined Recreation Quality

- Remoteness and size continue to protect solitude or primitive and unconfined qualities
- Continued information and education for visitors to foster leave-no-trace behavior
- Continued partnerships with commercial operators to provide high quality visitor experiences and protect resources

Undeveloped

- Staff with passion for wilderness stewardship
- Management decisions to purposefully use traditional means of access for administrative activities
- New technology to reduce or eliminate the need for monitoring installations
- Ongoing efforts to acquire inholdings with incompatible uses and purchase of small mining claims, removal of unused structures

Other Features Quality

Remoteness and size continue to protect cultural resources

Composite Wilderness Character: Wilderness character is more than the sum of its parts

Remoteness and size

Did the first general management provide useful guidance for managers or not?

I remain proud of the opportunity to have led this planning effort and may be a bit biased or leading in the interviews I conducted, but I did gather a general sense that the scope, organization, and detail of this general management plan has been useful to managers and staff for many years, even today. Quite a few staff, old and new, had actually read the plan. Certain parts like the staffing plan and detailed carrying capacity monitoring were never adopted, but staff has addressed plan deficiencies by working on amendments or updates to the plan rather than starting over completely. I owe much of the success of this plan to the amazing planning team that was assembled in 1984. Also, I must point out that a lot of the plan involved interpreting how the relatively new Alaska National Interest Lands Conservation Act (ANILCA) would be applied to Gates of the Arctic National Park and Preserve. The people who studied these lands before designation and worked on the language of the law were very visionary. All of the dedicated people who since have carried forth this vision have contributed to this premier wilderness being in such good shape today and preserved for future generations.

Recommendations

Gates of the Arctic Wilderness continues to have outstanding wilderness character. A significant reason is the inherent size and remoteness of the area that was designated. Past and present NPS managers and staff have demonstrated passionate commitment applying their expertise and experience to the national park and preserve and wilderness, usually improving wilderness character and occasionally letting it sliding back. Their work is of course important, but the remoteness has been a major factor in preserving wilderness character and should not be taken for granted. Alaska seems destined (or determined) to develop transportation and resources that will sharpen the lines around the conservation areas. Future managers and staff must be even more committed to wilderness ensure preservation of wilderness character. I offer the following recommendations:

STAY FOCUSSED ON WILDERNESS. The complexities of park management and cycles of NPS programs and funding can tug attention away from staying focused on the purpose and significance of the park – Wilderness. I met many staff members who were both passionate and knowledgeable about wilderness stewardship which shined through their work. I met other professionals dedicated to resource

protection and their area of expertise who "liked" wilderness but saw wilderness responsibilities as "just another law" or something to readily trade away in decisions. The NPS culture of fluid staff movement between parks, the combined staffing of Gates of the Arctic and Yukon-Charley (parks with very different missions) plus integrating network staff that serve multiple parks leads to an attitude that Gates is "just another park like the rest." The traditional NPS organizational structure of "divisions" does just that: divide staff and foster competition rather than cooperation. Budget cuts and organizational changes are preventing most employees from spending any time immersed in the resource and truly learning its beauty. It is essential that all staff remain intimately connected to wilderness resources through direct experience. It is also imperative that staff shares a common understanding that Gates of the Arctic is recognized as the premier wilderness in the national park system and fully knows their wilderness stewardship responsibilities.

The staff meetings and dialogues that took place during the relatively recent development of a park foundation statement and wilderness character narrative are excellent and help bring everyone together to re-discover the purpose of the park and focus on the Gates of the Arctic Wilderness. Keep it going. These kinds of opportunities to focus on the mission should be far more frequent than every 5 years and very inclusive of as many employees as possible and cut across divisions. Offer more wilderness training, in person or on-line. Put wilderness KSA's into every type of position, as wilderness stewardship is everyone's job. Resist the bureaucratic momentum to make Gates of the Arctic homogeneous with other NPS units and lose its wilderness soul. Find creative ways to get people into the resource. Find ways to rejuvenate hard-working staff with the benefits of wilderness. KEEP IT WILD.

BUILD COMMUNITY. I was impressed to see the positive changes in the attitudes of people in the communities within and around Gates of the Arctic and the good relationships managers and staff have built with local people. There has also been a lot of positive cooperation with other agencies, such as the Dalton Highway corridor. And there has been a lot of good work reaching out to real and virtual visitors through today's vast communication networks. Keep it up and make it even stronger. Don't take it for granted and let current budget woes and hot issue-of-the-day demands erode those ties. Subsistence users are integral to the heart of "inhabited wilderness." Agencies can find great strength in working on common goals. Wilderness has to remain relevant to most Americans, whether they visit or not, to survive. It will take many advocates to preserve wilderness character for future generations.

WATCH. There needs to be a commitment to consistent monitoring of wilderness character. Incremental degradation is one of the greatest threats to this exceptional wilderness. It could be "nibbled to death by ducks." Past monitoring efforts have not been embraced or consistently carried out over time. The draft GMP amendment underway proposes implementing a monitoring framework. Make sure that it is adequate to cover the full spectrum of unique wilderness character qualities in Gates of the Arctic and is practical enough to implement. Then commit to following through in future years. Get staff from all divisions to be interested and involved. It won't work if monitoring is an accounting duty assigned to one person. Consider extending the wilderness character mapping underway for the Ambler corridor impact analysis to the entire park. It's an extremely useful tool. As has been stated earlier, the park has largely been protected by remoteness and that should not be taken for granted. Monitoring and mapping document conditions and change. You can't protect what you don't know.

Part 2. Summary of Interviews

One very important part of this project was to interview past and present staff about what was done and not done in the plan, what are today's pressing issues, is the wilderness character framework helpful, and what will future wilderness look like? A list of interviewees was developed through discussions with the superintendent and staff (see "Part 5. Acknowledgment and Interviewees"). Interviews were completed in person either by telephone before and after my trip or in person while I was in Fairbanks.

- 1. What was done as envisioned in the plan, or not done? Specific questions were tailored to interviewee's experience and expertise. Below is the summary of the analysis of what the plan said about some of the major topics and what actually happened. A very detailed analysis can be found in "Part 4: Plan Contents and Results."
 - Wilderness Management. The overall condition of Gates of the Arctic Wilderness remains outstanding. This is largely attributed to remoteness, the relatively low numbers of visitors and few other direct human impacts. There have been positive management actions improving wilderness character and there are a few specific areas of concern for wilderness character detailed elsewhere in this report.
 - Fish and Wildlife. Overall populations of fish and wildlife were and continue to be in good condition largely due to remoteness. The 1984 plan called for further defining natural and healthy populations as that was a key phrase in ANILCA. That has been attempted, but remains elusive. There was disagreement in 1984 between state and federal government over roles and responsibilities for management of fish and wildlife, and that disagreement is even more intense today. There are localized issues of competition between subsistence users and sport hunters for fish and wildlife.
 - Bears. The park implemented the program recommended in the plan to prevent adverse
 human-bear encounters. Bear-resistant food containers are required and available to borrow
 from visitor centers and visitor orientation provides information about traveling in bear country.
 There have been relatively few adverse encounters.
 - Research Management. Research activities have been and continue to be a contentious issue
 for park staff. While the 1984 plan listed constraints on research activities including limits on
 helicopters, it was not explicit about wilderness values. The number of exceptions made for
 non-conforming actions like helicopter use and animal collaring has see-sawed over the years,
 currently tipped toward many exceptions to conduct studies for the Ambler corridor.
 - Cultural Resources Management. The cultural resource surveys that were underway during the GMP process continued for several years. The number and types of sites found in the surveys far surpasses the initial expectations for Gates of the Arctic. The park and preserve have more documented archaeological sites than any other park in the Alaska region.
 - Access Ambler Right-of-Way. There has been an application for surface transportation access under the provision in ANILCA that allows this corridor and obligating the NPS to conduct and environmental and economic analysis. Park staff is currently very busy fulfilling this obligation.
 - Subsistence Use Management. ANILCA, not the general management plan, really laid out most
 of the details of subsistence use management. Implementation has been extremely

- complicated, but nevertheless the overall concept has worked and is remarkable "inhabited wilderness." People are recognized as a natural part of the ecosystem.
- Recreational Use Management. The increases in visitor use projected in the plan never materialized. Visitation was light in 1984 and remains light in 2014, without showing signs of major increase. Staff attributes the continued light use to remoteness and the expense of getting into the park.
- Recreational Visitor Use Limits (Carrying Capacity). The monitoring of specific standards set forth in the plan was never done, but the projected increase in visitation did not happen either and opportunities for solitude or primitive and unconfined recreation remain fairly intact. There are still areas of concentrated use and impact.
- Recreational Access. Access to the park and preserve continues to primarily be by chartered
 aircraft which remains expensive. There is increased access from the Dalton Highway, which has
 been opened further to the public since the original plan. Overall visitation numbers remain
 low. Hiking and boating are still the main ways of getting around in the park. No trails have
 been constructed, as was stated in the plan. Group size numbers set in the plan have been
 helpful for managers, and have been slightly adjusted.
- Recreational Activities. The types of recreational activities today are very similar to 1984. Some of the ways people are doing these activities has changed because of new equipment and the popularity of "ultra" experiences. Trips combing hiking and boating are more popular today, probably because of the technology of packrafts. The growing number of people carrying smart phone technology is changing people's relationship with wilderness, not necessarily good nor bad, but different. As set forth in the 1984 plan, the park does have voluntary visitor registration for the purposes of gathering and disseminating information, and it is working well. The visitor orientation program is strong on Leave-No-Trace ethics and visitors today generally camp clean. As in 1984, commercial operators continue to play a critical role in providing high quality visitor experiences while protecting resources.
- Information and Interpretation. The park offers an approach to information and interpretation that strives not to interfere with a visitor's opportunity for self-reliance and discovery, and provides and orientation program containing basic information much like what was envisioned in the general management plan. Also as proposed in the plan, visitor contact stations are outside of the park and preserve. What has changed information and interpretation is the development of the internet, offering new opportunities and challenges. As in 1984, concerns about publicity of specific areas resulting in concentrated use and impact continue. In addition to glossy photos in magazines, there are now blogs and "reality" television shows that correlate to visitor use patterns.
- Staffing Plan. There has been growth and change in staff over the last 30 years, far differently than envisioned in the plan. Today there is a combined headquarters for Gates of the Arctic National Park and Preserve and Yukon-Charley Rivers National Preserve and some other NPS programs with one main office in Fairbanks. There are field offices at Bettles, Coldfoot, and Anaktuvuk Pass (which was envisioned in the plan).
- Radio Communications and Search and Rescue. The plan set a goal of not installing any
 permanent communication equipment and a program emphasizing visitors to be self-reliant,
 with NPS providing assistance in true emergencies. While there were a few temporary radio
 repeaters in the past, today there are none and new compact satellite phones meet operational

- needs. New and affordable satellite technology in the hands of visitors may be creating a sense of security resulting in less self-reliance and more non-emergency requests for help.
- General Development. The 1984 plan stated that no structures, roads, or trails will be built
 within the park or preserve for recreational visitor use or NPS operations. There has been no
 development in the park, not even constructed trails, true to maintaining wild and undeveloped
 character.
- Land Protection Plan. The 1984 GMP included a land protection plan to review all non-federal
 land within the boundaries of a unit and make recommendations for treatment of those lands.
 A significant achievement by staff over the years has been completion of the Anaktuvuk Pass
 land exchange to resolve issues of ORV subsistence access and impacts. Other proposals in the
 plan to acquire inholdings have been accomplished, others remain unfinished.
- Wilderness Suitability Review. Approximately 7,263,215 acres of wilderness were designated in Gates of the Arctic National Park as wilderness in ANILCA, and the remaining 1,209,302 acres in the park and preserve were directed by ANILCA to have a review of the suitability or nonsuitability of these lands. The study included with the first general management plan found most of the remaining land to be suitable. The Alaska Region moved on to the next step with a state-wide wilderness study, but the remaining steps of the process through the Department of Interior and subsequent Congressional designation have never happened.
- 2. What are today's most pressing issues, and how do they compare to those at the time of the plan?

The overwhelming response to the most pressing issue today was the Ambler mining district access right-of-way. This was not just because completing the current studies and analysis is the current highest priority of many staff members. There is a long and list of potential impacts that could profoundly affect Gates of the Arctic National Park and Preserve and fundamentally change the heart of wilderness. There are concerns about direct impacts to resources from construction of a road and adjacent mine: air and water quality, hydrology, wetlands, wildlife habitat, bear and moose populations, cultural resources, etc. There are also concerns that while the possible road is currently planned to be only industrial access that it would eventually be open to the public, like the Dalton highway. This brings a whole other set of anticipated impacts: more hunters, pressure for recreational snow machine access, more competition between subsistence users and sport hunters and fishermen, more visitors on the rivers (impacts to resources and conflicts with subsistence users), social trails to Walker Lake and Arrigetch Peaks, pressure to construct trails, loss of solitude in these areas, development of lodges on inholdings, impacts to archeological resources, and overall degradation of wilderness character.

The second most frequent response was that climate change is a very pressing issue. Some think the landscape will be different but still natural and wild. Some think there will be profound changes in natural systems and the natural quality of wilderness. One serious impact to wilderness character that could result from climate change is pressure to manipulate habitats and other parts of natural systems. If this starts to occur, it would seriously undermine the untrammeled quality of wilderness. Another impact of climate change could be a surge in visitation from a public sense of "see it before it's gone." Surges of visitation have occurred in the Arctic National Wildlife Refuge when threats of oil and gas development have been highly publicized. Some are uncertain of what the impacts of climate change will be.

The third most frequent response to the most pressing issues today was that WE, the National Park Service, pose a significant threat to wilderness character. We degrade wilderness character with our

operations through allowing administrative actions not allowed unless an exception is made (such as helicopter use). NPS managers and staff at the regional level and park level level are conflicted about wilderness management and do not all agree on or understand required wilderness responsibilities. This leads to an inconsistent array of management actions that provide sometimes better and sometimes worse protection of wilderness character. There was concern that staff is becoming less familiar with the resource because there are fewer opportunities to get out in the field. Without that intimate knowledge and experience of this wilderness, there could be less appropriate decisions for preserving wilderness character. There was also concern about homogenization that occurs within the national park system. The NPS has a strong history of procedures, facilities, processes, organizational structures, etc. that are both a great asset but also tug against managing a unit like Gates of the Arctic differently with respect for its unique purpose within the system as the ultimate wilderness park.

A few people noted that the Anaktuvuk Pass land exchange had been the most pressing issue for years, but now that has been completed. A few other concerns were raised:

- Oil and gas development could grow outside the boundary, especially to the north, with a
 possible future road to Anaktuvuk Pass.
- Snowmachines are going farther, proliferation could occur through lack of definition of traditional use, and may cause impacts to wildlife and wilderness character
- Ongoing disagreements between the state and federal government about wildlife continue to worsen.
- NPS did a lot of community building that was positive for the park service and for the communities, but now it is being neglected.
- Incomplete land acquisitions and exchanges.
- The state could change its policy to allow ORVs within the Dalton Highway corridor (they are currently not allowed), leading to significant impacts on the park's eastern boundary.
- New technologies affect wilderness character. Satellite phones reduce self-reliance. Packrafts may bring in more visitors.
- 3. Wilderness character are you familiar with the wilderness character framework? Is there formal wilderness character monitoring underway? Will the new wilderness character framework be useful for monitoring wilderness character?

Many staff members were familiar with the wilderness character framework. Some staff think it will be a useful tool. There are often passionate discussions about wilderness, and the framework helps to frame discussions. There are concerns that measures used in the framework need to be realistic. The costs of working in the field are extremely high, and measures had better be achievable. The inventory and monitoring program is able to provide data for some of the resource measures, and some sound monitoring information. There was a concern that putting cultural resources into a 5th category was not the best way to integrate cultural resources into the wilderness character framework. The GMP amendment that is currently underway includes the wilderness character framework and calls for monitoring and strategies. The park was one of the early adopters of wilderness character and developed one of the first wilderness character narratives. It was suggested that even though the park has had some wilderness character workshops, staff needs continual discussions about wilderness

character and about the wilderness soul of the park. Many other staff members were not very familiar with the framework and did not feel prepared to comment on its usefulness.

4. The next 30 years – how will the wilderness changed? What will management look like? How will wilderness character be preserved?

Several people noted that wilderness character has largely been preserved by its remoteness and difficulty of access. This will continue to be a factor in its future preservation, even with possible future land use changes outside the boundary. Compared to everywhere else, this wilderness will be quite intact. Some see trends continuing that will change the experience. Blogs and adventure shows will increase interest in crazy long trips. People's expectations for wilderness will change over time. Self-reliance will diminish.

There were ideas for improving wilderness stewardship by park management. One idea is to establish a staff position dedicated to wilderness, the fundamental purpose of the park, and to put wilderness skills into every position description (knowledge, skills, and abilities). Another thought is that the park needs to continue to adopt the wilderness character framework, let it evolve, and take it to new levels. It was noted that the future of the park is out in the communities, and all of the various agencies need to work together.

Some interviewees said the future of wilderness depends upon the broad public valuing wilderness, whether they visit it or appreciate it from afar. Showing people where it and how it is threatened could help them value it more. If people understand why wilderness is relevant to their lives they may become advocates.



Part 3. Field Visits and Observations, August 2014

An important part of this project was the opportunity to visit a few key places in Gates of the Arctic that were important parts of the plan. Obviously a 2-week trip completed in August was only a small snapshot, but it was invaluable for me to see first-hand places that I visited 30 years ago. In addition to spending a couple of days in Fairbanks to interview park staff at headquarters, I went to Anaktuvuk Pass, Arrigetch Peaks (via Bettles), and the Dalton Highway (via Coldfoot). I have some notes and photographs from 1984 that help compare "then and now."

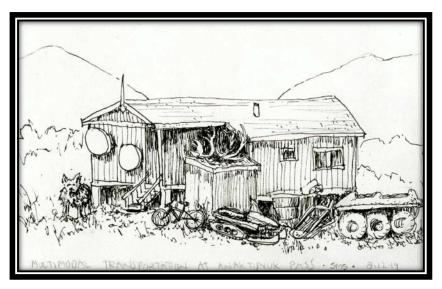
Anaktuvuk Pass

This area fascinated me during the planning process - its history, people's connection to the land, contrasts of traditions and new technology, and the surrounding establishment of a National Park and Wilderness. I was able to visit the area a few times during the planning process for public meetings and other business. I have a different perspective and appreciation today of the complexity of humans and wilderness. I wanted to return to glimpse how life was going in Anaktuvuk Pass and learn about the present relationship between the park and the community. It was also identified in the 1984 plan as an important location for a field station and visitor contact.

Air traffic in rural Alaska appears to be flourishing and busy. When I arrived early in the morning at Wright Air at the Fairbanks Airport, the lobby was busy with people and cargo and there are many daily flights between communities. The cargo area was jammed with hunting gear – gun cases, propane tanks, duffels, and coolers. It was also jammed with a lot of bulk foods (going to people in villages or stores?) packed into boxes and tubs. Cargo and passengers are carefully weighed. There are two regularly scheduled flights a day, Monday through Friday, between Fairbanks and Anaktuvuk Pass. Flights were far less numerous in 1984 and many small villages were flag stops.

My flight was full with sport hunters and cargo. Conversations on the plane unavoidably overheard were about getting a bear to round out a trophy room, hopes for killing a wolf, and complaints about being required to hire a hunting guide. It's a beautiful flight into the Brooks Range, and the plane drops into a tight river valley (Inukpasugruk Creek?) between peaks on the final approach. When we landed, the hunters were greeted by their guide and they and their gear were packed up and flown out on a private plane to a camp north of Anaktuvuk Pass.

I was met by NPS volunteer Just Jenson, a retired school teacher, and graciously shown around the community. The village had spread out a bit and grown. One of the greatest changes was the installation of a water and sewer system, a technological challenge in an arctic environment. In 1984, water was delivered by truck and stored in each home. Sanitation was "honey buckets." The "industrial" area for storing equipment, fuel, the generator etc., had grown. There was a new senior center, a new NPS ranger station, a few new houses, a solar/sod demonstration house, a dog team, a small store, and though closed, a restaurant. Other than that, Anaktuvuk Pass looks very much the same as 30 years ago. I remember the relatively new houses of 1984 (the result of native corporation oil royalties) as appearing very functional and warm, and houses look similar today. Yards contain an array of transportation – new and old snowmachines, Argos, old sleds, and bicycles. A new addition is a few trucks. I remember being struck by the common presence of satellite dishes on homes in 1984. Residents of this remote village were connected to the world through the lens of dozens of TV channels. That continues, with connections expanded by internet access and social media. Grandmas are sharing pictures of berry picking on Facebook.



Yards of homes in Anaktuvuk Pass have not changed much since 1984, filled with transportation modes for all seasons. Caribou remain extremely important to residents.

There is a short road northeast to the landfill and sewage treatment plant, and a short road west to just a little beyond the industrial area. The school, which was brand new and beautiful in 1984, appeared just as new and beautiful today. It had just been renovated. Teachers were getting ready for school. There is a new beautiful museum with great exhibits. I have only had a few short visits to Anaktuvuk Pass, but it appears that there was a reasonably good standard of living in 1984 that continues today, probably because of the support of revenues from the native corporation and a long tradition of Nunamiut pride in traditions and culture.



1984. Anaktuvuk Pass NPS ranger station



2014. Anaktuvuk Pass NPS ranger station



1984. New Argo vehicles arrive at Anaktuvuk Pass

A significant issue at the time of the 1984 planning process was the use of ORVs (specifically 6- or 8-wheeled Argos) by residents of Anaktuvuk Pass for subsistence use. The routes they used extended into the national park and wilderness, and these vehicles are not considered "traditional" under ANILCA. They were causing muddy ruts to be worn into the tundra which were of concern for their natural and cultural resource impacts. During the planning process, I went on a field trip with then Superintendent Dick Ring to view this issue first-hand. We did a backpack trip up the North Fork of the Koyukuk over Ernie Pass, and arranged to have some officials and residents of Anaktuvuk Pass meet us at the confluence of the Anaktuvuk River and Greylime Creek in their Argos and take us into town. It was an opportunity to see these vehicles in action and talk with local people about their issues and needs. After several days of a long and difficult backpack, we were met by Cheryl Bloethe, Roosevelt Paneak, and Harry Hugo in two Argos around 10:00 p.m. Here are my field notes from July 20, 1984:

"We loaded our gear into the Argos, and zoomed across the tundra.

You could hardly see where they had been at the beginning, especially on the dry tundra underlain by solid gravel (also the best walking). They climb right up and down steep embankments and crawl right over gravel bars and good-sized rocks. I got to drive for a while... they zoom right along.

Soon a few wet areas came up and tracks were apparent. The route was far outside the 50 feet within the river bank. But in a few miles we were on corporation lands. The route became more and more clear. Willows would be cleaned, and the track resembles any 2-rut road much of the way. We zoomed along thought sunset and sunrise, all about the same combination of pink and grey.

The wet tussocks and mucky soils don't wear well. The machines slow down and really grind away. Braiding is common. The machines do well in the streams – mostly gripping the gravel bottom, occasionally floating downstream. They also crawl right over snow and ice.

The worst ruts and braidings were the last 2 or 3 miles near town. The combination of wet tundra and high use has ruts and trails all over the landscape. We almost got stuck in some of the mushy stuff.

It took 3 hours to go 18 miles. Rough and bumpy. It can take 8 to 15 hours to get out to Chandler Lake, and it's rougher. Harry said that he hasn't driven out this year. He flew.

Some thoughts on ATVs:

- 1. Hope it's a passing fad. They cost \$7 10,000 each, there are about 20 in town, and they only last 3-4 years (maybe they've only been in town a year).
- 2. Designate routes to minimize the use of wet tundra, harden wet tundra. The problem would be where to get the fill and the expense would be similar to road-building.
- 3. Trade out some fly-in rights. You'd have to be crazy to pay the expense of an Argo and bump along for 8 to 15 hours when it's probably cheaper and faster to fly. Trade a few more landing areas for fewer easements or other land needs.

We got to Anaktuvuk Pass at 1:30 a.m."

As noted elsewhere in this report, studies and negotiations over several years resulted in a land exchange that keeps all-terrain vehicles (ATV's) out of designated wilderness and accommodates and controls ATV access for subsistence access near Anaktuvuk Pass. Argos remain popular in Anaktuvuk Pass today. During my visit adults, young people, and families were zipping around town all times of day and night. While popular around town, their use for subsistence is tempered by the high price of fuel (over \$10 per gallon), high initial cost, and continual maintenance. I did not get out to exactly where I toured ATV use in 1984, but did observe muddy trail ruts from the ends of the two roads at each end of town and did see some people using Argos to head up the John River. There still are muddy ruts from ATV travel, but it is confined to specific areas, monitored, and not in wilderness. Winter travel for hunting remains important, and snowmachines have become faster, more reliable, and more fuel efficient and thus even more important to local subsistence access.



1984. Argo ORV ruts near Anaktuvuk Pass.



2014. Argo ORV ruts near Anaktuvuk Pass.

Subsistence harvest, particularly of caribou, remains central to the local traditions, diet, and economy. While I was there people were concerned about the lack of caribou coming in from the north. Speculation was interference from sport hunters to the camp up north (as seen being transferred at the airport) and hunters further north and east along the Dalton Highway. News of a new sheep hunting closure in that area added to growing anger. Fortunately, someone found a herd of caribou to the west and many local people were out there and having successful hunts.

I asked a couple of people what difference the national park and wilderness have made over the last 30 years. They thought that it was not particularly positive or negative; it just is the way things are. It may have helped to keep the area from getting developed. Local people seemed to appreciate the presence of a ranger at the NPS ranger station. When proposals were made to shorten or discontinue the presence of a ranger, local people spoke up in support of keeping a ranger there. The volunteer is an invaluable extension of the ranger. Together, their presence improves communication between the NPS and local people and they are able to work with visitors who pass through. There are quite a few visitors because trips can begin or end without chartering a plane (access for a long hike from the Dalton Highway, commercial air service from Anaktuvuk Pass). Anaktuvuk Pass is also along a long-distance route made popular by a blog. It is important to foster ongoing conversation and engagement with the people of Anaktuvuk Pass. Even though the footprint of the community is not on park land, it is surrounded by wilderness that continues to be its active homeland. The community of people and their traditions embody the idea of "inhabited wilderness."

When Just helped me get back to the airport, we saw a lot of activity getting ready for the afternoon flight – cargo to send out, anticipation of cargo coming in, a few people heading out. There were also a couple of North Slope Borough policemen hanging around. Local people remain very angry about outside hunters passing through with antlers and heads of caribou.

Arrigetch Peaks

One of the field trips I very purposely organized as team leader for the Gates of the Arctic General Management Plan was a backpacking trip into Arrigetch Peaks. Even before establishment of the park and preserve these iconic peaks were attracting backpackers and climbers, the use magnified by glossy photos in magazines. At the time of the planning effort, Arrigetch Peaks was one of the most heavily used areas of the park and showed the wear. I organized a 5-day trip for a group of 4 people, mostly planners, in July of 1984. We chartered an air taxi from Bettles and were dropped off at Circle Lake. We hiked into the Arrigetch basin and I kept notes and took photographs.

While this was one of the few areas in the 8 million acres of the new park and preserve with concentration of use and impact, it still triggered a perceived need to put in place a system to monitor conditions and prevent problems. The plan included a detailed section on recreational use limits (carrying capacity) which was particularly tailored to begin to be applied in the Arrigetch area. This system was never really adopted. I wanted to include a field trip back to Arrigetch Peaks as part of this project to see how things have turned out 30 years later. The park supported a ranger patrol into Arrigetch Peaks in August, 2014, that included me, backcountry ranger Albert Smith, park volunteer Just Jensen, and Dr. Peter Landres, research ecologist at the Aldo Leopold Wilderness Research Institute and working with the staff of Gates of the Arctic on wilderness character issues. Following the map of the 2014 Arrigetch Patrol are the notes, side by side, of "then and now."

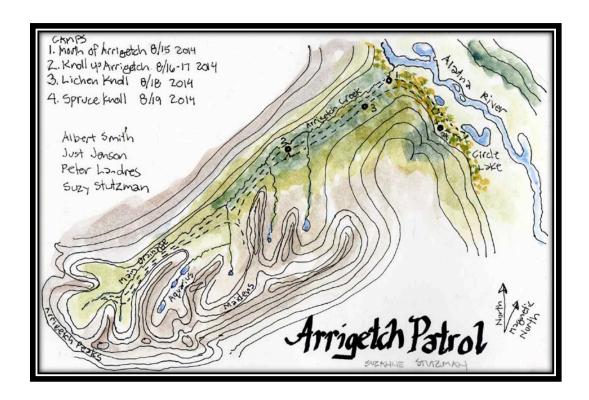


Figure 3. Then and Now: Notes from 1984 and 2014 Arrigetch Field Trips

Arrigetch Planning Field Trip July 1984	Arrigetch Patrol August 2014
Participants	Participants
Suzy Stutzman, team captain of GMP	Suzy Stutzman, retired NPS planner/wilderness
Denis Davis, DSC planner	coordinator
Debbie Sturdevant, AK seasonal and planning	Albert Smith, GAAR backcountry ranger
intern	Just Jenson, GAAR volunteer ranger
Ken Lieb (Suzy's husband, allowed to fill empty	Peter Landres, ecologist, Aldo Leopold Wilderness
seat on the plane)	Research Institute
July 5, 1984 (Thursday)	August 15, 2014 (Friday)
(after being delivered by Ron Costello of Brooks	4:15 p.m. Arrive at Circle Lake with Peter via
Range Aviation in an orange Beaver)	Cessna 185 NPS float plane. Muddy shoreline,
5:30 p.m. Unload gear – I stood in 1 ft. of water	trails, 2 caches near shore, all food in bear-proof
and muck to help. Wish I had waders. Double	containers. Rain of the day abated.
check pick-up time. Ron takes off, but no feeling	
of being alone. Immediately start chatting with 4	4:20 p.m. Another float plane passes over on the
people on the bank – 2 men, 2 women from	way to Bettles
Juneau. They hiked up to the Arrigetch drainage	
and were now packing up to float the Alatna for 9	5:30 p.m. Brooks Range Aviation drops off 3 other
days. They gave a lot of route advice. Lots of foot	people we saw earlier in VC. Gear for kayaking
prints and trails around landing area. Part of their	cached.
party kept walking to Takahula Lake. Another	
group in there.	5:40 p.m. Al and Just dropped off by Curtis. 2

Arrigetch Planning Field Trip July 1984

6:00 p.m. Begin hiking north diagonally across the hillside. Welcome to tussocks. Climb up 500 ft. or so, though small willows. Cross a small but deep drainage, get into lots of alders & tall willows & trees. From then on have a fairly fierce battle with brush, once in a while opening up to small willows and tussocks, occasional human footprints. Camp on a small bench at the mouth of Arrigetch Creek.

9:00 p.m. About 3 miles from start. Denis had to go quite a ways for water, took awhile to fill containers from such a small seep. Still grey, sometimes sprinkles, getting cool. The Alatna Valley is spectacular as light hits various faraway peaks.

July 6, 1984 (Friday)

9:00 a.m. Hear 1 airplane in the area, don't see. Raining. Group decides to delay breakfast and departure until rain lets up. It finally does, and we're on the trail at noon. Still numerous willows and alders – guess we didn't get up high enough. A beautiful rainbow hovers for a long time over the Alatna and Kutuk Creek. Occasional game trails and some openings, followed by tussocks, willows, alders, and rocks. Bear scat, but not fresh. Numerous moose droppings. Crossed two side drainages, staying well above Arrigetch Creek. Mist and clouds most of the day keep the bugs down. No sign of people today. The peaks of Arrigetch come and go with the clouds. Much of the Alatna Valley seemed to clear off but the peaks of Arrigetch are still holding clouds. Pitched camp about 7:00 p.m. on a knoll - estimate we hiked about 6 miles and have 3 to get to confluence of 2 major forks of the creek. Rain delays dinner, but the evening finally clears into sunshine (except for the shroud around Arrigetch Peaks). This terrain is pretty tough to hike through.

Arrigetch Patrol August 2014

planes at once in Circle Lake. Al documents site (GPS, photos, and notes) and calls in (protocol – must call a.m. and p.m. to Denali dispatch).

TUSSOCKS! Very deep crevasses.

Spruce Knoll – Campsite filled w/2 guides, 4 clients; 2 from Australia, CAMPFIRE, 4 tents, tarp over cooking area. Said there was a Nat Geo group further up.

More tussocks, stayed parallel to Alatna River). I cannot get up with my pack and need help. Old bear scat along the way. Finally we reach some trees at the mouth of Arrigetch Creek.

10:30 p.m. Eat, camp, drink the water (without purification), plenty of water for cooking and washing. Two more groups known to be flying in Saturday (tomorrow). Found toilet paper by camp. Estimated distance today about 2 ½ miles.

August 16, 2014 (Saturday)

(late breakfast)

Noon – Begin hiking up steep trail, find cached part of packraft and paddles. Well-defined trail, very wet trail. Deep ruts filled with water, braiding from visitor use. Met a group of 5 coming down the trail – grandpa, grandma, mom, dad, and one boy about 10 or 12. It took them several days to fight their way up the brush to the upper basin, and now they were going to stay on this trail.

Airplanes: 1:30, 2:30, 7:30, 7:45

Lichen Knolls – one of the few places land hospitable to camping and commonly used. 3 are bare but no campfire rings. Rainbow over Alatna. Keep hiking. Al documents and cleans a few small, obscure camp sites along the way near the river. Took 7 hours to go 3 ½ miles. Very brushy, also boulder fields.

7:45 p.m. Dinner. Camp on relatively undisturbed knoll 2 ½ miles south of confluence. Other than "Lichen Knolls" and where we camped, very few places to camp. Intermittent rain stopped, good

Arrigetch Planning Field Trip July 1984	Arrigetch Patrol August 2014
	views of Arrigetch Peaks. We voted to use this camp 2 nights and do LONG day hike tomorrow up into Arrigetch Creek. My boot heels are already making noticeable impacts on our campsite (I switched to socks).
July 7, 1984 (Saturday) 9:55 a.m. A small plane northbound up Alatna 3:35 p.m. Float plane, 185, southbound down Alatna – maybe NPS	August 17, 2014 (Sunday) Day hike – Leave camp set up 9:30, 9:45 a.m. Airplane (same one?)
Broke camp and began hiking around 10:30 a.m. Weather partly sunny. We headed down the ridge – spotted a tent by Arrigetch Creek – on a knoll. Angled west of it and never saw anyone. Soon, found THE TRAIL – at first most signs were of animals – moose tracks and scat, but then Vibram soles. Sometimes trail braided out through wet areas. Found several very "campable" sites but no signs of people. Came around corner to confluence and found a well used campsite along with pitched tent and two strung packs. Bear scat a couple of days old was on the trail. Ground worn, cut logs to sit on.	10:00 a.m. Began hiking into upper Arrigetch Creek, trails the whole way but still very brushy. Al records campsites and trails (GPS). Tent left in open area near the confluence, still there when we came back. Met a couple (climbers) in the upper basin packing up their tent. The upper "main" Arrigetch finally free of brush, very open, beautiful green floor, cottongrass, glacial blue stream, ability to cross stream at points. No rain today. Beautiful panorama in upper basin. Nice dry, rocky tundra. Peaks were mostly clear, but still appear to be a magnet for any clouds in the area and sometimes disappear.
Clouds continuously shroud the Arrigetch Peaks, sometimes moving away from the southern peaks. We continued up the creek ¼ mile and hikes up to a knoll and found a fire ring and worn ground. Decided to pitch tents a ways away, use the existing area, and clean it out better when we leave. The 3 miles took about 3 hours (arrived around 2:30 p.m.) After lunch hiked up the south drainage into both bowls. Lots of large boulders to scramble. Occasional trails. The peaks are absolutely mystical. Beautiful lake up high. Unbelievably awe-inspiring. Hiked until 9:00 p.m. No shortage of sunlight. Often found foot trails but they would	Hiked back down to the confluence and the earlier tent still there. Hiked up ridge to see "the Maidens" and the entrance to "Aquarius." People have created names not on the map. 2 tents were pitched at the confluence since we went by in the morning at site with logs recorded by Al. Total hike 12 miles. 10:00 p.m. Dinner 11:00 p.m. Bed – WHEW!
melt into game trails and then disappear. After fighting so many tussocks, willows, and alders, the trail was very welcome today. A regular trail and some fixed campsites would absorb a lot more people. But as for solitude, everyone is going to the same place. While we	

Arrigetch Planning Field Trip July 1984	Arrigetch Patrol August 2014
didn't see the people, the other campers were obnoxious because of the obvious and attractive campsites. The only way to really protect solitude would be to limit numbers.	
July 8, 1984 (Sunday) Still grey, sometimes misting. Following a hearty Sunday brunch, we packed everything away for a hike. We've been hanging all food in one pack high in a spruce to keep it away from bears, and putting other packs covered in the willows to keep them away from the many aggressive rodents. So far it's been working. Hiked up the western fork of the Arrigetch over tundra and boulders to the edge of a large glacier. Saw many game trails, which were often quite worn by humans (fresh Vibram soles most of the way). Moose scat much of the way. The top of the peaks remained shrouded in clouds. We finally figured out the large glaciers up there hold very cold air and create their own weather (which feeds the glaciers which creates more weather etc.). It was very chilly up there, probably close to freezing. It began to rain, so we returned to camp. Decided to stay at this spot one more night. Fresh snow dusted the high peaks while we were eating dinner. We heard a plane in the Alatna Valley about 8:00 p.m., but could not see it. I haven't felt all that remote or severed from civilization on this trip. I guess when we first stepped off the plane we was people. We since have seen two camps and fresh footprints, as well as daily planes in the Alatna. Not that it hasn't been pleasant and spectacular, but not totally isolated. I have the feeling that the daily planes in the Alatna Valley are like a road in a major valley in Colorado - a link to civilization if we wanted to get out of here. This place is still wild and beautiful, and what	1:00 p.m. Plane overhead with wheels, heading up Arrigetch Valley, circled 3 or 4 times. Probably "flight-seeing." Al says flight-seeing includes people in search of park passport stamps. Arrigetch Peaks are attractive for overflights. 5:30 p.m. Camped at first Lichen Knoll, hiked about 3 miles today. In the 1990's and early 2000's, there were fairly regular seasonal backcountry ranger patrols which surveyed and documented conditions, and mitigated impacts that were found in Arrigetch and other areas of Gates of the Arctic Wilderness. Such regular patrols have not been occurring in recent years. Changes in the balance and duties of different divisions in the field (interpretation, natural and cultural resources, and law enforcement), rules for backcountry travel (law enforcement, role of volunteers, etc.), and funding cycles affect the frequency and continuity of patrols in the backcountry.
makes it different than other spectacular places such as the Maroon Bells in Colorado, Yosemite	

Valley, Mt. Roger in Canada, etc. is its relatively wild state – the chance for solitude and to be on

Arrigetch Planning Field Trip July 1984	Arrigetch Patrol August 2014
The special control of the series of the ser	7 an agust 202 i
your own. That is what needs to be protected and improved, even at the cost of limiting people. As beautiful and mystical as the Arrigetch are, there are many such wonders with developed access. This area should not be treated differently than any other part of the park, say hardening trails or campsites to allow more people. The valley is narrow, places to hike are limited, and you would end up crossing paths with lots of people, even if they were camping with "minimum impact" etc. The special and unique thing here is the opportunity for solitude. Well, mostly. At 9:00 p.m. another plane could be heard in the Alatna	
Valley.	
July 9, 1984 (Monday) Got an earlier start today to make miles under low fog and clouds, the Arrigetch Peaks were	August 19, 2014 (Tuesday) Beautiful, sunny, no rain.
invisible. We cleaned all ashes & charcoal out of the firepit and scattered the rocks before we left. It is still an attractive and natural campsite, as one of the few flat places near the confluence and sheltered by a large rock. When we passed the other nearby campsite, tents and gear were gone. The site was clean but still worn & with a fire ring. We followed the trail out and made good time to the "lichen knoll" campground we saw from above. The site was left clean, no fire ring, but the lichen is definitely trampled on the top.	Noon – leave Lichen Knoll, consider diagonal through brush, but stick with the trail the same way that we came up. Still wet, muddy, deep, places where the trail is braiding. Returned through our first campsite at the mount of Arrigetch Creek near the Alatna, back through the tussocks to Spruce Knoll. Hiked about 2 miles. 5:00 p.m. Camp at Spruce Knoll. No sign of the 6 campers or the fire we saw on the way in. Very clean and restored.
We lost the trail and began heading uphill through the alders, willows, & birch. Found a wonderful stream to clean in, as the sun broke out about lunch. Fought more shrubs to a knoll in the Alatna Valley, probably some 8 or 9 miles from where we started. HARD HIKING. I liked that trail. Set up camp around 4:40. Looks like an easy walk to Circle Lake tomorrow. A float plane flew over the ridge above us, apparently near the Arrigetch Peaks, heading	No airplanes today. OOPS – 6:15 p.m. float plane passed over but did not land. Things Al found on this patrol (and carried out): • 2 or 3 cigarette butts (Lichen Knoll) • bear bell (along trail) • toilet paper (several locations) • binoculars and lens (Spruce Knoll) • safety latch for my bear spray that I lost on the way up
north about 4:50 p.m.	Things AI cleaned up: dispersed rocks from apparent fire rings (several locations) charcoal (Spruce Knoll)
July 10, 1984 (Tuesday)	August 20, 2014 (Wednesday)
Departed from the ridge about 10:00 a.m. and	Sunny morning

Arrigetch Planning Field Trip July 1984

fought through more alders, now interspersed with tussocks for a little variety. After about an hour we quit for a break – nicer to wait high in a breeze on this sunny, warm day than to suffer bugs by the lake. We finally fought down to the lake by 2:00 p.m., considered a swim, but found it to be too buggy and mucky. We then started to eat lunch when we heard a plane. Ron Costello showed up early, so we headed back to Bettles with plenty of time to clean up before we got dinner at the lodge. A wonderful trip, despite the stretches of "maddening alder."

Arrigetch Patrol August 2014

10:30 a.m. Back at Circle Lake (1/2 mile hike)

10:55 a.m. Another Beaver from Bettles Lodge Air Service drops off 4 older backpackers who quiz us about routes – one lady wearing shorts wants to cut through the alders...

11:00 a.m. – Curtis in the NPS float plane arrives to pick us up. Once again, 2 planes on Circle Lake at the same time. Peter and I are ferried out first, followed later by Al and Just.

AMAZING TRIP, STILL PRETTY WILD!

FYI, back in Bettles, Dale-Lynn Gardner shared her small yellow sticky note with her count of visitors heading into Arrigetch the day before our trip, the day of our trip, and the day after:

• 8/14/14: 11 visitors

• 8/15/14: 17 visitors (including us)

• 8/16/14: 5 visitors

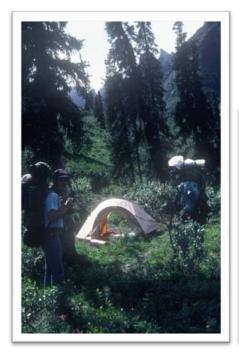


1984. Rainbow over Alatna Valley.



2014. Rainbow over Alatna Valley.

While resting at a knoll overlooking the Alatna Valley in 2014, I jokingly complained that there was no rainbow as I saw in 1984. Lo and behold, a rainbow appeared.



1984. Other campers' tent near upper basin.



2014. Other camper's tent in upper basin (more total tents seen 2014).



1984. Campsite near upper basin with fire ring, sawn logs, and ashes



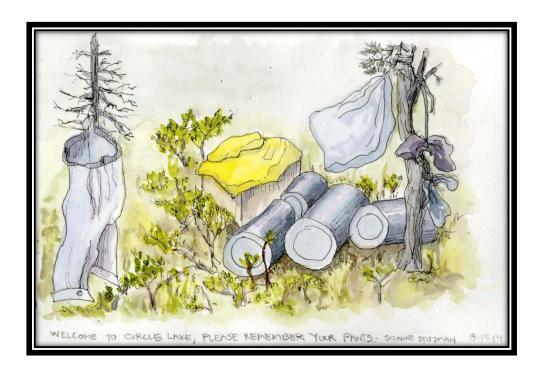
2014. Campsite near upper basin with dragged logs, partially dismantled fire ring (campsites generally cleaner in 2014)



1984. This human-caused trail was selected for the photo because it was one of the most distinct ones found.



2014. Human-caused trails are deeper, muckier, more braided and more prolific.



Temporary caches were present in both 1984 and 2014, but more were seen in 2014.

Figure 4. Summary of Human Influences Observed in Arrigetch in 1984 and 2014

Arrigetch Planning Field Trip July 1984	Arrigetch Patrol August 2014
1984 Airplanes noted (besides our trip): 5	2014 Airplanes noted (besides our trip): 8, 1 of
, , , , , , , , , , , , , , , , , , , ,	which made multiple passes for flightseeing
1984 People encountered: 4	2014 People encountered: 20
1984 Tents visible: 2 in 2 camps	2014 Tents visible: 8 in 4 camps
1984 Caches found: 1	2014 Caches found: 4
1984 Campsites: No precise count, noted limited options for campsites, observed a few with cut logs and very distinct fire rings; food hung in trees.	2014 Campsites: No precise count, again noted limited options and found many of the same sites as 1984. My general impression is that campsites today generally have fewer impacts, probably because of good Leave-No-Trace practices and
	occasional ranger clean-ups. Bear-resistant food containers are used in camps and caches.
1984 Human-caused trails: Were present, fade in and out with game trails, and some along lower Arrigetch Creek are very muddy and braided. I was personally ambivalent as I disliked the impacts but liked to use them.	2014 Human-caused trails: Are present, fade in and out with game trails, and some along lower Arrigetch Creek are very muddy and braided. I remain personally ambivalent as I dislike the impacts but liked to use them. My general impression is that there are more human worn-in trails between the lake and upper Arrigetch Creek and other drainages, and that the trails present in 1984 are much more distinct, deep, wet, and braided today.
1984 Technology: We had no communication device other than a mirror to signal an airplane in an emergency (and it was usually cloudy). I had a strong sense of self-reliance and responsibility for the group to be careful, but still did not feel completely remote because we saw an airplane almost every day. We used a paper map and compass – very open geography, straightforward drainages, and hard to get very lost.	2014 Technology: Ranger Al carried satellite phone and was in communication daily with the outside world. I fully understand and support the employee safety intended by this policy. I suspect most of the many visitors we encountered also had communication devices. The presence and availability of such direct and regular communication diminished my sense of remoteness and self-reliance. If I did this trip on a personal basis, I probably would take some type of emergency communication device and accept the diminished remoteness (with ambivalence).
1984 Me: I noted the hard hiking a lot in the notes, but covered quite a few miles with a backpack.	While AI had a GPS, I believe he mostly used it to document sites. We still used a paper map and it's still very hard to get lost. I don't feel like GPS was any crutch for navigation on this trip. 2014 Me: The heavy backpack was difficult for me in 2014. I had to have the others help me put it on and we did not cover as many miles in 5 days. I have changed (hey, I am 30 years older) but I don't want the wilderness changed for me. I'll adapt to the wilderness.

In summary, my observation of changes over 30 years is that Arrigetch Peaks is much the same — beautiful but not the wildest part of Gates of the Arctic Wilderness. There is still very concentrated use in this area and it is not the place to seek high solitude. Many impacts were similar to 1984. Camping today appears to leave fewer impacts but all other types of impacts were more numerous and more intense.

Dalton Highway

During the planning effort, I made a couple of trips to Coldfoot and the Dalton Highway. The first trip was a fly-in in winter, looking at the pipeline, surplus ATCO construction camp trailers, and sites for a possible visitor contact and ranger station. We envisioned a small rustic log structure to fit the need, and I advised against taking "free" ATCO trailers knowing they would not quite fit needs but be would be kept by the NPS forever. Another summer trip was to travel with another planner and a park ranger up the Dalton Highway to Galbraith Lake, and hike a little ways into the park to better understand that area and possible future park visitor access from the road. At that time this industrial road was closed to the public at a checkpoint near Dietrich Camp south of Atigun Pass. Truckers did not want to contend with tourists and residents of the North Slope Borough did not want hunters from outside. There was some tourism developing at Coldfoot at the relatively new truck stop that had been built there.

The 1984 July trip up the Dalton Highway began in Fairbanks. I remember driving over long rolling hills and lots of frost-heave. I have a few brief notes on the trip north:

"Near Hammond – Middle Fork, 3 fox (2 adult, 1 kit), den by road, came out to road, looking for food? Pictures.

Aleyska pipeline access roads used for parking for access.

Owl on road, medium size

Dietrich Checkpoint – open 2 days, young man, private contract to family, checked permit and license number, calls troopers if someone runs the station, open to September 30

Dust not just annoying, obstructs view with haze, long lasting on roadside, vegetation very dusty

Sign – Welcome to North Slope Borough – largest municipality in the world

Atigun Pass – steeper and windier on the north

North side different, open tundra views

3 caribou right, pipeline left, caribou cross road, walk along pipeline, cross under, graze, ARCO delight

Galbraith Lake – SPECTACULAR, awesome valley, lake glaciated peaks

Airport – pile of rusting cans, some blown around litter

Toolik Camp – University of Alaska, lease/landlord to numerous universities

1 caribou on roadway, spectacular views of the Brooks Range from the Toolik area

Galbraith Lake Camp - camp being dismantled, partly blue, partly cloudy"

We then backpacked in for a short trip into the spectacular landscape, seeing streams, wildflowers, frolicking caribou (to get away from bugs), views of glaciers, and a blonde grizzly bear.

We spent the Fourth of July in Wiseman. We enjoyed a picnic and softball game with local residents and a lot of out-of-town visitors (the guest list was 60 or 70). We identified ourselves as with the National Park Service and I received a few of comments that I noted:

- Person from mining association. Too much mining potential is locked up, too many regulations, too hard to meet, can't afford lawyers.
- Couple. Starting a store, remembered me from a public meeting, just want to run small mine, don't like paperwork.
- Resident. Asked about subsistence resource commission, questioned whether a specific person was a resident/member, told me who to contact.
- 2 Miners. They take care of land, don't want anyone to tell them anything, want to show NPS around where the mines should be excluded from the boundary.
- Trapper. Liked my hat (with NPS arrowhead) and thought it would look good with a bullet hole.

During my August 2014 field work for this project I had the opportunity to stay in Coldfoot and borrow a park vehicle to travel up the Dalton Highway. The Coldfoot truck stop looks remarkably the same: a big muddy expanse for parking trucks and refueling, a visually unappealing hotel housed in old ATCO trailers, and a dark restaurant serving truckers and tourists. The airport is larger and busier with both pipeline activity and tourism. There is scheduled air service to Fairbanks and air charter services into the Brooks Range. Since the Dalton Highway was opened up further north to the public there has been a significant increase in tourism and tourist services. At one time one of the larger Alaska tour companies had set up large bus trips taking people all of the way to a hotel in Deadhorse, but code issues with the hotel have stopped these larger tours. There are many small commercial tour vans and scheduled van services dropping people at various destinations (like backpackers going into Gates of the Arctic). There are a lot of independent tourists traveling in cars, trucks, camper vans, motorcycles, and even bicycles.





The Coldfoot truck stop restaurant is one of the least changed places I visited. (left-1984, right-2014).

The biggest change in Coldfoot is the relatively new Arctic Interagency Visitor Center, which replaced a smaller NPS facility opened in 1988. It was built and is operated through the interagency cooperation of the National Park Service, the Bureau of Land Management, and the U.S. Fish and Wildlife Service. This facility is the familiar NPS model — a staffed visitor information desk, exhibits, a theater, and a bookstore/gift shop. The BLM who has overall responsibility for managing land in the corridor has installed and is continuing to develop a lot of interpretive waysides along the corridor. On the one hand, these improvements are probably enjoyed by a great number of people. On the other hand, they are pushing this area toward a homogenization that makes this wild land seem like everywhere else in the United States. It's a very different experience than the small cabin, smoky stove and chat with a ranger that the planning team envisioned years ago.



1984. Surplus ATCO trailers that did not become an NPS contact station.



2014. Arctic Interagency Visitor Center, Coldfoot.

I drove up to Wiseman and just wandered around with no particular agenda. It's definitely a kinder, gentler Wiseman. I was greeted enthusiastically by local resident "Clutch" and given some local history and invited to visit a couple of museums he and resident Jack Reakoff have put together. He had to go off to his bed-and-breakfast to make pancakes for his guests from Iowa. There are a number of bed and breakfasts around filled with tourists. A few local residents of Wiseman work seasonally for the National Park Service. I got a general picture that while local people still have a sense of loss for the mining and guiding that occurred before establishment of the park, they now think that NPS is probably their best bet for long term protection of fish and wildlife and subsistence. These improved community relationships are immensely valuable. Wiseman is a subsistence resident zone, part of the "inhabited wilderness" that is so important to the future preservation of the park and wilderness. These relationships should be carefully and thoughtfully maintained.



1984. Fourth of July Picnic in Wiseman.



2014. "Clutch" sharing outdoor museum in Wiseman.

A major change in this corridor is that opening it further north to the public has increased sport hunting pressure and fueled local resident concerns about losing their subsistence resources to outsiders. There was a very new closure to sheep in the hunting unit in the preserve as the population was in steep decline. I continued north over Atigun Pass and once again had the opportunity to experience the spectacular scenery of the northern treeless tundra. I glimpsed two Dall sheep on the slope above the pass. I don't know if they knew about the hunting closure. I went up to Galbraith Lake, stopped in a small BLM campground near the active pipeline maintenance site, looked into the park and preserve, then turned around to head south. I had heard from several people before coming over to this area that the roadside was lined with the vehicles of sport hunters from out of the area and there was no place to park. I sort of expected to see the kind of really crazy hunting I saw in Alaska 30 years ago along a highway just outside of Fairbanks. In that situation there were vehicles parked all along the shoulder of the road with numerous hunters shouldering rifles, scanning the horizon with their binoculars, and offroad vehicles heading off in every direction. It looked like military maneuvers. The hunting along the Dalton Highway was not quite that crazy yet. Along the Dalton Highway there are no shoulders on which to park. There are occasional pull-outs and parking areas, and I observed on this trip that many pullouts had several vehicles. They were probably mostly hunters. In an area this wild, this number of sport hunters is a lot of added pressure on resources and local fears back in 1984 about the consequences of opening this area to outsiders are coming true. One positive thing for resource protection is that ORVs are not allowed off the road in the corridor (something that could change if the state pushes) and hunting with guns is not allowed within 5 miles of the pipeline.

As envisioned in the plan, Coldfoot has turned out to be an important site for NPS presence even though the details have developed somewhat differently. The Dalton Highway corridor is a useful comparison for identifying potential future impacts of surface transportation in the Ambler right-of-way.

Part 4. Plan Contents and Results: What the plan said, what happened (or not).

What was done as envisioned in the plan, or not done? Specific questions were tailored to interviewee's experience and expertise. Not every interviewee was asked about all topics. The topics include wilderness management, national natural landmarks, wild and scenic rivers, natural resource management, cultural resource management, access and circulation management, subsistence use management, recreational visitor use management (including carrying capacity), operations, general development, land protection plan, and wilderness recommendations.

WILDERNESS MANAGEMENT

1984. The plan states that "the clear wilderness preservation mandate of Gates of the Arctic is reinforced by the designation of approximately 7,052,000 acres, the entire park unit, as wilderness." The plan cites section 701 of ANILCA and the Wilderness Act and gives an overview of wilderness management under those laws. The plan states that details of wilderness management are covered throughout the general management plan, rather than a separate wilderness management plan.

2014. The park has never prepared a separate wilderness management plan but there have been various efforts to update the 1984 general management plan with integral wilderness management planning.

All staff is aware that wilderness is important, but the depth of knowledge about the wilderness purpose of the park and management responsibilities for wilderness under the Wilderness Act and ANILCA varies greatly. The lack of a shared understanding of fundamental wilderness values has led to inconsistent directions of management activities and contentious disagreements among staff, for example deciding how research is conducted in wilderness.

In the big picture (without hard numbers to back it up as there has been no consistent monitoring of wilderness character over the last 30 years) the overall condition of Gates of the Arctic Wilderness remains outstanding. This is largely attributed to remoteness, the relatively low numbers of visitors and few other direct human impacts. There have been positive management actions improving wilderness character and there are a few specific areas of concern for wilderness character detailed elsewhere in this report.

WILD RIVER MANAGEMENT

1984. The plan states that "six rivers within Gates of the Arctic National Park and Preserve are designated as units of the national wild and scenic rivers system by section 601 of ANILCA: the Alatna, John, Kobuk, Noatak, North Fork of the Koyukuk, Tinayguk." The plan describes the ANILCA requirements for boundaries and plans, but states that wilderness management will provide protection and no separate plans would be prepared at that time. The plan commits to acknowledge and monitor Outstandingly Remarkable Values (ORVs), and possible future river management plans.

2014. While there has been some general monitoring in these river watersheds, there has not been specific monitoring of ORVs. The first steps of preparing wild and scenic river plans have been taken by refining ORVs and developing wild river value statements. The Wild and Scenic River designation may contribute to attracting recreational visitation. The Wild and Scenic River designation is an important

consideration being used in the analysis of impacts of a proposed road to the Ambler mining district on the Kobuk River.

NATURAL RESOURCE MANAGEMENT

1984. The plan states that "the overall natural resource management objective is to maintain natural and wilderness conditions, environmental integrity, and the dynamics of natural processes operating within the park and preserve." It further says the general direction will be monitoring and collecting baseline data, research, and in general directing any needed management activities at human use rather than direct management of natural resources. A resource management plan will be prepared.

2014. The park is still on this general course, with a lot of baseline and monitoring occurring today through the inventory and monitoring networks, ongoing research, and little if any direct manipulation of natural resources. There has been resource management planning, but no current version (today's service-wide program for resource management plans is unclear).

In the bigger picture, the overall integrity of natural resources in the park and preserve remains excellent, probably mostly because remoteness has protected fish and wildlife and habitats. The cost of access for recreational visitors and sport hunters remains high and numbers remain relatively low. Subsistence use has remained at a relatively steady level over the last 30 years for a variety of reasons, and there are very few inholdings and related incompatible uses. There are however several specific areas of concern detailed elsewhere in this report.

Fish and Wildlife

1984. Much of this part of the plan was devoted to sorting out and stating how the park would apply NPS policy, ANILCA, and the role the State of Alaska Division of Wildlife. The first part of this section goes into great detail about the intricate relationship between the State and Federal government for fish and wildlife responsibilities, being clear that ultimately the NPS is mandated to protect the habitat for and populations of fish and wildlife within the park and preserve and could initiate closures to hunting and fishing. The plan also stated that the NPS would not permit habitat and animal population manipulations except under extraordinary circumstances. This was quite contentious with the State Division of Wildlife during the planning process. If restrictions become necessary in the preserve, non-wasteful subsistence uses will be given priority over sport hunting. In the preserve, where sport hunting is allowed, the key phrase in ANILCA was managing for "healthy" populations of fish and wildlife. In the park, Congress directed that "natural and healthy fish and wildlife populations" be maintained. The plan provided a definition of "natural and healthy populations" and committed to collecting more baseline data on the natural condition of fish and wildlife as well as traditional subsistence use and unnatural human disruptions to develop criteria for maintaining natural and healthy populations.

2014. Not surprisingly, State and Federal relationships in 2014 are as contentious as ever, reflecting a national trend that is even more intense in Alaska today. The State continues to manage the wildlife through issuing hunting permits for game units as long as it fits with NPS mandates. The NPS has not allowed habitat or population manipulation in the park and preserve. There has been a state-wide decline in the western arctic caribou herd, and the state is pressuring the NPS to allow predator control in the form of aerial wolf and bear hunting. In the Itkillik preserve unit of GAAR, hunting pressure on sheep has increased in part because of access from the Dalton Highway (which was not open to the

public in 1984. This hunting pressure coupled with a weather and disease-related decline in the population led to a State-initiated closure during my visit in August, 2014.

Subsistence resource councils have pushed the park to further define "natural and healthy populations" for the park. Staff has worked on this as well as defining "healthy populations" in the preserves in the last several years. The first attempts moved toward precise numbers, but current thinking is looking for a more dynamic definition that accounts for natural fluctuations and fits with the Organic Act and other mandates. Some staff feel "natural and healthy populations" has no practical value, it has not been helpful for decisions, and it is more important to know if the system is natural and healthy. At the end of the day, the looming issue remains competition between subsistence users and sport hunters for fish and wildlife.

Additional Fish and Wildlife Topics

There were some other topics covered in this section of the plan.

- 1984 Fish. The plan states (in accordance with NPS and wilderness policy) that introduction of
 eggs, fish stocking, or habitat manipulation will not be allowed. The plan noted the low
 productivity of arctic waters and identified concerns about possible overfishing. It called for
 visitors to practice voluntary catch-and release, to study fish populations and harvest, and
 consider possible future specific bag limits if warranted.
- 2014 Fish. Catch and release is largely practiced by fishermen in the area today. There is
 relatively light visitor and subsistence use, maybe a few charters, and fishing is not considered a
 significant issue today. Sheefish are an uncommon arctic fish prized by subsistence users and
 targeted by sport fishermen, hence there may be conflicts. There remains a need for additional
 data on fish populations.
- 1984 Bears. In order to maintain a natural and healthy population of bears and avoid adverse bear encounters, the plan called for the park to make portable bear-resistant food storage containers available and to track human-bear incidents and firearms discharge in coordination with the state. Visitors are allowed to carry firearms in the park and preserve, and there was concern over possible over-reaction to encounters and unnecessary loss of wildlife.
- 2014 Bears. The park offers and strongly encourages the use of portable bear-resistant food storage containers and they are well used. People can carry guns, but there is no system for reporting fire arms discharge. Visitors today are encouraged to carry pepper spray to deter aggressive bears, a product not widely available in 1984. Staff could only recall one incident of a person pulled out of a tent by a bear and 1 human fatality in 1996 in thick brush. There have been a few reports of black bear raids in the Arrigetch area. The relative lack of many adverse human-bear encounters for an area this large and full of bears can probably be attributed to few people, acceptance and use of bear-resistant food containers, availability of pepper spray, and lots of education.

Vegetation

1984. The plan states that "management will strive to maintain natural diversity, dynamics, and ecological integrity of the native plant mosaic as part of the complete ecosystem." It calls for monitoring human activities for effects on the natural condition, as well as collection of baseline

information and research. The plan also calls for reclaiming the damage of placer mines, ATVs, winter roads, campsites, and trails.

2014. On a park-wide scale, native plant communities remain in excellent condition. There is little mining activity and vegetation damage from ATV routes near Anaktuvuk Pass are better managed to reduce impacts and are no longer within designated wilderness due to land exchanges. There are some invasive plants around Walker Lake and along the Dalton Highway and efforts underway to remove and control them. Small localized impacts persist. As an example, the lichen knolls in Arrigetch Peaks were denuded of vegetation in 1984 and remain so today. Human-caused trails in the Arrigetch Peaks have proliferated and deepened in the last 30 years. While these are a very small percentage of the total area of the park and preserve, such impacts degrade wilderness character and deepening trail ruts may be affecting hydrology and the ecosystem in a broader area.



Additional Vegetation Topics

- 1984 Firewood collecting and campfires. Because of concern for slow-growing trees and fire ring impacts. The plan recommends subsistence and emergency use of fires without limits, and limits campfires to forested areas utilizing dead and downed wood.
- 2014 Firewood collecting and campfires. Orientation of visitors includes a thorough "Leave No Trace" (LNT) message that strongly recommends using campstoves only, fires for emergency purposes only, and mitigation of any campfires created or found. My 2014 experience in the Arrigetch Peaks found that fire rings were few (in fact lighter impacts than my experience in 1984) and mitigated by ranger patrol. On our way into Arrigetch valley, we passed two guides and their 4 clients who had a campfire. On our way out, we passed the same site and could find no trace of the campfire. In general, I think campers today are aware of and practicing LNT principles, and at GAAR the orientation reinforces that knowledge with specifics for this wilderness.
- 1984 Wildfire. The plan recognizes wildfire as a natural process that was permitted to perpetuate natural systems, but suppressed where it is a threat to private property.
- 2014 Wildfire. Fire has been largely unconfined.

- 1984 Consumption of plants, collection of plant materials along Kobuk for handicrafts, and subsistence timber cutting. The plan notes that all of these activities are allowed.
- 2014 Consumption of plants, collection of plant materials along Kobuk for handicrafts, and subsistence timber cutting. These activities continue at a very low level and there are no issues.

Threatened or Endangered Species

1984. The plan commits to identifying species, conducting surveys, and protecting them.

2014. Not many species have been identified. The yellow-billed loon is a candidate.

National Natural Landmarks

1984. Two National Natural Landmarks (NNLs) were designated in 1968: Arrigetch Peaks and Walker Lake. Sixteen additional potential NNLs have been identified within Gates of the Arctic National Park and Preserve. The plan notes that these two areas are among the most highly publicized and frequently visited areas, and exhibit the most visible impacts from that use. The plan states that "further designations will not be recommended if they are likely to result in more publicity and adverse impacts..." The plan further states that the two NNLs will be monitored for impacts and their condition described in an annual report to Congress, and that their nationally significant features will be protected.

2014. These two areas were recognized as amazing places before establishment of the park and preserve, and remain popular and impacted. No further designation of NNLs has occurred. It is unlikely that the NNL designation itself is a draw. The more likely cause, particularly for Arrigetch Peaks, is the continued publicity that crops up in magazines and now blogs. Plaques commemorating the NNL designations of Walker Lake and Arrigetch Peaks had just arrived at the Bettles visitor center, which I assume will be mounted in the visitor center and not in wilderness. Will these tip the undecided visitor to plan their trip to these locations?

Biosphere Reserve

1984. The "existing conditions" section of the plan notes that the entire Noatak watershed designated as a biosphere reserve in the United Nations "man in the Biosphere" program, and the headwaters are in Gates of the Arctic National Park and Preserve. There were no public comments on this and the plan proposed no actions.

2014. This designation remains little known and has little or no affect on current use or management.

Shorelands, Tidelands, and Submerged Land; Management of Water Columns; Water Rights

1984. These are issues which are governed by an array of State and Federal laws. The plan summarized these laws and provided more details about roles and responsibilities, asserting NPS responsibility for resource protection and rights as appropriate.

2014. There continues to be tension between the State and Federal government on these topics here and elsewhere in Alaska, but not many specific issues in Gates of the Arctic. There is current litigation concerning jurisdiction over navigable waters in Yukon-Charley.

Air and Water Quality

1984. Concerns were raised during the planning process about possible impacts to air and water quality from mining and development. The plan noted that Gates of the Arctic National Park and Preserve is a class II airshed and that NPS will work with the state and others to protect air and water quality. The plan says that a future air quality monitoring program may be necessary and considered.

2014. Parkwide air and water quality remain excellent, largely because of remoteness. The park remains a class II airshed. Climate change is resulting in thawing of permafrost, which affects inputs into aquatic systems and groundwater. A concern is impacts of dust and other air pollutants from a possible future Ambler transportation corridor and mine development.

Paleontological Resources

1984. The plan describes their inherent protection by remoteness and notes that research permit requirements apply to any research or collection.

2014. There have been a few interesting paleontological finds, including a mammoth tusk, shells, and a dinosaur. There have been few collection or research activities in the field.

Natural Resource Research Needs

1984. The plan lists, in priority order, 29 research projects.

2014. The following happened on the top 10 needs:

- Methods for ORV access and use yes, studies were done and were important during first years after GMP for working out land exchange with Anaktuvuk Pass
- Fish populations and harvest not much done, mostly state research
- Effects of trapping on furbearers some studies have been done
- Wolf density and packs some studies have been done, none recent, state not doing anything, need more
- Moose population and ecology yes, studies have been down, now better have information on population, movement
- Brown bear population and habitat yes, studies are underway right now, collars on bears for Ambler road study
- Subsistence use and management the state does monitoring but there is a time lag.
 Subsistence resource commissions are doing well but OMB survey requirement hinder data collection

- Monitoring of wildlife populations and habitat some has been done, now Inventory and Monitoring (I & M) Network working at broad scale
- Ambler transportation corridor study THE current all-consuming park project
- Natural resource data base management Arctic (I & M) Network is now managing database

Research Management

1984. The plan describes actively seeking cooperators for research and NPS conducting some. Research methods must conform with general public use and other laws and rules, be the minimum necessary, and managed under the terms of a permit. The plan calls for a study repository at headquarters.

2014. Research activities have been and continue to be a contentious issue for park staff. While the plan listed constraints on research activities including limits on helicopters, it was not explicit about wilderness values. There have been a lot of requests for research access by helicopters over the years, with some staff pushing back for reasons of wilderness values. Some in the science community perceive that Gates of the Arctic is hostile to research. Others perceive far too much lenience in the use of helicopters and other exceptions for research. The Alaska Regional Office convened an interdisciplinary team to develop a process and guidance for managing research activities in wilderness. There is currently a Gates of the Arctic and Yukon-Charley compliance team that reviews and approves research permits. In 2012 four climate stations were installed in Gates of the Arctic. With the pressure to complete the Ambler transportation corridor study quickly, decisions have been made to withstand short-term impacts of a lot of helicopter use and wildlife collaring to obtain data.

As for a repository for studies, the Fairbanks office does maintain a library and over time the I & M Network is becoming the main repository for studies.

Minerals Management

1984. The plan discusses rights, plans of operation, and acquisition of undisturbed valid claims.

2014. There has not been much mining activity in the park and preserve, and therefore few impacts. There are a few small claims with a little activity over the years. Doyon still owns mining claims in three townships within the park, which remain inactive.

CULTURAL RESOURCE MANAGEMENT

1984. The plan describes the rich history of human use of this part of the Brooks Range, and also emphasizes that people left few visible remnants on the landscape. The plan notes that resources will be managed in compliance with all cultural resource laws. The plan proposes to conduct selective sampling of cultural resources to identify further research needs, seek cooperators for research, develop a list of classified structures (LCS) and complete a cultural sites inventory (CSI).

2014. Surveying of cultural resources that was underway during the time of the GMP culminated in a huge 2-volume historic resource study entitled "Gaunt Beauty, Tenuous Life" published in 1988. A number of other cultural resource surveys have been conducted over the years, focusing primarily on river corridors. Ethnographic studies of the Nunamiut have been conducted. The number and type of sites found in cultural resource surveys far surpasses the initial expectations for Gates of the Arctic. The

park and preserve have more documented archaeological sites than any other park in the Alaska region. Staff would like to think that if early park planners and drafters of legistlation knew what we know now about archaeology in GAAR they would have given it a nod in the enabling legislation. The lack of that language has at times made it difficult to justify the need for cultural resources funding. A list of classified structures for the park currently includes 12 structures, 11 of which are archeological and one which is a cabin.

Archeological Sites

1984. The plan called for monitoring of baseline conditions, with concern about archeological sites coinciding with areas of visitor use; managing research to minimize impacts and to protect sensitive data.

2014. There have been efforts to re-locate sites identified in the historic resource study, but it is expensive to get out in the field and it requires specialized knowledge to recognize subtle sites. Threats include erosion, human activity such as at Walker Lake, and there have been a few cases of visitors or staff "cleaning up" what was thought to be trash when it in fact was archeological material. Cultural resource field research activities must fit with wilderness values, and remoteness adds to the expense of field work. Remoteness also offers a degree of protection to cultural resources.

Historic Sites

1984. The plan referenced the ongoing selective sampling of cultural resources as important for identifying historic sites, as little was known at the time. Two cabins were known as eligible for nomination to the National Register of Historic Places - Yale cabin on Glacier Creek and Vincent Knorr cabin on Mascot Creek.

2014. The two cabins referenced above have been nominated to the National Register, and remain on Doyon land. While there were scattered cabins and cabin sites in the park and preserve, very few were intact and few are historically significant.

Museum Collection Management

1984. The plan says that to the greatest extent possible, leave archeological resources and historic artifacts in place, collecting only where threatened or when exposed in excavation. The plan notes that the park will follow the scope of collections plan, store artifacts at headquarters, and display in museums as appropriate.

2014. The park leaves artifacts in place and does not collect unless there is a compelling reason. There is a climate controlled storage room in Fairbanks and a curator. Some items are stored at the university.

Intangible Cultural Resources

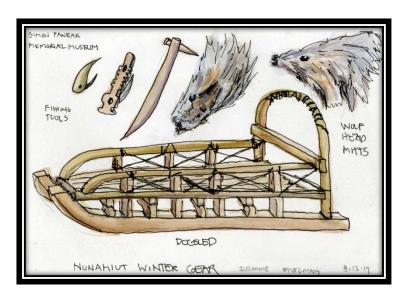
1984. Issues were raised during the planning process about protecting customs, traditions, oral history, native place names, names on maps, spiritual places. The plan proposed and expansion of oral history projects, collection of native place names, and leaving unnamed features unnamed.

2014. Oral history projects were underway at the time of the plan and have continued. A number of oral histories are available online for Gates of the Arctic at the University of Alaska "Project Jukebox." There have been efforts to collect native place names, but there are concerns about making that information widely known because of possible looting. Unnamed geographic features on USGS maps have not been assigned official names, but visitors seem to want to name things and include them in their blogs and magazine articles. For example, there seems to be a common use of the names "The Maidens" and "Aquarius" for features in Arrigetch Peaks, even though such names are not on USGS maps.

Historic and Cemetery Areas

1984. The plan notes NPS responsibilities to manage all native historic sites per ANILCA and as eligible for National Register of Historic Places.

2014. Not many sites have been identified as native people are reluctant to give location information for fear the sites could be damaged by outsiders.



Present Day Culture

1984. ANILCA directs encouraging the recognition and protection of the culture and history of the individuals residing in and around the unit when it was established. To accomplish that, the plan called for continuing to collect oral histories, collecting subsistence data, recruiting local residents for park jobs, encouraging employees to learn about local residents, recognizing allotments, and maintaining and improving communication with local residents.

2014. Oral histories are discussed in a previous section. Local hire has been used over the years with greater and lesser success at different times. There are currently some staff members from local communities. Relationships between local residents and the NPS have had their ups and downs, but the overall trend is that local residents generally recognize that the National Park designation affords good protection of wildlife and natural resources. Even though many would still prefer NO outside influence from the state, federal government, or big oil companies, etc. the NPS is the "least bad"

option. This is based on discussions with staff as well as my own recent but brief experiences in Anaktuvuk Pass and Wiseman.

Cultural Resource Research Needs

1984. The plan identified a list of needs, not in priority order.

2014. Here's what happened to the list:

- Complete selective sampling of cultural resources Major historic resource study completed, along with several other cultural resource surveys.
- Continue and expand collection of oral history ongoing, sporadic.
- Develop ethnohistoric studies related to native concerns several projects completed since the GMP.
- Complete National Register forms for all eligible properties no, still need to sift through extensive information collected in surveys to determine what to nominate.
- Develop documented historical base maps park now has a good database in GIS for historic, archeological, and some ethnographic resources.

ACCESS AND CIRCULATION MANAGEMENT

Subsistence Access, General Public Access

1984. The plan states that management will provide for traditional means of access that protect park resources and values, and roads and trails will not be constructed except for those provided for by federal law. It will be an ongoing process to documenting past and current use. Subsistence access is guaranteed per ANILCA. General public access is specified in ANILCA and subsequent regulations for the use of snowmachines, motorboats, non-motorized surface transportation, and aircraft.

2014. More specifics can be found in the subsistence and visitor use parts of this report.

Access to Inholdings, Easements, RS-2477 Rights-of-Way, Future Transportation and Utility Systems, and Other Access Provisions

1984. The plan articulates the provisions of ANILCA, and even included a map of state-asserted but unproven claims for RS-2477 Rights-of-Way.

2014. Surprising to me, these provisions for access have not been a big issue for the park. There have been a few inquiries about specific access to inholdings, but they were not followed up by the applicants. The state sometimes makes general assertions about RS-2477 Rights-of-Way, but there have been no formal pushes for claims in the park.

Ambler Right-of-Way

1984. The plan stated the provision in ANILCA that the NPS will collect data on this area and when and if an application for surface transportation access across the Kobuk Preserve unit, the NPS will conduct an environmental and economic analysis for determining the most desirable route and conditions.

2014. That day is HERE. An application has been made and the park staff is consumed with collecting data and working on the analysis. I must admit that while the planning team did list collecting data in this area was one of the top 10 research priorities in 1984, I did not really think this would be a reality in my lifetime. The park did not collect a lot of data in advance of the application, but is working very hard now to comply.

SUBSISTENCE USE MANAGEMENT

1984. The plan quoted ANILCA 101(c) "...opportunity for rural residents engaged in a subsistence way of life to continue to do so." "... subsistence uses by local residents shall be permitted in the national preserves and where specifically permitted by this Act in the national monuments and national parks." GAAR section directed that "subsistence uses by local residents shall be permitted in the park, where such uses are traditional..." The plan said that the state will manage fish and wildlife harvest as long as consistent with ANILCA and other applicable federal regulations. The NPS will not allow habitat manipulation. ANILCA established subsistence advisory councils and subsistence resource commissions, and a commission was established for GAAR, which was proceeding with formulating a program and making recommendations. The plan stated that the NPS will develop a subsistence management plan to provide additional clarification.

2014. ANILCA, not the general management plan, really laid out most of the details of subsistence use management. Implementation has been extremely complicated with all of the various commissions and overlapping jurisdictions, but nevertheless the overall concept has worked and is remarkable: people are recognized as a natural part of the ecosystem. The concept of "inhabited wilderness" reinforces that the Wilderness Act was meant to regulate industrialized society but not put people off the land. It maintains people's traditional relationship to the land. As in most matters of wildlife management, the state and federal governments have different perspectives. In 1990, a lawsuit resulted in a court decision that the state subsistence advisory board was inconsistent with the state constitution, and a federal subsistence board was established in 1992. The overall idea of sustainable local harvest and use has worked – there has not been apparent subsistence overharvest of resources in Gates of the Arctic (data on subsistence harvest in parks has not been systematically collected). Some people are concerned that subsistence use may be declining with some village populations getting smaller and the next generation being less interested. The ongoing threat to subsistence remains competition with sport hunting through ongoing and increasing pressure from Anchorage, Fairbanks, military bases, and the lucrative business of guided out-of-state hunters. I saw this concern first-hand this summer among residents of Anaktuvuk Pass, as sport hunters flew through the community on their way to hunting to the north, were perceived to be interfering with caribou movements through Anaktuvuk Pass, and are seen leaving often with only heads and antlers. I also encountered strong concerns from residents over in Wiseman over the August sheep closure and the number of sport hunters parked along the Dalton Highway. As stated earlier, an ongoing and growing issue is competition between sport hunters and subsistence users over finite and fluctuating populations of fish and wildlife.

Resident Zones

1984. Instead of extensive permit system, ANILCA established resident zones throughout Alaska, including specific communities around Gates of the Arctic. Anyone who resides in Alatna, Allakaket, Anaktuvuk Pass, Bettles/Evansville, Hughes, Kobuk, Nuiqsut, Shungnak, and Wiseman can participate in subsistence use. The plan stated that the NPS will monitor for change and may delete through a hearing process. Individuals must prove traditional use.

2014. Resident zones have been adjudicated twice (1990, 2000) and are reviewed on a state-wide basis every 10 years per implementing rules. While there is always concern over possible loss of eligibility for subsistence for an entire community, little has changed. All of the original subsistence communities around Gates of the Arctic remain eligible resident zones.

Traditional Use Areas

1984. ANILCA limits subsistence use in GAAR to traditional use areas. The plan states that the NPS will seek recommendations from subsistence resource commission for traditional use zones.

2014. The areas of subsistence use have generally worked out, but the NPS never formally determined areas (even though there have been pressures from some environmental groups to define them).

Subsistence Access

1984. ANILCA allows for reasonable access for subsistence residents and motorboats, snowmobiles, and other surface transportation traditionally employed for residents for such purposes subject to reasonable regulations. The door is not closed to new technology, but would need to be studied. The plan asserted that Off Road Vehicles (ORVs) are not a traditional means of transportation and stated that the NPS would seek more data on this use and impacts. Aircraft may not be used for taking fish and wildlife unless demonstrated hardship. The underlying major issue not directly addressed was that residents of Anaktuvuk Pass at the time of the plan were traveling to their hunting and fishing area with Argo 6-wheeled vehicles, a type of ORV. These were causing vegetation damage and deep, wet ruts in the tundra.

2014. The NPS did extensive studies on the impacts of ORVs around Anaktuvuk Pass. A land exchange was negotiated and signed in 1992 and fully completed in 2007. As a result, ORV access for subsistence hunting near the village of Anaktuvuk Pass was accommodated and controlled on specific non-wilderness NPS lands but not allowed in designated wilderness or to expand into other park non-wilderness land. Importantly, ORV's are still not defined as traditional subsistence access in Gates of the Arctic (but other NPS units have made some limited allowances). During my 2014 visit to Anaktuvuk Pass, I could see that Argos remain popular around town (and now there are also a few trucks). The high price of fuel today discourages extensive Argo use. Today snowmachines have become even more important for subsistence access for all GAAR resident zones, as fewer residents maintain dog teams and snowmachines have technologically advanced. They are more reliable, faster, fairly fuel efficient, and can get people farther into the park. It is now possible to chase an animal to exhaustion.

Timber Cutting, Subsistence Shelters and Cabins, Trapping for Subsistence Use

1984. Subsistence timber cutting is_allowed by ANILCA. In Gates of the Arctic, it is OK to cut trees less than 3 inches, larger trees require a permit. Per ANILCA, subsistence shelters and cabins could be allowed by permit. ANILCA envisioned trapping as part of the trade and barter of subsistence, but never intended it to become a significant commercial activity. The plan asked for the subsistence resource commission to make recommendations.

2014. These activities occur at a very low level and there are no issues.

Use Conflicts

1984. In order to prevent conflicts between subsistence use and sport hunters and fishermen, commercial operators, floaters, aircraft and helicopters, the plan proposes to give information to visitors at field stations, work with commercial operators, and constrain NPS use of helicopters. The taking of fish and wildlife for subsistence uses take priority over other takings.

2014. The current orientation for GAAR visitors includes a message about subsistence activities and how to keep from interfering.

Closures

1984. The plan notes that federal closures could be made for safety, administration, or to assure continued viability of wildlife populations.

2014. There are few closures, and they are usually because of sport hunting not subsistence harvest. There is currently a state emergency closure to sheep hunting in sport hunting units in the Itkillik preserve because of extremely low populations.



RECREATIONAL VISITOR USE MANAGEMENT

1984. The "affected environment" section of the plan published visitor use data collected in 1983 and 1984 that estimated about 2,500 visitors entered the park each year, with an average group size of 5.7

and an average length of stay of about 10.1 days. Peak months of visitation were July and August. I believe these numbers were based upon reports from air taxi operators. The planning team tried to project visitation growth, as has occurred in most new NPS units. A comparison to Canada's Kluane National Park was made, and an average increase of 7.4 percent was applied. Using that rate, visitation was projected to be 9,200 visitors per year by 2000. Planners stated the comparison with Kluane could be conservative, and given recent visitation growth at GAAR visitation could increase at 14 percent per year, resulting in 22,850 by 2000.

The affected environment section also presented information about the types and distribution of use and access. Most visitors embarked on float trips (42%), followed by foot access (36%), then float/foot combination trips (19%). Only a very small percentage gained access by dogsled or skiing (2%), or horses (1%). It was noted that transportation costs for transportation from Fairbanks for 3 people for a float trip to the Noatak was about \$770 per person; commercial airfare from Fairbanks to Anaktuvuk Pass was \$230, and a backpack trip for 5 people from the Dalton Highway may cost about \$50 per person. The areas most heavily used for recreation were Walker Lake and Anaktuvuk Pass, with the next most popular routes being Walker Lake/Kobuk River route, the Upper Noatak River, Summit Lake/North Fork of the Koyukuk, and Arrigetch Peaks. A map of human-caused impacts correlated with these destinations. A visitor survey in 1984 revealed a strong preference that if there were a need for management actions to protect the experience and the environment, regulations were preferable to permanent facilities such as trails and hardened campsites.

2014. The park just completed its 2014 visitor use report. Visitors who actually go into the park are counted from voluntary registration that takes place at one of the contact stations when they stop to check out bear-resistant food containers (BRFC). People who enter the park without registering or borrowing a BRFC are not included in the count. The total number of visitors into the park who registered was about 800. This compares to 400 people in 2006 (the earliest year included in the report) and a high of 900 people in 2013. Obviously, the projected increases in visitor use never materialized. I'm not sure visitation has actually gone down since counting methods are so different and there are many unknowns when there is no single entrance gate, but visitation was light in 1984 and remains light in 2014, without showing signs of major increase. Some staff attributes the continued light use to remoteness and the expense of getting into the park. Chartering a plane today costs between \$750 and \$810 per hour, and a charter to the Noatak could end up costing \$5,000 - \$6,000 for put in and take out. Add \$340 per person for airfare from Fairbanks to Bettles, and transportation costs today for a group of 3 to the Noatak would be about \$2,300 per person. Adjusted for inflation, that would be slightly higher than 1984 costs.

People remain attracted to the same areas that were popular in 1984. The 2014 visitor report lists these areas in order of use numbers, high to low: Noatak, Arrigetch, Alatna, North Fork of the Koyukuk, Walker Lake, Anaktuvuk Pass, John River, Kobuk River, Nigu River, Dalton Highway, and Itkillik-Oolah. The methods of access remain similar, mostly floating followed by hiking, but the new technology of portable packrafts has made combination trips more popular. July and August are still the busiest months. There remains little winter use inside the park (however winter trips to Bettles to view northern lights have become popular) and horse trips are rare.

Recreational Visitor Use Limits (Carrying Capacity)

1984. In order to protect a rare wilderness experience and the natural integrity of a large arctic area, planners contended with the question "what degree of change is acceptable?" This section of the plan,

unlike other GMPs for northern Alaska NPS units at the time, contained a detailed section addressing visitor carrying capacity. This was in response to not just the projected level of visitation, but also visible impacts from existing popular areas of use. The overall strategy was to prevent problems from developing and devising a response that fits the situation. The model was to set management objectives and standards describing what the park and preserve should be like, monitor those standards, and then identify a suite of actions that could be used if standards were exceeded. Management objectives and standards included the categories of natural resources (5), cultural resources (1), subsistence use (1), recreational visitor use (6), land protection (1), and administration (1). The plan proposed methods of monitoring and inventory, recordation, and research. If standards were exceeded, several actions were identified ranging from education to regulation, always striving for the least restrictive solution.

2014. The monitoring of specific standards set forth in the plan was never done, but the projected increase in visitation did not happen either so the wilderness remains fairly intact. Some staff thinks the objectives and standards were too much like management for high-use lower-48 wilderness and not tailored to Alaska wilderness. Nevertheless, some other monitoring has been conducted over the years. There were regular ranger patrols through the 1990's and ealy 2000's that observed resource conditions and human impacts as well as mitigation such as breaking up fire rings in high-use areas. Those became far less frequent in recent times because of budget cutbacks, safety protocols, management priorities, and program changes. The NPS Inventory and Monitoring program which has grown in recent times does rigorous monitoring of vital signs at an ecosystem scale, but not necessarily specific to Gates of the Arctic Wilderness.

As a part of this project, I joined a ranger patrol of Arrigetch Peaks to revisit an area I hiked into in 1984 and compare "then and now" on the ground (see "Part 3. Field Visits and Observations, August 2014"). In 1984 Arrigetch was a "magnet" area of concentrated visitor use and visible impacts, and it remains popular today. I kept a small notebook in 1984 and took a number of photos (now comparatively fuzzy to digital and not geo-referenced). My observation of changes over 30 years is that there is still very concentrated use in this area and it is not the place to seek high solitude. We encountered 5 times as many people. Aircraft overflights were slightly increased, with "flightseeing" now a reality. Limited routes and sites level and dry enough for camping remain obvious to all and well-used, probably the same ones I saw in 1984. The known and well used "lichen knolls" remain bare of vegetation and other campsites were generally cleaner and less obvious (few fire rings). Trails were more numerous, deep, wet, and braided. In summary, many impacts were similar but except for clean camping all impacts were more numerous and more intense.

The 2014 patrol I was able to join was one of the few ranger patrols anywhere in the park this season. The ranger was able to efficiently utilize new GPS tools in the field to record a vast amount of specific information on visitor impacts during this brief patrol, far better records than my planning field trip years ago. It is ironic that new tools allow monitoring to be easier and more accurate, yet the trend is to monitor fewer places and far less frequently. Eight million acres is a lot to monitor but few are watching the store.

A planning effort has been underway for several years to amend the 1984 general management plan. The public summary of the soon-to-be-published plan identifies a key element is framework that would be implemented for monitoring visitor impacts on natural and cultural resources, wilderness character, and other visitor experiences. This is not unlike what was planned 30 years ago and is a common approach to protected area management. Hopefully this new framework, which includes wilderness character monitoring, will be achievable. Without following through on the actual monitoring and

taking actions if there are problems, these frameworks have no value. Relying on remoteness alone to protect wilderness risks incremental degradation of this premier wilderness.

One of the biggest changes to the wilderness experience today at Gates of the Arctic and all wilderness areas is the presence of smartphones, small devices that are computers, phone, internet connections, cameras, media players, and GPS navigational units. This was something never really envisioned 30 years ago. The 1984 planning team discussed emergency communication (see the "search and rescue" part of this report) but this is a whole different thing. While a typical smart phone will not function in Gates of the Arctic Wilderness (which has no cell phone towers or wifi hotspots), affordable technology can connect them to satellites. Some people send out daily blogs, tweets, or Facebook postings. Some people do not want to be "unplugged." For many it is a way to share their immediate experience with others, not necessarily to boast about it. Instant updates through social media with circles of friends are a way of life for many people. For me, this shrinks the wilderness and brings in the civilization I am trying to leave behind for a while. Even if I do not choose to carry such a device, it is likely that other visitors nearby are connected and that changes my perception of self-reliance and remoteness. It's a personal choice whether or not to bring a connecting device, and it is something that cannot and should not be regulated. The growing number of people carrying smart phone technology is changing people's relationship with wilderness, not necessarily good nor bad, but different.

Recreational Access

1984. The plan detailed appropriate means of recreational access that stress solitude and self-reliance, cause no resource impacts, and area consistent with the Wilderness Act or as otherwise provided by ANILCA. Access is summarized below:

- Foot no trails would be constructed, established group size (6 summer, 10 winter), anticipate public use from Dalton Highway and from AKP.
- Rafts and kayaks, group size 10
- Horses, llamas, and mules limited to 3 animals/group.
- Aircraft OK per ANILCA, monitor, consider no-landing zone, no designated or maintained landing strips.
- Motorboats monitor on Walker Lake, seek legislation to prohibit in some areas (use not established).
- Snowmachines OK for subsistence, travel between villages; not well established for NPS so pursue legislation to prohibit in some areas.
- ORVs considered only for valid access rights, not on RS2477s.
- Handicapped visitors experience on own terms, no modification of wilderness, information, commercial services

2014. No trails have been constructed, and the summary of the soon-to-be-released draft GMP amendment states that there would continue to be no formal or designated access points and no maintained trails or campsites. There is a fairly high percentage of public use from Anaktuvuk Pass and the Dalton Highway which provide opportunities for access without the expense of and air charter. At the time of the first GMP, the Dalton Highway was closed to the public just north of Coldfoot, and now it is open all of the way to Deadhorse. Visitors can now take a van to points along the highway to hike into

the park. Hunters can hike into the Itkillik preserve unit. This has resulted in an increase in visitor use from the Dalton Highway, but total numbers remain low. There is concern that if a road is constructed in the Ambler corridor and eventually becomes public, user-made trails could proliferate around Walker Lake and into the Arrigetch, resulting pressure to construct and maintain trails.

Group size limitations have been slightly adjusted in recent years, but staff thinks it has been helpful to have had numbers in place. The 1984 numbers were based on some very general information about users but there was no detailed social science, and today it would be difficult to set any numbers without a rigorous process involving research and public involvement. In other words, in a new park area it is probably worth setting some cautious limits even without extensive data and adjust them later rather than let things ride.

Additional legislation to close some areas to recreational use of motorboats and snowmachines was never pursued. Proliferation of recreational snowmachines is a concern to some staff. Equipment is now more reliable, faster, and people are getting out much further. Future scenarios could enable more recreational use of snowmobiles in wilderness: the ANILCA provision for village-to-village travel could be broadly interpreted resulting in widespread use; and/or if the Ambler access road is ever built and eventually made public, a new connection to the road network for access could be used to bring in snowmachines. Visitors seldom attempt horse access (maybe one group every 3 or 4 years off the Dalton Highway) and there is no known llama use. There are a few dogsled trips and trips on skis. Winter use is very light. Wilderness has not been modified for disabled visitor access, and information is widely available about visiting wilderness on its own terms. There is no count of access by visitors with disabilities, but staff anecdotally infers from conversations with visitors planning trips that there is at least one group a year that includes a disabled visitor.



Recreational Activities

1984. Appropriate recreational activities were listed: backpacking, mountaineering, scenery and wildlife viewing, fishing, hunting (in the preserve), photography, and camping. I'm not sure why rafting, kayaking, canoeing, skiing, dog-sledding, etc. were not on this list, but they are included elsewhere in the plan. The plan elaborates on these topics:

- Voluntary visitor registration for the purpose of giving and receiving information.
- Camping limitations on campfires, length of stay 3 nights, ½ mile apart, Arrigetch limits 3 groups at a time.
- Special events must not have impacts, must not be public spectator attraction, and must depend on park resources, traditional or customary use. The Coldfoot Classic was a dog team event in the eastern park run in 1984 and 1985 that questionably met park and wilderness criteria but would be continued if the proper conditions could be met.
- Commercial services guides and air taxis OK, about 30 when GMP developed, must provide info to visitors to minimize impacts, transition to concession permits, encourage guides to serve variety of areas, move around, discontinue basecamp at N fork of Koyukuk.

2014. The types of recreational activities today are very similar to 1984. Some of the ways people are doing these activities has changed because of new equipment and the popularity of "ultra" experiences. Packrafts are very light and portable boats that can be carried in a backpack. The technology for these is fairly recent. These have increased the amount of boating in the park and especially increased trips that combine backpacking and river travel. Super-light backpack equipment allows people to go farther and stay out longer if they choose. The common use of bear-resistant food containers allows food caching that also makes longer trips more possible. Sophisticated all-terrain skis make long winter ski trips more possible. Couple all of this technology with a trend for some people to push for record-breaking endurance trips such as walking across Alaska and you have a few people out there on extremely long journeys. These changes still fit within the purpose of wilderness, it is just different.

The park does employ a voluntary visitor registration which visitors are strongly encouraged to do. It is coupled with the availability of free loaner bear-resistant food containers (BRFCs) and an orientation (see the following "information and interpretation" section). These services are available at visitor centers in Bettles, Coldfoot, Anaktuvuk Pass, and Fairbanks. Commercial operators are required to make BRFCs and the orientation available to clients. The program is successful for collecting some basic visitor use information for park managers about where people go, how they travel, and how long they stay. It also appears to be successful in visitor education. It is unknown how many people come into the park without registering, but there appears to be a robust participation in the program. The opportunity to not register was and still is considered both an option to maximize freedom in people's choice of wilderness experience and a practicality because of the size of and unlimited access points into the park.

The specific camping limitations identified in 1984 are not in place. Instead, there is a lot of information about Leave-No-Trace practices including specific messages about campsites and campfires in the orientation materials.

The Coldfoot Classic dog team race continued a few more years. It was popular with local mushers and perpetuated interest in the tradition of dog sledding. Public concerns arose over the event taking place in Gates of the Arctic wilderness because of support by aircraft and snowmachines, the commercial nature of the event, and possible wildlife impacts and the NPS monitored the event closely. The event faded away by 1990. This was probably not so much from pressure to ensure it fit with park and wilderness purposes but because the principle organizer, Dick Mackey, left Coldfoot. There was some interest from Alaska dog mushers in reviving the event (Facebook page 2009) but that effort has faded.

Commercial operators are managed through commercial use authorizations rather than concession permits. Holders of CUAs are required give orientation information that explains known hazards and provides detailed Leave-No-Trace information. There are several air tour operator companies operating out of Bettles and Coldfoot. CUA holders generally have a good ethic and are motivated to provide a quality trip and protect resources not just because it is part of the authorization. Over the years, staff and commercial operators have worked together. When ranger patrols in the 1990's found impacts in popular areas, rangers would work directly with guides to re-distribute use and reduce impacts. Guides have initiated some of their own ideas for a high quality wilderness experience. One option was for visitors to book a trip in the Brooks Range but not be told the exact location until just before the trip, and then clients were given maps and information. Some operators check with other operators to ensure people are spread out. On my 2014 trip into the Arrigetch area I encountered a group of 4 visitors with two guides camped at the popular "spruce knoll" near Circle Lake. They had tents up and a fire going. When we passed through on our way back a few days later it was impossible to find marks of where the tents were or where the fire was. This guide was practicing good Leave-No-Trace principles. Guides remain important partners for providing high quality visitor experiences and protecting resources.

The commercial camp in the North Fork of the Koyukuk has been removed.

<u>Information and Interpretation</u>

1984. The plan identified that a non-traditional approach to information and interpretation was needed so as not to interfere with a visitor's opportunity for self-reliance and discovery. Traditional NPS interpretive programs and tools would not fit this wilderness park. There was to be a single package of information given with voluntary registration or by commercial operators. It would contain basic information, no promotion, rules and hazards, and resource protection information. The principal interpretive theme was wilderness, and AV programs may be made for use outside the park at NPS offices, schools, and other public facilities.

There was concern that guidebooks and popular magazine articles would highlight popular areas and draw even more concentrations of visitors and cause impacts. The plan was to provide publishers with information about the purpose and values of the park, its resource problems, and recommendations to minimize adverse effects.

The plan also noted the importance of good communication with organizations, communities, and the media about management activities.

2014. Today there is a unified set of information on rules, hazards, and Leave-No-Trace practices specific to the park that widely available in written, web, power point, and video format and is made available as part of voluntary registration. The physical locations for voluntary registration and orientation are the visitor contact stations or centers at Bettles, Anaktuvuk Pass, Coldfoot (Arctic Interagency Visitor Center) and Fairbanks (Morris Thompson Cultural and Visitors Center). Staff strives to be helpful with information while not recommending or steering people to particular areas or experiences. While passing through the Bettles visitor center this summer I overheard the ranger answering questions for two visitors about Arrigetch Peaks as a possible destination, and the ranger let them know there were already a few other groups in there. That is in the spirit of providing information and letting the visitor decide whether or not that is the experience that they are seeking. Incidentally, that couple later arrived in a float plane at Circle Lake not long after we were dropped off. An important

place for getting information out is now of course on the park website. The orientation message is easily found there.

The concern in 1984 about media publicity concentrating use continues to be an issue and is magnified by the internet and "reality" TV shows. Glossy magazine articles identifying popular spots still occur. The September 2014 issue of "Backpacker" magazine included a special article about the 50th anniversary of The Wilderness Act. Within the article were four featured wilderness hikes (out of more than 700 wilderness areas in the U.S.), each of the four with one full-page photo, and one was Arrigetch Peaks. The September 2014 issue of Alaska Magazine feature four national parks, one of which was Gates of the Arctic and the full page photo was... Arrigetch Peaks. These articles came out late in the season and probably did not influence the unusually high visitation to Arrigetch Peaks when I was there in August 2014. It will be interesting to see if there is a surge into Arrigetch Peaks next year. Staff can correlate publicity, popular blogs, and "reality" TV shows with surges in visitor use in specific areas of the park. For example, in 2014 a popular blog called "Roaming Dials" posted the details of an ambitious backpack and packraft trip that begins at the Dalton Highway and spans the park from east to West. The 2014 visitor use report notes that a large number of visitors tried to do part or the entire route. In previous years, blogs and "reality" or "survivor" TV shows have attracted visitors to replicate their routes and activities (sometimes the shows depict totally inappropriate activities).

The internet has also opened up new opportunities to serve "virtual visitors" and build constituents who value Gates of the Arctic Wilderness even though they may never visit. It remains a challenge to make such virtual connections meaningful and not slip into promotion. All NPS units are encouraged to post on Facebook daily, and Gates of the Arctic tries to comply. The medium is partial to photos, and viewers of pretty photos ask for locations. This could start to lead people to destinations rather than allow visitor discovery. One experience during my 2014 Alaska visit was viewing a room in the Morris Thompson Cultural and Visitors Center in Fairbanks that contained a bank of computers and several people intent on the screens. They were managing various park websites and monitoring "hits." More people visit the GAAR website in one day than 6 years worth of visitors. Will this result in generating wilderness advocates or just clicks of "like" on Facebook? Time will tell. The planning team of 1984 sure didn't see this coming.

OPERATIONS

1984. The general management planning team had hearty discussions about the management of this premier wilderness national park. We did not want to see the typical NPS management model automatically dropped over the park (ranger stations, radio repeater towers, caches, cabins, intrusive patrols, overly-protective visitor services, and other administrative activities that would disrupt visitors and resources). The plan stated that the "NPS will strive to maintain a low profile in the park" and that the focus of backcountry operations would be on "monitoring and protecting resources, monitoring use, and responding to emergencies."

2014. This has generally occurred with some overall drift toward a more typical NPS approach. Specifics are better addressed in the topics below.

Staffing Plan

1984. The 10-year projected staffing level was 17 permanent and 25 seasonal employees. Headquarters was to be located in Fairbanks most of the year, but moved to Bettles in the summer

months and may eventually be located closer to the park on a year-round basis. Year-round field stations would be located in Bettles, Coldfoot, and Anaktuvuk Pass. The plan said that seasonal camps for backcountry field operations would be located in the Noatak River, Walker Lake, and Kobuk River areas.

2014. There has been growth and change in staff over the last 30 years, far differently than envisioned in the plan. General management plans can make guesses of needs, but in the end much of staffing is driven by funding cycles, NPS-wide program priorities, and superintendent styles. The headquarters is located year-round in Fairbanks. Around 1995 to improve general NPS efficiency, staffs of Gates of the Arctic National Park and Preserve and Yukon-Charley Rivers National Preserve were merged and now share one office in Fairbanks. Some staff remains assigned to one or the other unit, some serves both. Other programs that serve both parks or even larger areas also have staff located in the Fairbanks office (Central Alaska and Arctic Inventory and Monitoring Networks, Fire Program, other Alaska Regional Office functions). When I began this project, I was surprised to find a staff directory to the Fairbanks Office that lists over 70 people.

There are field stations at Bettles, Coldfoot, and Anaktuvuk. I had the opportunity during my 2014 visit to briefly visit staff at those three locations and also see the Fairbanks office. The field stations are working well for providing visitor contact and positive community interaction. It's probably a good thing field camps were never established, as they tend to be incompatible with wilderness values.

Staffing structure is driven by both management direction as well as national park service-wide program priorities. Recent relatively robust funding of natural resource programs and the inventory and monitoring networks has resulted in quite a few scientists in Fairbanks. Tight budgets force tough decisions and this park is following a service-wide trend that when trimming positions. Here and elsewhere in the NPS, managers are currently tending to retain law enforcement staff instead of more generalized positions of interpretive or field rangers. Tight budgets also make access into the field for staff difficult. The remoteness of the park is not only expensive for visitors, but also for staff to get into the park. Fewer staff in the field may fit with the vision of non-intrusive management, but it also abdicates a responsibility to monitor the resource. There is concern that with most staff located in Fairbanks and shrinking opportunities to experience the park and wilderness there is a loss of connection and understanding that could affect stewardship. There is also a concern that with many people serving multiple parks coupled with highly specialized positions may result in an unintentional loss of understanding of the unique wilderness purpose of Gates of the Arctic. During my interviews for this project I found staff to be very committed and passionate about their particular focus and generally positive about wilderness, but there was a lack of common understanding about the unique purpose of Gates of the Arctic and wide variation in the depth of understanding about wilderness stewardship responsibilities. This circles back to the 1984 general management planning team's concern that Gates of the Arctic might be managed just like any other national park unit without recognizing its premier wilderness purpose.

Local Hire

1984. ANILCA has a special provision for streamlined hiring of people who have lived or worked near conservation units and the plan commits to recruiting and retaining local residents. The plan also noted the difficulty of using the provision at the time due to comparatively low pay scales of NPS jobs and different points of view on the conservation areas.

2014. Local hire has been used over the years and the program has changed over time. In my brief visit in 2014, I observed the community relations benefits of employees in Coldfoot who were from nearby Wiseman and a dedicated volunteer in Anaktuvuk Pass. I'm not sure if these were officially "local hires," but presence in the local communities for the flow of information from and to the park service is extremely valuable.

Methods of Access

1984. The plan states that "where possible, NPS employees will walk, snowshoe, ski, raft, or kayak to destinations inside the park and preserve." It states that it would not be practical to have a dog team, but teams may be borrowed or leased. Fixed-wing access will be used to place staff in the field and adhere to routes and altitudes that minimize impact on visitors. It allows only limited use of snowmachines and motorboats, and states that helicopters will only be used in emergencies or when determined to be the "minimum tool."

2014. The park has conducted much of its field work with traditional means of access. The park has also used a fair number helicopters, snowmachines, and motorboats over the years. The balance of this use has tipped different directions with different managers and been cause for tension among staff. Some feel wilderness is too constraining or even hostile to science. Sometimes it is simple convenience that leads to mechanized or helicopter access. There may be a helicopter stationed nearby for other purposes that is available at little or no cost (a hammer looking for a nail). Sometimes there has been no pre-planning of doing work in wilderness, and a project that is suddenly funded takes on an urgency to obligate the funds quickly and use the fastest means of access. Some have worked hard to help scientists and others doing field work to use traditional means of access. Many patrols of monitoring and site restoration work have been accomplished with the deliberate use of traditional non-motorized access. Early winter 2014 staff conducted a removal of 55 gallon barrels using a dog team borrowed from Denali, enthusiastically greeted by kids in Anaktuvuk Pass where dog teams are now unusual. NPS staff demonstrating traditional means of access communicates volumes to the public about wilderness being a special designation worthy of careful stewardship.

Administrative access is affected by other factors. Budget cuts and NPS-wide travel restrictions have greatly reduced the time, if any, staff can spend in the field. Changes in rules and protocols from the National Park Service affect staff access. The Ambler right of way project is a mandated project with firm deadlines and lots of field work is needed in a short period of time. All of these factors and more combine to make staff field access very complicated and put additional pressure toward selecting helicopter and motorized access. A lot of helicopter access has been granted in the last year through minimum requirements consideration of a park committee. Mechanized administrative access and use of helicopters in wilderness by law is an EXCETPTION. Once staff has concluded an exception through the minimum requirements process, making more exceptions becomes comfortable.

Radio Communications

1984. The plan noted that there must be some form of communication for safe and effective administrative field operations while maintaining the wild and undeveloped character of the park. The planning team wanted to avoid the typical NPS template being automatically placed over the park in the form of radio repeater towers on every peak. The emphasis was on portable equipment and new technology and communication would be accomplished without permanent facilities. At the time, satellite phones were huge, heavy and expensive.

2014. The title of this section "radio communications" says it all. How times have changed. Radios are a fading part of the communications picture. The park did install some temporary radio repeater equipment but the last one was removed a few years ago. Satellite phones today are no larger than a cell phone and part of every field operation. Safety protocols require rangers in the field to check in every day.

Search and Rescue

1984. During the planning process there was a segment of the public that wanted to establish a "no-rescue" zone in the park. It would be a zone of total self-reliance where people could go out without notifying anyone and even if they did run into trouble, no one would rescue them. The plan stated that it is NPS policy to develop and execute a public safety program. For Gates of the Arctic the emphasis would be for visitors to be informed and self-reliant. They would be provided with information about known risks and safety techniques. The NPS would not require registration or regularly track visitors. If made aware of any emergency situation, the NPS would respond with all available resources.

2014. This remains the protocol today. Visitors have the freedom to enter the park without telling anyone. Most visitors probably do participate in the voluntary registration and get information and bear-resistant food containers, but the registration is not used to check on people. Information is available if someone raises concerns about a party. What is different is that portable communication devices that are embedded in our society. Many people today are used to being constantly connected to their networks. While cell phones are of no use in the remote wilderness of Gates of the Arctic, there are affordable small communications devices that work off of satellites. These devices foster a perception of security that leads some visitors to be less prepared. This has resulted in some requests every year for getting picked up in non-emergency situations.

It is ironic that the opportunity for visitor self-reliance has been preserved, but most people today choose to carry a device that tethers them to civilization. My field trip in 1984 with fellow planners into the Arrigetch did not include any means of communication other than a mirror for signaling an airplane in an emergency. I must admit I am conflicted about whether or not I would carry a communication device on a personal trip today. Rangers on the Arrigetch patrol I joined this summer had a satellite phone which is appropriate for employee safety protocols and I found comfort in knowing it was there. One of the people I interviewed had an insightful perspective: it is a responsible act to carry of means of communication, it is irresponsible to let risk assessment be based upon that communication.

<u>Jurisdiction, Fees, and Cooperative Agreements</u>

1984. The general management plan called for the NPS to seek concurrent jurisdiction with the State of Alaska, boilerplate included in all GMPs of that era. Consistent with provisions of ANILCA, the plan stated that no fees for entrance or admission would be charged. Fees could be considered for the use of special equipment, like bear-proof food containers. The plan noted a list of possible cooperative agreements.

2014. There has not been a change to concurrent jurisdiction. No fees are charged and use of portable bear-resistant food containers is free. The park has a number of cooperative agreements but I did not research this in detail.



GENERAL DEVELOPMENT

1984. The plan states "No structures, roads, or trails will be built within the park or preserve for recreational visitor use or NPS operations. ...facilities to support visitor services and operations will be developed outside of the park and preserve...where they will not interfere with maintaining the wild and undeveloped character of the park."

2014. There has been no development in the park, not even constructed trails, true to maintaining wild and undeveloped character.

Operational and Visitor Facilities

1984. The following operational and visitor facilities described in text and on a map:

- Fairbanks headquarters in leased space including visitor information area, offices, library and repository, hangar
- Bettles visitor information area, offices, housing, hangar, garage, fuel storage
- Coldfoot visitor information area, offices, residences
- Anaktuvuk Pass visitor information area, offices, residences, hangar, garage

The plan encourages facilities to be co-located or coordinated with other agencies.

2014. This is where all of the major facilities are located and many are coordinated and co-located with other agencies. Today the detailed numbers of exactly how many offices and residences is different than projected in 1984.

- Fairbanks is the year-round headquarters and is now combined with Yukon-Charley and other NPS program areas and is quite a large structure. There is a leased hangar at the airport. There is a small area of visitor information at headquarters and there is now the large interagency Morris Thompson Cultural and Visitors Center in downtown Fairbanks.
- Bettles has a visitor contact station with exhibits, lots of information. There are winter visitors to Bettles because local lodges promote northern lights tourism. There has also been construction of NPS housing and storage. There is a hangar.
- Coldfoot has the new Arctic Interagency Visitor Center (NPS, U.S. Fish and Wildlife Service, and
 the Bureau of Land Management) with extensive exhibits, visitor information counter, theater,
 and book store/gift shop patterned after typical NPS visitor centers. It serves visitors that travel
 further north on the Dalton Highway, which was closed to the public at the time of the 1984
 planning effort. There are a couple of NPS houses co-located with future BLM housing that are
 underutilized, partly because visitor center staff has been recruited from the nearby community
 of Wiseman.
- Anaktuvuk Pass has a relatively new ranger station that includes bunk space, garage, and visitor information. It presently is staffed 6 months of the year.

Cabins

1984. There was specific guidance in ANILCA and subsequent regulations for cabins in the park and preserve. At the time of the plan there were about 30 standing cabins. About half were located on private land on native allotments and inholdings. Others on federal land were in use for subsistence, mining, commercial winter dog team trips, and even housing a seasonal ranger. There were about 16 cabins that qualified for "public use," a unique Alaska concept that these cabins are available for emergency public use. There were concerns about cabins concentrating use and impacts, but also interest in perpetuating the intent of public use cabins. The plan proposed to sort out valid claims and leave unclaimed cabins available for emergencies but not maintain them. If any unclaimed cabins were having adverse effects on resources and if they were determined not to be historic, they would be removed. The plan asserted that no new public use cabins would be constructed.

2014. Cabins remain an issue. No new public use cabins were ever constructed. Some inholdings have been acquired. Cabins remaining on private inholdings need to be protected from wildfire. The cabins on NPS land are quite deteriorated. As noted in the cultural resource section of this report, few cabins or cabin sites have been found to be historic because of being too recent or too little fabric is left. The NPS quit using cabins for any park operations. The park has been working on a cabin management plan with a goal to remove and clean up the sites of unclaimed, unnecessary, non-historic cabins to improve wilderness character.

Camps and Caches

1984. The plan proposed to locate three seasonal camps for NPS field operations with tents and caches that would not stay in any one place longer than 3 months. The plan noted that no permanent caches or fuel caches would be allowed. There were provisions for small temporary caches of stove fuel and food in bear-resistant containers for commercial operators and visitors. There would be no permanent camps and the existing commercial base camp would be discontinued.

2014. The temporary seasonal camps for NPS backcountry rangers never occurred, and that is probably a benefit to preserving wilderness character. Temporary caches for visitors and commercial operators continue to be part of how people visit the park. The increased popularity of combined hike/float trips (packrafts) and a trend toward long-distance trips has led to an increase in caching. I observed several caches during my trip into Arrigetch in 2014, more than in 1984. All appeared to be using proper bearresistant food storage and the ones near Circle Lake appeared to include boat equipment. Two cache sites observed on the edge of Circle Lake when our group went into Arrigetch in 2014 were gone and clean when we left.

Temporary Facilities in the Preserve

1984. ANILCA allowed temporary facilities (i.e. camps with platforms, shelter, caches) related to hunting and fishing in the preserve (other than subsistence). There was only one temporary camp in the preserve at the time.

2014. There is one hunting concession permit in the northeast preserve that uses several sites but has no structures.

LAND PROTECTION PLAN

1984. It was common NPS planning practice at this time to include a land protection plan within every general management plan, especially for new units. The purpose of land protection plans is to review all non-federal land within the boundaries of a unit and make recommendations for treatment of those lands. Actions are prioritized. Land protection plans also typically address issues on adjacent park lands. Land protection plans are supposed to be reviewed every two years.

2014. The Gates of the Arctic land protection plan appears to have provided some good overall guidance. Like most land protection plans throughout NPS, implementation is largely a function of opportunity driven by who is willing to sell or exchange and if money or trading land is available. Some proposed land protection actions for Gates of the Arctic have been accomplished, many were not. There is an update underway for the Gates of the Arctic land protection plan but it has not been finalized.

Native Corporation Lands

1984. The plan recommended fee acquisition of three townships within the park owned by the Doyon Corporation. It also recommended working with the Arctic Slope and Anaktuvuk Pass to seek agreements and land exchanges around Anaktuvuk Pass to resolve issues of Off Road Vehicle (ORV) subsistence access and impacts, and for NPS to seek surface rights near Itkillik Lake and Kurupa Lake to protect archeological sites.

2014. A land exchange between the United States and ASRC and Nunamiut Corporation was negotiated and signed in 1992 and fully completed in 2007. As a result of the 1992 exchange, ORV access for subsistence hunting near the village of Anaktuvuk Pass was accommodated and controlled, the potential for incompatible developments on private lands was eliminated and private lands were opened to dispersed recreational use. This exchange also included the prohibition of surface use and access rights for any future subsurface development in the Itkillik Lake area. There was no net loss of wilderness. This was a major accomplishment that overall worked out well for both the NPS and the residents of

Anaktuvuk Pass. There were some discussions about land exchanges for the Doyon lands (and mineral rights), but they have not resulted in land exchanges.

Small Private Tracts

1984. The plan was to obtain conservation easements for compatible tracts if it was cost effective. If incompatible or not cost effective, fee simple acquisition would be sought. The plan defined compatible and incompatible uses. Landowners who wished to sell their property were encouraged to contact the superintendent.

2014. A lot of small tracts have been acquired on a willing seller basis along the Alatna, Noatak, and John Rivers and elsewhere within Gates of the Arctic. Some of these acquisitions have been funded by The Conservation Fund. Another major accomplishment in land protection was the acquisition of many of the inholdings at Walker Lake and removal of a major structure which has improved wilderness character.



This lodge that was on Walker Lake in 1984 has since been acquired by NPS and the structure has been removed, returning the site to wilderness.

Mining Claims

1984. The plan proposed to acquire the interest in valid undisturbed mining claims. For valid claims in disturbed areas, the NPS would work on plans of operation to ensure protection of resources.

2014. Compared to other Alaska parks, mining claims are few and far between in Gates of the Arctic. Over the years a number of small mining claims have been purchased. Doyon retains one of the larger claims within their three townships, but has made no moves to develop it.

State Lands and Interests

1984. The plan proposes to close navigable waters to new mineral entry, extraction of oil and gas, and to pursue cooperative agreements with the state.

2014. The state continues to push hard to assert state rights throughout Alaska.

Adjacent Lands

1984. Along the southern boundary of the park, the plan proposes boundary adjustments to follow hydrographic divides. It also proposes cooperative planning for Kobuk, Alatna, John, and North Fork of

the Koyukuk Rivers. East of the park along the pipeline corridor and the Dalton Highway the plan proposes a lot of cooperative comprehensive planning with all local, state, private, and federal organizations. To the north the plan calls for planning for the protection of wildlife if there is ever oil and gas development. In 1984 there was a 9-mile wide band of land originally thought to be part of the National Petroleum Reserve-Alaska that may have been un-appropriated public land. The plan recommended that if the land was determined to not be in the Reserve, that this land along the upper Nigu River be added to Gates of the Arctic National Park and Noatak National Preserve.

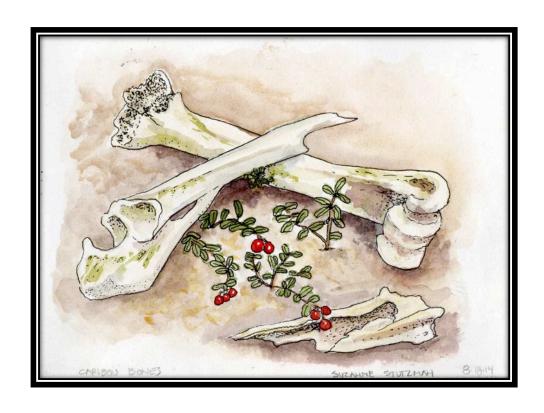
2014. There have been no boundary adjustments or formal cooperative planning efforts along the southern boundary. There is a lot of interrelated research and alternative corridor evaluation going on in regards to the Ambler transportation corridor study. There has been and continues to be cooperative planning going on in the Dalton Highway corridor. Recent efforts between the NPS, Bureau of Land Management, and National Park Service have focused on visitor services and interpretation. One result has been the Arctic Interagency Visitor Center. At times, the state has pushed to open land along the BLM corridor to ORVs, which could result in bringing them right up to the boundary of the park and preserve and result in illegal trespass with vehicles. If a future proposed natural gas pipeline for the corridor becomes a reality, it will precipitate a lot more intense cooperative planning. North of the park there has not been much cooperative planning, but talk of a possible road to Anaktuvuk Pass could likely spur a lot of cooperative planning. The land along the Nigu River was transferred to NPS management and added about 10,000 acres to Noatak National Preserve (as designated wilderness). This was a component of the 1992 Anaktuvuk Pass land exchange.

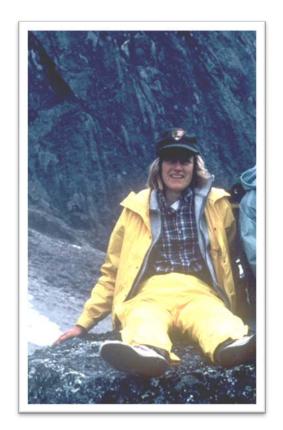
WILDERNESS SUITABILITY REVIEW

1984. Approximately 7,263,215 acres of wilderness were designated in Gates of the Arctic National Park as wilderness in ANILCA, and the remaining 1,209,302 acres in the park and preserve were directed by ANILCA to have a review of the suitability or non-suitability of these lands. The study included with the first general management plan found:

- 1,009,638 suitable
- 31,322 unsuitable because of subsurface rights (northeast)
- 1,360 unsuitable because of ATV easement (Anaktuvuk Pass)
- 157,341 unsuitable because of private ownership (mostly around AKP)
- 9,641 suitable if retained in federal ownership (scattered, mostly boot)cemeteries and historical sites

2014. In 1988, the Alaska region of NPS embarked on a state-wide wilderness study which was very controversial. It was formally forwarded to the Secretary of Interior (as part of the formal process of designation) and never acted upon. Thus the wilderness study process was never completed. By NPS policy, the lands found to be "suitable" in the GMP approved in 1986 are in the category of "eligible" and cannot be "released" until a wilderness study process is complete. In other words, lands found suitable in the original GMP wilderness suitability review remain highly protected even though they were never formally designated as wilderness.







1984. Suzanne Stutzman in Arrigetch Valley

2014. Suzanne Stutzman in Arrigetch Valley

Part 5. Acknowledgments and Interviewees

Acknowledgements

Thank you to Superintendent Gregory Dudgeon and now retired Chief Ranger Gary Youngblood who embraced and supported this project soon after I proposed it. I appreciate the logistical help provided by Acting Chief Ranger Erika Jostad, Bettles Office Manager DaleLynn Gardner, Interpretive Park Ranger Heidi Shoppenhorst, and Administrative Assistant Susan Holly. I would like to offer a special thanks to Park Ranger Al Smith and Park Volunteer Just Jensen for their support on the Arrigetch patrol, and for the wilderness insights of Dr. Peter Landres of the Aldo Leopold Wilderness Research Institute who joined us on the patrol. And thank you to all of you who gave your time for interviews by phone or in person. Below is a list of people who participated in the interviews (including camp discussions).

<u>Interviewees</u>

Name	Position/location			
Judy Alderson	former Ranger GAAR, member of the 1984 GAAR GMP team, former AKRO			
	Wilderness Coordinator, retired			
Joan Darnell	Team Manager, Planning and Environmental Compliance, AKRO Anchorage			
Lois Dalle-Molle	Cooperative Ecosystem Study Units Coordinator, Fairbanks			
Eileen Devinney	Cultural Anthropologist AKRO Anchorage, former GAAR employee			
Joe Durrenberger	Engineer, AKRO, Fairbanks			
DaleLynn Gardner	Office Manager, GAAR, Bettles			
Chuck Gilbert	Lands Program Manager, AKRO, Anchorage, team captain Kobuk Valley National			
	Park GMP 1984			
Just Jensen	Volunteer, GAAR, Anaktuvuk Pass Ranger Station			
Kyle Joly	Wildlife Biologist YUGA, Fairbanks			
Peter Landres	Research Ecologist, Aldo Leopold Wilderness Research Institute, Missoula MT			
Jim Lawler	Arctic Network Coordinator, Fairbanks			
Adrienne	Regional Wilderness Coordinator, AKRO Anchorage			
Lindholm				
Bob Maurer	Seasonal Ranger, GAAR, Wiseman			
Dave Mills	former Superintendent, GAAR, retired			
Sandy	Subsistence Manager, AKRO, Anchorage, team captain Cape Krusenstern National			
Rabinowitch	Monent GMP 1984			
Jeff Rasic	Chief of Resource Management, YUGA, Fairbanks			
Pam Rice	Chief of Interpretation, YUGA, Fairbanks			
Heidi	Interpretive Park Ranger, GAAR, Arctic Interagency Visitor Center, Coldfoot			
Schoppenhorst				
Albert Smith	Park Ranger, GAAR, Anaktuvuk Pass Ranger Station			
Gary Youngblood	former Chief Ranger, YUGA, Fairbanks, retired			

AKRO – Alaska Regional Office; GAAR - Gates of the Arctic National park and Preserve; YUGA – Yukon-Charley Rivers National Preserve and Gates of the Arctic National Park and Preserve

All photographs are by Suzanne Stutzman in 1984 and 2014. All sketches and paintings are by Suzanne Stutzman © 2014 and were created during the August, 2014 field visit.