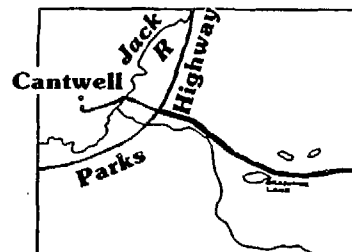

Denali Wild & Scenic Road

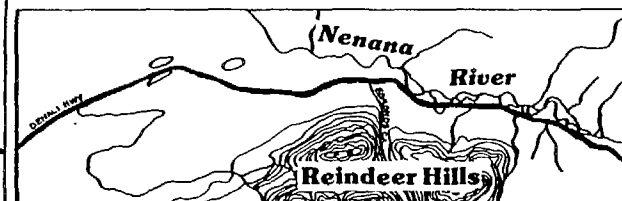
Findings & Recommendations

Denali Wild & Scenic Road

contents	page
General Description	D4
Issues & Concerns	D6
Findings & Recommendations (General)	D9
Summary of Scenic Resource Values	D9
Management Theme	D10
Scenic Resource Management Goals	D11
Implementation: Land Ownership and Management Responsibilities	D11
Road Improvements	D12
Land Use and Development	D14
Turnouts and Other Roadside Facilities	D16
Right-of-Way Management	D21
Greenbelts	D22
Material Sites	D23
Findings & Recommendations (by Management Units)	D26
1. Cantwell	D26
2. Reindeer Hills and Pyramid Peak	D34
3. Nenana River-Monahan Flat	D42
4. Susitna River Crossing	D54
5. Clearwater Mountains Foothills	D64
6. Clearwater and Osar Creeks	D72
7. Maclaren River to Maclaren Pass	D80
8. Tangle Lakes	D90
9. East End-Denali Road	D96
10. Paxson Junction	D102



1 Cantwell Area



2 Reindeer Hills & Pyramid Peak

General Description

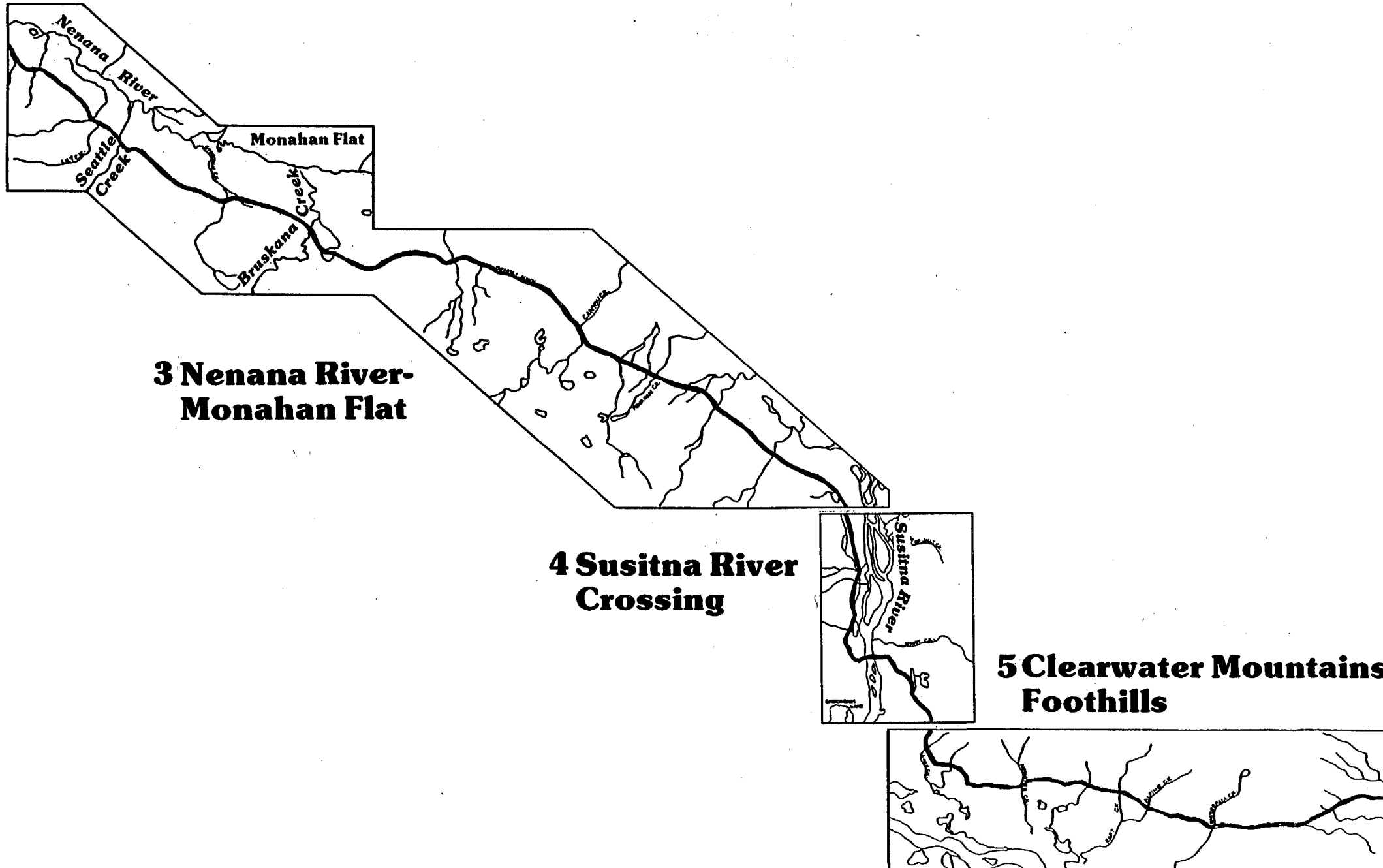
The Denali Highway, a 135-mile long road across the heart of Alaska, links the small town of Cantwell on the Parks Highway with the community of Paxson on the Richardson Highway. Completed in 1957, it was for many years the only road connection to Denali National Park (Mt. McKinley). In fact, the road takes its name from the mountain's original Athabaskan name meaning "Great One". Today, the Denali Highway offers an adventurous wilderness driving experience through some of Alaska's most scenic and diverse landscapes. From Cantwell, the road parallels the snow covered peaks and expansive glaciers of the Alaska Range. On clear days, Mt. McKinley, the highest peak in North America at 20,300 feet, is visible from the western end of the road. The Monahan Flat area provides a spectacular panorama of Mt. Hess and Mt. Deborah with the glaciers that give birth to the Nenana River.

First paralleling the Susitna River, the road then crosses the river into the broad glaciated valley of the Maclaren River, skirting the southern flank of the Clearwater Mountains. Here the undulating topography as the road winds

through eskers and moraines makes the driving experience a lesson in glacial geology. Climbing to Maclaren Summit, travelers enjoy a broad panorama of the river valley and the dramatic, glaciated peaks of the Alaska Range. The Amphitheater Mountains are the backdrop to the alpine tundra landscape at Maclaren Summit. In addition, there are outstanding views of the Alaska Range and even occasional glimpses of the Wrangell Mountains to the southeast. East of the summit, the Denali Highway follows the Amphitheater Mountains through the tundra landscape highlighted by views of Landmark Gap, Tangle Lakes, Summit Lake, the Alaska Range, and the rugged Wrangell Mountains.

Most of the Denali Highway is a rough gravel surfaced road that is impassable during the winter months. Only a 20 mile long portion of the road connecting Tangle Lakes to Paxson is paved. The rough gravel surface keeps travel speeds low, and as a result the Denali Highway is used almost solely for recreation purposes. Traffic volume is also low. The little development that exists is primarily related to recreation and mining. There are some scattered cabins and residences,

Management Units - Denali Wild & Scenic Road (West Half)



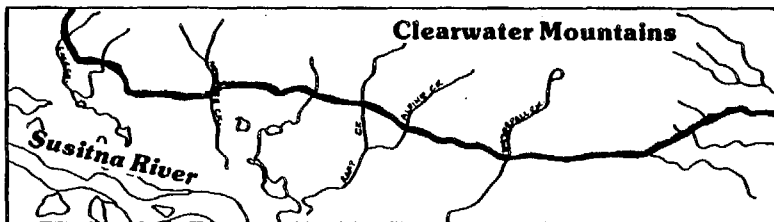
but they are generally concentrated in a few locations such as Cantwell, Denali, the Susitna River crossing, and Tangle Lakes. Thus, travelers have the opportunity to experience a predominantly pristine wilderness environment and observe the diverse wildlife populations that inhabit it. There are a minimal, but adequate, number of commercial services available to meet traveler needs. These establishments are spaced at convenient intervals along the length of the road.

Issues & Concerns

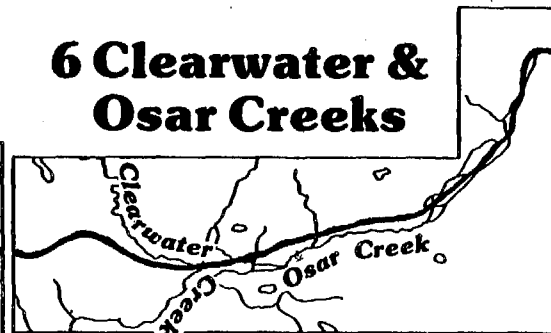
● Powerline Intertie Route Alignment

The Alaska Power Authority plans to locate the 100-foot high Anchorage to Fairbanks powerline crossing near Cantwell. This alignment could make the powerline a major visual distraction as it crosses Reindeer Hills. The Powerline Intertie crossing is discussed in Management Unit 1.

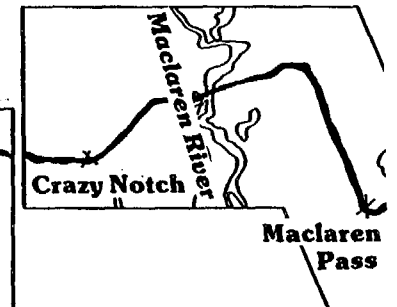
5 Clearwater Mountains Foothills



6 Clearwater & Osar Creeks



7 Maclaren River to Maclaren Pass



● Access Route to Susitna Hydroelectric Project

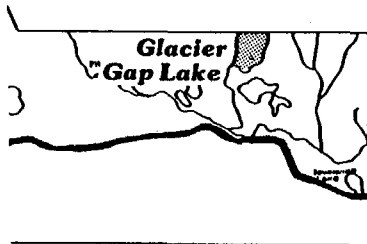
The western portion of the Denali Highway has been suggested as one of the alternative access routes for to provide access to the Susitna Dam project. If selected, the Denali would require significant realignment and upgrading from the Parks Highway junction to approximately Milepost 41, where the access road would turn south to the dam site. If implemented, this costly project would detract from the road's natural and wilder-

ness character by increasing traffic speed and volume, adding industrial use, and creating a straighter, wider alignment.

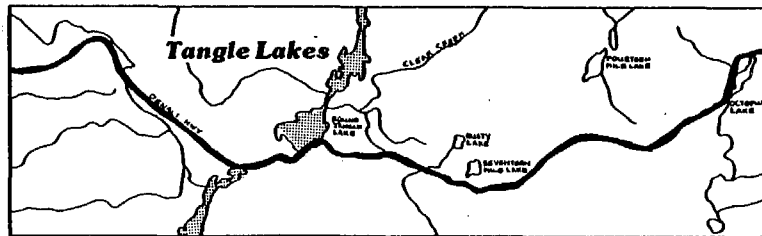
● Road Junction Information Turnouts

Because there is little development along its length, there is a need for travel information at the entrances to the Denali Highway. This information should cover road conditions, available services, the nature and speed of the driving

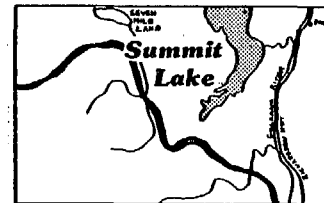
Management Units - Denali Wild & Scenic Road (East Half)



8 Tangle Lakes Area



9 East End-Denali Road



10 Paxson Junction

experience, and available recreation opportunities. Information turnouts are discussed in Denali Highway - Findings and Recommendations and in Management Units 1 and 10.

● **Road Surfacing**

Paving the Denali Highway is an important visual resource management issue because the road surface directly influences the quality and character of the driving experience and the volume and type of road use. This issue is addressed in Findings and Recommendations for the Denali Highway.

● **Roadside Management**

The right-of-way is generally managed to promote highway visibility and convenient road maintenance, and the choice of management practices has a significant effect on the landscape's scenic quality. Existing practices on the Denali Highway range from very good to highly disruptive. See Denali Highway - Findings and Recommendations and all management units under Right-of-Way Management, Greenbelts, Turnouts, and Material Sites.

● **Land Use and Development**

The lack of development along the Denali is an important part of its character, yet there are pressures for growth. Near Cantwell, where there are private landholdings, the demand exists for homesites and recreational cabin sites. BLM is also planning to open federal lands along the Denali for mining, mineral leasing and settlement to meet the government's multiple-use mandate. While some development along the Denali is both appropriate and desirable, how and where it

occurs can significantly enhance or detract from the roads high scenic quality. See Denali Highway - Findings and Recommendations (Land Use and Development and Greenbelts) and Management Units 1-10.

● **DOTPF Proposed Road Realignment**

DOTPF is planning a number of road realignments to smooth curves, avoid eroding banks, and improve roadway conditions. The implications of these proposals include increased travel speed, a less visually interesting driving experience, increased traffic volume, and additional landscape alteration. This study addresses specific realignment proposals in Findings and Recommendations and in Management Units 1-10.

● **Material Sites**

While necessary for road maintenance, numerous material sites located within full view of the road constitute a visual resource management problem along the Denali. These sites are in stark contrast with surrounding landforms and surfaces, and detract from the areas otherwise natural scenic qualities. See Findings and Recommendations and Management Units 1-10.

● **Denali Highway Information Plan**

A 1976 document prepared for BLM, the Denali Highway Information Plan, studied the opportunities to provide interpretative information about the natural features along the Denali Highway. The 18 recommended sites were evaluated in this study for their scenic resource values and appropriateness as turnouts. See Denali Highway - Findings and Recommendations and Management Units 1-10.

- **Tangle Lakes**

Providing opportunities for fishing, rafting, canoeing, camping and hiking, the upper Tangle Lakes area is a popular recreation destination. Some additional recreational development may be appropriate here, but local topography and land-cover dictate that any new development will be located close to the road and highly visible. See Denali Highway - Findings and Recommendations and Management Unit 8.

- **Susitna River Crossing**

The Susitna River crossing is a popular recreation node. While facilities development would help accommodate the increasing use demand, river bank development would be visible for miles and could detract from the drama of the river crossing. See Denali Highway Findings and Recommendations and Management Unit 4.

- **Landmark Gap Trailhead**

The Landmark Gap Trail begins at mile 24.6 of the Denali Highway. The trail and the material site which serves as its staging and parking area receive considerable off-road vehicle use which has created some site disturbance and conflicts with other trail uses. Potential impacts on the scenic driving experience are also cause for concern. See Management Unit 8 and Denali Highway - Findings and Recommendations.

- **Denali Townsite Road Improvement**

The mining community of Denali and its access road are visible across the Susitna River from approximately mile 78 to mile 85 of the Denali

Highway. Plans to upgrade the access road have raised concerns regarding the scenic impacts of this development. See Management Unit 4.

Findings & Recommendations

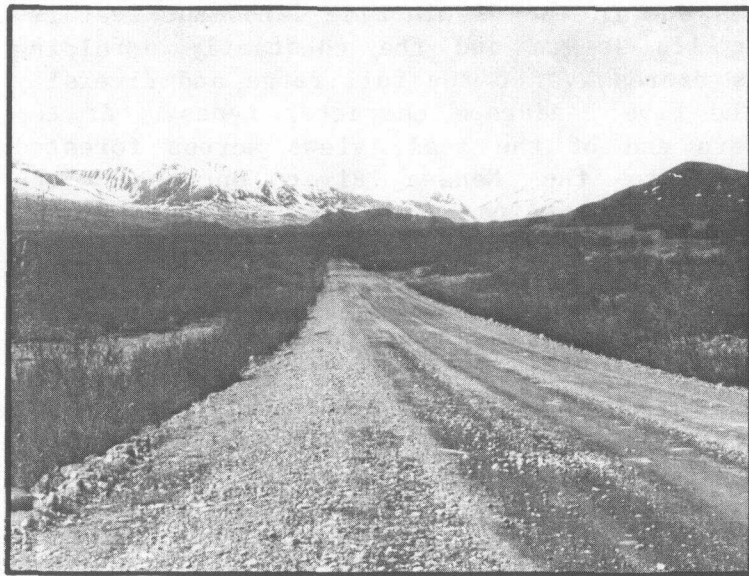
Summary of Scenic Resource Values

The Denali Highway has very high visual resource values due to the distinctive landscape features along its length and the constantly unfolding views expressive of the full range and diversity of the five landscape character types. At the western end of the road, views across forested uplands to the Nenana River encompass the Talkeetna Mountains and the Alaska Range, including the glaciated peaks of Mt. McKinley, Mt. Deborah, Mt. Hess and Mt. Hayes. The Susitna River dominates a broad valley landscape enclosed by the Alaska Range, Talkeetna Mountains and the Clearwater Mountains. Expansive vistas across glacial topography with associated features of moraines, eskers, kettle lakes and pingoes are bordered by mountain ranges, including the Clearwater, the Amphitheater and glimpses of the more distant Wrangell mountains.

The road alignment generally conforms to the surrounding topography so the route provides continually changing views and orientations that include the full range of landforms, waterforms

and landcover elements in each unit. While some areas along the Denali have truly superlative scenic qualities, the entire highway is a rich scenic experience.

The diversity of views is also due to the openness of the landscape. Along most of the highway, the vegetation is low brush or tundra with few trees to obscure vistas. In addition, the flat to rolling glaciated valleys yield broad panoramas that reach from horizon to horizon, adding a feeling of immensity to the landscape. Thus, the visual absorption capability of the road is very low: everything is visible. Intrusions upon the landscape, such as clearing for a material site or lodge development, are difficult



Open, rolling terrain bounded by snow covered mountains is the hallmark of the Denali Highway landscapes.

to screen. The qualities which help create the scenic diversity also increase the visual sensitivity, since one poorly designed or sited development can affect a large area. To retain the truly high quality of these resources, they must be carefully managed.

Management Theme

The Denali Highway is a rare resource. The road passes through some of Southcentral Alaska's most spectacular and awe-inspiring natural landscapes. Range after range of rugged mountains dominate the skyline as the road parallels some of the state's major rivers or crosses open tundra that stretches undisturbed for miles. It is home to diverse wildlife populations which can often be observed from the road. The almost total absence of development creates a sense of remoteness and makes travel an adventure in itself.

This is one of the road's most valuable features: it is pristine and remote but at the same time it is accessible. Anyone can choose to take this road and experience first hand the wilds of Alaska. In addition, travelers can set their own pace and select the views they want to savor or the activities they want to participate in: fishing, hunting, camping, etc. In this sense, the Denali Highway is a linear extension of Denali National Park.

The qualities of wildness or remoteness, spectacular expressions of Alaska's diverse landscapes, and easy accessibility by car are critical to maintaining the special character of the road. These features exist nowhere else in the study area, or indeed, Alaska, with the possible excep-

tion of the Haul Road. Thus, the study recommends that the Denali Highway be designated the "Denali Wild and Scenic Road" and that the following themes guide all resource management practices along the road:

Wild

The road traverses rugged wilderness landscapes which contain few human developments and inspire a feeling of solitude as well as provide frequent opportunities to view wildlife. Wilderness is also related to the experience and adventure of driving the road.

Scenic

The driving experience offers spectacular views of snow-capped mountains, glaciers, rivers, lakes, glacial landforms, and a colorful variety of landcovers. Scenic resources are diverse, unique, and beautiful.

Road

The Denali is not a "highway": it is not a modern thoroughfare designed for high speeds and moving large volumes of people and goods. Instead, it is a transportation route where there is little traffic and recreational enjoyment is a high priority. It is a low speed route that conforms with the landscape contours and is more appropriately called a "road."

Scenic Resource Management Goals

The management of scenic resources along the Denali Wild and Scenic Road should attempt to

maintain the unique "wild and scenic" character of the driving experience. Four primary goals provide direction for the general and specific management recommendations that follow:

- To retain those qualities of the road which contribute to its wild character, both as a wild environment where the visual impact of human use and development is minimal, and as an adventurous driving experience.
- To take appropriate actions which respond to the particularly high scenic resource values; actions which enhance the quality of the experience and the understanding and appreciation of the landscape, retain desirable features, and mitigate the impacts of previous actions which were insensitive to these scenic resources.
- To consider recreation as the primary use of the road corridor and encourage the development of additional recreational opportunities.
- To develop road maintenance practices that promote the desired "wild and scenic" character.

Implementation: Land Ownership & Management Responsibilities

Most of the land along the Denali is publicly owned. Therefore, federal and state agencies have the responsibility for maintaining the road's high scenic and recreational quality through policies, plans, and management practices.

The federal Bureau of Land Management (BLM) manages most of the land within the road corridor and the viewshed. Until recently, land use in this area was guided by BLM's Southcentral Land

Use Plan. The Alaska National Interest Lands Conservation Act (ANILCA) then directed that federal lands be analyzed for potential mineral leasing. The Secretary of the Interior then expanded the possible uses to include mining and settlement. For this area, called the "Denali Planning Block," BLM intends to open all lands outside the scenic corridor study area and two wild and scenic river corridors to mineral leasing and mining. BLM is retaining the option to develop a management plan and development guidelines to protect the scenic and recreational values of the corridor lands. But it is equally important for BLM to recognize that scenic resource management concerns should also be applied to uses outside the one mile wide corridor. The landscape along most of the Denali is open, predominantly flat tundra - almost all uses are visible for miles from the road. Sensitive land use and development practices should guide how these activities take place as well as their location. The location and alignment of access roads serving uses outside the corridor are equally important concerns. In general, other than recreation related developments in selected locations, settlement is not encouraged along the Denali Road.

The State of Alaska should also incorporate similar scenic resource management policies and practices in plans for state land. The Department of Natural Resources manages some parcels at the eastern end of the road.

As manager of a 300 foot right-of-way and numerous material sites, the State DOTPF will directly effect the quality of the driving experience. How they handle the need to provide roadway visibility, clearing, and road maintenance and grading will determine whether or not the Denali

retains its natural character. The Department can develop and implement standard maintenance procedures that guarantee sensitivity to scenic resource values in day-to-day management decisions.

A relatively small number of private landholdings are scattered along the road, with the greatest concentration near Cantwell. While there are no established mechanisms to apply scenic resource management practices to private lands, landowners can choose to develop their lands in a manner that maintains the high scenic quality. In fact, this will often be in their own best interest. Private owners should be informed of the merits of voluntary cooperation in the maintaining and enhancing of scenic resource values along the Denali Wild and Scenic Road.

Road Improvements

The gravel road surface significantly contributes to the wild and natural character of the Denali. Moreover, because travel is slow, there is more time to appreciate the spectacular landscape. Unfortunately, the road bed is poorly maintained; road pot holes also capture the driver's attention. In fact, many people avoid driving the Denali Road due to the noisy, bumpy, and dusty ride and the unpredictable road conditions. Paving additional sections of the Denali Wild and Scenic Road to increase the driving comfort was considered during this study. Some implications of both paved and gravel road surfaces are outlined below:

A Gravel Surface:

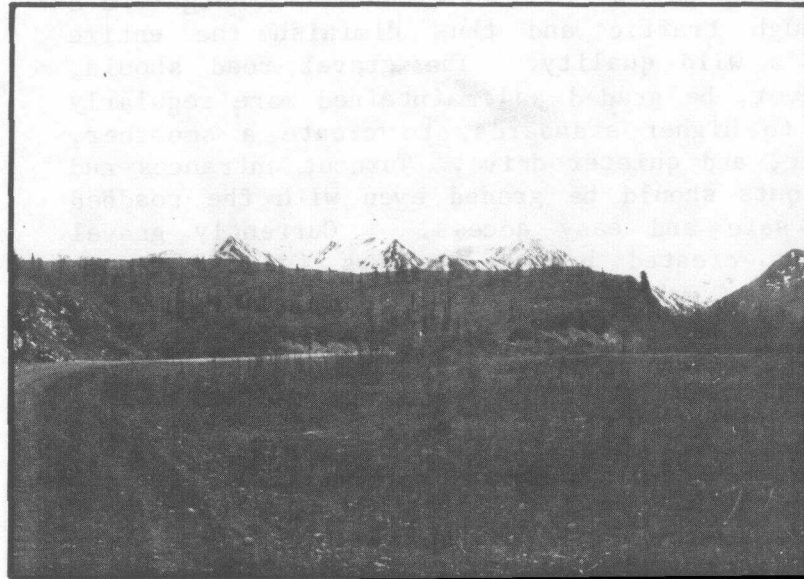
- Leads to slower travel speeds,
- Provides more opportunities to appreciate the landscape and observe wildlife,
- Offers a more wild and rugged driving adventure,
- Is less expensive to maintain, but requires more regular attention, and
- Discourages some use because of the long, rough and dusty drive.

A Paved Surface:

- Provides a smoother, quieter and more comfortable drive,
- Encourages additional use, but at faster travel speeds,
- Detracts from the wild and adventurous driving experience, and
- Costs more to construct and maintain.

In light of these considerations, a compromise solution is offered. The Denali should be paved from Cantwell to the Susitna River crossing. Paving this portion of the road would provide easy driving access to some of the most scenic and recreational landscapes on the west half of the road and would shorten the unpaved, slow portion of the drive. It would continue to deter the Denali from becoming a fast thoroughfare and avoid paving one of the most difficult road segments.

Paving practices should be governed by strict standards. To maintain the wild character of the road, the existing alignments should be followed,



D.O.T.P.F. proposed realignments would straighten winding portions of the road, such as the one shown here, eliminating changes in point of view and decreasing the sense of anticipation for the view around the next bend.

leaving curves and grades intact. The paved road should be designed for a a 35 mile per hour travel speed with this speed limit posted. Also, the width of the pavement should be narrow (18-20 feet) in order to minimize the visual impact of the road and discourage fast driving speeds.

The gravel surface should be retained on the remainder of the Denali Wild and Scenic Road - from the Susitna River crossing to Tangle Lakes - to protect the wild and remote driving adventure. Frost-heaving would pose major maintenance problems for a paved road across this area. In

addition, paving here would encourage high-speed through traffic and thus diminish the entire road's wild quality. The gravel road should, however, be graded and maintained more regularly and to higher standards, to create a smoother, safer, and quieter drive. Turnout entrances and turnouts should be graded even with the roadbed for safe and easy access. Currently gravel ridges created because graders ignore turnout entrances make many of them difficult or impossible to use.

The DOTPF proposes to realign portions of the Denali Wild and Scenic Road. Most of these realignments are designed to straighten curves. A few call for major changes to relocate the road on a better foundation so it will be easier to maintain. This study recommends that existing realignments be retained where possible to protect panoramic views, frequent changes in point of view, and the overall recreational driving experience.

Land Use & Development

One of the distinctive qualities of the Denali Wild and Scenic Road is its undeveloped character. The few commercial establishments that presently exist, however, are adequate in number and location to meet the travelers' needs. In general, new development along the road should be discouraged, with two exceptions. First, additional recreational development is appropriate in selected locations where use presently exists and the visual impacts will be low. Second, commercial and residential expansion can occur, but should take place near existing development at Cantwell, the Susitna River crossing, Maclaren River, Tangle Lakes, or Paxson.

Development on public lands, including recreational facilities, should be located in areas with screening potential. Land disposals and permanent development should occur outside greenbelts in areas that are not visible from the road. Major developments visible from the road should comply with the adjacent greenbelt regulations and respond to the landscape character in site location and design development and construction.

BLM is discouraged from opening the Denali Block land to settlement. They should also set scenic resource management guidelines for mining and activities related to mineral leasing if within the road viewshed. Special guidelines should be developed for the location, clearing, and alignment of access roads from the Denali Road to these sites.

Because of the unique qualities of the Denali Wild and Scenic Road, private landowners should be made aware of how they can maintain the scenic resource values on their land. This information can be conveyed in a short manual: ie. "Design and Land Management on the Denali" prepared for distribution by the Cooperative Extension Service. Or, alternatively, presentations at community workshops or a statewide television special could be used. Gaining the support and involvement of private landowners and residents along the Denali is critical. Although the overall landholdings are small, they are concentrated in strategic locations.

Private owners are encouraged to adopt the following development practices:

- Select development locations that are close to existing communities
- Select sites which are set back as far as practical from the road edge, preferably outside the greenbelt
- Retain as much natural vegetation as possible within the greenbelt.
- Utilize topography and vegetation to screen development from road traffic and dust
- Limit the number and visibility of access roads

Recreation Development

Today, recreation--fishing, hunting, camping, boating, hiking--is the primary use of the Denali Road, and it is likely that it will continue to be the popular and predominant use well into the foreseeable future. Presently, public facilities are inadequate to meet recreation needs during the peak summer season.

Four areas have been identified for their potential to provide additional public recreation opportunities: (1) the Nenana River area near Cantwell, (2) Susitna River crossing, (3) Maclaren River, and (4) Tangle Lakes area. Short term or day use recreation activities and rest areas are discussed in the Turnouts section.

Nenana River Area: There are only limited recreation opportunities near Cantwell, but the area's many lakes and rivers and high scenic values make additional development for boat launching, campgrounds, and recreational homesites highly desirable. These facilities could be publicly developed, or developed and operated as a private

facility by the Cantwell Village Corporation. See Management Unit 2.

Susitna River Crossing: The crossing is a high use recreation node where few facilities now exist except a small boat launch. Better launch facilities, a campground and a picnic area would be welcome additions; however, they should be carefully sited and designed to minimize impacts on the river edge as well as on the dramatic visual experience of crossing this major landscape feature. The various facilities could be dispersed to decrease the development scale and create a more intimate recreation experience. See Management Unit 4.

Maclaren River: The Maclaren River Lodge is a jumping off point for hunting and fishing trips up the river. Nestled in hummocky glacial topography, it is a prime location for a recreation facility, and there is room for additional development for picnicking and possibly camping. See Management Unit 7.

Tangle Lakes Area: Probably the most popular area along the Denali, Tangle Lakes offers camping, fishing, boating, hiking, and picnicking opportunities, in addition to two lodges (one is closed) and other roadside services. The wide variety of use possibilities, area accessibility, and the screened location in rolling glacial topography make this a prime location for additional recreation expansion. Day use recreation opportunities exist nearby at Tenmile and Octopus lakes. Trails could be developed there and near Landmark Gap. This area is also suitable for some scattered recreation homesites. Along with the Susitna River, Tangle Lakes is the priority site for recreational use and development on the Denali Road. See Management Unit 8.



The road winds through rolling glacial topography near Tangle Lakes making it possible to site and screen additional recreation development in the area.

The following guidelines should be applied to the design and development of roadside recreation facilities:

- Locate campgrounds at least 1/8 mile away from the road and retain vegetation as a natural buffer.
- Control creek or river access near bridges so campsites and other river recreation uses focus on only one bank. Locate them at least 300 feet from the bridge.
- Use a single or loop access road for commercial recreation developments retaining natural vegetation between the facility and the right-

of-way. Avoid the common situation where the entire road frontage becomes an open gravel parking lot.

- Encourage commercial establishments to store supplies inside a structure, or to screen supply and storage areas from the road.
- Take advantage of the vegetation screening potential and/or local landforms to screen development from the road.
- Site access roads so they conform to natural contours and topographic features.
- Locate recreational cabins and homesites back from the road, retaining natural vegetation between the road and the structure. If possible, locate them outside the greenbelt. Buildings need not be totally hidden from view. If somewhat distant from the road and well-designed, they can be visual amenities.
- Site trailhead and other recreational use parking areas so they are not visible from the road.
- Encourage commercial developments to use well-designed signs for advertising. Avoid flashing neon or large oversized signs typical along many highways. Small signs painted on wood and lit by incandescent bulbs are preferred.
- Locate power generators away from campgrounds and recreation use areas. Buffer sounds with sound absorption baffles, berms, or other appropriate means.
- Take advantage of the local microclimate in designing recreation facilities. Site recreation developments on warm, south facing slopes which are sheltered from winds, and avoid exposed high ridges and open river bottoms.

Turnouts & Other Roadside Facilities

Prior to this study, recommendations for road turnouts were identified in a document prepared

Denali Highway Visitor Information & Points of Interest Evaluation

from: The Denali Highway Information Plan

Site	Mgt. Unit and Site Location	Study Recommendation	Site	Mgt. Unit and Site Location	Study Recommendation
1. <u>Visitor Information Center</u>	Unit 9 Site: T-2	No	11. <u>Wildlife Point of Interest - Waterfowl and Shorebirds</u>	Unit 6	Not evaluated
2. <u>Wrangell Mountains Viewpoint - Views of Mt. Drum and Mt. Sanford</u>	Unit 8 Site: Rec-1	Yes	12. <u>Geologic Point of Interest - Esker</u>	Unit 6 Site: T-2	Yes
3. <u>Landmark Gap Viewpoint</u>	Unit 8 Site: R-6	Yes	13. <u>Geologic Point of Interest - Talus Slopes</u>	Unit 4 Site: T-4	No
4. <u>Alaska Range Viewpoint</u>	Unit 7	No	14. <u>Denali Viewpoint - Historical/Landscape Interpretation</u>	Unit 3 Site: T-14	Yes
5. <u>Maclaren River Viewpoint - includes nearby pingoes, several vegetation types</u>	Unit 7 Site: Rest-1	Yes	15. <u>Wildlife Point of Interest - Waterfowl and Caribou</u>	Unit 3 Site: T-12	Yes
6. <u>Geologic Point of Interest - Pingoes</u>	Unit 7 Site: T-4	Yes - But no parking location	16. <u>Botanical Point of Interest - Effects of permafrost, climate, altitude, and aspect on plant growth</u>	Unit 3 Site: T-2	Yes, slightly different location
7. <u>Geologic Point of Interest - Sinkholes</u>	Unit 7 Site: T-3	Yes	17. <u>Nenana River Viewpoint</u>	Unit 3	Not evaluated
8. <u>Maclaren Glacier Viewpoint</u>	Unit 7	Not evaluated	18. <u>Visitor Information Center</u>	Unit 2 Site: IT-1	No as info. center, yes as viewpoint
9. <u>Geologic Point of Interest - Crazy Notch</u>	Unit 7 Site: T-1	Yes			
10. <u>Wildlife Point of Interest - Beavers</u>	Unit 6	Not evaluated			

by consultants to BLM. The Denali Highway Information Plan (1976) identified 18 turnouts to interpret natural features visible along the road, emphasizing geologic features. The DOTPF also identified potential turnouts as part of a recent highway improvement proposal. Most of these sites are cleared and graded areas that were created during road construction which DOTPF now plans to retain and enhance. The BLM and DOTPF sites were evaluated along with existing turnouts and other potential sites identified during field work. Recommendations for each site are discussed in detail in each management unit. Factors taken into consideration when evaluating the existing, proposed and potential turnouts include:

- Safe entry and exit
- Adequate size to accommodate anticipated use
- View potential from the site
- Suitable site conditions for cost effective development and maintenance
- Potential for interpretive opportunities
- Visual impacts of site development

This study recommends three general types of turnouts: Roadway Information Turnouts located near highway junctions, Rest Areas, and General Turnouts.

Roadway Information Turnouts

Roadway Information Turnouts respond to travelers' needs for information on road conditions, emergency services, commercial services, recreational opportunities, and other special road features. Information turnouts are recom-

mended at both ends of the Denali Road. At the Parks Highway junction, there are two alternatives. One is a series of three separate information turnouts, accommodating travelers arriving from the north, south, and east, respectively. The second option consists of a single turnout located at the junction. Management Unit 1 discusses these proposals in more detail.

At the Richardson Highway junction, a single turnout is recommended on the east side of the Gulkana River crossing. This turnout is located close to the junction so signs will direct travelers arriving from all directions to it. Information related to this turnout may be found in Management Unit 10.

Rest Areas

The four rest areas recommended on the Denali Wild and Scenic Road are part of a system of roadway rest areas that encompasses the Parks Highway and the other segments of this study corridor (the Central Richardson Highway and the Edgerton and McCarthy roads). One rest area is recommended in each landscape character type, those large areas which have similar geologic, geomorphic, and ecologic characteristics. The Denali Road crosses five character types: Broad Pass Depression, Upper Nenana River, Upper Susitna River, Clearwater-Amphitheater Mountains, and the Gulkana Uplands. Site specific information is contained in the appropriate management units.

General Turnouts

General Turnouts respond to a multiplicity of traveler needs. They are road widenings which provide a place to leave traffic for a variety of

Rest Area / Interpretive Sites

Location	Landscape Character Type	Mgt. Unit	Description
Assessment Unit D-19: East of Canyon Creek	Upper Nenana River	3	Site is used for gravel extraction and would need considerable reclamation. It is an excellent viewpoint with a nearby lake that provides a good expression of the forested landscape dominated by near and distant mountains.
Assessment Unit D-26: East of Susitna River crossing	Upper Susitna River	4	Located a a former material site close to the Susitna River crossing, the site can be developed as a day use rest area/interpretive center, as well as a campground. Construct a boardwalk to the northeast bank of the river, and a foot trail up the south side of an esker to a point with views of the Alaska Range, Susitna River, and Talkeetna Mountains. This viewpoint should also include a small roadside parking area and an interpretive sign.
Assessment Unit D-56: East of Maclaren Summit	Clearwater/Amphitheater Mountains	7	Site is now a large turnout with a litter barrel. It offers a spectacular panorama of those elements characteristic of this landscape: the expansive Maclaren River Valley, snow-capped peaks of the Alaska Range and Clearwater Mountains, and associated glaciers. This site was identified both in the <u>BLM Denali Highway Information Plan</u> and by DOTPF. A short hiking trail to view small lakes and pingoes could be developed.
Assessment Unit D-1: Near Cantwell	Broad Pass Depression	1	In addition to the rest area recommendation, the site was identified for a turnout by DOTPF and a visitor center site in the <u>Denali Highway Information Plan</u> . Mt. McKinley is visible from here along with development around Drashner Lake and Cantwell. Because of the openness of the landscape, sensitive site design is required and a 300 foot greenbelt should be established around the perimeter of the site. A trail link to Jack River could be developed from the rest area.

purposes: photography, wildlife observation, exercise, eating, turning around, etc. Portions of the Denali Road currently have an adequate number of turnouts to comfortably meet travelers' needs while other portions need more safely accessible and appropriately sited turnouts. Turnout recommendations found in each management unit fall into the following general classes:

- Existing and proposed turnouts which might be suitable for interpretive information. Of the 18 information turnouts proposed by the BLM Denali Highway Information Plan, ten of these were determined to be suitable for development as small, interpretive turnouts (Three sites were not evaluated in the study.)
- Scenic turnouts with distinctive panoramic views.
- Turnouts in areas presently lacking adequate turnout opportunities and where development costs would be low (such as nearly level, abandoned material sites).
- Potential turnouts where proper access must be provided.
- Existing turnouts where, for one reason or another, access should be blocked and the site reclaimed.
- Existing turnouts where the visual impacts of turnout design or maintenance should be reduced.

Litter Barrel Siting and Design

Commonly provided at turnouts, litter barrels encourage people to dispose of trash properly. However, in many cases, the trash receptacles become elements of visual clutter. The typical orange oil drums sharply contrast with the color of the natural surroundings. In areas of low or non-existent vegetation, the three-foot high barrel appears out of scale. Often the barrels are

used for roadside target practice, and soon look derelict. In addition, they are placed in the center of the turnout, becoming an unattractive centerpiece for an otherwise panoramic view. These problems are more acute when the litter barrel is the only sign of human use for miles along the road.

Better litter barrel design and siting will help maintain the scenic quality of the Denali Wild and Scenic Road. The following design guidelines are recommended:

- Design and use a more attractive litter barrel that incorporates or blends with natural materials and colors.
- Where drums are still in use, paint them brown, green, rust, or an alternate color that blends in with the surrounding landscape.
- In open landscapes where the vegetative cover is low or non-existent or views are open, consider:

Burying the trash can level with its lid and mark the location with a sign, or

Providing several lidded, shorter receptacles so the size is not so out of scale with the surroundings

- Avoid placing barrels in the center of turnouts.

Where there is little screening potential, site barrels at the corners of the turnout, near the road to avoid interrupting the view

Locate the barrel close to natural landforms or vegetation where they exist, in order to take advantage of partial screening through the juxtaposition of forms

- Replace "shot-up" barrels as a part of regular road maintenance activities, and encourage the State Patrol to enforce fines for those caught vandalizing the facilities.

Right-of-Way Management

DOTPF's management of the 300 foot right-of-way along the Denali Road, together with road design and upgrading practices, will have the greatest influence on maintaining the road's wild and scenic quality. Management actions designed to restore or enhance roadside visual resource quality are generally directed at the right-of-way and those lands immediately beyond. At the moment, right-of-way management along this road includes gravel extraction for road maintenance, roadside brush control, road grading and edge maintenance, and water drainage. Gravel extraction concerns are addressed in the material sites discussion.

The following recommended management practices are designed for use by DOTPF field maintenance crews. In addition, a landscape architect should be employed to work with the maintenance supervisor in developing one or two year roadside management action plans.

Roadside Brush Control

In general, brush control along the Denali Road is minimal and is in keeping with the wild and scenic nature of the driving experience. Future actions should respond to the following considerations:

- Encourage/allow native vegetation to grow as close to the road edge as possible so the road right-of-way blends with the landscape.
- Allow brush and other scrub vegetation to grow in ditches and drainageways, so long as water flow is not impeded.
- In areas where high brush and trees may block views around road bends, clear only the inside

edge of the curve and leave the outside edge vegetated.

- Where vegetation clearing is needed, vary the depth of the cut to avoid creating a linear, hard-edged swath along the road.
- In areas of high brush and trees, clear selectively. Cutting can take place in phases. Some trees can be cut, leaving adjacent areas untouched for several years.
- Remove all slash from cleared areas.
- Revegetate cleared road edges with low brush or other plants to create a natural appearing edge.

Grading Practices

Roadside grading practices cause two common problems: (1) surface grading creates relatively tall ridges of loose gravel along the road edge, and (2) it disturbs the right-of-way by developing gravel extraction sites, turnarounds, and equipment parking and storage areas.

Roadside ridges result when graders run along the road without taking care also to grade turnout entrances. This careless practice restricts vehicle access to many turnout sites, visually accentuates the road edge, and restricts surface drainage. In some cases, however, where vehicular access should be intentionally restricted--particularly where gravel extraction sites are being reclaimed--the gravel ridges serve a useful function. Gravel extraction within the right-of-way should not be permitted and equipment operators need to be more careful in how they use the right-of-way for routine maintenance operations or as impromptu sources of materials along the edges of road cuts.

Water Drainage

Culverts and ditches are the primary methods of roadside drainage. Their visual impacts are generally low except in a few specific instances. There are several locations along the road where culverts are improperly sized and located, leading to erosion around the culvert and road settling. While these areas should be repaired, care should also be taken when placing new culverts to avoid creating similar problems.

In some areas, drainage ditches can be designed to blend with adjacent landforms by varying the slope of the ditch margins and allowing vegetation to grow inside. Culvert ends are often visually prominent because of their reflective surfaces and absence of vegetative screening. They could be painted a dark earthen color to reduce visual contrasts.

Greenbelts

As a scenic resource management tool, a greenbelt is a strip of land beyond the right-of-way where additional visual resource considerations are applied. It is not necessarily a "no touch" area, although it is most often kept in a natural condition and landscape alteration minimized. Development or landscape modification may take place in a greenbelt if it follows guidelines and performance standards. For roads and highways, the most effective scenic resource management occurs in the foreground, the right-of-way and the lands immediately adjacent to it. Greenbelts can complement right-of-way management practices, or alternatively, can serve as a second line of defense for inappropriate activities within the right-of-way.

The usual image of a greenbelt as a narrow, continuous strip of trees is inappropriate along the Denali Road. First, most roadside vegetation is low growing tundra which has little potential for screening or buffering. Second, the open, expansive views characteristic of the landscape mean that narrow management strips would be completely inadequate to protect resource quality. To accommodate these special conditions, three greenbelt categories are recommended along the Denali Road:

- 25 to 100 foot wide greenbelts: In some areas, particularly along the western-most portion of the road, only a narrow strip of land is needed to protect scenic resource values because the existing vegetation is dense and the topography is relatively steep.
- 100 to 1000 foot wide greenbelts: In many areas the open terrain dictates that a wider greenbelt is necessary for effective scenic resource management. Generally, this setback width will be adequate for most land uses and developments.
- Viewshed greenbelts: Finally, there are a number of very open areas with particularly high scenic resource values along the Denali Wild and Scenic Road. In such areas, even a 1000 foot wide greenbelt is inadequate because everything is visible. In these locations, the entire viewshed becomes a greenbelt management area. While development would not be prohibited, all proposed land uses should be evaluated with respect to their visual impacts.

Important guidelines and objectives associated with each type of greenbelt are described in the individual management units.

Along the Denali Road, public agencies, primarily BLM, and private land owners will be responsible for implementing the greenbelt recommendations.

On public lands, agencies can officially designate greenbelts and specify scenic resource guidelines and performance standards for land use actions. On private lands outside of boroughs or other local government jurisdictions, no effective implementation or control measures exist. Here there are two principal implementation options. First, individual land owners can be encouraged to follow examples set on adjacent public lands. Public agencies should make a concerted effort to educate private landowners about greenbelts and scenic resource management--the rationale for their designation, associated management practices, and the resultant benefits to landowners and the public could be part of a more comprehensive public information/education program for scenic resource management. Second, private landowners with large land holdings next to the road, such as village and regional Native corporations, should be encouraged to incorporate the greenbelt management recommendations in their land sales, leases, and other developments.

Material Sites

Perhaps the most unattractive features associated with driving the Denali Wild and Scenic Road are the numerous, highly visible material sites located in the right-of-way in stark contrast with surrounding landforms and landcovers. However, with some planning and sensitivity to scenic resource values, these essential facilities can be sited so they are convenient to use and do not detract from the road's scenic quality. In order to encourage proper location and use of material sites, educational and training programs should be directed at those in DOTPF concerned with selecting and operating these sites. This must include planners who identify potential new sites



Material extraction in the immediate right-of-way is unsightly and detracts from the wild, natural character of the road. Gravel pits should be sited away from the road and screened from view.

and secure permits and/or leases, administrators who develop and adopt policies relating to material site location, and field crews who perform routine road maintenance and develop the sites.

Management recommendations are directed to three situations: new sites, active material sites, and exhausted material sites.

New Sites

All new material sites should be located outside the road right-of-way. DOTPF should work with BLM

as the adjacent landowner, to identify appropriate sites and secure any necessary permits. The selection process should identify sites that:

- Can be adequately screened by topography and/or vegetation
- Have reasonably convenient access
- Are located in the opposite direction from general viewer orientation and away from recreation use areas such as turnouts, rest areas, campgrounds, or lodges

In addition, a system of smaller sand and gravel storage areas can be developed between the primary sites where convenient access to materials is needed. These sites should use surrounding landforms to help provide proper screening.

Active Material Sites

From a visual management perspective, there are several problems associated with existing sites. These include proximity to the road, clearing and unnatural contours that contrast with the surrounding environment, and equipment and structure visibility and dominance in an otherwise natural landscape.

There are two strategies for mitigating these problems: 1) reduce the visual impact of the existing activity and 2) prepare for future use of the site. Since most of the Denali Road is above treeline, it is difficult to screen existing gravel extraction sites with vegetation; therefore, constructing a berm is often the only solution. This is easier at existing material sites where heavy equipment is already available. The berm shapes and contours should

reflect nearby landforms and they should also be revegetated so they blend in with surrounding landcover to the extent possible. Equipment storage, structures, and access roads should all be located to minimize visibility.

Management recommendations and actions also address the future use of the site. In cases where the visual impact is high and effective screening impossible, recommendations may call for the site to be immediately reclaimed. Otherwise, the site should be managed for long term use for road maintenance, materials storage, or continued material extraction.

Exhausted Material Sites

The numerous abandoned material sites along the Denali Wild and Scenic Road require treatment to reduce their visual impact. Possible approaches include the following:

- Complete reclamation. Attempt to return the site to its natural condition or one which blends with the surroundings.
- Active reclamation for a new use, such as a turnout, rest area, or campground.
- Screening with berms or vegetation to reduce adverse visual impacts.
- Limiting access. Close the site to vehicular access and let time and nature heal the scars.

Complete reclamation is extremely costly and is recommended only in those situations where the impact is severe and the site detracts from the area's recreational and scenic values. In some cases, reclamation is recommended to convert the

site to another use, such as inexpensively created turnouts, rest areas, or viewpoints. Screening and other visual impact reduction measures are the most common recommendations. Some possible actions include:

- Establishing roadside vegetation and/or berms, either in the right-of-way or adjacent to the site.
- Directing viewer orientation away from the site.
- Controlling access to minimize future disturbance and use and allowing natural revegetation to occur.

Because of the quantity of material sites and the extent of the problem, many sites were not specifically identified. The general recommendation for these sites is to allow natural revegetation to occur. Due to the harsh climate and poor soils, revegetation is a slow process. The following measures have been identified to aid the revegetation process:

- Control access to eliminate site disturbance. This can be accomplished by using roadside grading to create a low berm which will prevent vehicular entrance and closing the site to heavy equipment storage, staging, or parking use.
- Refrain from any brush control within or adjacent to disturbed areas.