

**Aurora Viewing** -- Some residents in the Cleary Summit area have expressed concerns that hauling ore from the True North Mine to the Fort Knox Mill could cause them economic hardship. This has been raised by three establishments providing aurora viewing experiences and in two cases associated lodging, primarily to tourists in winter. These facilities also are rented occasionally in other seasons for other purposes. The owners believe that noise and lights from ore trucks would degrade the experience of their customers, causing them to lose business. Some commercial interests in the Fairbanks area catering to these tourists, e.g., hotels and transportation companies, also believe they would be affected.

The access haul route has been located to use direction and slope to minimize the time truck lights would shine towards these aurora viewing establishments. Most of the time the lights would shine directly into the hillside below, and not into, the residences. Truck lights could have a shield or hood or use other mitigation methods to further reduce light escapement by focusing lights within the road right-of-way. From a noise perspective, the route has been located to reduce grades that would require heavy pulling and braking, thus lessening engine noise. Truck exhausts would be equipped with up-to-date muffler technology. Noise levels at residences on Cleary Summit would not exceed the FHWA noise abatement criterion for residential areas (See Section 4.10). Road dust would be controlled by use of water or chemicals, or by covering the road surface with snow during winter. Chip sealing the road surface would be another option. The establishments could take mitigation measures of their own. Bus engines could be shut off rather than left idling in cold weather, or buses could be moved to a remote location if idling were necessary. While auroras can occur in any sector of the sky, they tend to appear more frequently in the northwest, north, and northeast, generally on the other side of these facilities from the right-of-way. Moving guests to the north side of the two bed-and-breakfasts and/or to the ski lodge on the north side of the summit would lessen potential disturbance from truck lights and noise. It has also been suggested that these tourism businesses might play subtle, appropriate background music and/or nature sounds to mitigate any unnatural noises that may be heard in the distance.

By their nature auroras are visible only in darkness and therefore the commercial visitor season generally is limited to the six-month period from October through March (Fairbanks Convention & Visitors Bureau, 2000). Also, auroras are not visible during periods of overcast, or during the daylight hours in winter. For a substantial majority of time, therefore, use of the haul road would not have any impacts on aurora viewing.

Some hotels in Fairbanks, and two lodges further north on the Steese Highway, list aurora-viewing as one of the attractions they can provide for their lodgers – nature permitting. Though they themselves may not provide an aurora viewing experience, their guests are bused to locations such as those at Cleary Summit and then returned to the hotels. While the Cleary Summit businesses may be a destination for many of these tourists, there are several other locations which cater to aurora viewers in the Fairbanks area. The Fairbanks Convention & Visitors Bureau Visitors Guide lists 18 such locations. The aurora, of course, can be viewed from any location beyond the influence of the bright city lights. Thus, significant effects on the Cleary Summit aurora viewing establishments are not expected. Further, any effects experienced would be localized and certainly would not significantly affect aurora viewing in the greater Fairbanks area in general.

**Mental Health Land Trust** -- A direct, short term beneficiary of True North development would be the State's MHLT. The trust would receive approximately \$25,000 from sale of an approximately five-mile long right-of-way across trust lands for the access haul route. It likely also would receive up to \$100,000 from sale of approximately 100,000 yds<sup>3</sup> of rock for road construction.

In addition to short term economic benefits tied directly to development of True North, the MHLT also could receive a significant cumulative benefit. The trust owns the land under the Fort Knox Mill and presently receives an approximately \$150,000 annual rental for use of its lands by the mill, with that amount adjusted annually for inflation. Processing of ore from the True North Mine would extend the life of the Fort Knox Mill. Under the scenario described in Section 4.20.3, development of the True North project would extend the life of the Fort Knox Mill for approximately one-half year, benefiting the MHLT by an additional \$75,000 in constant 2000 dollars.

#### **4.11.2 GREATER FAIRBANKS AREA**

In this section, socioeconomic impacts to the greater Fairbanks area are discussed within the context of changes to existing levels of population, employment, income, housing, services, and local government taxes and budgets. In this context, no significant negative socioeconomic impacts would result from project development. The project would, indeed, provide significant positive, tangible economic benefits to the community.

The community impacts of the True North project would arise mainly from the direct and indirect employment stimulated by the project, incremental population growth, and the balance of service burdens and fiscal resources the project confers on local governments.

The True North Mine is scheduled to begin operation during the fourth quarter of 2000, with a projected operating life of 3 years. The mine would operate year-round and around the clock. FGMI estimates capital development costs at between \$20 to \$30 million. At full operation, the permanent work force for the mine would total 100 to 110 workers (FGMI, 2000a). The mine's estimated annual operating expenditures for labor, power and support services are \$14 million.

On the basis of prevailing wages in Alaska's metal-mining industry (according to ADOL, the average monthly wage of an employee was \$4,264 in 1999), the mine's direct annual payroll would be approximately \$5,400,00 in current dollars.

Support-sector expansion would generate additional jobs. The mine's direct employment is estimated to eventually sustain another 120 to 132 jobs in the support sector, assuming an employment multiplier of 1.2. The composition of FNSB's employment, particularly the maturity of its trade and service sectors, suggests that the region's employment multiplier is about 1.2; that is, each new basic job generates 1.2 additional jobs in the support sector. The Fairbanks housing market is stable, experiencing a fair balance of supply and demand. Both the housing market and retail trade establishments, recently somewhat reduced, may experience growth generated by Truth North's operation. Indeed, project payrolls may serve in part to retard further

attrition of existing jobs and create some new jobs. In any case, indirect job growth triggered by the project would likely ensue gradually over several years.

In addition to direct and indirect employment payrolls, the mine also would benefit the local private sector through purchases of supplies and services from local vendors.

Economic trends indicate employment growth for Fairbanks in the next few years – a 2.2% growth in 2000 and 1.8% in 2001, with particular strength in the construction industry, an optimistic business climate, and growth or stability in most other areas of the economy (DOL, May 2000). True North will add to this generally positive scene with new basic and support-sector jobs, tapping occupational skills typically available in the resident labor pool. The new basic jobs at the mine would pay above average wages, helping reverse the long-downward trend in average wages. Year-round mining employment would further diversify and stabilize the region's cyclic and seasonal employment fluctuations.

According to the 1990 census (still reliable in 2000 according to the DOL), the ratio of population to employment in FNSB was about 2.2; that is, on the average, each job supported 2.2 persons. Applying this ratio to the project's direct employment, the project could produce an incremental population growth of approximately 230 persons. Similarly, related support-sector job growth is estimated to sustain approximately 264 - 290 residents. Thus, the total population the project might sustain would be approximately 484 - 532 persons.

The estimates of incremental employment and population growth attributable to the True North project represent a net increase of approximately 1.5 percent over current population and employment in FNSB. Given the project's location near the City of Fairbanks, it is plausible that new population growth would be about evenly split between the city and the rural part of the borough.

Several circumstances—the positive growth being experienced, as well as anticipated in the local economy, Fairbanks' stable housing market, and a slowing of recent fluctuations in retail trade—suggest that the project would be unlikely to generate short-run inflationary pressures on the local cost of living. Indeed, the added local purchasing

power stemming from project payrolls would further enhance the viability of the local housing market and businesses.

The project also appears likely to have net positive benefits on FNSB's financial situation. FNSB levies a real property tax but exempts personal property. The 1999 FNSB areawide real property tax rate was 16.184 mills (plus additional mill levies for city and local service area functions). The project's assessed valuation cannot be determined accurately at this time. If five percent of the estimated total capital development cost of approximately \$25 million were taxable real property improvements, the mine initially would yield approximately \$20,000 in new property tax revenue for the FNSB at the 1999 mill rate. Thereafter, the mine's assessed valuation would decline as the condition and value of mine improvements depreciated. This revenue estimate is exclusive of service area mill levies, nor does it take account of enhanced residential and commercial property values throughout the FNSB.

The per capita valuation for the mine project does not count the assessed value of residential, commercial, and other taxable property occupied or supported by the induced population. In sum, the mine project, with collateral residential and other real property improvements, clearly would enhance FNSB's real property tax base.

Because the mine site is outside the City of Fairbanks, the mine facility itself would not directly affect the city's assessed valuation. Part of the project's work force, however, would live in the city, and the central city's retail and service firms do serve the entire region. Thus, the project's payroll would enhance residential and commercial property values in the central city, thereby marginally benefiting the City of Fairbanks' fiscal situation.

Presumably, the public service burdens that the project would impose on local governments and other community-service providers would be proportionate to the induced population. The Alaska Department of Labor projects that FNSB's population will increase by about 7800 people in the decade between 1998 and 2008. The mine project's total induced population growth is estimated at approximately 230 persons. Thus, the project's induced population growth would be a modest share, perhaps .03 percent, of the decade's population growth and perhaps .003 percent of FNSB's total

population. In this regard, the project's scale of impact during construction and operation would be below the range associated with recent local construction programs.

The current local housing market and utilities systems have capacity to absorb some additional demand, with opportunity to expand capacity as needed. On the other hand, certain services are near capacity (local education in some areas of the district) or have experienced continuing cutbacks (health and social services and public safety). For these services, even modest, gradual growth might further strain their quality or facilities, unless additional program funds were provided or other facility capacity could be made available. On the basis of fiscal analysis, FNSB's new revenue potential should offset its additional service burdens.

If publicity about the project attracted a surplus of job seekers, manpower and social service agencies might temporarily face additional demand for their services. But, on the basis of local experience with recent construction projects, and should the nation's generally upbeat economy continue to thrive, there is little reason to assume that the mine project would prompt a large influx of job seekers, especially if the nation's generally upbeat economy continues to thrive.

The mine's expected initial operating life is 3 years. When the mine closes, its jobs and payroll would end. At that time, the local economy and the displaced workforce might experience a period of economic adjustment until alternative economic opportunities materialize.

#### **4.12 LAND USE**

In this section, the significance of impacts to land use is determined within the context of adherence to the State's land classification criteria, and the FNSB's Comprehensive Land Use Plan. Within these contexts, there would be no significant impact to land use from project development.

In the State's Tanana Basin Area Plan, the True North project area is in management Unit 1-J. Most of the project area falls under subclassification 1J2, which designates the following primary land uses: minerals and public recreation. Land disposals and remote

cabins are prohibited within 1J2. The minor Cleary Summit-Pedro area falls under subclassification 1J1, which designates the primary land use as settlement; secondary surface uses are public recreation and wildlife habitat. Remote cabins are prohibited.

The True North project falls under two designations in the FNSB Comprehensive Plan, a combination of “High Mineral Potential,” and “Reserve Area.” The latter designation means uses such as mining, agriculture, recreation, hunting, trapping and fishing are all permitted until such time as a more specific highest and best use is identified.

During operations state authorized surface land uses allow only limited access to the general public. Access would be restricted because of the inherent dangers associated with the operation of large mine equipment and process components. Compliance with MSHA regulations would limit access to personnel trained to recognize hazards and observe safety rules to insure the health and safety of employees and visitors. To insure safety of mine employees and the public, all hunting, fishing and trapping within the mine lease area would be prohibited.

The True North project would alter the landscape of the mine site for the long-term. FGMI would reclaim the area to a productive post-mining land use as wildlife habitat in conjunction with the Alaska Department of Natural Resources (ADNR) and ADFG.

Construction of the new access haul road, and upgrading of portions of others, could open new areas for residential, commercial, or industrial development. This could include land sales by the State or the MHLT. These entities, however, have no present development or disposal plans in this area. State land disposals would have to conform with the State’s land classification criteria, and any developments would have to conform with FNSB zoning requirements.

#### **4.13 CULTURAL RESOURCES**

In this section, cultural impacts are discussed in the context of adherence to the cultural-resource protection procedures under 36 CFR Part 800, Subpart B (the Section 106 process), because this is the accepted process by which to mitigate impacts to cultural

resources. In this context, no significant impacts to cultural resources are expected from project development.

Archaeology is a study that involves the removal from the ground or final resting place of information to a processing and analysis laboratory. A site may be physically removed, but the information, including measurements, photographs, and matrix samples, is salvaged through careful removal techniques and scientific inquiries. Important artifacts can be removed for preservation in perpetuity. Reconstruction of the site occurs in the completion of reports about the excavation and inquiries. Thus, while sites and artifacts may be taken from their surface and subsurface placement, information such as who lived at the site, their activities, and the importance of the site lives on through careful documentation and recording.

Losses of cultural resources normally occur from primary effects, such as destruction from project activity where no information has been gathered. Secondary effects may include increased pedestrian travel over cultural resource sites and uses of newly created access that result in unauthorized visitation or, at worst, site looting.

All five sites identified in the mine area that were expected to require additional levels of documentation to assess their eligibility for inclusion on the National Register of Historic Places were located outside of the area that would be disturbed by the proposed Hindenburg and East pits and the ancillary facilities of the True North project. The historic Davidson Ditch, which runs through the claims block, is already on the National Register of Historic Places. True North development would not affect the Davidson Ditch. The State Historic Preservation Office (SHPO), however, has recommended that the sites still receive proper recordation, and that any potential future crossings of the Davidson Ditch desired by FGMI be identified at this time (Jespersion, 2000).

Five historic properties were located within the proposed access haul road corridor to the Fort Knox Mill (Williams, 2000). None of the sites was considered eligible for the National Register of Historic Places.

Thus, because the cultural resources identified as being potentially affected by the proposed project have been reviewed according to the protection procedures under the Section 106 process which is the accepted process by which to mitigate impacts to

cultural resources, no significant impacts to cultural resources are expected from project development.

#### **4.14 VISUAL**

Visual impacts are discussed below separately for the mine area and for the access haul road area because these largely would be seen by different populations of concern.

##### **4.14.1 MINE AREA**

Visual impacts from the perspective of properties in the Olnes and Haystack subdivisions from mine area activities are assessed according to the principles and practices as described in *Landscape Aesthetics – A Handbook for Scenery Management* (USFS, 1995). Within the context of these evaluation procedures, no significant visual impacts are assumed from mine operations. The impacts discussion below was taken primarily from Mining Public Consent (2000a).

The residents of the Olnes and Haystack subdivisions are located in the adjacent elevations west and north of the True North property, at least one or more miles in distance, north and west of the project site (4.10-4). The actual concern (sensitivity) levels of all residents in these areas has not been fully measured; however, the Proposed True North Mining Report Socioeconomic Baseline Report (Mining Public Consent, 2000a) established that some property owners in the Olnes and Haystack subdivisions could be a potentially sensitive viewing public.

#### **Existing Visual Conditions**

A visual character and quality analysis of the True North project area was presented in the visual baseline report (Mining Public Consent, 2000a). In summary, the True North mine area is located on the northwest flank of Pedro Dome in the Chatanika River watershed, and is comprised of hilly terrain with elevations ranging between 200 and 550 m (approximately 650 to 1800 feet).

Vegetation patterns in the project area have been altered by previous mining roads and activities in the True North mine vicinity, and other adjacent road and residential construction. Distant views of disturbances from the Shepherd's Drill and Test Blast

Area and Hindenburg Pit are apparent due to the disruption of natural vegetation. The contrasting lines and color of exploration terraces, roads and equipment operating at the project site have modified the surrounding landscape. Snow occurring during winter conditions contrasts strongly with the vegetation, also highlighting disturbed areas.

### **Distance Zones and Views**

Following are definitions of distance zones and their application to the True North project area:

Foreground landscape – Up to ½ mile from Olnes and Haystack subdivisions. Content of views include residential development and associated outbuildings, local and subdivision roads, and large undeveloped areas. Views of immediately surrounding vegetation are predominant outside the residential areas, providing contrast and variety to cleared and developed areas.

Middleground landscape – ½ to 4 miles from the two subdivisions. A variety of residential development patterns, roads, undeveloped hilly terrain and existing True North mine area disturbances are contained in these areas. Some properties in Olnes Subdivision along Luneberg Road (within 1- 1½ miles of the mine site) have relatively unobscured views of the True North mine area's west ridge, while some properties in Haystack Subdivision (within 4 miles of the project area) have more obscured views of the mine site due to distance, topography, and vegetation.

Background landscape – Distant views over 4 miles. Because of location, terrain and topography, the distant views are not particularly strong or vivid. There are no large distant mountain ranges viewable from Olnes Subdivision, and only a relatively few areas high in the Haystack Subdivision have such views. The terrain is rounded landforms, with some contrasting vegetation, but limited variety of colors, textures, and vividness.

### **Scenic Integrity**

The affected area has been altered. Residential homes, roads and associated residential development are all significant elements in views. The existing mine roads, exploration benches and other related activities at the mine site area also are more distant view elements. The overall project area has been disturbed to varying degrees

and is evident to foreground, middleground and distant viewers. The immediate Olmes and Haystack subdivision areas provide a “low to moderate” scenic integrity, while middleground and distant views provide a “moderate” level of scenic integrity.

## Evaluation

In the absence of more complete documentation and analysis of sensitive viewing constituents, and appropriate visual simulations and analysis of proposed mining activities, it is concluded:

- Because of its relative proximity, Olmes subdivision residents would be cognizant of visual changes in the landscape due to the True North project. However, several of the proposed activities affecting their middleground views would be occurring on the east side of the mine site, obscured by distance and topography. The visual impacts from True North project development are assumed to be not significant.
- Haystack subdivision residents have middleground and distant views of the True North project. Unlike Olmes residents, they are located on the north side of the Chatanika River Valley, with a much longer viewing distance. Because of their distanced middleground views (approximately 4 miles or greater), it is assumed that the proposed project development would not have significant visual impacts.

### 4.14.2 ACCESS HAUL ROAD

Visual impacts in the access haul road area are assessed according to the principles and practices as described in *Landscape Aesthetics – A Handbook for Scenery Management* (USFS, 1995). Within the context of these evaluation procedures, there would be no significant visual impacts from construction and operation of the access haul road. The impacts discussion below was taken from LDN, 2000.

From a historical perspective, the area in the vicinity of Cleary Summit has been actively mined for decades and the Fort Knox Mine is active. There should probably be some recognition that the presence of a significantly high number of mining claims in the area indicated that there were possibilities of mineral development in the area and that traffic generation would logically accompany that development.

From the perspective of residents of the Cleary Summit area, the lowest “acceptable levels of quality” would certainly be anything that leads to major distractions from the view of aurora or other night viewing. Anything that would result in lower visitation by tourists would also be unacceptable to those who have lodges or bed and breakfasts.

There also would be strong exception to substantial plumes of dust that could lead to degradation of daytime viewing in the summer as well.

Acceptable levels of visual quality for the visitor public could not include anything that distracted substantially from the aurora viewing. Direct glare from headlights in foreground views or for long periods of time in the middle ground distance would be considered distracting. Considerable dust in the summer would also be a major distraction in the foreground.

#### **4.14.3 LANDSCAPE VISIBILITY**

Cleary Summit and adjacent neighborhoods were considered the areas of most concern to a sensitive viewing public.

Landscape Visibility consists of three elements:

- Use area
- Concern level
- Distance zones

For Cleary Summit, the use area represents high use, both by residents and tourists. The concern level of these users is high, both because residents have purchased homes in order to enjoy the views, but also because visitors to the area also typically have high expectation levels. With this in mind, a summary of scenic classes as it relates to Cleary Summit may be characterized as follows:

- Foreground Views (up to ½ mile distance) -- Foreground view areas provide a “High” Concern Level on the part of viewers. The Scenic Attractiveness of this zone is “Indistinctive.” This provides an overall Scenic Class rating of “1” with an Existing Scenic Integrity rating of “Low to Moderate.”
- Middleground Views (up to 4 miles distance) -- Middleground views have a “High” Concern Level on the part of viewers. The Scenic Attractiveness of this zone is “Indistinctive.” This provides an overall Scenic Class rating of “2” with an Existing Scenic Integrity rating of “Moderate.”
- Background Views -- Background views have a “High” Concern Level. The Scenic Attractiveness of this zone is “Distinctive” providing an overall Scenic Class rating of “3” with a “High” level of Scenic Integrity.

## **Opportunity Spectrum**

The US Forest Service evaluates its land management objectives within a zonal classification called “Recreation Opportunity Spectrum” (USFS, 1995). This represents the spectrum of uses within which activities occur in the landscape and the “evidence of humans.” This then helps the management of lands, recognizing current use on the land and the setting in which it occurs. This also helps determine whether specific uses are appropriate within the setting and spectrum in which they occur. The evaluation considers issues such as size of the area being evaluated, its remoteness, the evidence of humans, the type and number of encounters, and the managerial setting.

The Cleary Summit area would be classified within the Recreation Opportunity Spectrum as a “Rural” area. This suggests that modification to the area would be expected. Table 4.14-1 depicts Scenic Integrity Objectives as classified by the U.S. Forest service (1995).

## **Evaluation**

The evaluation of impacts addresses three views from Cleary Summit. The first is from the neighborhood located west of the Steese Highway (Cleary Summit Subdivision). The second is from residences and bed and breakfast establishments located just east of the Steese Highway (Skiland Subdivision). The third is from the Skiland parking lot where the majority of aurora viewing takes place.

## **Summer**

All access haul route alternatives, including FGMI’s preferred access haul road (Alternative 5), would provide an alignment that would largely be within middleground view areas. The location of FGMI’s preferred alternative has been altered through the public review process to remove almost all foreground views from the key sensitive viewpoints. The middleground is a zone that has been modified over time. From all three viewpoints defined above, existing views include roadways and other intrusions into the natural landscape. This is an area that has been managed over a period of time in a way that would be considered to be a “rural” area as opposed to a “primitive” or “natural” area. The viewing public is highly sensitive to change in the area as reflected in the “constituent” and “landscape visibility” evaluations. Still, the modification of the

roadway and the frequency of truck traffic (1 truck per 4 minutes) still would fall within the expectations of a rural setting.

<b>Table 4.14-1</b>					
<b>Scenic Integrity Objectives</b>					
<b>Recreation Opportunity Class</b>	<b>Very High</b>	<b>High</b>	<b>Moderate</b>	<b>Low</b>	<b>Very Low</b>
Primitive	Norm	Inconsistent	Unacceptable	Unacceptable	Unacceptable
Semi Primitive Non Motorized	Fully Compatible	Norm	Inconsistent	Unacceptable	Unacceptable
Semi Primitive Motorized	Fully Compatible	Fully Compatible	Norm	Inconsistent	Unacceptable
Roaded Natural Appearing	Fully Compatible	Norm	Norm	Norm	Inconsistent
Rural	Fully Compatible	Fully Compatible	Norm	Norm	Inconsistent
Urban	Fully Compatible	Fully Compatible	Fully Compatible	Fully Compatible	Not Applicable

Perhaps the most substantial concern would be for dust that would be generated. This could be an annoying and distracting feature if dust control mitigation were not implemented. As discussed in Section 2.3.21 (Mitigation), however, FGMI would control dust using several mitigation measures. Overall, the summer impacts of the new road and associated traffic would be of minor visual significance from any of the three views.

## **Winter**

**Cleary Summit Subdivision** -- Key views from this subdivision would be to the east. A view would be afforded of a road following the terrain at a distance of over ½ mile, below the existing Fish Creek Road. Vehicle lights would not shine directly into windows, thus most light that would be seen would be incidental. Winter visual impacts from this location should be considered of negligible significance. Figure 4.14-1 presents the existing view and a simulation of a view with the access haul road for Alternatives 3 and 5 (FGMI's preferred alternative) from a residence at Cleary Summit Subdivision.

**Skiland Subdivision** -- Key views from this location are to the south, looking towards Fairbanks and the Alaska Range. All access haul route alternatives, including FGMI's preferred access haul road (Alternative 5), would provide middleground views of the road and traffic. The primary concern would be for lights that could shine through windows. The total amount of time that a truck would be visible from this location, assuming a travel speed of 30 mph, would be approximately two minutes for a viewer looking to the west and approximately one minute for a viewer looking to the south.

**Existing view from Cleary Summit Subdivision looking Southeast (Alternative 1)**



**Alternatives 3 and 5**



**Figure 4.14 - 1**