

Grass Valley CA 95945
January 14, 2009

City of Grass Valley
Planning Commission
125 East Main Street
Grass Valley CA95945

This is a review and commentary of the (in)adequacy of the Idaho-Maryland Mine Project 4.13-23 ESA / 205379 Draft Environmental Impact Report (DEIR) October 2008, Section 4.13 Transportation and Traffic.

Section 4.13 Transportation and Traffic of the DEIR is judged by this reader to be totally inadequate. The existing DEIR Transportation and Traffic Section attempts to obfuscate the absence of an adequate report by burying the section in excessive, disconnected data, focusing only on a few aspects of intersections. Conclusions are absent or buried in the data included in the existing DEIR.

A traffic report should describe a *network*, not unlike the internet web. A transportation network consists of three elements:

1. Links (streets, road, highways, etc. that connect nodes)
2. Nodes (intersections and terminations)

The purpose of the network exists to facilitate the flow of

3. Traffic (cars, trucks, pedestrians, emergency vehicles, etc.)

1. Links have descriptive characteristics, such as:

- a. Length (travel time and capacity)
- b. Width (lanes)
- c. Linearity and curvature
- d. Level and slope
- e. Surface construction (designed for light or heavy traffic)
- f. Access control (freeway, highway, expressway, street, alley, sidewalk)
- g. Shared traffic (motorized vehicles, bicycles, pedestrians)

2. Nodes have descriptive characteristics, such as:

- a. Access control (traffic lights, stop and yield signs, roundabouts)
- b. Number of tributaries (three or more)
- c. Delay (traffic control algorithm)

3. Traffic has descriptive characteristics, such as:
 - a. Vehicle types (trucks, cars, buses, vans, bicycles, pedestrians, etc. also emergency vehicles, such as fire trucks and ambulances)
 - d. Cargo carried
 - Passengers
 - Non-hazardous freight
 - Hazardous (controlled) freight
 - Waste (rock, gravel, garbage, recyclables, compostables)
 - e. Vehicle size (length and height)
 - f. Vehicle weight and number of axels & tires
 - g. Vehicle width (relative to the maximum permissible on city streets and highways)
 - h. Sound level by vehicle type (engine, tires and brakes ~ during idling, acceleration, steady velocity, and deceleration)
 - i. Exhaust emissions, both idling and moving
 - j. Routes traversed by vehicle type (initial terminal, path through the network, destination terminal)
 - k. Diurnal and weekly patterns [subject to statistical analysis] (hours of operation, peak hours, vehicles per hour, total number of vehicles in network)

The above suggested list is not intended to be exhaustive.

Proposed mining traffic flowing through the links and nodes of the network will necessarily interact with the existing Grass Valley traffic network. The description of the interactions is the purpose of the Transportation and Traffic Report. Interactions include total accumulations for the following:

- Congestion, producing delays
- Safety (both from moving vehicles and hazardous cargo)
- Noise
- Pollution (exhaust, materials escaping from trucks)
- Road wear and maintenance (burden on taxpayers?)
- Mitigating network enhancements [new construction] (burden on taxpayers?)

A reading of the existing DEIR demonstrates that very little of the above list of characteristics of the traffic network associated with the Idaho-Maryland Mine project is addressed in the DEIR. The interaction of the existing Grass Valley traffic network with the proposed Mine traffic is almost completely absent from the existing DEIR. The existing report focuses almost exclusively on Level of Service of Nodes without describing the types of vehicles passing through the nodes and little about the roads leading to or from the nodes. Astonishingly, there is no description of the vehicles that would be driving into and out of the mine area, the routes taken by the various types of vehicles, the cargo being hauled through the Grass Valley network, and the destinations.

Kent Penwarden
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For instance, it might be assumed that large trucks hauling waste rock will be driving through the new roundabout at the intersection of Idaho-Maryland Road and Main Street, which could cause a congested choke point for local commute traffic. Large slow trucks laden with rock attempting to merge onto Highway 20-49 will certainly create a freeway traffic hazard while trying to come up to speed. Where are these trucks going with their loads?

Because of the absence of the majority of the characteristics of an adequate traffic study, and because of the blatant obfuscation of concepts and conclusions with pointless, excessive data, the existing DEIR Transportation and Traffic report is judged to be completely inadequate. It seems unlikely that the existing DEIR Transportation and Traffic section could be modified to make it adequate for the City of Grass Valley to make any judgment. An entirely new report is called for.

Sincerely,

Kent Penwarden
Telecommunications Systems Engineer, Retired