CHECKLIST ENVIRONMENTAL ASSESSMENT
FINAL

Project Name: Peschel site **Proposed Implementation Date:** May 15, 1996
Proponent: Schellinger Construction
Type and Purpose of Action: The applicant proposes to mine, crush, stockpile and haul approximately an additional 250,000 cubic yards of gravel from an existing pit located 4 miles west of the town of Whitefish. The area has been clear cut and burned. The mine expansion will leave a level bottomed forest with smooth-graded slopes when completed. The slopes will be covered with topsoil and seeded with trees.
Location: S¼ SE¼ Sec 31, T31N, R22W **County:** Flathead

N = Not present or No Impact will occur.
Y = Impacts may occur (explain under Potential Impacts).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?	[Y] The proposed mine is located in the fault-blocked Stillwater River Valley in the north end of the Rocky Mountain Trench which lies between two major mountain ranges. The deposit is composed of stratified layers of sand and gravel overlain by a layer of sandy loam topsoil left from retreating continental glaciers around 10,000 years ago. Tertiary sediment fills the bottom of the valley and the more recent Quaternary glacial debris forms a layer on the surface. Many pothole lakes dot the local landscape from melting blocks of glacial ice. The billion year old Precambrian rock of the Belt Series limestone and quartzite rocks surround the deposit in towering walls of the Whitefish Range to the east and the less dramatic Salish Mountains to the west. The upper elevations of the Whitefish mountains were sculpted by alpine glaciers. Up to ten inches of topsoil will be salvaged and stockpiled for reclamation. Local terrace slopes demonstrate reasonably good stability with native soils. Following mining, the topsoil will be replaced, disked and seeded to stabilize the soil and prevent erosion. Microbes will re-colonize the soil.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] Except for fuel and lubricants in mobile tanks and equipment working in the pit, all fuel and other potential water contaminants will be stored out of the mine site. All spills (including those from mobile equipment) will be excavated and removed immediately. The nearest surface water is the Stillwater River located ½ mile west, across Highway 93. The river is located far enough away that no effect is expected from the mine.

3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[Y] Loaders, screens and trucking equipment typically cause dusty conditions in disturbed soil sites. Water bars, road watering and other dust controls will be used as necessary. Applicable federal regulations for air quality which are implemented by the state are the Standards of Performance for New Stationary Sources, 40 CFR Part 60, Subpart OOO (Nonmetallic Mineral Processing Plants). Subpart OOO sets an opacity limitation on fugitive dust emissions from the gravel crushing and handling operations.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?	[Y] The additional area disturbed under this amendment would be approximately 7.5 acres. The area vegetation consists of Ponderosa Pine and Douglas Fir with pinegrass, kinnikinick and oregon grape. The merchantable sawtimber has been harvested. The remaining vegetation would be cleared from the site and burned with the logging slash. Large dead woody material and the duff layer would be stockpiled. At the completion of mining, the site would be reclaimed and planted with 300 ponderosa pine and douglas fir containerized seedlings per acre. Vegetation that is damaged or destroyed in conjunction with crushing and stockpiling operations will also be reclaimed by scarifying disturbed sites and planting trees and seeding grass. Knapweed plants that grow later after reclamation is complete will be infested with seed head gall flies to reduce seed generation, and the trees that are planted will choke out the surviving plants as the forest canopy grows and absorbs the available sunlight. Natural regeneration of trees, brush and grasses will supplement tree planting and grass seeding. Native vegetation will be removed and will be replaced with trees and grass species compatible with the proposed reclaimed use. Some native seed will remain viable in the salvaged topsoil and will re-generate. Under ideal conditions, trees and other native species from undisturbed, adjacent land will re-invade the topsoiled areas of the site.

5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] The general area sustains populations of white-tailed deer, elk, moose, black bears, mountain lions, and a variety of other animal species. Most of these species will be displaced from the mine area as the mine proceeds through development and closure. The proposed expansion is not expected to significantly affect populations of terrestrial, avian, or aquatic species in the area and reclamation would restore habitat values.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N] Grizzly Bears: The site is near the Stillwater Bear Management Unit, a part of the Northern Continental Divide Ecosystem. It is within a ½ mile corridor along Hwy 93 that is managed to discourage grizzly bears. It is also near the Upper Stillwater Lake home range for a pair of nesting bald eagles. There may be habitation in the area by the Gray Wolf. Grey Wolf: The proposed changes to vegetation would increase big game forage production and may result in big game use. This would be beneficial to the maintenance of the wolf prey base. Overall prey base numbers and distribution would not substantially change. Bald eagles: Bald eagles range all along the Stillwater River Valley but no eagle nests are known near the proposed expansion area. Disturbances contributed by this expansion will not increase above the existing disturbances currently under permit. The gravel operations should, therefore, not impact potential nesting along the Swan River. No adverse effects are anticipated on bald eagles.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] Although there are important cultural values in the general area, this site has been previously disturbed by modern man, thus destroying the integrity of resources that may have existed. A surface reconnaissance did not discover any cultural, historical or archeological resources. The operator will give appropriate protection to any values or artifacts discovered in the affected area. If significant resources are found, the operation will be routed around the site of discovery for a reasonable time until salvage can be conducted. The State Historical Preservation Office will be promptly notified.

8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] The site is partially visible by traffic along Highway 93 where clear cuts are now common. Floodlights from dark period operations increase visibility and awareness of the operation. A 100 foot screen of trees separates the site from traffic along Hwy 93 and will minimize aesthetic affects on motorists traveling Highway 93. The nearest residence is located nearby, along the haul road. Noise from gravel operations is not likely to change from existing levels. Noise levels are generally within the range of 60 to 90 decibels measured on-site, decreasing with distance. As a comparison, sound levels for ordinary activities such as close conversation at 60 decibels and music from a radio at 70 decibels are considered to be moderate. Levels above 90 decibels are severe, and prolonged exposure can lead to hearing loss. Because the crusher, loaders and other noise generating equipment would be located at least 300 feet back from the road, behind a buffer of trees, effects from noise and light would be reduced to the highway. There is also noise from truck traffic hauling to and from the highway. These impacts are intermittent and of relatively short duration. There is a temporary deterioration of aesthetics while the operation is under way. However, reclamation will return the area to a visually acceptable landscape.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[N]
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?	[N]
IMPACTS ON THE HUMAN POPULATION	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[Y] Heavy equipment and facilities including crushers, asphalt plants, trucks, loaders and screens will create hazards, but the operator must comply with all MSHA and OSHA regulations.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[Y] The acreage listed in the Type and Purpose of Action will be taken temporarily out of wildlife habitat and timber production, and put into industrial/commercial use. Upon reclamation, the land will be returned to its original use.

13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	[Y] The operation will require periodic site evaluations by DEQ staff. However, these evaluations are usually performed in conjunction with other area operations.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] County zoning does not affect this expansion of an existing operation.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N]
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

22. Alternatives Considered:
1. No Action: Pit expansion would not be permitted and impacts would not occur at this location. Another site would be selected that would move impacts to another location and increase costs of local projects. The owner of the gravel resource would be denied full utilization of his property at this time.
2. Approval of the application: The application would be approved with the existing Plan of Operations.

23. Public Involvement, Agencies, Groups or Individuals contacted: None

24. Other Governmental Agencies with Jurisdiction, List of Permits Needed:
Montana Department of Health and Environmental Science, Air Quality Bureau for Air Quality Permit; Mine Safety and Health Administration for safety permit; Montana Department of Labor & Industry, Bureau of Safety for safety permit.

25. Magnitude and Significance of Potential Impacts:
Impacts are unlikely to be significant because, other than an increase in disturbed acres and possibly the time required for depletion, the proposed expansion will not increase activity levels above those already permitted.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Prepared By: Rod Samdahl (Name) | Reclamation Specialist (Title)

Approved By: _____ (Name) | _____ (Title)

_____ (Signature) | _____ (Date)