

CHAPTER 3.0

Alternatives and Cumulative Projects

This section documents (1) the range of alternatives that were evaluated; (2) the approach and methods used to screen the feasibility of these alternatives according to guidelines established under CEQA; and (3) the results of the alternatives screening. This section is organized as follows: Section 3.1 is an overview of the alternatives screening process; Section 3.2 describes the methodology used for alternatives evaluation; Section 3.3 presents a summary of which alternatives have been selected for full EIR analysis and which have been eliminated based on CEQA criteria Section 3.4 describes the alternatives that have been retained for full EIR analysis, including the No Project alternative; and Section 3.5 presents descriptions of each alternative that were eliminated from EIR analysis and explains why each was eliminated. Finally, Section 3.6 identifies and describes the other past, present, and reasonably foreseeable future projects that are considered in the cumulative impact analysis for this EIR.

3.1 Alternatives Development and Screening Process

One of the most important aspects of the environmental review process is the identification and assessment of reasonable alternatives that have the potential for avoiding or minimizing the impacts of a proposed project. In addition to mandating consideration of the No Project Alternative, CEQA Guidelines (Section 15126(d)) emphasize the selection of a reasonable range of technically feasible alternatives and adequate assessment of these alternatives to allow for a comparative analysis for consideration by decision makers. CEQA Guidelines state that the discussion of alternatives shall focus on alternatives capable of eliminating or reducing significant adverse environmental effects of a proposed project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. However, CEQA Guidelines declare that an EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote or speculative.

Alternatives to the proposed project were developed to lessen those impacts that, through analysis of the proposed project, would result in significant unavoidable impacts. In total, the alternative screening process developed and screened five potential alternatives to avoid air quality impacts related to NO_x, ROG, PM₁₀, and CO₂ (a greenhouse gas).

3.2 Alternatives Screening Methodology

The process of selecting alternatives for the Idaho-Maryland Mine Project involved the following sequence of steps:

- (1) Identification of project goals and objectives;
- (2) Identification of potentially significant impacts from the proposed project;
- (3) Development of a reasonable range of alternatives;
- (4) Development of evaluation criteria for feasibility;
- (5) Evaluation of alternatives based on comparative environmental impact assessment; and
- (6) Identification of those alternatives that met the criteria and explanation of why some alternatives were rejected as infeasible.

3.2.1 Consistency with Project Objectives

CEQA Guidelines require the consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may “impede to some degree the attainment of project objectives” (Section 16126.6(b)). Therefore, it is not required that each alternative meet all of IMMC’s goals and/or objectives.

Proposed Project Goals and Objectives

The basic goals and objectives of the Proposed Project are to:

- Dewatering and rehabilitating the historic Idaho-Maryland Mine workings;
- Conducting underground resource exploration and development;
- Developing the industrial mineral and gold ore deposits;
- Processing the precious and industrial mineral deposits to produce gold and manufactured stone and ceramic building products;
- Operating and maintaining these facilities for the life of the project (estimated to be 20 or more years, based on current projections); and
- Performing reclamation activities at the project sites at the conclusion of the project.

3.2.2 Feasibility

CEQA Guidelines (Section 15364) define feasibility as:

. . . capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

In addition, CEQA requires that the Lead Agency consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries, and proponent’s control over alternative sites in determining the range of alternatives to be evaluated in the EIR (CEQA Guidelines Section 15126.6(f)). Feasibility can include three components:

- **Legal Feasibility:** Does the alternative have the potential to avoid lands that have legal protections that may prohibit or substantially limit the feasibility of permitting a gold mine and ceramic plant?
- **Regulatory Feasibility:** Does the alternative have the potential to avoid lands that have regulatory restrictions that may substantially limit the feasibility of, or permitting of, a gold mine and ceramics plant within a reasonable period of time?
- **Technical Feasibility:** Is the alternative feasible from a technological perspective, considering available technology?

For the screening analysis, in addition to legal, technical, and regulatory feasibility of potential alternatives, other CEQA required parameters (i.e., site suitability, economic viability, etc.) were assessed. The assessment was directed toward reverse reason; that is, a determination was made as to whether there was anything about the alternative that would be infeasible on technical, legal, regulatory or other CEQA required parameters.

This screening analysis does not focus on relative economic factors or costs of the alternatives (as long as they are found to be economically feasible) since CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may “impede to some degree the attainment of project objectives or would be more costly” (CEQA Guidelines Section 16126.6(b)).

Selected alternatives had to meet both criteria – attainment of basic project goals and objectives, and feasibility – to be considered for further analysis in the EIR.

3.2.3 Potential to Eliminate Significant Environmental Effects

CEQA requires that to be fully considered in an EIR, an alternative must have the potential to “avoid or substantially lessen any of the significant effects of the project” (CEQA Guidelines Section 16126.6(a)).

The primary significant and unavoidable environmental impact associated with implementation of the proposed project would be associated potential for degradation of local and regional air quality due to emissions associated with construction, operation and reclamation activities; specifically, the emissions associated with the ceramics plant and above- and below-ground mobile sources. Other resource areas evaluated in this EIR were determined to have the potential for significant impacts with implementation of the proposed project; however, the analysis concluded that all identified impacts could be mitigated to less than significance with proper implementation of the mitigation measures identified in this EIR.

Accordingly, alternatives were limited to those that could avoid or lessen air quality impacts. At the screening stage, it is neither possible, nor legally required, to evaluate all of the impacts of the alternatives in comparison to the proposed project with absolute certainty, nor is it possible to quantify impacts. However, it is possible to identify elements of an alternative that are likely to be

the sources of impact and to relate them, to the extent possible, to general conditions in the project area.

3.3 Summary of Screening Results

Table 3-1 provides a composite list of the alternatives considered and the results of the screening analysis with respect to the criteria findings for consistency with project objectives, feasibility and environmental effectiveness. Alternatives carried forward for full EIR analysis are listed below in Section 3.3.1. Alternatives eliminated from further consideration follow in Section 3.3.2.

3.3.1 Alternatives Analyzed in the EIR

The alternatives listed below are those that have been selected through the alternative screening process for detailed EIR analysis; the No Project alternative is also included as required by CEQA. Each of the alternatives would substantially meet project objectives, would be feasible, and would reduce potential environmental effects of the proposed project related to Air Quality.

- Electrification of Mine Operations;
- Reduced Ceramics Plant Production;
- Electrification of Mine Operations and Reduced Ceramics Plant Production; and
- No Project.

3.3.2 Alternatives Eliminated from EIR Consideration

The alternatives that have been eliminated through the alternative screening process from EIR analysis are listed below. As summarized in Table 3-1, these alternatives have been eliminated due to project objectives and feasibility concerns. The rationale for elimination of each alternative is summarized in Table 3-1 and is described in greater detail in Section 3.5.

- Electrification of Ceramics Plant;
- Night-Time Operations Limitations; and
- Off-site Ceramics Plant.

**TABLE 3-1
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS
IDAHO-MARYLAND MINE PROJECT**

Alternative	Project Objectives Criteria	Feasibility Criteria	CEQA Guidelines Section 15126.6(f) Parameters	Environmental Criteria
<i>Passes Screening</i>				
<p>Electrification of Mine Operations</p> <ul style="list-style-type: none"> • Electrification of underground equipment specified in an Electrification Plan • Construction of 1600 level electric conveyor system • Modification of ventilation shaft and construction of hoist house and head-frame 	Meets all project objectives.	Meets feasibility criteria.	<p><u>Site suitability</u>: same as proposed project <u>Economic viability</u>: yes <u>Availability of Infrastructure</u>: similar to proposed project <u>General Plan Consistency</u>: same as proposed project <u>Proponent's control over alternative sites</u>: not applicable</p>	<p>Meets environmental criteria, although some impacts associated with the proposed project would increase.</p> <p><u>Air Quality</u>: would reduce emission of criteria pollutants <u>Energy</u>: would increase electrical consumption.</p>
<p>Reduced Ceramics Plant Production</p> <ul style="list-style-type: none"> • Reduce ceramics production by 50% • Increase production of aggregate and/or increased backfill 	Meets most project objectives	Meets feasibility criteria.	<p><u>Site suitability</u>: same as proposed project <u>Economic viability</u>: yes <u>Availability of Infrastructure</u>: same to proposed project <u>General Plan Consistency</u>: same as proposed project <u>Proponent's control over alternative sites</u>: not applicable</p>	<p>Meets environmental criteria, although some impacts associated with the proposed project would increase.</p> <p><u>Air Quality</u>: would reduce emission of criteria pollutants. <u>Energy</u>: would decrease natural gas consumption consumption.</p>
<p>Electrification of Mine Operations and Reduced Ceramics Plant Production</p> <ul style="list-style-type: none"> • Electrification of underground equipment specified in the Electrification Plan • Construction of 1600 level electric conveyor system • Modification of ventilation shaft and construction of hoist house and head-frame • Reduce ceramics production by 50% • Increase production of aggregate and/or increased backfill 	Meets most project objectives	Meets feasibility criteria.	<p><u>Site suitability</u>: same as proposed project <u>Economic viability</u>: yes <u>Availability of Infrastructure</u>: same to proposed project <u>General Plan Consistency</u>: same as proposed project <u>Proponent's control over alternative sites</u>: not applicable</p>	<p>Meets environmental criteria, although some impacts associated with the proposed project would increase.</p> <p><u>Air Quality</u>: would reduce emission of criteria pollutants <u>Energy</u>: would increase electrical consumption and decrease natural gas consumption.</p>

**TABLE 3-1 (Continued)
SUMMARY OF ALTERNATIVES SCREENING ANALYSIS
IDAHO-MARYLAND MINE PROJECT**

Alternative	Project Objectives Criteria	Feasibility Criteria	CEQA Guidelines Section 15126.6(f) Parameters	Environmental Criteria
Fails Screening				
<p>Ceramic Plant Electrification</p> <ul style="list-style-type: none"> No changes to surface development Electrify kiln associated with ceramics production 	Meets project objectives.	Fails to meet technical feasibility.	<p>Meets CEQA Guidelines Section 15126.6(f) parameters.</p> <p><u>Site suitability</u>: same as proposed project <u>Economic viability</u>: same as proposed project <u>Availability of Infrastructure</u>: similar to proposed project <u>General Plan consistency</u>: same as proposed project <u>Proponent's control over alternative sites</u>: not applicable</p>	<p>Meets environmental criteria, although some impacts associated with the proposed project would increase.</p> <p><u>Air Quality</u>: would reduce emission of criteria pollutants <u>Energy</u>: would increase electrical consumption</p>
<p>Night Time Operations Limitation</p> <ul style="list-style-type: none"> No changes to surface development Reduced operations of mine, mill and ceramics plant to 12 hours Potentially doubling life of project (i.e., increase for approximately 20 years to 40 years) 	Meets project objectives.	Meets technical feasibility.	<p>Fails to meet CEQA Guidelines Section 15126.6(f) parameters.</p> <p><u>Site suitability</u>: same as proposed project <u>Economic viability</u>: no <u>Availability of Infrastructure</u>: similar to proposed project <u>General Plan consistency</u>: same as proposed project <u>Proponent's control over alternative sites</u>: not applicable</p>	<p>Meets environmental criteria, although other impacts would remain similar to the Proposed Project.</p> <p><u>Air Quality</u>: would reduce operational emissions. <u>Noise</u>: would reduce operational noise Traffic and Transportation: would reduce daily truck trips</p>
<p>Off-Site Ceramics Plant</p> <ul style="list-style-type: none"> Reduces surface development Eliminates natural gas usage on the Idaho-Maryland site Requires hauling of material to an off-site location 	Meets project objectives.	Meets technical feasibility.	<p>May meet CEQA Guidelines Section 15126.6(f) parameters.</p> <p><u>Site suitability</u>: exact off-site location unknown <u>Economic viability</u>: yes <u>Availability of Infrastructure</u>: exact off-site location unknown <u>General Plan Consistency</u>: exact off-site location unknown <u>Proponent's control over alternative sites</u>: exact off-site location unknown</p>	<p>Fails to meet environmental criteria and would result in greater Air Quality Impacts</p> <p><u>Air Quality</u>: would not reduce operational emissions; would increase ROG, CO, NO_x, CO₂, PM10, PM 2.5 due to the increased haul distance and associated exhaust emissions of trucks from the Idaho-Maryland site to an off-site ceramics plant.</p>

3.4 Alternatives Evaluated in this EIR

3.4.1 Electrification of Mine Operations

Description

Under this alternative, operations would be redesigned to utilize, where feasible, electrically powered equipment in underground operations to substantially reduce air emissions. Under this alternative, IMMC would construct and operate an electric trolley/conveyance system on the 1600 level which would substantially reduce the number of diesel trucks required underground. Due to the complexity of the underground mine workings, it is not possible at this time to determine specifically which other diesel equipment could be replaced with electrical equipment. Therefore, IMMC would be required to develop an Electrification Plan to be submitted to and approved by the City of Grass Valley before underground production could commence. This plan would be developed after Phase 1 Construction so that the mine would be dewatered and access to the underground workings would be available for planning. The plan would include specific information regarding which underground equipment within the mine could and would be replaced with electrical equipment as well as documentation as to why other equipment could not be replaced with electrical equipment. Trucks would still be utilized to transport finished gold and ceramics products from the site to delivery destinations.

During Phase I Construction, under the electrification alternative, there would on be no major decline on the Idaho-Maryland site¹. Instead, there would be a short decline and conveyor system from the surface to the Idaho-Maryland Shaft only. An electric trolley/conveyance system would be installed on the 1600 level of the mine and be developed from both the New Brunswick Shaft and Idaho-Maryland Shaft simultaneously. Therefore, until the two sites are connected, development rock would be hoisted up through both the Idaho-Maryland and New Brunswick Shafts. Development rock from the New Brunswick site would be hauled to the Idaho-Maryland Site for processing. It is estimated that it would take approximately one year to develop the 1600 level. A shuttle from the Idaho-Maryland site to the New Brunswick site and back, to transport workers, would be required. A three-way stop would be installed at the New Brunswick site entrance. (Note: The analysis of the proposed project in Chapter 4, *Environmental Analysis*, includes the development of infrastructure for transport of all ore and waste materials underground to the mill located on the Idaho-Maryland site. Accordingly, analysis of this alternative will focus on the electric trolley/conveyance system, as the development of the underground infrastructure is analyzed as part of the proposed project.)

Once the connection of the 1600 level is made, development rock would continue to be hoisted at the New Brunswick and Idaho-Maryland site; however, at the New Brunswick Shaft, it would be hoisted only to the 1600 level and then transported underground to the Idaho-Maryland site via the electric trolley/conveyance system to the Idaho-Maryland Shaft, then hoisted to the decline conveyor and transferred to surface stockpiles. Phase I and II Operations would continue to use

¹ This would eliminate the decline going under the Whispering Pines Business Park.

the New Brunswick Shaft; however, in order to facilitate hoisting from this shaft, the location of the water treatment plant and the hoist and head-frame associated with the shaft would need to be switched.

The existing ventilation shaft, to be developed during Phase I Construction under the proposed project, would be modified to accommodate increased production during Phase III of operations. Modification would require widening the ventilation shaft by approximately 10 feet using conventional blasting techniques. Material removed from the shaft would be transported to the Idaho-Maryland site via the electric trolley/conveyance system.

The hoist house and head-frame for this shaft would be approximately 4,200 square feet. The hoist house would be a pre-engineered structure that would follow historic mining building architecture not to exceed 20 feet in height. The head-frame would be a steel structure approximately 65 feet high supporting the wire rope and sheave wheel system for the underground mine hoist. A satellite storage yard would also be located at the New Brunswick site and would be supplied from the main storage yard on the Idaho-Maryland site.

Rationale for Full Analysis

Project Objectives

The alternative would allow for full attainment of all project objectives.

Feasibility

This alternative would meet all legal, regulatory and technical feasibility criteria.

Lessen Significant Environmental Impacts

This alternative would result in a net reduction in construction and operations emissions for ROG, NO_x, and CO₂.

Potential New Impacts Created

Other potential impacts and recommended mitigation measures would be unchanged relative to the proposed project for this alternative.

3.4.2 Reduced Ceramics Plant Production

Description

This alternative consists of reducing the production of the ceramics plant to cut its energy (natural gas) demand and related air emissions. Assuming that above a minimum threshold, energy demands are linear in relation to the production output of the plant, reducing the production of the plant by 50 percent would result in a roughly equivalent reduction in air emissions. The ceramics plant, as currently designed, would be able to process nearly all of the residual rock from the

mining operations; therefore, reducing the production of the plant would result in the need to dispose of an increased amount of residual rock either by backfill to the underground workings or by off-site transport as a variety of construction aggregate products. The size of the proposed ceramics plant would not change under this alternative, nor would the number of employees required.

To accommodate increased aggregate production, a small permanent electric crushing and screening plant would be installed at the Idaho-Maryland site in the temporary stockpile area. This plant would produce a variety of aggregate materials for sale. Crushing would occur on the dayshift only, batching material throughput as required.

Rationale for Full Analysis

Project Objectives

This alternative allows attainment of most of the project's goals and objectives.

Feasibility

This alternative would meet all legal, regulatory, and technical feasibility criteria.

Lessen Significant Environmental Impacts

This alternative would reduce construction and operations emissions for ROG, NO_x, and CO₂.

Potential New Impacts Created

Other potential impacts and recommended mitigation measures would be unchanged relative to the proposed project for this alternative.

3.4.3 Electrification of Mine Operations and Reduced Ceramics Plant Production

Description

This alternative would be a combination of the electrification of mine operation alternative describe above under Section 3.4.1 and reduction of ceramics plant production described above under Section 3.4.2. Combination of these two alternatives would reduce construction and operational emissions for ROG, NO_x and PM₁₀ to a greater extent than either alternative alone. Depending on the phase of construction and operations, ROG and NO_x could be reduced approximately 40 to 60 percent and PM₁₀ could be reduced by 15 percent or less (assuming 60 percent electrification would be attainable). PM₁₀ would not be reduced to as great an extent since the majority of particulates would be associated with fugitive dust, which would not be reduced by this alternative. In addition, the PM₁₀ emissions already account for dust suppression mitigation. Natural gas combustion associated with the ceramics plant operation is one of the major sources of CO₂ for this

project, and with electrification of equipment as well, CO₂ emissions would be reduced by approximately 25 to 35 percent during operations under this alternative.

Rationale for Full Analysis

Project Objectives

This alternative allows attainment of most of the project's goals and objectives.

Feasibility

This alternative would meet all legal, regulatory, and technical feasibility criteria.

Lessen Significant Environmental Impacts

This alternative would result in a net reduction in construction and operations emissions for ROG, NO_x, and CO₂.

Potential New Impacts Created

Other potential impacts and recommended mitigation measures would be unchanged relative to the proposed project for this alternative.

3.4.4 No Project Alternative

CEQA requires an evaluation of the No Project Alternative so that decision makers can compare the impacts of approving the project with the impacts of not approving the project. According to CEQA Guidelines (Section 15126.6[e]), the No Project Alternative must include:

- (a) the assumption that conditions at the time of the Notice of Preparation (i.e., baseline environmental conditions) would not be changed since the Proposed Project would not be installed, and
- (b) the events or actions that would be *reasonably expected to occur in the foreseeable future* if the project were not approved. The first condition is described in the EIR for each environmental discipline as the "environmental baseline," since no impacts of the Proposed Project would be created. This section defines the second condition of reasonably foreseeable actions or events. The impacts of these actions are evaluated in each issue area's analysis in Section 4 under the heading No Project Alternative.

Under the No Project alternative, the Proposed Project would not be implemented. The property would not be annexed to the City of Grass Valley and the City's General Plan would not be amended to reflect a land use change from urban medium density/business park to M-2/MR, General Industrial/Mineral Resources. Dewatering of the underground mine workings and development of the Idaho-Maryland, New Brunswick and Round Hole sites for gold mining and ceramics production would not occur nor would the proposed reclamation plan be implemented. In essence, the sites would remain as is, and subject to urban development consistent with

existing land use designations. This alternative precludes extraction of mineral resources that are identified by the State of California as important mineral resources.

Currently, the Idaho-Maryland and New Brunswick sites are located in unincorporated Nevada County and the Round Hole site within the City of Grass Valley. While the Idaho-Maryland and New Brunswick sites are currently unincorporated, the City of Grass Valley identifies the two sites as being within its Sphere of Influence (SOI), which is the probable ultimate physical boundaries and service area of a city as determined by the Local Agency Formation Commission (LAFCO) for each county.

Under the No Project alternative, it is reasonably foreseeable that the proposed project sites would be developed in accordance with applicable plans and local ordinances as follows:

Idaho-Maryland Site

The Idaho-Maryland Site could be annexed to the City of Grass Valley in the future and developed under its General Plan and zoning designations because any development of that site would require sewage service that would need to be provided by the City. Therefore, the Idaho-Maryland Site would be annexed into the City of Grass Valley with the northern portion of the site being developed as a business park integrated into the larger community for industrial and/or commercial land uses, and the southern portion of the site being developed with a mix of single family detached and attached homes, single family patio homes, duplexes, and/or town houses. Actions would include construction of buildings, roads and infrastructure to facilitate the property development. A neighborhood/pocket park could be built on the Idaho-Maryland site. Additionally, Centennial Drive is planned to be extended beyond Whispering Pines Lane south to Bennett Road before 2015.

New Brunswick Site

The New Brunswick site would be developed in accordance with the Nevada County General Plan and zoning designations with light industrial uses, such as production, repairing, distribution, and warehousing of goods and equipment, along with supporting businesses and services. It is reasonably foreseeable that the New Brunswick site would be annexed into the City in 2011-2015 (according to the Grass Valley Annexation Plan) and developed under its General Plan and zoning designations. The City's designations are similar to the County's designations for the New Brunswick site. Therefore, the site would be developed with comparable uses, which could include typical light manufacturing, automotive services, warehousing/distribution, and wholesale-retail outlet uses.

Round Hole Site

The Round Hole site would be developed in accordance with the City of Grass Valley's General Plan and zoning designations. As with the Idaho-Maryland site, the Round Hole site would be developed as a business park integrated into the larger community for industrial and/or commercial land uses. The site is zoned in the City's Whispering Pines Specific Plan, which is

intended to accommodate various types of development such as professional and administrative offices, industrial parks, commercial service centers, neighborhood and district shopping centers, multifamily housing developments, single family residential developments, and any other use or combination of uses. The Specific Plan specifies that the primary scenic resource in the Specific Plan area is the “dense, uniform Ponderosa pine tree cover” and the “[v]isual prominence of the pine covered skyline [is to] be retained, even at full development.” Development standards specify that “[s]ite landscaping should preserve and enhance the overall wooded character of the site.”

3.5 Alternatives Eliminated from Full EIR Evaluation

As discussed in Section 3.1, alternatives were assessed for their ability to reasonably achieve the project objectives and reduce the significant environmental impacts of the proposed project. Also, their technical, legal, and regulatory feasibility was evaluated. Based on these screening criteria, the alternatives eliminated from EIR consideration are listed above in Section 3.3.2. The rationale for elimination of each alternative is presented below.

3.5.1 Electrification of Ceramics Plant

To substantially reduce air emissions, electrification of the ceramics plant would eliminate natural gas demand and would reduce air emissions associated with the ceramics plant to zero. However, this alternative would require an increase in the demand for electric energy resulting in some incremental increase in air emissions elsewhere in California.

Rationale for Elimination

This alternative meets project objectives and would provide a reduction in air quality emissions associated with the use of natural gas to operate the kilns in the ceramics process. However, this alternative is not technically feasible. IMMC proposes to produce a number of tiles through a single kiln at the same time; therefore, the kiln would need to be relatively wide. Electric kilns require a narrow and smaller cross section than natural gas kilns. Therefore, use of an electric kiln for production as proposed by IMMC would not be feasible. Moreover, industry standards include the use of natural gas kilns as they circulate heat and are not prone to differential heating (i.e., must be maintained continuously at a given temperature) that can result in a lower quality product (Compressed Gas Association Inc., 1999).

3.5.2 Night-Time Operations Limitations

Description

The proposed project includes operations in multiple shifts that could occur 24 hours a day. Another means of substantially reducing air emissions is to limit the operations to 12 hours of daytime only (for example 7:00 AM to 7:00 PM), cutting daily productivity, ceramics plant size, and related energy demands and emissions by approximately half. This alternative would extend the time for

completion of mineral resources extraction by many years, so that mining and ceramics production may occur at the site over about 40 years, rather than about 20 years as now envisioned.

Rationale for Elimination

This alternative would be technically feasible and regulatory feasible, but would not meet the basic project objectives because it would not be economically viable. This alternative would not be economically viable because all proposed capital and exploration expenses for the proposed project would remain unchanged. The alternative would still require all the surface infrastructure, shafts, underground development, mine equipment, underground development, and exploration; however, due to reduced operations, revenue would be decreased by at least 50%. This reduction in revenue makes the alternative not viable from an economic perspective.

3.6 Cumulative Projects

As required by CEQA (Section 15130 et seq. of the CEQA Guidelines), this EIR includes an analysis of “cumulative impacts.” A cumulative impact is created as a result of the combination of the project evaluated in an EIR together with other projects causing related impacts. The purpose of this analysis is to disclose significant cumulative impacts resulting from the construction and operation of the Proposed Project as well as implementation of the Reclamation Plan in combination with other projects or conditions, and to indicate the severity of the impacts and their likelihood of occurrence.

The California Environmental Quality Act (CEQA) Guidelines require that environmental impact reports (EIRs) discuss the cumulative impacts of a project when the project’s incremental effect is “cumulatively considerable,” meaning that the project’s incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. The discussion of cumulative impacts should include:

- Either: (1) a list of past, present, and probable future projects producing related or cumulative impacts; or (2) a summary of projections contained in an adopted general plan or similar document, or in an adopted or certified environmental document, that described or evaluated conditions contributing to a cumulative impact
- A discussion of the geographic scope of the area affected by the cumulative impact
- A summary of expected environmental effects to be produced by these projects
- Reasonable, feasible options for mitigating or avoiding the project’s contribution to any significant cumulative effects

This cumulative impacts analysis follows the CEQA definition (CEQA Guidelines, Section 15355), in which the proposed project impacts are analyzed in combination with potential effects associated with other proposed, planned, and approved projects from the recent past, present, and reasonably foreseeable future (i.e., the cumulative impact scenario) and which can result from individually minor but collectively significant projects taking place over a period of time. The projects that

comprise the cumulative impact scenario do not include existing projects that are currently under construction, completed, or in operation. These existing projects are included as part of the environmental setting (i.e., baseline) for individual issue areas and are analyzed with respect to each resource issue area in Chapter 4.

The list of projects used in the cumulative impact scenario includes projects under the purview of multiple agencies with jurisdiction in the vicinity of the proposed project and are presented in Table 3-2 and Figure 3-1. The projects in the cumulative scenario include a range of project types from small single-family housing developments and road improvements to larger residential development, mixed use and commercial project. Proposed, pending and approved but not yet implemented projects are presented in the cumulative scenario.

**TABLE 3-2
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
City of Grass Valley - Residential Approved Projects (building permits issued)							
Habitat for Humanity	5 housing units	307 3/4 North Church Street	City of Grass Valley Planning Department	Building permit issued	Approved 6/22/2004	~1.25 mi. w	1
Cuva Duplex	4 housing units	305 N. School St.	City of Grass Valley Planning Department	Building permit issued	Approved 1/25/2005	~1.25 mi. w	2
Habitat for Humanity	6 housing units	543 Ivy Street	City of Grass Valley Planning Department	Building permit issued	Approved 10/10/2006	~1.25 mi. nw	3
City of Grass Valley - Residential Approved Projects (not built)							
Whiting Street/Victoria Gardens	Permit issued for 67 housing units	624 Whiting Street	City of Grass Valley Planning Department	Approved, but not built yet	Approved 4/13/2004	~1.5 mi. sw	4
Pack/Puckett	Permit issued for 11 housing units	Town Talk Road	City of Grass Valley Planning Department	Approved, but not built yet	Approved 7/12/2005	~1.0 mi. ne	5
Makiah Woods Jay Cuccia	51 housing units	639 Brunswick Road	City of Grass Valley Planning Department	Approved, but not built yet	Approved 10/12/2005	> 1.0 mi. sw	6
Robert Cecil	4 housing units	Marshal St.	City of Grass Valley Planning Department	Approved, but not built yet	Approved 10/18/2005	~1.5 mi sw	7
Sierra Terrace Phil Zeiter	36 housing units	130 W. Berryhill Dr.	City of Grass Valley Planning Department	Approved, but not built yet	Approved 2/14/2006	~0.5 mi. nw	8
Joel Jordan	3 housing units	890 Doris Drive	City of Grass Valley Planning Department	Approved, but not built yet	Approved 6/20/2006	~1.5 mi. nw	9
Iron Horse II	62 housing units	475, 485, 465, 495, & 505 Bennett Rd.	City of Grass Valley Planning Department	Approved, but not built yet	Approved 10/10/2006	~0.5 mi. sw	10
Kevin Campion	1 housing units	W. Berryhill Dr.	City of Grass Valley Planning Department	Approved, but not built yet	Approved 1/16/2007	~0.5 mi. nw	11
Ridge Village Jeff Helm	Residential 49 units, located on a 10.6-acre plot. The access road is Slate Creek Road.	2418 Ridge Rd, located on the north side of Ridge Rd near the Hughes Rd. intersection	City of Grass Valley Planning Department	Approved, but not built yet	Approved 2/7/2007	~1.75 mi. nw	12

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
City of Grass Valley - Residential Approved Projects (not built) (cont.)							
Ridge Meadows Rick Kerr	Residential 50 units	2521 Ridge Rd, located off of Ridge Rd at both Upper and Lower Slate Creek Rd	City of Grass Valley Planning Department	Approved, but not built yet	Approved 6/26/2007	~1.75 mi. nw	13
Co-Housing Project	70 housing units	W. McKnight Way and Freeman St.	City of Grass Valley Planning Department	Approved, but not built yet	Approved 5/8/2007	~2.0 mi. sw	14
Steven DeSena	2 housing units	455-515 Mill Street	City of Grass Valley Planning Department	Approved, but not built yet	Approved 11/13/2007	~1.5 mi. sw	15
Dave Ferguson	24 housing units	Bennett Street; Project is the last parcel in the City limits on the south side of road.	City of Grass Valley Planning Department	Approved, but not built yet	Approved 11/27/2007	< 0.5 mi. sw	16
City of Grass Valley – Residential Projects Pending Approval							
Jay Abelyn	Addition of 4 housing units	224 Bennett St.	City of Grass Valley Planning Department	Conceptual review, no action	Pending Development Review Committee Approval	~0.75 mi. w	17
Ionic Enterprises APN(s): 35-320- 05, 35-320-67, 35- 250-07, 35-260-70	Conceptual development review for 102 senior apartments., 23 single family Home sites, 22 small lot home sites	1426 E. Main St.	City of Grass Valley Planning Department	Conceptual review, no action	Pending review by the Planning Commission after completion of the environmental review study	~0.75 mi. n.	18
City of Grass Valley – Commercial and Mixed Use Approved Projects (building permits issued)							
WCS Properties LaVonne Mullin	Permits for mixed use development, including 12 housing units	152 East Main St./ 139 & 141 Richardson St.	City of Grass Valley Planning Department	Building permit issued	Approved 9/16/2003	~1.0 mi. w	19
Chris Weir & Elain Lieske	Small office (1,957 sq. ft.)	447 S. Auburn St.	City of Grass Valley Planning Department	Building permit issued	Approved 5/17/2005	~1.25 mi. sw	20
Tim DeMartini	RV Showroom (28,800 sq. ft.)	625 Idaho Maryland Rd.	City of Grass Valley Planning Department	Building permit issued	Approved 2/28/2006 Built in 2007 and expected to open in beginning of 2008.	~0.25 mi. w	21

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
City of Grass Valley – Commercial and Mixed Use Approved Projects (building permits issued) (cont.)							
Clifford Vixie	Modular Classroom (1,000 sq. ft.)	335 Joerschke Dr.	City of Grass Valley Planning Department	Building permit issued	Approved 5/23/2006	~0.5 mi. n	22
Bob's Carpet (Kirt Pinkham) APN 09-540-16	Development of a 6,050 sq. ft. retail carpet store/warehouse.	Located southerly of Golden Gate Terrace, at the northwest corner of the Idaho Maryland Rd. and Sutton Way Intersection.	City of Grass Valley Planning Department	Building permit issued	Approved by Planning Commission 10/18/2005	~0.25 mi. ne	23
Jeff Johnson Lot 5 Litton Hill	Office Building (25,224 sq. ft.)	280 Sierra College Dr.	City of Grass Valley Planning Department	Building permit issued	Approved 9/19/2006	~0.75 mi. nw	24
City of Grass Valley – Commercial and Mixed Use Approved Projects (not built)							
Olympia Plaza II APN 35-411-80	A mixed use development (including 40 apartment units), within six buildings, to be constructed in three phases on 4.7 acres. The Use Permit was required to allow residential development in the Commercial Zoning District. On January 17, 2006, the Planning Commission granted a one year extension on the project.	Easterly of Plaza Drive	City of Grass Valley Planning Department	Approved, but not built yet	Approved one year extension of Development Review Application and Use Permit on 11/21/2006 (originally approved 5/21/2002) for the Olympia Plaza II project. The application for this Development is valid for a one year extension or until May 21, 2008.	~1.0 mi. ne	25
Village at South Auburn	57 duplex and apartment units	Adams Lane and South Auburn St.	City of Grass Valley Planning Department	Approved, but not built yet, pending approval of design modifications	Approved 6/24/2003; Since approval the project has proposed design modifications in March 2006. Staff recommended the Design Review Committee either uphold the previously approved design, which would deny the proposed design modifications, or revise the design reflecting comments raised by the Committee.	~1.5 mi. sw	26

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
City of Grass Valley – Commercial and Mixed Use Approved Projects (not built)							
Rasor & Associates	Develop a mixed-use project, consisting of approximately 3,826 sq. ft. consisting of 3 residential units and 2 office/professional units.	421 S. Auburn St.	City of Grass Valley Planning Department	Approved, but not built yet	Approved 11/16/2004; On 3/6/2006, the applicant submitted revised project plan. On 4/18/2006, the Planning Department recommended approval.	~1.5 mi. sw	27
Berryman Street Project Amalia Griego	Apartment building with 3 units	Berryman Street	City of Grass Valley Planning Department	Approved, but not built yet	Approved 6/13/2006; One year extension approved by Planning Commission on 6/15/2007	~1.25 mi. sw	28
Phil Ruble	Warehouse buildings (27,516 sq. ft.)	125 Springhill Dr., north side of Idaho-Maryland Road, just west of the Centennial Road intersection.	City of Grass Valley Planning Department	Approved, but not built yet	Approved 8/21/2007	< 0.25 mi. n of Idaho-Maryland site	29
Walgreens	The construction of a 14,500 sq. ft. building (Walgreens) and two 800 sq. ft. buildings for commercial use. Currently, the site is occupied with a closed automobile dealership.	Brunswick Rd. and Suten Way	City of Grass Valley Planning Department	Project was approved by the Planning Commission on Dec. 18, 2007.	Project was appealed on Dec. 19, 2007 over traffic-related concerns.	~1.0 mi. n	30
Grass Valley Partners APN: 09-700-21	2 Medical Office Buildings (23,579 sq. ft.)	360 Crown Point Cr.	City of Grass Valley Planning Department	not built yet; Approved by Development Review Committee on 8/28/2007	Approved by the Planning Commission on 9/17/2007	Adjacent < 0.25 mi.	31
Keith Robertson	Revisions to an approved Development Review and Use Permit Application for Sons Building and Development for the addition of 805 sq. ft. of warehouse, 876 sq. ft. of office and a residential caretakers quarters of 1,130 sq. ft.	563 Idaho Maryland Rd.	City of Grass Valley Planning Department	Approved by Development Review Committee on 9/25/2006	Approved by Planning Commission in June 2006	~0.25 mi. w	32
John Coyle	Office/Manufacturing	Lot 22 Crown Point Cr.	City of Grass Valley Planning Department	Permits issued	Approved 1/17/2006	Adjacent < 0.25 mi.	33

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
City of Grass Valley – Commercial and Mixed Use Projects Pending Approval							
Dave Ferguson APN 09-700-25	Planning application for a building height variance and Development Review Application for review of a proposed commercial building/warehouse (23,000 sq. ft.) for Gray Electric	150 Crown Point Cr.	City of Grass Valley Planning Department	Continued to Development Review Committee Meeting 8/14/2007	Pending Approval	Adjacent < 0.25 mi.	34
Wayne and Pat Klauer APN: 09-240-21	Showroom and office (17,000 sq. ft.)	Railroad Ave.	City of Grass Valley Planning Department	Development Review Committee Approved 1/7/08	Pending Planning Commission Approval	~0.5 mi w	35
AJA Video (Jeff Gold)	Proposal to construct a 45,200 sq. ft. two-story office, manufacturing, and warehouse building on a 4.6 acre parcel.	200 Litton Drive	City of Grass Valley Planning Department	Development Review Committee Approved 1/7/08	Pending Planning Commission Approval after environmental review study	~1.25 mi. nw	36
Grill & Allen, LLC APN 08-381-14 &23	Conceptual development review for 20 units mixed commercial and residential	Bennett and Kidder Streets	City of Grass Valley Planning Department	Conceptual review, no action	Pending Development Review Committee review; Has not been resubmitted for formal review	~0.75 mi. sw	37
Edward Ferguson APN 08-470-06	Conceptual development review for two mixed use buildings	246 Colfax Avenue	City of Grass Valley Planning Department	Conceptual review, no action	Pending Development Review Committee review; Has not been resubmitted for formal review	~1.0 mi. sw	38
Sutton Way Partners APN 09-240-31	Modification and expansion of 49er Family Fun Park	314 Railroad Ave.	City of Grass Valley Planning Department	Approved by the Development Review Committee	Scheduled for review by the City of Grass Valley Planning Commission on February 19, 2008	< 0.5 mi. w	39
Steven & Katalin Racz APN 08-310-42	Conceptual development review for hotel expansion of 9 rooms, meeting room, and demolition of existing structures at Courtyard Suites	228 N. Auburn St.	City of Grass Valley Planning Department	Conceptual review, no action	Pending Development Review Committee review; Has not been resubmitted for formal review	~1.0 mi. w	40
Env-Vision Development APN(s): 08-230-14 &21, 08-200-03	Tentative Map application for subdivision of 3 existing lots into 11 residential lots	454, 478 Carol Dr. & 10530 Doris Dr.	City of Grass Valley Planning Department	Conceptual review, no action	Pending Development Review Committee review	~1.25 mi. nw	41

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
City of Grass Valley – Commercial and Mixed Use Projects Pending Approval (cont.)							
Whaley & Associates APN 35-260-08	Use permit application for the expansion of eight additional mobile homes in the Olympia Glade Mobile Estates; multi-family and mobile home	918 Pampas Court	City of Grass Valley Planning Department	Conceptual review, no action	Pending Development Review Committee review	~0.5 mi. n	42
City of Grass Valley – Master Plans/Infill Studies							
Wolf Creek Parkway Alignment Study and Conceptual Master Plan	Proposed multi-use trail along 2.2 mile stretch of Wolf Creek Parkway. See Section 4.12, <i>Recreation</i> , for further description of the Wolf Creek Parkway Alignment Study and Conceptual Master Plan.	Along Wolf Creek Parkway between the intersection of Idaho Maryland Road and Sutton Way and Glenn Jones Park. (The Idaho-Maryland reach of the Plan is adjacent to the northern border of the Idaho-Maryland project site.)	City of Grass Valley Planning Department	Fiscal year 2006/2007 staff to return to city council with approaches on implementation and funding	Pending City Council review; The Study/Master Plan's objectives include implementing the changes to the Idaho-Maryland reach within the first 1 to 3 years of implementation.	Adjacent < 0.25 mi. n	43
South Auburn Street Master Plan	The Master Plan proposes design improvements to enhance the image, economic vitality, development pattern and pedestrian qualities with the study area.	2.5 acres fronting the east side of South Auburn St., located between Colfax Ave. and Bank St.	City of Grass Valley Planning Department	Adopted October 15, 2005	Phase I (1-5 year time horizon) Phase II (5-8 year time horizon) Phase III (8+ year time horizon)	~1.25 mi. w	44
Colfax Avenue Infill Study	The Infill Study was conducted to (1) evaluate future redevelopment opportunities; (2) connection to the Downtown business corridor; and (3) develop infrastructure and streetscape improvements design.	Colfax Avenue corridor between State Highway 20/49 and Memorial Park	City of Grass Valley Planning Department	October 1, 2007 – Updated Report Published	The Infill Study has been completed. In the process of drafting a work program.	~1.0 mi. sw	45

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
City of Grass Valley – Special Development Areas							
Southhill Village Master Plan	<p>Commercial Acreage: 16 (151,000 sq. ft.)</p> <p>Business Park/Industrial Acreage: 18 (192,000 sq. ft.)</p> <p>Residential Units: 122</p> <p>Notes: Was the Bear River Mill site, now known as Southhill Village Master Plan. 66 acres of property. Southhill Village is one of Grass Valley's SDAs.</p>	<p>Bounded by Highway 49 and La Barr Meadows Road</p> <p>See Figure 3-2</p>	City of Grass Valley Planning Department	N/A	Council authorization provided. EIR SOW ready for approval.		N/A
Loma Rica Ranch Master Plan	<p>Commercial Acreage: 27-69 (~385,000 sq. ft.)</p> <p>Business Park/Industrial Acreage: 24 (580,000 sq. ft.)</p> <p>Residential Units: 700</p> <p>Notes: Proposes constructing six unique neighborhoods. Consists of nine contiguous parcels measuring approximately 452 acres of property.</p>	<p>Located 1.5 mi. east of downtown Grass Valley and 0.4 mi. south of the Glenbrook Basin.</p> <p>Brunswick Road runs north-south through the approximate center of the site, and the intersection of Idaho Maryland Road and Brunswick Road is the primary point of circulation within the project area. The western edge is primarily defined by Sutton way and the Whispering Pines Business; the eastern edge is defined by the Nevada County</p>	City of Grass Valley Planning Department	N/A	<p>Council authorization provided. New application filed/complete.</p> <p>Notice of Preparation of an Environmental Impact Report for Loma Rica Specific Plan on April 11, 2008</p>		N/A

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
City of Grass Valley – Special Development Areas (cont.)							
Loma Rica Ranch Master Plan (cont.)		Airpark and the Loma Rica Industrial Park; and the southern edge is defined by Loma Rica Drive. See Figure 3-2					
Kenny Ranch	Commercial Acreage: 0 Business Park/Industrial Acreage: 0 Residential Units: 77	See Figure 3-2	City of Grass Valley Planning Department	N/A	Conditional authorization given. Awaiting filing revised proposal.		N/A
Northstar	Commercial Acreage: 17 Business Park/Industrial Acreage: 68 (20 plus 48 for conference center) Residential Units: 438 Notes: North Star is encouraged to locate all residential and neighborhood land uses in the northern one-third of the North Star Property, in order to provide a linkage to existing development within the City and facilitate efficient service and infrastructure extensions.	See Figure 3-2	City of Grass Valley Planning Department	N/A	Council authorization provided to defer annexation to City.		N/A
City of Grass Valley – Capital Improvement Projects							
Main Street / Auburn Street Traffic Signal Modification	Design and replace the existing traffic signals to provide decorative signals and improve operation	Main St. & Auburn St.	City of Grass Valley Planning Department	Carter & Burgess, Inc. contracted for Professional Surveying Services	Scheduled to bid fall 2007 with construction spring 2008	~1.25 mi. w	46

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
City of Grass Valley – Capital Improvement Projects (cont.)							
Lane Expansion: East Main Street, East of Richardson Street	Widen East Main Street east of Richardson Street in order to lengthen the westbound through/right turn lane and extend the westbound left turn lane.	East Main St. (east of Richardson St.)	City of Grass Valley Planning Department	SCO Planning and Engineering contracted for design services	City staff has met with property owners to discuss the need for additional right of way. Improvement plans can be completed shortly after any right of way issues are resolved (as of August 2008).	~0.75 mi. w	47
East Main Street/Idaho Maryland Road Intersection Improvement Project	The Engineering Division has procured the professional services of Whitlock & Weinberger, Inc. for civil and traffic engineering services for the evaluation and design of a modern roundabout at the intersection of East Main Street and Idaho Maryland Road.	East Main St. and Idaho Maryland Rd.	City of Grass Valley Planning Department	The construction plans are approximately 90% complete (as of Oct. 2007).	Construction is expected in the summer of 2008.	~0.5 mi. w	48
Morgan Ranch and Slate Creek Sanitary Lift Station Modifications	Construct pumping improvements to the Morgan Ranch and Slate Creek Lift Stations to rehabilitate the lift stations	Morgan Ranch Road	City of Grass Valley Planning Department	Sauers Engineering contracted for design services	Plans are currently 90% complete (as of Oct. 2007) and construction is expected in summer of 2008.	< 5 mi.	49
City Traffic Model	Prepare a traffic model for the City's Sphere of Influence	N/A	City of Grass Valley Planning Department	Fehr & Pers Associates	Contract awarded March 14, 2006	N/A	N/A
Dorsey Drive Interchange Project	The project components include: 1) Constructing a new Dorsey Drive overcrossing structure, 2) Adding highway auxiliary lanes from Idaho-Maryland Road to Brunswick Road, 3) Widening Dorsey Drive, and 4) Realigning Joerschke Drive	Intersection of Dorsey Dr. and Joerschke Dr.	City of Grass Valley Planning Department Caltrans Nevada County Transportation Commission	After completing a Value Analysis Study, Caltrans is currently working on right of way acquisition and final design.	In final design phase Estimated to begin construction in June 2009 and end construction in July 2012 pending construction funding availability	~0.5 mi. n	50

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
Nevada County Planning Department Projects							
Loma Rica Industrial Area Plan	Area Plan for 480-acre area; Loma Rica Industrial Park, English Mountain Industrial Park, County Airport, and adjacent industrial lands between Greenhorn Road and Idaho Maryland Road	Located 300 ft. east of the City of Grass Valley, situated east of Brunswick Rd., south of Idaho-Maryland Rd., & north of Greenhorn Rd.	Nevada County Planning Department	Development standards and circulation focus No expansion of industrial area	Plan to be adopted by April/May 2008	~0.25 mi. e	51
North San Juan Area Plan	Community development plan for the town of North San Juan	In the vicinity of S.R. 49 and Oak Tree Rd. intersection	Nevada County Planning Department	In the drafting process	Plan on hold, to resume processing early next year	~ 15 miles nw	52
Winds Aloft	General plan amendment; Rezoning and Tentative map for 108 acres North of Nevada County Air Park 5 residential lots with potential for additional density and/or possible Light Industrial acreage (not proposed at this time)	108 acres north of Nevada County Air Park Off Idaho Maryland Rd. and east of Brunswick Rd.	Nevada County Planning Department	N/A	Tentative map approved but not recorded at this time	~1 mi. e	53
Wolf Creek Ranch Estates	142 residential lots in four phases	Off of Lime Kiln Road	Nevada County Planning Department	Approved, not built	Approved in December 2004, and has already had one time extension.	b/w 5 - 10 miles	54
Quail Lake Estates	93 residential lots proposed in four phases	Located just beyond the Wolf Creek Ranch Estates (see above).	Nevada County Planning Department	Approved, not built	Project will expire the summer of 2009 and could never get built. Project has off-site emergency access issues.	b/w 5 - 10 miles	55
The Wolf	17 residential lots	Located south of Quail Lakes Estates project (see above). Located along Wolf Road (part of south Nevada County)	Nevada County Planning Department	Approved, in construction	Currently under construction and is expected to record in Spring 2008.	b/w 10-15 miles	56

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
Nevada County Planning Department Projects (cont.)							
Buck Mountain Estates (Phase 4)	9 additional residential lots to previously approved and built project (phases 1 through 3).	Located off Karen Drive, in the southern part of Nevada County (near Alta Sierra)	Nevada County Planning Department	Approved, not built yet	Phases 1 through 3 have already recorded and are considered "existing." Phase 4 has not yet recorded.	b/w 5 - 10 miles	57
Nevada County Transportation Commission Projects							
Nevada County Bridges	Replacements/Rehabilitation	Hirschdale Rd. Bridges	Nevada County Transportation Commission	N/A	Construction 2012	25 miles or more	N/A
Nevada County Bridges	Minor Repairs/ Replacements	Bridges county wide	Nevada County Transportation Commission	N/A	Construction 2008	N/A	N/A
Nevada County Highways	Installation of signal	Brunswick/Hwy 174 Interchange	Nevada County Transportation Commission	N/A	Construction 2009	~1.5 mi. s	58
Nevada County Roadways	Road widening	Combie Road widening	Nevada County Transportation Commission	N/A	TBD	b/w 10-15 miles	59
Crestview Interchange Exchange Project	The proposed project would improve east-west connectivity in the southern portion of Grass Valley with a new Route 49 connection south of McKnight Way.	State Route 49 near Crestview Drive and Smith Road (south of McKnight Way)	Nevada County Transportation Commission Caltrans	Included in the Transportation Element of the City of Grass Valley General Plan	The Crestview Smith Interchange Study was completed in December 2007. It is assumed that this report will serve to document (1) preferred alignment, and (2) process for implementing the new connection to Route 49.	~2.0 mi. sw	60

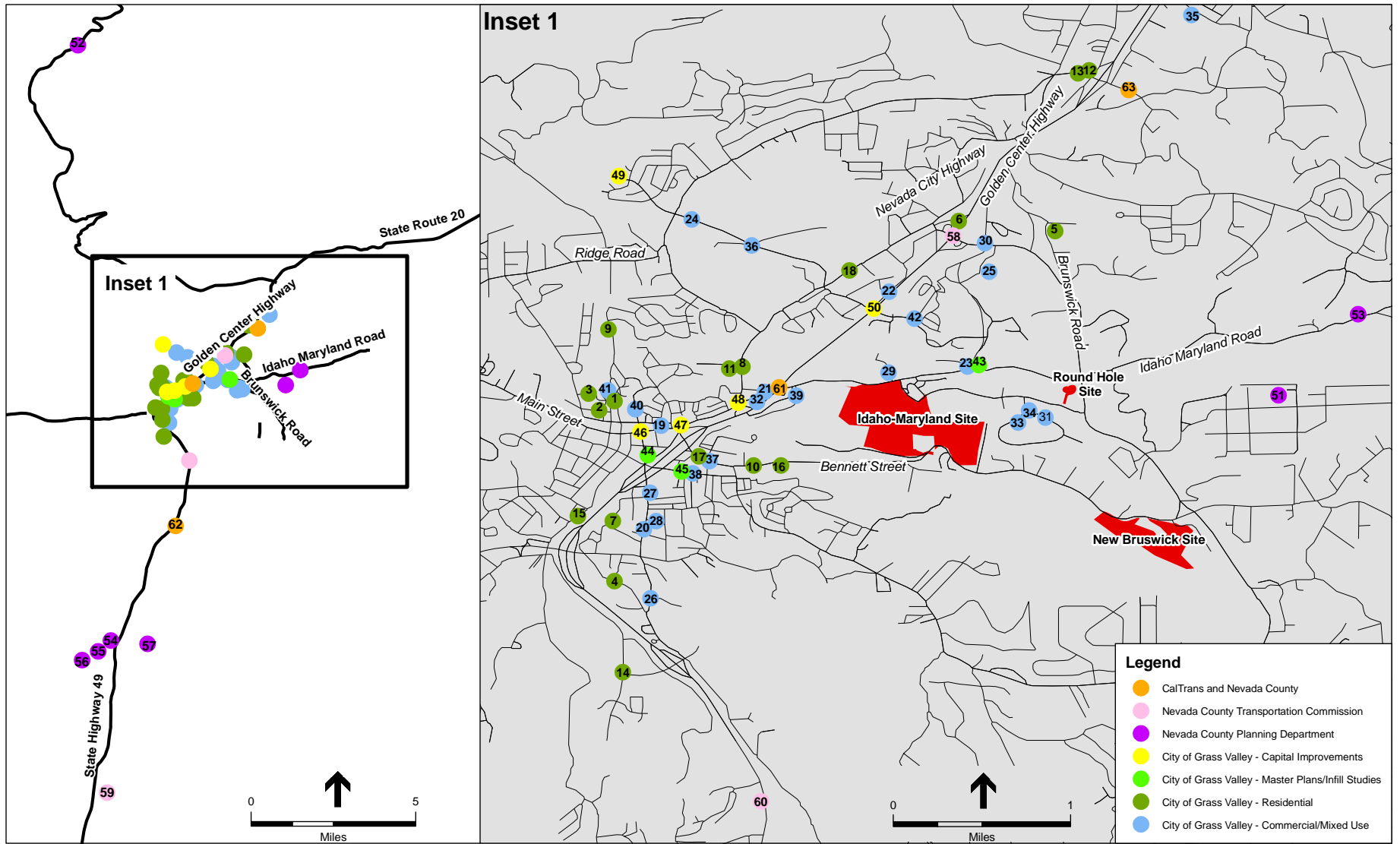
**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
Caltrans and Nevada County Projects							
Idaho Maryland Deceleration Lane	Widening of deceleration lane	Near Grass Valley from 0.03 Mi to 0.01 Mi West of Idaho Maryland under crossing	Caltrans Nevada County	State Highway Operation and Protection Program (SHOPP)	Bid anticipated: 4/7/2008	~0.5 mi w	61
County Line Clogged Culvert	Remove slide material, clean out culvert and place rock slope protection	S.R. 49, 0.06 Mi south of the Middle Yuba River Bridge #17	Caltrans Nevada County	State Highway Operation and Protection Program (SHOPP)	Bid anticipated: 3/1/2008	25 miles or more	N/A
La Barr Meadows	Widen 4 lanes with continued Left turn	Near Grass Valley from 0.05 Mi north of Alta Sierra Dr. to 0.5 Mi south of Wellwood Way (phase I)	Caltrans Nevada County	Corridor Mobility Improvement Account (CMIA) Program	Bid anticipated: 3/1/2009 Estimated 200 work days	~6.0 mi. sw	62
Donner Summit Rehab (phase 3)	Ridged pavement (PCC) overlay and drainage rehab (replace PCC pavement)	Near Truckee from 0.1 Mi west of Donner Summit to 1.2 Mi west of Donner Park over crossing #17-0045	Caltrans Nevada County	State Highway Operation and Protection Program (SHOPP) AUGM	Bid anticipated: 6/1/2008 Estimated 330-350 work days	25 miles or more	N/A
W. Boca Water Quality	Storm water management –improve existing sediment basins, construct 2 new basins, replace AC-V ditch and AC Dike	In Truckee from Fibreboard under crossing #17	Caltrans Nevada County	State Highway Operation and Protection Program (SHOPP)	Bid anticipated: 1/1/2009 Estimated 42 work days	25 miles or more	N/A
Truckee River Canyon Rehab	PCC overlay	In Nevada and Sierra counties near Floriston from Truckee River Bridge #17-63 to Nevada State Line	Caltrans Nevada County	State Highway Operation and Protection Program (SHOPP)	Bid anticipated: 9/1/2008 Estimated 400+ work days	25 miles or more	N/A

**TABLE 3-2 (Continued)
CUMULATIVE PROJECTS SCENARIO**

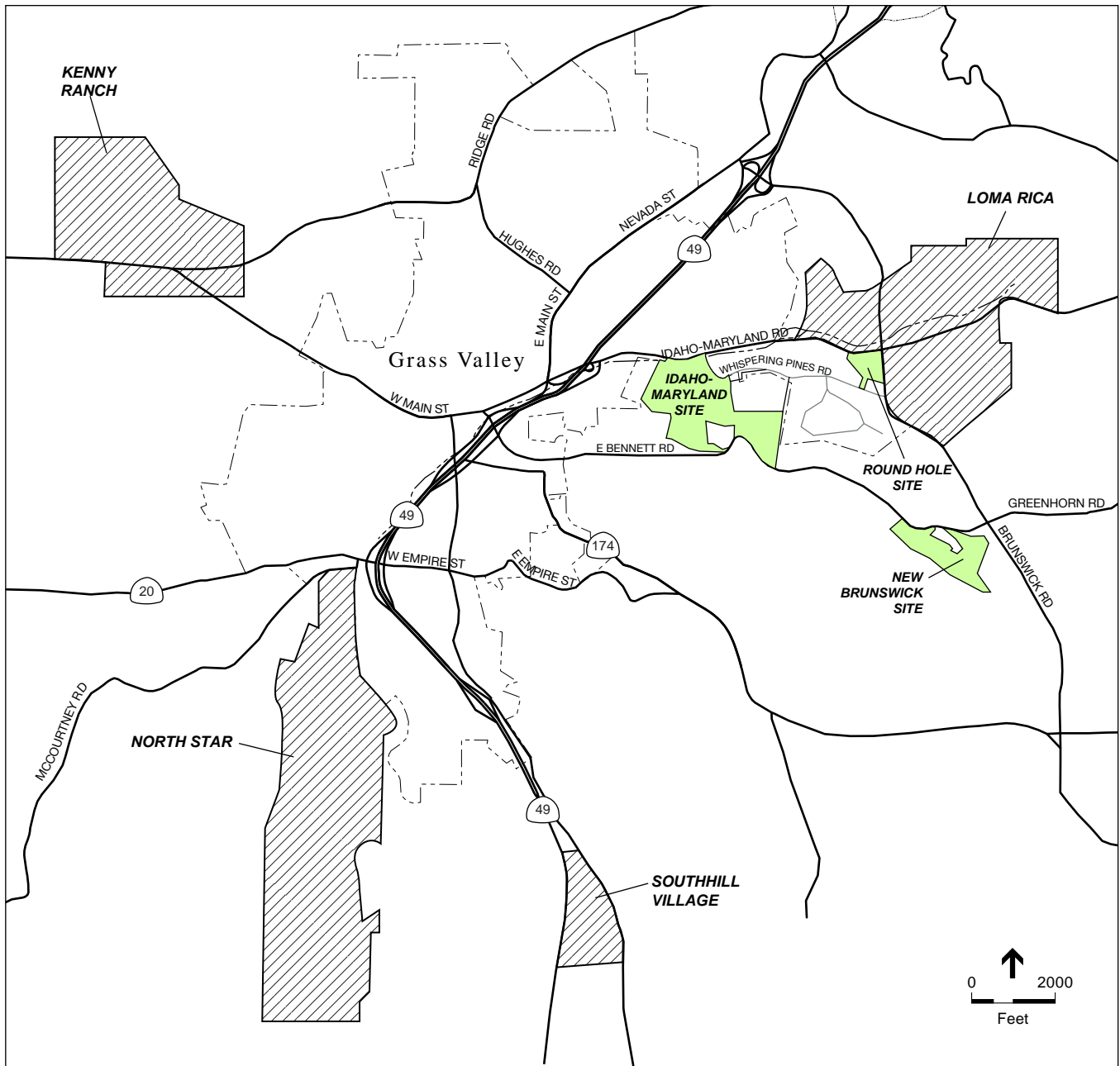
APN or Project Name	Description	Address / Location	Agency	Details	Status / Timeline	Approx. Distance from Proposed Project Sites	Map Code
Caltrans and Nevada County Projects (cont.)							
Donner Summit Safety Roadside Rest Area	Replace building	Nevada County about 15.5 Mi west of Truckee at Donner Summit Safety Roadside Rest Area	Caltrans Nevada County	State Highway Operation and Protection Program (SHOPP)	Bid anticipated: 10/15/2008	25 miles or more	N/A
Donner Truck Inspection Facility Rehab	Rehab and upgrade truck inspection facility	Donner pass inspection facility weigh station	Caltrans Nevada County	State Highway Operation and Protection Program (SHOPP)	Bid anticipated: 4/1/2009 Estimated 60 work days	25 miles or more	N/A
Nevada City Maintenance Station	Construct resident mechanic facility	Nevada City maintenance station	Caltrans Nevada County	State Highway Operation and Protection Program (SHOPP)	Bid anticipated: 9/16/2008 Estimated 200 work days	~3.0 mi. ne	63

SOURCE: See References below.



SOURCE: Multiple Sources, see Chapter 3 references.

City of Grass Valley Idaho-Maryland Mine Project. 205379
Figure 3-1
 Cumulative Projects



SOURCE: City of Grass Valley, 2006; ESA, 2008

City of Grass Valley Idaho-Maryland Mine Project . 205379
Figure 3-2
 City of Grass Valley Special Development Areas

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