

CHAPTER 6.0

CEQA Statutory Sections

6.1 Growth Inducement and Secondary Effects of Growth

The California Environmental Quality Act (CEQA) Guidelines (Section 15126.2[d]) require that an Environmental Impact Report (EIR) evaluate the growth-inducing impact of a proposed action. The Guidelines describe the required growth-inducement analysis as follows:

The way in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this definition are public works projects which would remove obstacles to population growth, would tax community service facilities, or encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project involved construction of new housing. A project can have indirect growth inducement if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises), or if it would involve a substantial construction effort with substantial short-term employment opportunities which could indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service.

Growth-inducement is neither a positive nor a negative effect of a project. However, growth can result in an adverse impact if the growth is not consistent with land use plans and growth management policies. Such plans and policies establish development patterns and growth policies that allow for orderly urban expansion supported by adequate public services including water supply, transportation infrastructure, wastewater collection and treatment, and solid waste service. Any project that induces growth beyond planned levels or rates, or exceeds reliable population projections, could indirectly cause additional adverse impacts to the environment and other public services beyond those identified, mitigated or acknowledged in the local planning documents. Thus, it is necessary to evaluate how the growth caused or induced by the proposed project would follow the growth envisioned by the applicable plans and policies.

This section of the EIR will first summarize the development and growth trends throughout Nevada County and the City of Grass Valley and the policies and procedures in place by multiple agencies to manage growth. Then, it will outline the process used to project population growth that would occur as a result of the proposed project. If the growth projections are consistent with, or less than, other regional planning projections, this would suggest that the growth-inducing impacts of the proposed project would be in accordance with growth expectations already addressed by land use planning agencies. If the growth projections would be greater than that of the local or regional plans, it could indicate the potential for unplanned growth to occur.

6.1.1 Development and Growth Trends

The proposed project is located within the City of Grass Valley and western Nevada County.

Nevada County

The population in Nevada County grew rapidly during the latter half of the 19th century due to effects of the gold rush. This period of rapid growth was followed by a period of gradual population decline that continued until the 1930s. During the thirty years following the Depression the population remained relatively stable with a small amount of growth. From 1970 to 1990 Nevada County experienced unprecedented population growth, primarily in the unincorporated areas of the county. It is believed that much of this growth may be due to the county's rural character and relative affordability (Nevada County, 1995b).

General Plan Population Projections

The Nevada County General Plan relies on population projections prepared by the California State Department of Finance. These projections assume that Nevada County will continue to grow at a faster rate than the state; however, the rate of increase within the County is still expected to be slower than rates seen in past years. For example, as of January 1, 2007, the estimated population in Nevada County was 99,796 persons (Department of Finance, 2008). This is approximately 10,590 persons less than projected for the year 2000 (Nevada County, 1995b). Table 6-1 shows population projections and percent change relative to the previous decade for both California and Nevada County from 1990 to 2020.

**TABLE 6-1
POPULATION PROJECTIONS (1990-2020)**

Year	Nevada County		California	
	Number	Percent Change	Number	Percent Change
1990	79,600	-	29,976,003	-
2000	110,386	38.7	36,443,857	21.6
2010	139,488	26.4	42,408,137	16.4
2020	168,372	20.7	48,976,518	15.5

SOURCE: Nevada County, 1995b

The General Plan also outlines three alternative growth projections through the year 2025. Two of the projections are based on simple growth rates of 1.5 and 5 percent per year and the third is based on a logistic (S-shaped) curve which takes into account the build-out population of the County as an upper limit (Nevada County, 1995b). The logistic curve was comparable to the projections from the Department of Finance, as both projections show a gradual reduction in the county's growth rate over time. Therefore, the General Plan assumed that the populations projected by the logistics curve are an adequate forecast of population growth. This curve projects a population of 114,000 persons in 2000, 148,000 persons in 2010, 174,000 persons in 2020 and 183,000 persons in 2025.

Municipal Service Review Population Projections

Local Agency Formation Commissions (LAFCo) are required by the Coretese-Knox-Hertzberg Local Government Reorganization Act to prepare municipal service reviews. One such review, the *Western Nevada County Water Service Municipal Service Review* (2004), utilizes an interactive growth model that was developed to project the distribution and timing of development based on various factors. In this review four growth and development scenarios for Nevada County were analyzed: Expected General Plan, Expected In-Fill, Hi Growth, and Hi In-Fill Growth (Nevada County LAFCo, 2004).

The Expected General Plan scenario is based on a modest level of growth distributed in accordance with General Plan policies. In this scenario Grass Valley is assigned an annual growth rate of 2.0 percent and Nevada City is assigned a growth rate of 1.0 percent. Based on these growth rates, the population in the county is expected to reach 147,845 by the 2027, corresponding to an annual growth rate of 1.8 percent (Nevada County LAFCo, 2004).

The Expected In-Fill scenario assumes the same growth rates as the Expected General Plan scenario but directs this growth towards several Special Development Areas (SDAs). SDAs included in the scenario include Kenny Ranch, Loma Rica, Northstar, and the South Hill Village (Nevada County LAFCo, 2004).

The Hi Growth scenario assigns annual population growth rates of 2.2 percent for the County as a whole and the 3.5 percent for the City of Grass Valley. This represents a worst case scenario with an estimated 2027 population of 165,300 for the county (Nevada County LAFCo, 2004).

The Hi In-Fill Growth uses the same growth rates as the Hi Growth scenario, but emphasizes development within existing city limits, spheres of influence and within the SDAs (Nevada County LAFCo, 2004).

City of Grass Valley

Grass Valley has historically experienced similar growth trends to that of Nevada County as a whole, with the gold mining industry acting as a driving factor during its earlier development years. As with Nevada County, Grass Valley also experienced a substantial amount of population growth during the 1970s and 1980s. The population increased by 30.1 percent from 1970 to 1980

and by 35.1 percent from 1980 to 1990, reaching a total population of 9,048 in 1990. Since 1990 growth in the City has continued but at a much lower rate than experienced throughout the 70s and 80s (City of Grass Valley, 1998).

General Plan Population Projections

The 2020 City of Grass Valley General Plan serves as a basis for all land use decisions in the City of Grass Valley and the surrounding unincorporated areas, which together are termed the Planning Area¹. This plan projects that the population in the Planning Area is expected to increase by approximately 46 percent between 2000 and 2020, or an increase of 7,395 persons (City of Grass Valley, 2004).

6.1.2 Regulatory Context

Regional

Local Agency Formation Commission (LAFCo)

The annexation of land to a city in Nevada County is subject to the review and approval of the Nevada County Local Agency Formation Commission (LAFCo). The LAFCo is comprised of representatives from the Nevada County Board of Supervisors, the cities in Nevada County, and the public at large. According to state law, before granting an annexation request, the Nevada County LAFCo must consider the provision of urban services to the area, city and county general plans, agricultural protection policies, and the equitable distribution of property taxes between the county and the annexing city.

Local

Nevada County General Plan

The Nevada County General Plan provides a framework for physical growth within Nevada County and serves as a foundation for land use decisions. Central themes of the General Plan include fostering a rural quality of life, sustaining a quality environment, developing a strong diversified and sustainable local economy, and planning land use patterns based on the level of public services appropriate to the character, economy and environment of each region.

The General Plan includes policies that direct urban growth into “Community Regions” and preserve the character of rural areas. It also stresses the importance of achieving a moderate annual growth rate so that public services keep pace with new developments. Some of the specific policies and goals regarding growth management included in the General Plan include the following:

- Goal 1.1: Promote and encourage growth in *Community Regions* while limiting growth in *Rural Regions*.

¹ The City’s Planning Area includes the existing incorporated city, its sphere of influence, and areas that will likely be annexed into the City of Grass Valley.

- Objective 1.4: Encourage future improvements of public and private facilities/services to that which will enhance the specific character and lifestyle of rural regions.
- Goal 1.6: Allow for growth while protecting, maintaining and enhancing communities and neighborhoods.
- Goal 3.1: Provide for public facilities and services commensurate with development type and intensity.
- Policy 3.1: The levels of service and provision of public facilities in *Community Regions* shall be based upon improving the capacity of public facilities to serve higher levels of development directed to *Community Regions*. The levels of service and provision of public facilities in *Rural Regions* shall be based upon limiting the amount of development to ensure that adequate facilities are available.
- Policy 3.2: The County shall encourage development within *Community Regions* where higher density development can more efficiently be provided with a full range of public facilities and services.
- Objective 3.2: Ensure that the capacity, availability, financing, and capability of public services and facilities are sufficient to meet levels of service requirements for development.
- Objective 3.4: Develop and operate public facilities and services in an environmentally sound way.

(Nevada County, 1995a).

City of Grass Valley General Plan

The 2020 Grass Valley General Plan sets goals, objectives, and policies to guide the city's growth and development. Selected policies and goals that address growth management include the following:

- 1-LUG: Promote balanced community growth and development in a planned and orderly way.
- 2-LUG: Promote infill as an alternative to peripheral expansion where feasible.
- 9-LUG: Coordinate peripheral development with the County General Plan and appropriate entities currently providing services in the Planning Area.
- 10-LUP: Annex properties within the Grass Valley Planning Area prior to or in conjunction with their development.
- 39-LUP: Assure that acceptable inter-agency agreements regarding future service and facility provision are in place prior to approval of any major new development.
- 43-LUP: Establish and maintain a clear boundary between the City of Grass Valley and unincorporated areas of Nevada County, beyond which urban land use types and densities will not be permitted.

- 44-LUP: Encourage the application of City standards throughout the City's Sphere of Influence.

(City of Grass Valley, 1999).

6.1.3 Significance Criteria

In general terms, a project may foster spatial, economic, and/or population growth in a geographic area if it meets any one of the criteria that are identified below:

- Removal of an impediment to growth (e.g., the establishment of an essential public service or the provision of new access to an area).
- Economic expansion or growth (e.g., construction of additional housing, changes in revenue base, employment expansion, etc.).
- Establishment of a precedent-setting action (e.g., an innovation, a change in zoning or general plan designation).
- Development or encroachment in an isolated or adjacent area of open space (being distinct from an "infill" type of project).

Should a project meet any one of these criteria, it can be considered growth inducing. An evaluation of the proposed project analyzed in the context of these growth-inducing criteria is provided below.

6.1.4 Impact Discussion

Removal of an Impediment to Growth

Growth in an area may result from the removal of physical impediments or restrictions to growth, as well as the removal of planning impediments resulting from land use plans and policies. In this context, physical growth impediments may include nonexistent or inadequate access to an area or the lack of essential public services (e.g., water service), while planning impediments may include restrictive zoning and/or general plan designations.

Currently, the project sites are vacant of active uses with the exception of a one acre area on the Idaho-Maryland site at the corner of Idaho-Maryland Road and Centennial Drive that is occupied by a commercial use, the Hap Warnke Mill, which processes rough and full cut lumber. As described in Section 4.13, *Transportation and Traffic*, Section 4.14, *Utilities and Service Systems*, and Section 4.15, *Energy*, the construction of the proposed project would require new transportation, water, sewer, and energy (electricity and natural gas) infrastructure on the project sites.

An established transportation network exists in the surrounding area that offers local and regional access to the project sites. Access to the Idaho-Maryland site would be provided at the intersection of Centennial Drive and Whispering Pines Lane. The project applicant proposes to

realign Centennial Drive with Spring Hill Drive and extend Centennial Drive southward to connect with Bennett Road. The project applicant also proposes to realign Bennett Road to create a new intersection with the Centennial Drive extension. Employee access would be provided from Bennett Road where it connects with the Centennial Drive extension. Access to the Round Hole site would be provided from Whispering Pines Lane, where an unimproved access road would be improved to a gravel surface. Access to the New Brunswick site would be provided from East Bennett Road via a dirt road located in the northwest corner of the site. Thus, while the proposed project would require both new and improved transportation infrastructure, it would serve only the project sites themselves.

The Round Hole and New Brunswick sites would not require potable water; however, the Idaho-Maryland site would require additional water infrastructure, which would be available from surrounding streets, to support the proposed project. In addition, as described in Chapter 2, *Project Description*, Applicant Proposed Measure 10 would include construction of a permanent water source (i.e., water pipeline) to be initiated immediately *if* any domestic well(s) in the project vicinity display a definite and sustained negative response to mine dewatering. If a water pipeline is required to supply water to residents in the project vicinity, it would be constructed during Phase I of the proposed project. Consequently, the new water pipeline could induce growth within the project vicinity as the pipeline could be accessed by undeveloped parcels adjacent to the pipeline.

Concerning sewer infrastructure, wastewater disposal requirements for 400 employees are anticipated on Idaho-Maryland site. Round Hole and New Brunswick sites are expected to have minimal wastewater disposal requirements. The sewer infrastructure needed to accommodate the proposed project would not extend beyond the requirements or boundary of the proposed project. Consequently, the proposed project would not be growth inducing as new sewer infrastructure would not be required.

Electricity and natural gas transmission infrastructure presently exists in the vicinity of the site. Development of the proposed project would necessitate the construction of an on-site distribution system (i.e., substation) on the Idaho-Maryland and New Brunswick sites to convey this energy to uses on the site. Service lines that provide energy to the project sites would need modifications to meet the demands of the proposed project. PG&E has indicated that the natural gas pipeline running from State Route (SR) 49 to the Idaho-Maryland site (the location of the ceramics plant) may need to be upgraded. PG&E has also indicated that the Idaho-Maryland site would require an overhead transmission extension from the existing 115 kV transmission line located on the eastern boundary of the site, as well as the potential extension of approximately 1,000 feet of transmission line to access the New Brunswick site. No growth-inducing impacts, due to the extension of electrical or natural gas service lines, would occur within the development of the proposed project as energy infrastructure upgrades and the on-site distribution system would be designed to accommodate the uses proposed within the project sites, and would not extend beyond the requirements of the proposed project.

In summary, the design and construction of roadway, sewer, electrical, and natural gas infrastructure needed to accommodate the project would not induce growth within undeveloped areas surrounding the project area. The development of new water lines to access residents who have undergone a sustained negative response to mine dewatering could be considered to be growth-inducing.

Economic Growth

The second criterion by which growth inducement can be measured involves economic considerations. No residential uses are proposed by the project. As such, the project would not directly contribute to population growth through the provision of additional housing. The proposed project would result in the creation of job opportunities, an indirect growth-inducing effect. The extent to which the new jobs created by a project are filled by existing residents reduces growth-inducing effects of a project.

As discussed in Section 4.10, *Population and Housing*, an *Economic and Fiscal Analysis* (Appendix H) (Hausrath, 2008) was prepared by the EIR team based on the applicant's estimates of project employment by activity and phase. Population growth estimates were generated through a socioeconomic model that was based on the socioeconomic impact mitigation monitoring plan for the McLaughlin Gold Mine Project which was constructed and operated by Homestake Mining Company in the 1980s in Lake, Napa, and Yolo Counties. The following analysis presents results from the *Economic and Fiscal Analysis*. This analysis also relies on the employment and housing information presented in the April 2006 *Economic and Fiscal Conditions Study for the City of Grass Valley* that is also known as *The SDA Study*.

Proposed Project Employment

The proposed project would be a major employer in the City of Grass Valley and western Nevada County. Workers would be employed in a variety of capacities for exploration, construction, operations, and reclamation activities, expected to occur over a 23 year period from 2008 through 2030. Table 6-2 presents estimates of employment by activity and phase. Construction is scheduled to occur over approximately seven years; however, the bulk of construction would occur within the first year and a half of the project. During the construction phase, the number of construction workers would range from 140 to 350 persons. During the operations phase, the number of operations workers would range from 210 to 400 persons. The final mine reclamation phase would provide jobs for 20 workers over a two-year period. For purposes of a conservative or "worst case" analysis, employment would peak in 2013 with approximately 660 construction and operations employees.

Source of Labor: Local versus Relocating Labor Force

On average, approximately half of the workers are expected to be people already living in the area, and the other half would relocate to the Grass Valley area because of the proposed project's job opportunities.

**TABLE 6-2
IDAHO-MARYLAND MINE EMPLOYMENT BY PROJECT ACTIVITY AND PHASE**

Phase/Activity	Time Frame	Maximum Estimated Construction Personnel	Maximum Estimated Operations Personnel	Reclamation Personnel
Exploration	2008-2027	-	40	-
Construction Phase 1	2008-2011	265	-	-
Construction Phase 2	2011-2013	350	-	-
Construction Phase 3	2013-2015	140	-	-
Operations Phase 1	2009-2013	-	210	-
Operations Phase 2	2013-2015	-	310	-
Operations Phase 3	2015-2029	-	400	-
Reclamation	2029-2030	-	-	20

SOURCE: IMMC, 2007

In the early phases of the proposed project, construction work would employ up to approximately 170 people annually from the existing local labor pool. As the construction phase ended, the number of local construction workers would drop to approximately 70 people per year. Mine and ceramics operations would employ 100 to 150 people annually from the local labor pool in the early years and approximately 200 people during the 14 years of full operations.

The rest of the workers would move to the area because of the job opportunities presented by the proposed project. In the first five years, there would be approximately 250 to 300 workers moving to the area. It is expected that employment would peak in 2013, attracting approximately 50 additional workers to the Grass Valley area, for a total of approximately 340 relocating workers. During the 14 years of full operations, just over 200 jobs would be expected to be filled by workers new to the area.

Adding the construction and operations phases, for the purposes of a “worst-case” analysis, the greatest Grass Valley population impact from the proposed mine and ceramics production facility would occur in 2013 (year six), with approximately 400 persons (workers plus dependents) relocating in both construction and operations. The 400 newcomers would represent a three percent increase in the current population of the City of Grass Valley (approximately 13,000) and approximately five percent of the growth forecast for the City of Grass Valley through the year 2020 (Department of Finance, 2007; City of Grass Valley, 2004).

Place of Residence: Local versus Commuters

Approximately 65 percent of both construction and operations workers would be expected to live nearby (in the City of Grass Valley), with the remaining 35 percent of workers commuting from outside the area. Some of these nearby workers would be existing residents and some would be new residents relocating to the City. Once they relocate to the Grass Valley area for employment, the construction and operations workers would become residents of the City and of nearby

communities. Of the 35 percent of the workers expected to commute from outside Grass Valley, almost all would live in nearby Nevada County communities; some would live in neighboring counties such as Placer and Yuba.

In the first five years, counting both construction and operations personnel, 170 to 365 workers would live in the City of Grass Valley (again, this would include existing residents and newcomers relocating to the City). The number of Grass Valley residents working at the project sites would peak at approximately 430 in year six, when construction activity would be underway at the same time that the operations phase would be expanding. On average each year, approximately 260 Grass Valley residents would be working at the project sites during the 14 years of stabilized mine and ceramics production operations (approximately year 2015 to 2029).

The rest of the workers would be commuters, most living elsewhere in Nevada County and a few living in nearby counties. According to the patterns evident among the McLaughlin Mine workforce, some of these people would commute on a daily basis from their place of residence while others would be “weekly commuters” who rent shared housing in Grass Valley during the workweek and go home on the weekend. (See the *Proposed Project Housing Demand* discussion below.)

Secondary Economic Growth

Long-term growth, should it occur, would primarily be in the form of an economic response to the approximately 400 new residents (construction and operations employees plus dependents) that would move to the City of Grass Valley. In addition to the direct on-site jobs generated by the proposed project, new residents and employees of the proposed project would also produce secondary or multiplier effects² as the proposed project would be expected to generate additional employment due to household and employee expenditures for goods and services in the City and surrounding region. Furthermore, the future residents that are dependents of project employees also represent an incremental increase in the local labor force. However, at this time it would be speculative to estimate the number and type of employees that might be supported by this additional spending. It is also speculative to estimate the number of dependents who would join the local labor force.

Conclusion

Overall, the proposed project could induce (1) direct on-site construction, operations, and reclamation employment; (2) approximately 400 new residents (employees and dependents) in the City of Grass Valley; (3) approximately 35 percent of employees commuting from nearby Nevada County communities and neighboring counties; and (4) indirect off-site employment from new resident and employee spending in City of Grass Valley and surrounding region. The increase in population from employment opportunities and economic activity potentially generated by the proposed project could be considered an indirect growth-inducing effect.

² The “multiplier effect” refers to the creation of additional economic activity, such as consumer demand for goods and services, which results from an economic input, such as the salaries of the employees at the project site.

Proposed Project Housing Demand

Workers who relocate to the Grass Valley area to take jobs at the proposed project would add to the housing demand in the market area. In 2007, the City had a total of 6,469 housing units, with approximately 6,161 units occupied (i.e., vacancy rate of approximately 4.76 percent) (Department of Finance, 2008).

Peak demand for for-sale housing would be approximately 10 units, occurring in year six of the proposed project. Demand for for-sale housing during stabilized operations, from year 2014 through 2029, would be approximately six units. The majority of housing demand would be in the rental market. Assuming many shared rentals, demand for rental units would also peak in year six at just over 200 units; demand during the 14 years of stabilized operations would be approximately 120 units. Most of the demand for rental housing would be for large units – units to accommodate families and units that could house approximately three workers on average in shared accommodations. In total, during the active phases of proposed project construction and operations, housing demand in the City of Grass Valley would range from almost 100 units to approximately 225 units (Hausrath, 2008).

Two hundred units represents approximately three percent of the 2007 housing inventory in the City of Grass Valley and an increment of approximately six percent over the 3,365 unit housing demand projected for the City by 2020 in *The SDA Study*. *The SDA Study* concluded that the 2020 General Plan preliminary land use allocations for the Special Development Areas (SDAs) did not provide enough housing to meet updated projections of housing market demand.³ The April 2006 study resulted in City Council Resolution No. 06-60, establishing preferences for increasing the General Plan housing development potential allocations in the Grass Valley Sphere of Influence, specifically in the SDAs (City of Grass Valley, 2006). To meet the housing demand projections and Resolution No. 06-60 requirements, the most recent proposals for the four SDAs have proposed development of 689 more housing units than allowed by the 2020 General Plan. Table 6-3 presents the housing units allowed by the City of Grass Valley 2020 General Plan compared to the most recent SDA proposals. Therefore, by providing additional housing units, the SDAs would be able to absorb the increased housing demand associated with the proposed project (Hausrath, 2008). In addition, given the vacancy rate of 4.76 percent (making 308 units available) and because of construction of additional residential developments in the near future (estimated 2,070 units on the related project list in the City of Grass Valley, see Chapter 3, *Alternatives and Cumulative Projects*), any growth in housing demand would be accommodated.

³ The City of Grass Valley 2020 General Plan identified four Special Development Areas (SDAs) which include 1,636 acres of land within the City's Sphere of Influence.

**TABLE 6-3
PROPOSED HOUSING UNITS FOR THE SPECIAL DEVELOPMENT AREAS**

Special Development Areas	City of Grass Valley 2020 General Plan	Current SDA Proposal (as of June 2008)	Difference
Loma Rica Ranch	185 units	700 units	+515 units
Southhill Village	N/A ^a	122 units	+122 units
North Star	363 units	438 units	+75 units
Kenny Ranch	100 units	77 units	-23 units
Total	648 units	1,337 units	+689 units

^a The 2020 General Plan does not designate a land use mix for Southhill Village, which was known as the Bear River Mill (BRM) site in 1999, when the General Plan update was completed. However, the General Plan Environmental Impact Report (EIR) identified Southhill as land that should be developed for commercial purposes. More recently, community leaders encouraged the Southhill Village plan to include a mix of diversified housing. Thus, a Master Plan with 122 housing units has been submitted for City approval.

SOURCE: City of Grass Valley, 1999; City of Grass Valley, 2006

Precedent-Setting Action

Changes from a proposed project that could be precedent setting include (among others) a change in general plan designation, zoning designation, general plan text, or approval of exceptions to regulations that could have implications for other properties or that could make it easier for other properties to develop.

As discussed in Section 4.8, *Land Use and Planning*, implementation of the proposed project would involve a General Plan Amendment, zoning amendment, and an annexation plan. The project applicant has also submitted a Planned Development (PD) Permit Application for the Idaho-Maryland site to the City. The project applicant proposes to have the Idaho-Maryland site annexed into the City of Grass Valley and to subsequently amend the City of Grass Valley's General Plan and Zoning Map to incorporate new proposed land use designations and zoning designations for the site.

Specifically, the City of Grass Valley 2020 General Plan designates the Idaho-Maryland site for *Business Park* and *Urban Medium Density* (UMD) residential uses. Under the proposed project, the Idaho-Maryland site would be annexed into the City of Grass Valley and thus, City of Grass Valley General Plan land use designations would be applicable. Because mineral development uses are not allowed on sites with *Business Park* and *UMD* land use designations, the project applicant has submitted an application for a General Plan Amendment, which would change the City land use designations of the site to *Manufacturing Industrial*. The *Manufacturing Industrial* designation is intended to "accommodate a variety of industrial and service commercial uses."

The City's existing Zoning Map currently does not identify zoning designations for the Idaho-Maryland site since it is not currently within the City's jurisdiction. The project applicant

proposes, as part of the project, that the City zone the Idaho-Maryland site *General Industrial – Mineral Resource* (M-2/MR). The City of Grass Valley’s Zoning Map would be amended to reflect this change. However, the Development Code provides for a building height limit of 50 feet within the M-2 zoning district. Because the project proposes buildings that could exceed zoning standards (i.e., the ceramics plant could be up to 75 feet in height, the process plant could be up to 50 feet in height, and the shaft headframe could be up to 72 feet in height), the project applicant has also submitted a Planned Development (PD) Permit Application for the Idaho-Maryland site to the City of Grass Valley. The project applicant’s stated purpose in applying for a PD designation is to allow for flexibility in Development Code standards to address site features and the unique buildings and facilities required for the proposed mining and ceramics manufacturing development.

Although the change in land use, zoning, and building height limits could encourage other requests to similarly change the General Plan designation, rezone, or apply for flexibility in the Development Code for their properties, each application would be considered by the City of Grass Valley or Nevada County on a project-by-project basis. In addition, the proposed annexation of the Idaho-Maryland site would be consistent with LAFCo policies and the City of Grass Valley Annexation Plan. For these reasons, the project would not be considered growth-inducing under this criterion.

Development of or Encroachment Into Isolated Open Space

Development can be considered growth-inducing when it is not contiguous to existing urban development and “leap frogs” over open space areas. The proposed project includes three currently underutilized properties located in an entirely urban and built-out area; as such, implementation of the proposed project would constitute an urban fill project. Presently, each of the project sites is generally surrounded by development (i.e., commercial, manufacturing, industrial, retail and residential land uses). While the project would extend this existing pattern of development, it would not “leap frog” over any undeveloped areas or introduce development into an area which has not been developed. Therefore, this project does not have the potential to result in growth inducement through the development of, or encroachment into, isolated or open space areas.

Conclusion

The *CEQA Guidelines* require an EIR to “discuss the ways” a project could be growth inducing and “discuss the characteristics of some projects that may encourage...activities that could significantly affect the environment.” However, the *CEQA Guidelines* do not require an EIR to predict or speculate where such growth would occur, in what form it would occur, or when it would occur. Attempting to determine the environmental impacts created by growth that might be

induced by the Project is speculative because the size, type, and location of specific future projects that may be induced by this proposed project are unknown at the present time. Therefore, such impacts are too speculative to evaluate (see *CEQA Guidelines* Section 15145). To the extent that specific projects are known (as discussed in Chapter 3 of this EIR), those projects have already been or would be subjected to their own environmental analysis. Additionally, due to the variables that must be considered when examining the mechanics of urban growth (e.g., market forces, demographic trends, etc.), it would be speculative to state conclusively that implementation of the proposed project alone would induce growth in the surrounding area. Further analysis of impacts associated with growth in the City of Grass Valley area, and corresponding cumulative impact assessment methodology, can be found in the cumulative analyses for each individual topic addressed in Chapter 4, *Environmental Analysis*.

6.2 Significant Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines states that the following:

Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented. Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

6.2.1 Consumption of Nonrenewable Resources

Consumption of nonrenewable resources includes energy consumption, water consumption and loss of mining reserves. Construction, operation and reclamation of the proposed project would result in an irretrievable and irreversible commitment of natural resources through direct consumption of fossil fuels and through use of materials for construction and operation. However, it has been determined that the use and consumption of fossil fuels and electricity would not impact service providers, would not be wasteful, and with implementation of mitigation measures would be less than significant. The proposed project would also required the extension of a water line to service residences potentially impacted by dewatering the mine; however, it has been determined that this extension would not impact the Nevada Irrigation District's ability to provide water. The proposed project would also result in direct impacts to special status species and associated habitat, including wetlands. Conversion from habitat to another land use would result in an irretrievable and irreversible commitment of natural resources.

Additionally, the project sites provide access to a mining reserve, development rock (to be processed as aggregate and/or manufactured into ceramic tile) and gold, which would reduce the amount of gold and aggregate resources. The reduction in gold and aggregate resources would represent a significant loss of a nonrenewable resource; however, the extraction of gold and

aggregate rock would not commit the project sites to mining uses in perpetuity as these resources would be extracted underground leaving the surface available for future uses. Use of gold, ceramic tiles and aggregate resources occur in a number of fields including the computer, medical and construction industries to name a few. The impact analysis herein for the proposed project assumes a maximum production rate; however, the actual amount mined could be less depending on market demand and other economic considerations.

6.2.2 Changes in Land Use which Commit Future Generations

The proposed project would commit future generations to development on approximately 156 acres of land. While part of the Idaho-Maryland site would be maintained as a park and a portion of the buffer near Wolf Creek could be conveyed to the City to enhance the Wolf Creek Parkway, a significant portion of the sites would be developed for industrial use. Specifically, the Idaho-Maryland site would be rezoned/prezoned from urban medium density/business park to M-2/MR, General Industrial/Mineral Resources. Development of the site would result in loss of undeveloped lands, alteration and removal of exiting topographical features, loss of and modification to biological resources, changes to the watersheds, changes to the viewshed, increased noise, and emissions of air pollutants. However, as part of the reclamation plan, all buildings could be removed and other uses could be permitted through the City and/or County; therefore, future generations are not necessarily committed to similar uses as would occur with the proposed project.

6.2.3 Irreversible Damage from Environmental Accidents

Implementation of the proposed project could result in significant irreversible damage to the environment.

Cave-ins with associated surface subsidence resulting in irreversible damage to the environment could occur as a result of implementation of the proposed project. As discussed in Section 4.5, *Geology, Soils, and Seismicity*, this is especially the case for the concrete collar around the Brunswick Shaft. However, potentially significant impacts associated with cave-ins of shallow mine workings and surface subsidence would be reduced to less than significant with implementation of a mitigation measure.

Accidental spills or explosion of hazardous materials resulting in irreversible damage to the environment could occur as a result of implementation of the proposed project. The use of hazards materials is proposed during construction, operation and reclamation of the proposed project. As discussed in Section 4.6, *Hazards and Hazardous Materials*, hazardous materials are regulated under a variety of Federal, State and local regulations and laws and therefore significant impacts are unlikely. Additionally, mitigation measures have been developed to further reduce potential impacts associated with hazardous materials.

No other potential environmental effect of the proposed project would be likely to reach the point of creating irreversible damage from foreseeable accidents.

6.3 Cumulative Impacts

This section as well as Sections 4.1 through 4.15 of Chapter 4, *Environmental Analysis*, present the analysis of the potential for the proposed project to create cumulative effects when the impacts of projects listed in Table 3-2 are considered together with the impacts of the proposed project.

6.3.1 Aesthetics

The geographic scope of the cumulative impacts to visual quality is the viewsheds that could be affected by the proposed project facilities from public roadways, trails, open space, and residential areas.

Implementation of the proposed project would have less than significant impacts to scenic vistas, scenic resources, and as a result of new sources of light and glare. With implementation of mitigation measures, temporary impacts from construction to the existing visual character of the sites and their surrounds, alteration of the visual conditions at the three sites due to new surface facilities and structures, and impacts resulting from removal of Ponderosa Pine trees from the Round Hole site would be less than significant. However, the proposed project, in conjunction with past, present, and reasonably foreseeable projects would expand the City's urbanized area, changing the visual character of this rural area. One project within the cumulative projects scenario would have the potential to create new visual impacts within viewsheds that could be affected by the proposed project. However, that project, a warehouse building, would be located within an area that is already industrial and commercial. Therefore, impacts to the area's visual character are not likely. Therefore, the proposed project, in combination with other past, present and reasonably foreseeable projects, would not be cumulatively considerable (Class II).

6.3.2 Air Quality

The geographic scope of potential cumulative criteria pollutant impacts encompasses the NSAQMD jurisdiction, while the scope of cumulative greenhouse gas impacts include statewide considerations and contribution to global climate change.

Construction and operation activities associated with the proposed project would generate criteria pollutant emissions that would be either potentially significant or significant according to the NSAQMD significance criteria. Although implementation of mitigation measures would reduce these impacts, even after mitigation these impacts would remain significant and unavoidable. Therefore, construction and operation of the project between the years 2008-2029 would have a cumulatively considerable contribution to the impact of increased criteria air pollutants in the Mountain Counties Air Basin from the construction and operations of future projects that occur during the next twenty years (Class I). However, emissions associated with reclamation activities would not be cumulatively considerable.

The contribution of the proposed project to health risk impacts from TAC emissions would not be cumulatively considerable with implementation of Mitigation Measures 4.2-2a and 4.2-2b (Class II).

Additionally, the proposed project would not result in substantial CO emissions along access and haul routes to the project sites. In fact, CO concentrations associated with the proposed project and the cumulative scenario would decrease in the Cumulative 2015 scenarios due to reductions in the predicted future CO emission factors resulting from a cleaner future mix of vehicles. Regarding odor, the contribution of the proposed project to odor impacts would not be cumulatively considerable as there are no odor impacts associated with the proposed project. Therefore, the proposed project, in combination with other past, present and reasonably foreseeable projects would not be cumulatively considerable in regards to CO emissions and odor (Class II).

The GHG emissions from the proposed project would not individually be likely to have an impact on global climate change, but it could conflict with the state goals for reducing greenhouse gas emissions and therefore could constitute a cumulatively considerable contribution to global climate change. Although the proposed project would not conflict with the ARB early action strategies, the quantity of CO₂e generated by the proposed project would be large enough that it could be in conflict with the state goals in AB32 to aggressively reduce GHG emissions. Also, the proposed project is not inherently energy efficient. Therefore, the applicant would be required to develop and implement a *Greenhouse Gas Reduction Plan*, would reduce the proposed project's GHG emissions. However, the proposed project's contribution to GHG emissions would still remain significant and unavoidable; therefore, in combination with other past, present and reasonably foreseeable projects, impacts related to global climate change would be cumulatively considerable (Class I).

6.3.3 Biological Resources

The geographic scope of potential biological resource impacts encompasses the wildlife and plant habitats of affected species in the region, including woodland, forest, chaparral, riparian, wetland, and grassland communities as well as aquatic habitat in the Wolf Creek watershed and other downstream watersheds.

Potentially significant impacts resulting from project implementation include potential impacts to special-status wildlife and plant species, sensitive habitats, wetlands/waters of the U.S., migratory species, and trees. These impacts would be reduced to less than significant through implementation of mitigation measures. Implementation of projects within the cumulative project scenario may also result in potential impacts to special-status and associated sensitive habitats. Projects that would impact special-status species would be required to comply with federal, state, and local regulations and ordinances protecting biological resources through implementation of similar mitigation measures as proposed for the proposed project. Moreover, for those projects that have not already undergone review, CEQA analysis and subsequent attainment of federal, state and location permits would be required. Regarding impacts to habitat, none of the projects

within the cumulative projects scenario would impact habitats that are unique or limited in the region. Therefore, the proposed project, when considered in combination with other past, present and reasonably foreseeable projects, would not be cumulatively considerable (Class II).

6.3.4 Cultural Resources

The geographic scope considered for potential cumulative impacts to cultural resources is the City of Grass Valley and western Nevada County.

The proposed project would have a less than significant impact on known historic resources. With implementation of mitigation measures, project implementation would have a less than significant impacts on currently unknown cultural resources. Implementation of other projects within the cumulative project scenario may result in similar impacts; however, none of the cumulative projects have the possibility of impacting cultural or historic resources on the IMMC project sites. Therefore, the proposed project, when considered in combination with these projects, would not result in a cumulatively considerable impact to cultural resources (Class II).

6.3.5 Geology, Soils, and Seismicity

The geographic scope of impact related to geology, soils, and seismicity is the area within and immediately adjacent to the sites.

The proposed project would have less than significant impacts related to structural damage, injury to workers, and potential property loss caused by compression of fill material that is unsuitable to support structural improvements. Additionally, with implementation of mitigation measures, impacts from cave-ins of shallow mine workings and surface subsidence would be less than significant. Since none of the projects within the cumulative project scenario are within the geographic scope for this resource area, the proposed project would not result in a cumulatively considerable impact (Class II).

6.3.6 Hazards and Hazardous Materials

The geographic scope of impacts associated with hazards and hazardous materials generally encompasses the proposed project sites, the construction zone, and the area within a one-quarter-mile radius.

Implementation of the proposed project would increase the potential for impacts related to hazards and hazardous materials in the proposed project area. However, these impacts would be site-specific in nature, regulated under Federal, State, and local rules and regulations, and would be reduced to less than significant levels through implementation of mitigation measures. Therefore, due to the site specific nature of the impacts of the proposed project, when considered in combination with the cumulative project scenario, the proposed project would not result in a cumulatively considerable impact from hazards and hazardous materials (Class II).

Additionally, there would be an increased risk of wildland fires during construction in and adjacent high fire hazard areas that would be less than significant with implementation of mitigation measures. Implementation of a number of projects within the cumulative project scenario could result in cumulative wildland fire impacts during construction of the proposed project due to the proximity of project sites and the shared use of the same access roads, especially if construction overlap occurred during the season of highest fire danger (April 1 to December 1). However, the applicant would be required to have fire suppression equipment on site and to coordinate with local fire service providers, thereby substantially limiting any potential incremental contribution of the proposed project to cumulative wildland fire impacts. Therefore, the proposed project, when considered in combination with other past, present and reasonably foreseeable projects, would not be cumulatively considerable (Class II).

6.3.7 Hydrology and Water Quality

The geographic scope of this impact is the area within and immediately adjacent to the project sites and downstream of the project sites on South Fork Wolf Creek and Wolf Creek.

Implementation of the proposed project would result in potential surface water quality degradation in South Fork Wolf Creek and Wolf Creek, potential groundwater losses due to dewatering, erosion in South Fork Wolf Creek, and downstream flooding due to mine water discharge. Implementation of mitigation measures would reduce these impacts to less than significant. Because none of the projects within the cumulative projects scenario are within the geographic scope of the cumulative scenario for this resource, mitigating project level impacts to less than significant reduces the potential for impacts of the proposed project to be cumulatively considerable. Moreover, none of the cumulative projects would be developed in locations that could be reasonably affected by the potential hydrology and water quality impacts associated with the proposed project. Therefore, the hydrology and water quality impacts associated with the proposed project, in combination with other past, present, and reasonably foreseeable projects, would be less than significant (Class II).

6.3.8 Land Use and Planning

The geographic context for the discussion of cumulative impacts includes the City of Grass Valley and the western portion of Nevada County.

Implementation of the proposed project could conflict with the adopted City of Grass Valley Capital Improvement Program, adopted by the General Plan, as well as the City of Grass Valley Zoning Map, Whispering Pines Corporate Community Specific Plan, and City of Grass Valley Parks and Recreation Master Plan, and their applicable land use designations and policies adopted for the purpose of avoiding or mitigating environmental effects. Implementation of mitigation measures would reduce these impacts to less than significant. Implementation of projects within the cumulative project scenario has been considered in the development of the City of Grass Valley and Nevada County General Plans. Therefore, the proposed project when considered in combination with other past, present and reasonably foreseeable projects would not be cumulatively considerable (Class II).

6.3.9 Noise

The geographic scope of potential cumulative noise impacts encompasses the project sites and their immediate vicinity (i.e., within the range of audible noise from the facilities during construction, operation and reclamation – approximately 1,200 feet) as well as along the access and haul routes to the project sites.

Implementation of the proposed project would have the potential to expose persons to noise levels in excess of standards established in the local general plans or noise ordinances or applicable standards of other agencies, result in a substantial permanent increase in ambient noise levels, and expose persons to excessive ground-borne vibration or ground-borne noise levels from blasting activities. However, implementation of mitigation measures would reduce these impacts to less than significant. None of the projects in the cumulative project scenario would have the potential to produce noise- or vibration-generating activities in excess of standards established in the local general plans or noise ordinances within 1,200 feet of the same sensitive receptors potentially impacted by the proposed project. Therefore, the proposed project, when considered in combination with other past, present and reasonably foreseeable projects within the range of audible noise from the project sites would not result in a cumulatively considerable impact (Class II).

6.3.10 Population and Housing

The geographic scope for the cumulative impacts associated with population and housing issues is the City of Grass Valley and the western Nevada County area, which assumes full build out of the proposed project, in combination with build out of the City and County as currently planned. The City and County General Plans establish the long-term pattern for distribution of population and housing opportunities for the City and the western portion of the County.

Implementation of the proposed project would not result in the inducement of substantial population growth in the area beyond what is planned, either directly or indirectly, nor would it indirectly displace housing units or impact the potential to provide sufficiently for the estimated increase in the need for housing units within the City. The proposed project, when considered in combination with other past, present and reasonably foreseeable projects, would not result in cumulatively considerable impacts related to population growth as the increase in population would be within that already considered in applicable planning documents. Moreover, it is currently unknown whether cumulative development within the City and County could result in demolition of existing housing units, displacing existing persons or dwelling units. If housing units were displaced as a result of future development proposals in the City and County, it is likely that relocation plans would be prepared consistent with Federal and State law. Therefore, the proposed project's contribution to population growth and displacement of persons and/or dwelling units would not be cumulatively considerable (Class III).

6.3.11 Public Services

The geographic scope of this impact is the service area of affected public services, generally limited to within the City of Grass Valley and western portion of Nevada County.

Implementation of the proposed project would potentially have long-term effects on the demand for or provision of public services, including police and fire services; however, implementation of mitigation measures would reduce those impacts to less than significant. The past, present, and reasonably foreseeable future projects could increase the need for public services within the project vicinity. However, future development within the project vicinity is guided by the City and County General Plans, and associated planning and environmental documents, and would be subject to the City and/or County planning processes. Additionally, the proposed project development, in conjunction with reasonably foreseeable future project developments, would bring additional annual revenue to the City in the form of increased local property taxes assessed on the new residential, commercial, and industrial development that would offset the increased demand for police and fire services. Therefore, the incremental impact associated with the proposed project would not contribute to cumulative long-term impacts on public services and therefore would not be cumulatively considerable (Class II).

6.3.12 Recreation

The geographic scope of this impact is the regional recreational facilities in the project area, generally located within the City of Grass Valley and western Nevada County.

Implementation of the proposed project would potentially have long-term effects on the demand for or provision of recreational facilities; however, implementation of mitigation measures would reduce those impacts to less than significant. The past, present, and reasonably foreseeable future projects do not include other recreational projects planned in the vicinity of the project site. However, there are numerous major development projects in the City of Grass Valley and Nevada County that could indirectly substantially increase the need for recreational facilities within the project vicinity by significantly increasing the population in the project area. However, future development within the project vicinity would be required to comply with all applicable City and/or County code standards and would be subject to the City and/or County planning processes and appropriate environmental review. Moreover, as part of this planning process, the payment of appropriate fees (in-lieu fees) by all development projects would be required to mitigate any impacts to recreation, as the fees would be used to provide publicly accessible open spaces, including an adequate amount of sports fields, and would further minimize cumulative impacts. Therefore, the incremental impact associated with the proposed project would not contribute to cumulative long-term impacts on recreation and therefore would not be cumulatively considerable (Class II).

6.3.13 Transportation and Traffic

The geographic scope for the cumulative impacts associated with transportation and traffic issues is the City of Grass Valley and western Nevada County.

Construction, operation and reclamation activities associated with the proposed project would increase traffic volumes in the area resulting in unacceptable operations at some local intersections. Project truck traffic would contribute to potential road wear that could cause surface damage to some local streets. However, implementation of mitigation measures would reduce these impacts to less than significant. The past, present, and reasonably foreseeable future projects would increase traffic volumes within the project vicinity. However, future development within the project vicinity is guided by the City and County General Plans, and associated planning and environmental documents, and would be subject to the City and/or County planning processes. Moreover, as part of this planning process, the payment of appropriate fees (fair-share fees) by all development projects would be required to mitigate any impacts to local transportation conditions, as the fees would be used to widen roadways, install traffic signals, promote pedestrian/bicycle safety and would further minimize cumulative impacts. Therefore, the proposed project, when considered in combination with other past, present and reasonably foreseeable projects, would not be cumulatively considerable (Class II).

6.3.14 Utilities and Service Systems

The geographic scope of this impact is the service area of affected utilities, generally limited to the City of Grass Valley and the western portion of Nevada County.

Implementation of the proposed project would have less than significant long-term effects on the demand for or provision of utilities, including water supply and solid waste disposal. The past, present, and reasonably foreseeable future projects include numerous major development projects in the City of Grass Valley and Nevada County that could substantially increase the need for utilities within the project vicinity. However, future development within the project vicinity is guided by the City and County General Plans, and associated planning and environmental documents, and would be subject to the City and/or County planning processes. Furthermore, future development would be required to comply with all federal, state, and local regulations and ordinances protecting utility services, including complying with all water conservation measures and waste minimization efforts in accordance with City of Grass Valley and Nevada County requirements. As a result, the incremental impact associated with the proposed project would not contribute to cumulative long-term impacts related to utilities and service systems and therefore would not be cumulatively considerable (Class II).

6.3.15 Energy

The proposed project, in conjunction with the cumulative project scenario, would result in an increase in the depletion of energy resources. The cumulative electricity and natural gas demand would represent approximately 0.36 percent and 0.17 percent of PG&E's system-wide electricity and natural gas annual deliveries, respectively. At this time, the nature and extent of energy conservation measures to be incorporated into the projects within the cumulative project scenario are not known. However, it can be assumed that related residential projects would at a minimum comply with Title 24 requirements for energy conservation. Furthermore, as an investor-owned utility regulated by the California Public Utilities Commission, PG&E is required to periodically

analyze its system capacities to ensure that resources would be available to accommodate the electricity and natural gas demands of its service area. Thus, cumulative impacts relative to energy usage would be less than significant and the proposed project's contribution to cumulative energy usage would not be cumulatively considerable. Furthermore, the proposed project and related cumulative projects would not be likely to result in cumulatively significant environmental impacts as a result of any new infrastructure required for energy delivery (Class II).

References – CEQA Statutory Sections

- City of Grass Valley, 1999. *City of Grass Valley 2020 General Plan*, November 23, 1999.
- City of Grass Valley, 2004. *City of Grass Valley 2003 – 2009 Housing Element*, adopted January 2004.
- City of Grass Valley, 2006. *Economic and Fiscal Conditions Study for the City of Grass Valley (“The SDA Study”)*, April 2006.
- Idaho-Maryland Mine Corporation (IMMC), 2007. *Revised Project Description for the Idaho-Maryland Mine Project, Grass Valley, CA*. May 29, 2007.
- Hausrath Economics Group (Hausrath), 2008. *Idaho-Maryland Mine Grass Valley, California Economic and Fiscal Analysis*, July 30, 2008.
- Nevada County, 1995a. *Nevada County General Plan, Volume 1 – Goals, Objectives, Policies and Implementation Measures*, adopted 1996.
- Nevada County, 1995b. *Nevada County General Plan, Volume 2 –Background Data and Analysis*, adopted 1996.
- Nevada County LAFCo, 2004. *Western Nevada County Water Service Providers Municipal Service Review*, Prepared by Sauers Engineering, Inc., January 2004.
- State of California, Department of Finance, 2007. *E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2006 and 2007*, Sacramento, California, May 2007.
- State of California, Department of Finance, 2008. *E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2007, with 2000 Benchmark*, Sacramento, California, June 2008.