

## **11.0 CUMULATIVE IMPACTS**

### ***11.1 Becraft Mountain Mining Operations***

St. Lawrence Cement, Co. (SLC) and A. Colarusso & Son, Inc. (ACS) both hold current NYSDEC Mined Land Reclamation Permits. The SLC permit (MLRP#4-1040-11/1) covers 1,222 acres on both sides of Newman Road; the ACS permit (MLRP#4-1040-34/25) is for mining and processing on 77 acres east of the road. Expansion of Colarusso operations would not increase the area historically affected by mining on Becraft Mountain, but would increase the permitted area by about 9%.

ACS is currently the only company conducting limestone mining operations on Becraft Mountain. Extraction takes place either on SLC property, west of Newman Road, or on company-owned property, east of Newman Road, depending on whether ACS has approval from SLC or not. Outside excavation contractors also conduct a small shale mining operation on SLC property episodically.

SLC has had discussions with other companies to extract limestone from its property. The potential exists, then, for the two mines to be operated simultaneously on the mountain under the existing permits. The potential cumulative impacts are herein assessed for the simultaneous operation of the SLC mine and the proposed ACS expansion onto the City of Hudson property.

### ***11.2 Geology, Soils, and Topography***

The City property and the SLC property have long been used for the extraction of limestone. Mining operations on the two properties will reduce the long-term limestone reserves in the Hudson Valley. However, rock is a non-renewable resource that is reduced in availability because of continuing demand, regardless of the number of mines operating.

Mining on the properties will not produce significant new impacts on either the soil resources or the topography of Becraft Mountain. Therefore, simultaneous mining on the SLC and City of Hudson properties will not produce cumulative impacts on geology, soils, and topography of the region.

### ***11.3 Water Resources***

Mining on the SLC property could potentially impact water resources on the City of Hudson property, whether mining is permitted on the subject property or not. Dewatering operations at the SLC mine may lower the water table and, consequently, the water level in the City reservoir (Cahn Engineers, Inc./Newnan and Doll, 1978). The proposed mining operations on the City property will not impact the reservoir, as discussed in Section 5.2.3. Therefore, there will be no cumulative impacts on the water resources of

the area by simultaneous mining of the two properties.

#### **11.4 Air Resources**

The relocation of the Colarusso extraction activities from existing sites to the City of Hudson property will have very little impact on air quality in the region. There may be a small increase in the number of diesel-powered vehicles used in the latter part of the operation. However, the initiation of another, completely new mining operation on the SLC property could increase both the gaseous- and fugitive dust emissions on Becraft Mountain. Both SLC and Colarusso have current approved mining permits, so emission levels could increase, whether mining on the City property is approved or not.

Vehicular traffic on haul roads will be the largest source of fugitive dust on both the SLC and the Colarusso mines. Colarusso and, presumably, SLC operate under approved fugitive dust plans to control those emissions, which limit cumulative dust impacts.

#### **11.5 Noise Characteristics**

Independent functioning of the SLC and Colarusso mines will generate noise from similar, but remote sources. The SLC operations would be on the west side of Newman Road, at least for the foreseeable future, but will eventually include property on the east side of the road. The Colarusso operations would be on the east side of the City of Hudson property, east of Newman Road. The excavation activities will generally be separated by 1,000 feet or more, except, possibly, if SLC is, by coincidence, mining just to the south of the southern boundary with the City property at the same time that Colarusso is mining just to the north. At that point, the operations will be more than 2,000 feet from any residential receptor.

Noise levels are additive, as discussed in NYSDEC (2000a), however, the sources must be relatively close together to produce this effect. Because sound levels drop off at a rate of about 6 dB per doubling of distance, the additive affect of sources operating more than a few hundred feet apart is relatively small.

The closest residential receptors to the proposed Colarusso mine are along Spook Rock Road, east of the City of Hudson property. The noise assessment prepared for the Colarusso project has demonstrated that noise levels will not significantly increase at those receptors from mining activities within the proposed expansion area. The closest SLC mine limit is about 2,000 feet from those receptors (for mining east of Newman Road) to more than 3,000 feet, when mining west of the road. Ambient noise measurements were taken for the noise impact assessment in the vicinity of those receptors while Colarusso mining equipment was operating on the SLC property. Noise

from the mining activities was not detectable at any residential receptors.

Based on the field measurements and calculations contained in the Noise Impact Assessment, there will not be a cumulative noise impact from the simultaneous mining on the SLC property and on the City of Hudson property.

### **11.6 Blasting**

The extraction of bedrock resources at both mines will necessitate the use of explosives to physically break up the rock for transportation and further processing. The frequency of blast events is a function of the production rate at the mine. Most quarries in the area blast weekly or less frequently, on an average, because of their production rates and the significant amount of effort needed to set up a blast event.

It is expected that the two operations would coordinate their events to prevent simultaneous blasting for safety, notification, and monitoring reasons. Each mine notifies neighbors and other interested parties prior to each blast and monitors the vibrations from the blast event.

Noise is the primary off-site blasting impact. Non-simultaneous blasting will not be additive, therefore, there will not be cumulative impacts from operation of the two mines.

### **11.7 Traffic and Access Road**

All traffic entering and leaving the Colarusso Quarry uses Newman Road and Route 23B. From there the trucks disperse to reach the delivery points. Access for on-road trucks to the SLC mine is via Route 9, on the west side of Becraft Mountain. Traffic from the SLC mine does not use Newman Road. Off-road trucks that currently transport stone from the SLC property to the Colarusso processing plant cross Newman Road, but do not travel along the road.

This pattern of traffic and access to the mines is not expected to change in the future, even if both sites are operated simultaneously. Trucks carrying processed stone that was excavated on the City of Hudson property will use the Newman Road access route. Delivery trucks transporting stone from the SLC mine will use Route 9. The delivery areas may overlap, so that trucks from both mines may occasionally use the same route. However, truck traffic is a function of demand for stone, therefore, traffic levels are not expected to rise significantly, merely because a second mine becomes operational. No cumulative impacts on traffic are predicted from the operation of the SLC and Colarusso mines.

### **11.8 Visual Characteristics**

The City of Hudson property is located within the plateau of Becraft Mountain; the site is screened from potential visual receptors off the plateau. The Visual Impact

Assessment prepared for the Colarusso quarry expansion documented that the mine would not be visible from any off-site sensitive locations. The SLC property is similarly situated within the plateau; the two mines cannot be viewed from any location off Becraft Mountain.

Mining has been conducted on Becraft Mountain for more than 100 years; visual evidence of mining on both properties is apparent from Newman Road. Future mining on the SLC property and the former Lone Star property will not introduce new visual elements (such as line, form, texture, color) to the landscape. Therefore, mining on both properties, whether simultaneous or sequential will not result in cumulative visual impacts to any sensitive receptors.

### **11.9 Ecology**

Becraft Mountain, including the SLC and City of Hudson properties, lies within the Hudson Valley ecozone, according to Reschke (1990). Previous mining activities on both properties have created a mixture of bare rock, haul roads, stockpiles, successional vegetation, and woods. The communities found on the former Lone Star mine (Table 5.7-1) are also found on the SLC property (St. Lawrence Cement Company, 2001). Protected plant or animal species have not been identified on the plateau.

All of the vegetation within the excavation areas will ultimately be removed. An average of about 4-5 acres of land will be cleared per year on the ACS expansion area; the annual clearing rate on the SLC property is unknown, but may be similar, if the mining rates are comparable. The impacts are temporary, as the affected land will be reclaimed following excavation. Ultimately, the successional woody species will again populate the areas from adjacent seed sources.

Much of Becraft Mountain is covered with transitional communities; as a result the upland wildlife species displaced by mining activities, will be able to move into similar habitats nearby. The two mine properties cover a total of more than 1,500 acres; the loss of ½ of 1% per year of this area is expected during active mining. Ultimately, successional vegetation will be re-established on this land. Therefore, no cumulative ecological impact from the simultaneous mining of the two properties is expected.

### **11.10 Archeological and Historical Resources**

No significant adverse impacts to archeological or historic resources are expected from the expansion of mining activities onto the former Lone Star property. Much of the area has already been mined or stripped of soil and vegetation in anticipation of mining by Lone Star. Therefore, no cumulative impacts to archeological or historical resources are expected from the simultaneous mining of the SLC and City of Hudson properties.

### **11.11 Community Goals**

Both the SLC and City of Hudson properties are located in the Town of Greenport. The Town remains without zoning, which is the typical method by which a community insures that its goals are met. Nonetheless, creating jobs, expanding the tax base, and the preservation of community character are typical goals for any community.

The mining industry has historically provided, and continues to provide, jobs, taxes, and raw materials to the Town and the surrounding region. No significant impacts on the goals of the community have been identified from the operation of either mine; therefore, cumulative impacts on community goals are not expected from the simultaneous operation of both mines.

### **11.12 Community Services**

Mining operations require few community services; electrical, water, and solid waste disposal demands are low. Analyses done elsewhere in the area have shown that industrial facilities generate nearly twice the tax revenues than are required in community services. No significant impact on community services has been created by mining on Becraft Mountain, therefore, the simultaneous mining of the SLC and City of Hudson properties will not significantly increase the demand for community services by the operation. As a result, a cumulative impact on community services is not anticipated from the simultaneous operations of both mines.