



Response to Consideration of 112c Construction Materials Reclamation Permit Application

DATE: October 28, 2022
TO: Peter S. Hays, Environmental Protection Specialist
FROM: Javier Vargas-Johnson, Water Resources Engineer
RE: Windsor East Mine, Permit No. M-2022-042
Applicant/Operator: Martin Marietta Materials, Inc.
Phone Number: (970) 407-3631
NW¼ Section 36, Twp. 6 North, Rng. 67 West, 6th P.M., Weld County
Water Division 1, Water District 3

CONDITIONS FOR APPROVAL

- ☒ The proposed operation will consume groundwater by: ☒ evaporation, ☒ dust control, ☐ reclamation, ☒ water removed in the mined product, ☐ processing, ☐ other.
- ☒ Prior to initiation of these uses of groundwater, the applicant will need to obtain either a gravel pit or other type of well permit, as applicable. However, prior to obtaining a permit, an approved substitute water supply plan or decreed plan for augmentation is required.
- ☒ Any stormwater runoff intercepted by this operation that is not diverted or captured in priority must be released to the stream system within 72 hours; otherwise the operator will need to make replacements for evaporation.

COMMENTS: The subject application is for a surface mining operation on 150.3 permitted acres located approximately 2 mile southeast of the Town of Windsor. The primary commodity to be mined at the site is aggregate, and the secondary commodity to be mined is gold. The site is proposed to be reclaimed to developed water resources with two lined reservoirs with a total surface area of 54.7 acres.

The site is proposed to be dry mined. Dewatering trenches will be excavated around the perimeter of each mining area prior to the commencement of mining. Prior to the exposure or use of any groundwater at the site, the applicant must first obtain a well permit and a valid substitute water supply plan or decreed plan for augmentation. The applicant has indicated that they intend to obtain a substitute water supply plan for the site. There are four cells that are proposed to be mined. Mined material will be transported by conveyor belt to the Parsons Mine directly east of the proposed mining operation for processing. Cells A and C will be reclaimed to water storage reservoirs. Reclamation of each water storage reservoir will include construction of a compacted clay embankment (clay liner) around the perimeter of the excavation to prevent seepage of groundwater into and stored water out of the reservoirs. Cell B will be backfilled above the water table leaving a 5-foot depression to act as a stormwater detention pond for future development on adjacent land. Until such development occurs, no stormwater will be routed to the depression, and any stormwater collected within the depression is anticipated to infiltrate into the ground. Cell D will be backfilled completely.

Water for dust control will be supplied using a 2,500 gallon water truck. The application indicates that water rights associated with the site will be used for dust control. The applicant will need to document



that any water used for dust control purposes at the site is permitted or decreed for such use and be able to provide such documentation to this office upon request.

Stormwater will be collected in the perimeter dewatering trenches and pumped into the Cache la Poudre River. If stormwater runoff is intercepted by this mining operation and is not diverted or captured in priority, it must be released to the stream system or infiltrate into the ground within 72 hours; otherwise the operator will need to make replacements for evaporation from the surface area of the intercepted stormwater. As indicated above, Cell B is proposed to be reclaimed into a stormwater detention pond. The applicant should be aware that unless the structure can meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), C.R.S., the structure may be subject to administration by this office. The applicant should review the Division of Water Resources' Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado, which can be found at <https://dwr.colorado.gov/services/water-administration/rainwater-storm-water-graywater>, to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The applicant is encouraged to use Colorado Stormwater Detention and Infiltration Facility Notification Portal, located at <https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>, to meet the notification requirements.

The Applicant has conducted a baseline groundwater assessment to assess potential impacts associated with the proposed sand and gravel mine. As part of the baseline groundwater assessment the applicant has constructed five monitoring wells. Monitoring well data will be used to identify changes in alluvial groundwater flow associated with mining and reclamation activities. According to the application, if the extent of groundwater changes due to mining or reclamation activities is determined to be a significant contributing factor that has or may create adverse impacts, the mining-associated impacts will be addressed to the satisfaction of the Division of Reclamation, Mining and Safety.

In certain areas of the South Platte River Basin, staff of DWR has observed groundwater problems that appear to be related to the lining of gravel pits located near streams, and in particular, these problems occur when multiple liners are located adjacent to each other. DWR requests that DMRS consider the siting and design of lined gravel pits to ensure that they will not individually, or cumulatively, result in impacts to the timing and quantity of groundwater flow from upgradient locations back to the stream system. In addition to impacts to property, such as flooding upgradient and reduced water levels downgradient of the liner, there are decrees of the court that specify the timing, quantity and amount of water depleted from the streams by wells and accreted to the stream through recharge operations. The installation of a gravel pit liner should not result in changes to the timing, location, and amount of such groundwater flow.

At this time there are no lined reservoirs immediately adjacent to the proposed Windsor East Mine, however, the Parsons Mine is adjacent to the proposed site and is proposed to be lined in the future. To the east of the Parsons Mine, portions of the Firestien-Tigges Pit are also proposed to be converted to lined water storage reservoirs.

The Division of Reclamation, Mining and Safety and/or the applicant may contact the State Engineer's Office with any questions.