

22.0 PUBLIC HEALTH

22.1 INTRODUCTION

This chapter addresses the potential public health impacts associated with the construction and operation of the MN 1/2/5 Garage and Salt Shed. For purposes of this analysis, public health is defined as the activities that society carries out in order create and maintain an environment in which people can be healthy. According to the *CEQR Technical Manual*, the elements that combine to influence public health include air quality, hazardous materials, construction, and natural resources (e.g., water quality impacts). These elements are analyzed in other chapters of the *FEIS* and conclusions of those chapters have been used to determine if impacts to public health would occur.

22.2 METHODOLOGY

The methodology outlined in the *CEQR Technical Manual* was used to first screen the public health criteria to assess whether potential impact exists, and whether it warrants further analysis and determination on the type of analysis to be utilized. In determining whether a detailed public health assessment is warranted for the Proposed Action, impacts with respect to air quality, hazardous materials, noise and water quality were considered, as summarized below.

22.3 AIR QUALITY AND ODOR

The public health evaluation considers whether the localized increment of air emissions from mobile sources (vehicular traffic) and stationary sources (heating systems) associated with the Proposed Action would cause a significant air quality impact or the exceedance of air quality standards established for the protection of human health. Chapter 19, "Air Quality" examined this potential in detail. The Proposed Action will involve limited rerouting of DSNY collection trucks and passenger cars for MN 2 and 5. All DSNY diesel trucks will be equipped with BART or otherwise meet 2007 USEPA clean diesel standards or better. Such retrofits and new diesel engines with advanced emission controls achieve emission limits that are essentially the same as, or better than, emissions from heavy duty natural gas trucks.

A detailed mobile source CO analysis was not warranted as the Proposed Action would result in less than 100 peak hour net project-related vehicle trips on the local roadway network, the CEQR-defined threshold. A total of 89 Proposed Action vehicles (PCEs) would pass through the intersection of Spring Street and Washington Street in the Saturday PM peak hour (Section Chapter 17.5).

A microscale mobile-source PM_{2.5} analysis was not required since the Proposed Action would result in less than 32 peak hour HDDV trips in 2012. A maximum net of ~~2225~~ Proposed Action AM peak hour HDDV trucks would be generated (intersection of West Street/Route 9A and Clarkson Street). Therefore, the Proposed Action would not result in any mobile source violations of the CO or PM standards and would not have any air quality impacts of public health significance from such sources.

An assessment of the building's emissions as a stationary source from vehicles exiting the garage building was also conducted. The peak hour number of exiting HDDVs would fall below the screening threshold (there would be a maximum number of ~~4044~~ HDDVs exiting the garage on a weekday Saturday morning, 6 AM to 7 AM); therefore, a microscale PM_{2.5} stationary source was not necessary.

CO levels within the MN 1/2/5 Garage were predicted to be 3.8 ppm, substantially less than the OSHA 8-hour interior standard of 50 ppm. The analysis conservatively assumed one air exchange per hour when, in fact, there would typically be up to six air exchanges per hour within the garage during

operation. Interior CO levels were also evaluated with respect to dispersion from the garage rooftop vent. The analyses predicted a CO concentration of 2.6 ppm at the nearest sensitive receptor location, well below the 8-hour NAAQS of 9 ppm.

The MN 1/2/5 Garage would be heated by natural gas or steam. The existing MN 1 Garage and MN 5 Garage are currently heated by fuel oil which contains on the order of 2,000 to 3,000 ppm of sulfur; the MN 2 Garage is heated by natural gas. Therefore, the new garage would use a cleaner burning fuel and would reduce air emissions on a BTU unit basis. Based on the CEQR-defined screening methodology (taking into account the scale of development and distance to nearest building of similar or greater height), a detailed stationary source analysis for stack emissions was not required.

The potential health impacts of diesel truck emissions were considered in detail in the FEIS for the SWMP (DSNY, April 1, 2005). A review of traffic and respiratory literature considered the possible links between respiratory diseases like asthma and levels of nearby traffic. The discussion and conclusions can be found in Chapter 33 of the FEIS (DSNY, April 1, 2005). While there appear to be grounds for concern about air quality near busy roadways, neither these studies, nor subsequent ones referenced by the USEPA in a recent proposed rulemaking concerning particulate matter (72 Federal Register 54112, Sept. 21, 2007) would lead to a conclusion that the Proposed Action's addition of up to 25 HDDVs meeting USEPA 2007 model year standards for particulate matter to a roadway in an hour would be of public health significance. It is noted that such trucks are 10 times cleaner with respect to particulate matter than 1998-2004 model year trucks, 25 times cleaner than model year 1991 – 1997 trucks and 60 times cleaner than 1984-1990 model year trucks. DSNY collection trucks have a seven-year service life. Therefore, in 2012 the combined particulate emissions from 24 USEPA 2007-compliant trucks from the three district garages in the peak hour would be considerably less than from the entire MN 1 Garage fleet alone in 2006. Hazardous air pollutants associated with diesel emissions were considered and found not to be significant.

In view of the fact that DSNY will employ the latest clean diesel technology, and that air emissions from mobile sources and from stationary sources would not exceed health-based standards of the CAA or exceed significant impact thresholds under interim guidance for PM_{2.5}, the air impacts from the garage relocation and limited DSNY truck rerouting would not be of public health significance.

Operations of the MN 1/2/5 Garage would not result in significant odors. On occasion residential waste and recyclables would be stored in closed trucks (estimated to be a maximum of 2542 trucks or fewer) within the garage for a maximum of eight hours. Prior studies of odors from DSNY trucks indicate that such trucks parked inside a garage would not be conducive to significant off-site odor impacts (Section ~~Chapter~~ 19.6). Extermination services would be provided as needed. The Proposed Action would remove DSNY trucks that are currently stored on local streets and outdoors at Gansevoort/Pier 52 and store them indoors.

In summary, the Proposed Action would not have a significant adverse impact on human health as air emissions would comply with all applicable air quality standards. Similarly, odor impacts would not significantly affect human health.

22.4 HAZARDOUS MATERIALS

Based on a review of regulatory records and a site reconnaissance, performed as part of a Phase I ESA, there were no hazardous materials noted that would pose a threat to human health. There is no indication of acutely toxic or hazardous materials on the project sites.

Peeling paint observed within the existing MN 1 Garage could be lead-based paint due to the age of the building. The presence of a substance resembling asbestos was observed wrapped around the ceiling pipes in the existing MN 1 Garage. Prior to demolition of the MN 1 Garage these materials would

be tested, and would be handled and disposed of in accordance with federal, state and city regulatory requirements. It is expected that a construction HASP would be prepared and implemented. The site-specific HASP would detail the procedures to be used to protect worker and general public health. The HASP would include methods for the safe handling of soils and groundwater from the sites, including any water from dewatering. Although none are anticipated, any contaminated soils and groundwater would be managed in accordance with applicable or regulatory requirements, therefore, there would be no potential significant adverse public health impact from hazardous materials.

22.5 NOISE

Ambient noise conditions in the neighborhood surrounding the sites of the new MN 1/2/5 Garage and Salt Shed are heavily influenced by truck and automobile traffic, primarily on Canal Street (as a conduit to and from the Holland Tunnel) and West Street/Route 9A (Chapter 20). L_{eq} noise measurements ranged from 64 to 70 dBA and L_{10} noise measurements ranged from 65 to 75 dBA.

Noise from Proposed Action vehicles was evaluated in accordance with the *CEQR Technical Manual*. It was found that the peak hour increase in PCEs was less than half of the *CEQR* threshold and therefore, a significant mobile source noise impact would not occur. There would be no anticipated significant noise impact from the enclosed mechanical equipment located on the rooftop at a height of less than 120-140 to 150 ft. Therefore, noise from the Proposed Action would not result in a significant adverse public health impact.

22.6 WATER QUALITY

Construction on the sites would include a Soil Erosion and Sediment Control Plan, as well as a SWPPP. The sites and their location with respect to other urban features (i.e., West Street/Route 9A) are sufficiently distant from the Hudson River where no construction-related impacts would be anticipated. The MN 1/2/5 Garage and Salt Shed would have oil/water separators to treat water from operations prior to discharge to the City's sewer system. Therefore, there would be no significant adverse impact on public health from the Proposed Action effects on Hudson River water quality.

In addition, a vermin control program would be implemented at the proposed garage. In view of the foregoing, a detailed assessment of the Proposed Action's potential impacts on public health is not warranted and no significant adverse impacts are expected.