

## 3.4 SOCIOECONOMIC CONDITIONS

### 3.4.1 Introduction

This Section describes the methodology used to determine the potential socioeconomic impacts of the construction and operation of the Shaft 33B project and associated water mains. Socioeconomic impacts may occur when a project would directly or indirectly change population, housing stock, or economic activities in a given area.

Potential socioeconomic impacts include direct and indirect displacement. According to the *CEQR Technical Manual*, direct displacement is the involuntary displacement of residents, employees, and businesses from the site of a proposed action, while indirect displacement is the involuntary displacement of residents, employees, or businesses due to changes in living conditions or costs that could potentially result from the project.

The Shaft Sites and water main routes are located either on City-owned property or streets, or on vacant land and, therefore, would not result in the direct displacement of businesses or residents. Therefore, the socioeconomic assessment focuses on potential indirect displacement due to potential impacts of the project including noise, vibration, and traffic and pedestrian circulation impacts.

Another potential socioeconomic effect could result from the cost to construct the project that would be borne by water and sewer ratepayers. This Section describes the methodology that is used to evaluate whether construction costs would have the potential to result in the indirect displacement of residential water and sewer users. In the case of the proposed project, the issue is whether the increase in the cost of water would be passed along to consumers, which would lead to higher rents and operating costs and potentially to indirect displacement.

### 3.4.2 Existing Conditions Methodology

#### Residents and Businesses

As discussed in the technical chapters of the EIS, construction of the shaft has the potential to result in potential significant noise impacts on nearby residents and businesses. There were no other potential significant impacts identified on residents or businesses in the vicinity of the potential shaft sites, although more temporary traffic, pedestrian, or vibration impacts on local residents or businesses could occur at some potential project sites.

The existing socioeconomic conditions section for each potential project site identifies businesses and residents who have the potential to be significantly impacted by construction noise or most likely affected by other impacts of the project. Although water main construction would not generate potential significant noise impacts, residents and businesses along the potential water main routes are identified as well.

### **Water and Sewer Rates**

The costs of the project would be borne by New York City water and sewer rate payers. Information on the current water and sewer rate structure for City customers is provided. Average annual water and sewer bills for residential households in New York City are provided based on current rates for water and sewer usage as applied to an estimated usage of 100,000 gallons per year (gpy) per household.

Different financing methods available to NYCDEP to fund capital improvement projects are discussed. These methods include financing authorized by the New York City Municipal Water Finance Authority (“Authority”) and financing obtained through the State Revolving Loan Fund Program, with grant money provided by the U.S. Environmental Protection Agency (USEPA). Information sources include recent revenue bond filings that outline the City’s water and sewer capital plan and revenue program.

### **3.4.3 Future Conditions Without the Project Methodology**

#### **Residents and Businesses**

This assessment presents whether there are any foreseeable changes in residents or businesses in close proximity to the potential Shaft Sites and water main routes. This information is based on the land use analyses for each potential project site (see Sections 4.2, 6.2, 7.2, and 8.2, “Land Use and Community Facilities, Zoning, and Public Policy”) that describe future changes in the Study Area without the project.

#### **Water and Sewer Rates**

Projected capital expenditures, excluding the proposed project, were calculated by the Authority to provide a basis for estimating City water rates per household in the Future Without the Project. The Authority’s most recent forecast for the fiscal years (FY) 2006 to 2010 based on the Five-Year Capital Plan was used. Estimates of future City water and sewer charges, in the absence of the proposed project, were calculated based on the rate of increase in the City’s projected capital expenditures.

### **3.4.4 Future Conditions With the Project Methodology**

#### **Residents and Businesses**

##### *Construction*

The potential socioeconomic effects that construction activities could have on nearby residents and businesses are evaluated for each potential project site. The proposed construction activities at the potential Shaft Sites would involve construction of a long duration. As identified in the technical sections for each potential project site, there would be potential significant construction-related noise impacts that would affect residents and businesses in the vicinity of each Shaft Site. Although water main construction would not generate potential significant noise

impacts, impacts on residents and businesses along the potential water main routes are described as well. Although there would be no potential significant traffic, pedestrian or vibration impacts on local residents or businesses, these effects are discussed qualitatively, where applicable. A determination is made as to whether these effects would be disruptive or intrusive enough to lead to significant indirect displacement and overall socioeconomic changes.

#### *Operation*

Once constructed, the shaft would not be very visible. Short-term maintenance and repair activities would routinely occur at the site, as discussed in Chapter 2, “Purpose and Need and Project Overview.” No potential significant adverse impacts have been identified for these activities and therefore, these activities would not be anticipated to result in indirect displacement or other socioeconomic impacts. Therefore, no analysis of shaft or water main operations was conducted.

#### **Water and Sewer Rates**

The estimated capital costs for construction of Shaft 33B at each of the potential Shaft Sites is presented. In addition, estimated water main construction costs are presented under each Shaft Site to estimate the total costs of the project. Operational costs are also provided including costs of the labor required to operate and maintain the systems.

The costs of the project to City water and sewer ratepayers are estimated between FY2008 and FY2016 since these are the years when the costs of the project would be fully reflected in the debt service on the bonds issued to finance the capital costs and the largest rate increases due to the project would be incurred.

While total costs over the life of the proposed facility would vary depending upon the type of financing method selected (due to the shorter repayment period but lower interest rate imposed by the New York State Drinking Water Revolving Fund Program [SRF] program), the actual difference between the Authority financing and the SRF financing is negligible. Therefore, the anticipated rate increases and the effect on charges to residential consumers have been developed for the project using only the Authority form of financing. The assessment was performed for the preferred Shaft Site and estimated for the other Shaft Sites based on the relative construction costs.

The potential socioeconomic impacts on City water and sewer ratepayers due to potential rate increases from the project were examined. If these rate increases were high enough, potential indirect socioeconomic impacts such as housing dislocation could occur. To determine impacts, the incremental changes in household water cost due to the project were discussed in the context of monthly owner- and renter-costs as well as the overall changes the project would have on these costs.

