THE CITY OF NEW YORK
OFFICE OF THE MAYOR
NEW YORK, NY 10007

Citywide Ferry Service

CEQR Number 15DME009Y

STATEMENT OF FINDINGS

Made Pursuant to the New York State Environmental Quality Review Act and City Environmental Quality Review

Office of the Deputy Mayor for Housing and Economic Development

August 19, 2016

A. INTRODUCTION AND SUMMARY OF PROPOSED PROJECT

INTRODUCTION

This Statement of Findings is issued pursuant to Article 8 of the New York State Environmental Conservation Law, the State Environmental Quality Review Act (SEQRA), 6 NYCRR Part 617, and the New York City Environmental Quality Review (CEQR) process as set forth in New York City Mayoral Executive Order 91 of 1977, as amended and the Rules of Procedure for City Environmental Quality Review, found at Title 62, Chapter 5 of the Rules of the City of New York (CEQR). This Statement of Findings has been prepared to: 1) certify that the procedural requirements have been met; 2) consider the relevant environmental impacts, facts, and conclusions disclosed in the Final Environmental Impact Statement (FEIS) for the Citywide Ferry Service Project; 3) weigh and balance the relevant environmental impacts of the proposed actions with social, economic, and other considerations; and 4) provide a rationale for the decision of the Office of the Deputy Mayor for Housing and Economic Development (ODMHED), in the Office of the Mayor.

This statement sets forth the findings of the Office of the Deputy Mayor for Housing and Economic Development, in the Office of the Mayor, as lead agency with respect to the environmental impacts of the Citywide Ferry Service project as analyzed in the Final Environmental Impact Statement (FEIS) approved by the lead agency on July 28, 2016.

Lead Agency

Office of the Deputy Mayor for Housing and Economic Development
Hilary Semel, Assistant to the Mayor
253 Broadway, 14th Floor
New York, New York 10007

SEQRA Status

The Citywide Ferry Service is classified as a Type I action pursuant to 6 NYCRR Part 617.4(b)(9), an Unlisted Action occurring wholly or partially within, or substantially contiguous to, any historic building, structure, facility, site or district.

Location: Brooklyn Community Districts 2, 6, 7, and 10: Block 5778, Lot 1; Block 611, Lot 25, Block 595, Lot 52, Block 515, Lot 61, or Block 612, Lot 130; Block 5835, Lot 30 and Block 6140, Lot 1; Block 245, Lot 29

Queens Community Districts 1, 2, and 14: Block 490, Lot 100; Block 21, Lot 500 or Block 489, Lot 23; Block 16166, Lot 177

Bronx Community District 9: Block 3435, Lot 75 or Block 3435 Lots 18, 35, and 40

Manhattan Community Districts 1, 3, 6, and 8: Block 1474, Lot 60; Block 1373, Lot 1; Block 991, Lots 29 and 33[1]; Block 262, Lot 25; Block 1587, Lot 27 and Block 1592, Lot 1; Block 967, Lot 50; Block 36, Lot 18

[1] The final design of the Stuyvesant Cove landing altered the angle of the gangway to be more perpendicular to the shoreline. As a result, the northern portion of the landing barge would be located in the adjacent Block 991, Lot 33; the majority of the gangway and barge would still be located in Block 991, Lot 29. Both Lots 29 and 33 are in-water lots.

SUMMARY OF THE PROPOSED PROJECT

The New York City Economic Development Corporation (NYCEDC) is proposing to implement a Citywide Ferry Service (CFS) that would provide an affordable and convenient transit option to and from otherwise transit-isolated neighborhoods. The proposed CFS expands on the existing East River Ferry (ERF), a privately operated commuter and recreational transit service paid for by the City of New York and NYCEDC and managed by NYCEDC.[2] The ERF serves seven landings year-round including two Manhattan terminals at East 34th Street and Pier 11, and five other landings along the Brooklyn and Queens waterfronts. On summer weekends, the ERF also serves Governors Island. The expansion required for the proposed CFS includes five new routes and 13 new or upgraded landings, as well as upgrades to the two Manhattan terminals. Ferries are expected to operate daily, generally between 6:30 a.m. and 10:00 p.m., with frequent and consistent service during weekday peak periods. During off-peak periods, including weekends, the frequency of service would vary based on the season. NYCEDC expects to launch three routes (Rockaway, South Brooklyn and Astoria) in Spring/Summer 2017 and the remaining two routes (Lower East Side and Soundview) in Spring/Summer 2018. In addition to the new ferry routes, the CFS project would potentially introduce two new shuttle bus service routes to service the Rockaway landing.

PROCEDURAL HISTORY

ODMHED issued its Notice of Intent to serve as lead agency on July 1, 2015 to the New York City Department of City Planning (NYCDCP), the New York City Department of Parks and Recreation (NYCDPR), New York City Department of Environmental Protection (NYCDEP), New York City Department of Transportation (NYCDOT), New York City Small Business Services (NYCSBS), New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), New York State Department of Environmental Conservation (NYSDEC), United States Coast Guard (USGS), and the United States Army Corps of Engineers (USACE). On August 12, 2015, ODMHED, as lead agency for the CEQR environmental review, issued an Environmental Assessment Statement (EAS) and a Positive Declaration for the project indicating that there was the potential for adverse environmental impacts due to the project and directed that a Draft Environmental Impact Statement (DEIS) be prepared. At the same time, a Draft Scope of Work for an Environmental Impact Statement (EIS) was issued for public comment.

The EAS, Positive Declaration, and draft Scope of Work for an EIS were posted on the websites of the Mayor's Office of Sustainability (MOS) and the New York City Economic Development Corporation (EDC). The Positive Declaration and Notice of Public Scoping were published in: the *City Record* on August 14, 17, and 18, 2015; the *Environmental Notice Bulletin* on August 19, 2015; the *New York Post* and *El Diario* (in Spanish) on September 2, 2015; the *Queens Chronicle* and the *Bronx Times* on September 3, 2015; *Sing Tao* (in Mandarin) and the *Brooklyn Daily Eagle* on September 4, 2015; and the *Village Voice* on September 2, 2015. To provide a forum for public comments on the Draft Scope of Work, public scoping meetings were held as follows:

September 16, 2015	September 21, 2015
Queens Borough Hall	NYC Economic Development Corporation
120-55 Queens Blvd, Kew Gardens, NY 11424	110 William St, 6th Fl, New York, NY 10038

[2] ERF was originally analyzed in an Environmental Assessment Statement (EAS) dated October 15, 2013 (CEQR no. 13DME009Y) with the Office of the Deputy Mayor for Economic Development (ODMED) as Lead Agency. The Office formerly known as the ODMED is now the Office of the Deputy Mayor for Housing and Economic Development (ODMHED).

September 17, 2015
Justice Sonia Sotomayor Community Center
1000 Rosedale Avenue, Bronx, NY 10472

September 28, 2015
Brooklyn Borough Hall
209 Joralemon St, Brooklyn, NY 11201

Written comments on the Draft Scope of Work were accepted until 5:00 PM on Thursday, October 8, 2015. A Final Scope of Work was prepared, taking into consideration comments received during the public comment period, to direct the content and preparation of a DEIS. ODMHED issued the Final Scope of Work on April 18, 2016.

The DEIS was prepared in accordance with the final Scope of Work. On April 18, 2016, ODMHED accepted the DEIS and issued a Notice of Completion. The Notice of Completion and the DEIS were posted on the websites of the MOS and EDC and it was indicated that this was the beginning of the public comment period on the DEIS. The DEIS and Notice of Completion were published in: the *City Record* on April 19, 20, and 21, 2016; the *Environmental Notice Bulletin* on April 27, 2016; the *New York Post*, the *Village Voice*, the *Brooklyn Daily Eagle* and *Sing Tao* (in Mandarin) on May 4, 2016; the *Queens Chronicle* on May 5, 2016; the *Bronx Times* on May 6, 2016; and in *El Diario* (in Spanish) on May 10, 11, and 12, 2016. In order to receive comments related to the DEIS public hearings were held as follows:

May 19, 2016
NYC Economic Development Corporation
110 William St, 6th Fl, New York, NY 10038

May 24, 2016
St. Francis College, Founders Hall
180 Remsen St, Brooklyn, NY 11201

May 23, 2016
Queens Borough Hall
120-55 Queens Blvd, Kew Gardens, NY 11424

May 25, 2016
P.S. 47
1794 East 172nd St, Bronx, NY 10472

The comment period for the DEIS remained open until June 6, 2016. On July 28, 2016, ODMHED issued the Notice of Completion for the Final Environmental Impact Statement (FEIS) for the proposed project. The FEIS incorporates revisions to the DEIS that were made subsequent to the issuance of the DEIS. The revisions reflect certain modifications to the proposed project, refinement of landing designs and locations, vessel specifications, and a summary of and responses to public comments. The FEIS and Notice of Completion for the FEIS were posted on the websites of MOS and EDC.

Having reviewed the DEIS, FEIS, and supporting and related documents, ODMHED makes the findings and conclusions contained herein based on those documents and the administrative record.

PROPOSED ACTIONS

It is presently anticipated that the proposed CFS project would require approval of several discretionary City actions, including the following:

- Capital expenditures by the City of New York to provide funding for procurement of barge and gangway infrastructure for use at landings, and ferry vessels;
- Decision to provide funding for the operation of the CFS; and
- Zoning Overrides to waive regulations relating to permitted uses in residential districts (Zoning Resolution [ZR] §22-00) to allow for the proposed new landings and upgrades to existing landings; parking (ZR §62-43) and pick up and drop off areas (ZR §62-462); general requirements for visual corridors and waterfront public access areas (ZR §62-50); design

requirements for waterfront public areas (ZR §62-60); and provisions for special review by the City Planning Commission (ZR §62-80).

The implementation of the proposed CFS would also require permitting approvals from the NYSDEC and USACE. The USCG would serve in an advisory role for the issuance of the USACE permit and would have regulatory authority over the design and operation of CFS vessels. Furthermore, the proposed landing in Long Island City at Center Boulevard (located within Gantry Plaza State Park) would require a permit from the OPRHP, the owner of Gantry Plaza State Park. Finally, the proposed landing at Roosevelt Island would require a zoning override from the Roosevelt Island Operating Corporation (RIOC).

The proposed city actions (collectively, the "proposed project") are subject to CEQR. In conformance with CEQR, a FEIS has been prepared to analyze the potential impacts of the proposed project. Both OPRHP and RIOC served as involved agencies for the environmental review of the proposed CFS and are anticipated to adopt the findings of the FEIS.

The proposed actions are largely required in order for NYCEDC to provide the necessary improvements at landing areas for the expanded ferry service: of the 21 landings that would be served by the CFS, 10 require construction of new landing infrastructure (barges, gangways, and potential shoreline improvements such as upgraded bulkheads), and five require replacement or reconfiguration of existing landing infrastructure. These infrastructure improvements would be funded by the City of New York. The proposed CFS would be operated by a private operator through an agreement with NYCEDC, similar to the existing operating agreement for ERF. CFS would also require the NYCDOT approvals to operate a private ferry service and/or to use landings under the jurisdiction of NYCDOT.

In addition, the proposed CFS would require modifications of zoning regulations relating to waterfront public access areas and uses. These modifications would allow for the siting of landings in residential zoning districts and would waive the requirements for parking and pick-up/drop-off areas, which would provide for more efficient site plans for landings that utilize a minimum of space and do not interfere with other public open space resources.

These modifications would be permitted through the application of a Zoning Override; the landing on Roosevelt Island would be permitted through an override issued by RIOC.

DESCRIPTION OF THE PROPOSED PROJECT

New Ferry Routes

The proposed CFS would introduce five new ferry routes, providing service to either or both of the existing Manhattan ferry terminals (Pier 11/Wall Street and Midtown/East 34th Street) as well as new landings in Manhattan, Brooklyn, Queens, and the Bronx. **Table 1**, below, summarizes the proposed new routes and landings.

Table 1
Proposed New Ferry Routes and Landings

Route	Landings/Terminals
Existing	
East River Ferry	• Pier 11/Wall Street[1] • Brooklyn Bridge Park/Pier 1 • South Williamsburg/Schaefer Landing • North Williamsburg/North 6th Street • Greenpoint/India Street • Long Island City/Hunters Point South • Midtown/East 34th Street[1] • Governors Island (seasonal)
Proposed—Phase 1 (2017)	
Astoria	• Pier 11/Wall Street[1] • Midtown/East 34th Street[1] • Long Island City [2] • Roosevelt Island[2] • Astoria[2]
South Brooklyn	• Pier 11/Wall Street[1] • Brooklyn Bridge Park-Pier 1 • Brooklyn Bridge Par-Pier 6[1] • Red Hook[2] • Brooklyn Army Terminal[1] • Bay Ridge[2] • Governors Island[3]
Rockaway	• Rockaway[2] • Brooklyn Army Terminal[1] • Pier 11/Wall Street[1]
Proposed—Phase 2 (2018)	
Soundview	• Pier 11/Wall Street[1] • East 62nd Street[2] • East 90th Street[1] • Soundview[2]
Lower East Side	• Pier 11/Wall Street[1] • Grand Street[2] • Stuyvesant Cove[2] • Midtown/East 34th Street[1] • Long Island City [2]

Notes:
1. Existing ferry landing to be upgraded.
2. New ferry landing.
3. The existing Governors Island landing may be included in an alternative South Brooklyn route.

Source: NYCEDC

Ferry Landing Sites

The CFS would include 21 landings (see **Table 2**), which would require the construction of 10 new ferry landings, upgrades to five existing landings (including two terminals, Midtown/East 34th Street and Pier 11/Wall Street), and the use of six existing landings. Upgrades to existing landings would be intended to increase capacity for ferry landings and/or accommodate additional passenger circulation. The majority of the new and upgraded landings would feature a barge (35 feet by 90 feet) that would be connected to the shore by a gangway. For some landings, two gangways may be provided to optimize passenger flow. The barge would accommodate passenger queuing and shelter, a ticket machine and information kiosk, lighting, and static or digital signage. All landings would be designed for accessibility in conformance with all relevant laws and regulations, including the Americans with Disabilities Act (ADA) and Local Law 68. At many landings, monopile dolphins (used by vessels berthing and laying over at each landing) would be constructed around the barges to ensure safe ferry operations while vessels are docking. These dolphins may also be used by vessels berthing to lay over

when not in service at each landing. Some landings may require more extensive infrastructure, including bulkhead and/or pier construction. Responsibility for the maintenance of the ferry landings and upland areas would be governed by memoranda of understanding between NYCEDC and owners of adjacent upland sites.

At several of the proposed ferry landings, the exact location of the barge along the shoreline and its upland gangway connections is subject to community input; final design; and continuing coordination with upland property owners and city, state, and federal agencies. For the Soundview, Long Island City, Roosevelt Island, and Red Hook landings, multiple sites were considered and analyzed throughout the environmental review process. With the publication of the FEIS, a preferred location has been identified for the Soundview, Long Island City, and Red Hook landings, as discussed in the Foreword to the FEIS.[3]

Fleet Operations

Equipment Characteristics

Marine equipment utilized for CFS is anticipated to fall within the vessel range and operating characteristics of various types of side- and bow-loading equipment currently in use in New York Harbor. Similar to ERF, the new ferry routes are expected to primarily utilize 149-passenger vessels for regular weekday service. Between publication of the DEIS and the FEIS, ferry vessel and engine specifications were finalized for the proposed CFS routes. The current CFS route plan would utilize two vessel designs: one design suitable for open water travel would be utilized on the Rockaway route (Rockaway vessel), with a second design for all other routes (River vessel). Additional passenger capacity, if required, could be accommodated by rearranging passenger seating and internal areas and reclassifying vessels with the USCG to allow for greater passenger occupancy.

The proposed CFS would exclusively utilize vessels powered by engines meeting the U.S. Environmental Protection Agency's (EPA's) Tier 3 marine diesel engine emissions standards. This requirement was selected in order to incorporate the best emissions reductions technology currently available on the market for the proposed vessel types. The proposed CFS vessel will incorporate the most efficient hull design to limit wakes and to maximize fuel economy.

Fueling and Layover

The City and NYCEDC disclosed and considered potential alternatives to the operator's existing facility, including establishing a central location within New York City to homeport, fuel, and maintain the CFS/ERF fleet. Two such alternatives, both located at City-owned sites, were analyzed in Chapter 14, "Alternatives" of the FEIS: a Brooklyn Army Terminal (BAT) Homeport Alternative and a Brooklyn Navy Yard (BNY) Homeport Alternative. The BNY Homeport Alternative may also add a landing to the existing ERF route. The BNY Homeport Alternative has now been identified as the preferred alternative for homeporting the CFS fleet due to its proximity to the core operational area of the proposed CFS.

[3] Following publication of the DEIS, a nearby location for the proposed Roosevelt Island landing located on the southern side of the Ed Koch Queensboro Bridge approximately 200 feet to the south of the original location at the oil dock was added. This alternate location is referred to as site 4b.

Table 2
Existing and New Ferry Landings[1]

Ref. No.	Name	Location	Community District	Ownership/Jurisdiction
New Landings				
1a	Soundview	Pugsley Creek Park (Block 3435, Lot 75), the Bronx	Bx. CD 9	NYCDPR
1b		**Collection of state and city parcels at Soundview Avenue and Bronx River Avenue (Block 3435, Lots 18, 35, & 40), the Bronx**		**State of New York/NYCDPR**
2	Astoria	Halletts Cove Playground Esplanade (Block 490, Lot 100), Queens	Q. CD 1	NYCDPR
3	East 62nd Street	East River Esplanade and East 62nd Street (Block 1474, Lot 60), Manhattan	Man. CD 8	NYCDPR
4a	Roosevelt Island[2]	Oil dock north of Queensboro Bridge (Block 1373, Lot 1), Manhattan	Man. CD 8	City of New York/RIOC
4b		Alternate location south of Queensboro Bridge (Block 1373, Lot 1), Manhattan		
5a	Long Island City	**Center Boulevard (Block 21, Lot 500), Queens**	Q. CD 2	**OPRHP**
5b		44th Drive Pier (Block 489, Lot 23), Queens		DCAS/NYCDPR
6	Stuyvesant Cove	East River Esplanade and East 20th Street (Block 991, Lots 29 and 33), Manhattan	Man. CD 6	SBS
7	Grand Street	East River Park and Cherry Street (Block 262, Lot 25), Manhattan	Man. CD 3	NYCDPR
8a	Red Hook	Van Brunt Street (Block 611, Lot 25), Brooklyn	Bk. CD 6	Private owner
8b		Valentino Pier (Block 595, Lot 52), Brooklyn		NYCDPR
8c		**Atlantic Basin (Block 515, Lot 61), Brooklyn**		**PANYNJ**
8d		Erie Basin (Block 612, Lot 130), Brooklyn		Private owner
9	Bay Ridge	69th Street Pier (Block 5835, Lot 30 and Block 6140, Lot 1), Brooklyn	Bk. CD 10	NYCDPR
10	Rockaway	Beach 108th Street (Block 16166, Lot 177), Queens	Q. CD 14	NYCDPR
Existing Landings/ (Upgrades Planned)				
11	East 90th Street	East River Esplanade and East 90th Street (Block 1587, Lot 27 and Block 1592, Lot 1), Manhattan	Man. CD 8	NYCDPR
12	Brooklyn Bridge Park—Pier 6	Brooklyn Bridge Park and Atlantic Avenue (Block 245, Lot 29), Brooklyn	Bk. CD 2	BBPC
13	Brooklyn Army Terminal	Pier 4, 58th Street (Block 5778, Lot 1), Brooklyn	Bk. CD 7	SBS
Existing Ferry Terminals (Upgrades Planned)				
A	Midtown/East 34th Street	East River Esplanade and East 35th Street (Block 967, Lot 50), Manhattan	Man. CD 6	NYCDOT
B	Pier 11/Wall Street	Gouverneur Lane and South Street (Block 36, Lot 18), Manhattan	Man. CD 1	NYCDOT
Existing Landings (No Upgrades in this Project)				
C	Hunters Point South	Hunters Point South Park and 54th Avenue (Block 6, Lot 1), Queens	Q. CD 2	NYCDPR/OGS
D	Greenpoint	India Street (Block 2538, Lot 1), Brooklyn	Bk. CD 1	Private owner
E	North Williamsburg	North 6th Street and Kent Avenue (Block 2322, Lot 40), Brooklyn	Bk. CD 1	NYCDPR
F	South Williamsburg	Kent Avenue between South 8th Street and South 11th Street (Block 2134, Lot 36), Brooklyn	Bk. CD 1	NYCDPR
G	Brooklyn Bridge Park—Pier 1 DUMBO	Brooklyn Bridge Park and Old Fulton Street (Block 199, Lot 3), Brooklyn	Bk. CD 2	BBPC
H	Governors Island (seasonal)	Yankee Pier, Governors Island (Block 1, Lot 10), Manhattan	Man. CD 1	TGI

Notes: [1]Preferred landing locations are marked in bold.
[2]Following publication of the DEIS, a nearby location for the proposed Roosevelt Island landing located on the southern side of the Ed Koch Queensboro Bridge approximately 200 feet to the south of the original location at the oil dock was added. This location is referred to as site 4b.
NYCDOT = New York City Department of Transportation
NYCDPR = New York City Department of Parks and Recreation
DSNY = New York City Department of Sanitation
OPRHP = New York State Office of Parks, Recreation and Historic Preservation
SBS = New York City Department of Small Business Services
RIOC = Roosevelt Island Operating Corporation
BBPC = Brooklyn Bridge Park Conservancy
HPD = New York City Department of Housing Preservation and Development
TGI = the Trust for Governors Island
DCAS = New York City Department of Citywide Administrative Services
PANYNJ = Port Authority of New York and New Jersey
OGS = New York State Office of General Services

If the BNY Homeport Alternative is selected, operation of the ferry fleet may utilize existing homeporting facilities for fueling and off-hours vessel lay-overs at the time that the first phase of service is launched in 2017. Operation would not be anticipated to commence at the preferred BNY Homeport facility until fall 2017, when it would be expected to be fully operational. Under the proposed CFS project, no changes to the selected operators' existing homeport facility are proposed.

Ferry Service Schedule

The new CFS routes would provide regular service on both weekdays and weekends from 6:30 a.m. to 10:00 p.m. Vessel headways (the amount of time between vessels landing at any particular location) are expected to be 20 minutes during peak morning and evening periods for the Astoria and Lower East Side routes, similar to the existing ERF route, with peak headways of 30 minutes on the South Brooklyn and Soundview routes and 60 minutes on the Rockaway route.

Navigational Safety

To ensure the safe, fair, and equitable use of the East River, the operation of the CFS will be coordinated with commercial and recreational users of the East River and conducted in accordance with all relevant USCG requirements. Various design and operational measures would be employed by the CFS to ensure navigational safety and to minimize conflicts between ferries and human-powered boaters. These design and operational measures would be incorporated into agreements made between NYCEDC and the chosen CFS operator.

Shuttle Bus Service

As part of the existing ERF, shuttle bus service operates out of the Midtown/East 34th Street landing during morning and evening rush hours, Monday through Friday. There is no weekend shuttle service. Under the CFS, shuttle bus service is expected to continue at East 34th Street and would not be affected by the proposed project.

In addition, CFS would introduce new shuttle bus service to support the Rockaway ferry landing with both weekday and weekend service. The planned shuttle bus service includes two routes running east and west from the proposed Beach 108th Street site (site 10). The east shuttle bus route would extend along Rockaway Beach Boulevard to Beach 73rd Street, then along Beach Channel Drive and Seagirt Avenue to Beach 31st Street; the west shuttle bus route would extend to Jacob Riis Park. The extension of the shuttle bus route would accommodate the Rockaway ferry route's anticipated 60-minute headway, with each bus taking roughly 40 to 45 minutes to complete the route.

B. FACTS AND CONCLUSIONS RELIED UPON TO SUPPORT THE DECISION

The FEIS analyzed the proposed project in detail and concluded that the proposed project would not result in significant adverse impacts in the following areas: land use, zoning, and public policy; socioeconomic conditions; community facilities; open space; shadows; historic and cultural resources; urban design and visual resources; natural resources; hazardous materials; water and sewer infrastructure; solid waste; energy; greenhouse gas emissions; public health; neighborhood character; or construction.

The FEIS determined that the proposed project would result in significant adverse impacts on transportation, noise, and air quality. The noise and air quality impacts were determined to be unavoidable, however, measures have been identified and assessed to eliminate the anticipated significant adverse impacts related to transportation and reduce the anticipated adverse impacts related to air quality, as described below.

PRINCIPAL CONCLUSIONS

Transportation

Traffic

Pier 11/Wall Street

Weekday AM and PM peak-hour traffic conditions were evaluated at five intersections in proximity to the existing ferry terminal at Pier 11/Wall Street in Lower Manhattan where additional traffic resulting from the proposed project would exceed the 50-trip *CEQR Technical Manual* traffic analysis threshold. The traffic impact analysis indicates the potential for significant adverse impacts at two of the six analyzed intersections during both analyzed peak hours. Significant adverse impacts were identified for one lane group at each of the two signalized intersections during each peak hour. These impacts could be fully mitigated through modifications to on-street parking regulations, channelization, and lane designations to make more efficient use of available street widths. After the 2017 launch of the CFS, NYCEDC will coordinate with NYCDOT to verify the need for implementing the proposed mitigation measures.

Pedestrians

Pedestrian conditions were evaluated at 18 pedestrian elements (sidewalks, corner areas and crosswalks) in proximity to the existing Pier 11/Wall Street terminal. The results of the analyses of pedestrian conditions shows that demand from the proposed project would result in significant adverse impacts at two crosswalks in proximity to the Pier 11/Wall Street terminal during both the AM and PM peak hours—the south crosswalk on Water Street at Wall Street and the north crosswalk on South Street at Gouverneur Lane. The significant adverse impacts to both crosswalks would be fully mitigated by widening each crosswalk by one foot (from 10.5 feet to 11.5 feet). Implementation of the recommended improvements is subject to review and approval by the NYCDOT. After the 2017 launch of the CFS, NYCEDC will coordinate with NYCDOT to confirm that the proposed mitigation measures are warranted.

Air Quality

The maximum predicted total pollutant concentrations, with the increase in emissions from ferry engines with the proposed project, could potentially exceed the National Ambient Air Quality Standard (NAAQS) for 1-hour average nitrogen dioxide (NO_2), potentially resulting in a significant adverse impact on air quality, specifically:

- In the areas surrounding the two existing ferry terminals in Manhattan—the Pier 11/Wall Street Terminal (site B) and East 34th Street Terminal (site A)—potential exceedances were projected to occur in the No Action condition, potentially affecting area residences, non-residential buildings, and open spaces near Pier 11/Wall Street and only open spaces near Midtown/East 34th Street. These exceedances were projected due to the existing ferry services (mostly private and some East River Ferry operations).
- In the With Action condition, these potential exceedances would be exacerbated by the operation of the CFS, potentially resulting in higher concentrations and in a larger area affected by ferry emissions than in the No Action or existing condition. As a result, for both terminals, potential exceedances were projected to occur in the With Action condition at nearby residences and commercial buildings that were not projected to occur in the No Action condition. At Pier 11/Wall Street, potential exceedances are projected to occur at buildings located further inland, in

addition to the potential exceedances projected at buildings located closer to the terminal in the No Action condition. At the Midtown/East 34th Street Terminal, potential exceedances at residences and commercial buildings were projected in the With Action condition, whereas no buildings were affected in the No Action condition.

- In the vicinity of new landings that would be introduced by the proposed project, at a single residential location near the Long Island City landing (site 5a)—45-40 Center Boulevard—concentrations were projected to potentially exceed the standard up to several floors up from ground level. In addition, limited areas of open space near eight of the proposed landings could experience exceedance of the standard: Brooklyn Bridge Park – Pier 1 (site G), Brooklyn Bridge Park – Pier 6 (site 12), BAT (site 13), Grand Street (site 7), East 62nd Street (site 3), East 90th Street (site 11), Long Island City (sites 5a and 5b) and Roosevelt Island (sites 4a and 4b).

The NAAQS and incremental thresholds and standards for other pollutants and averaging times would not be exceeded at any location, and no significant adverse air quality impact would occur in regards to standards other than 1-hour average NO_2.

The region-wide (mesoscale) emissions burden would not be significantly affected by CFS operations, and the increase in emissions would be accommodated within the regional air quality planning efforts. Therefore, no significant adverse air quality impact would occur region-wide, including regionally affected pollutants such as $PM_{2.5}$ and ozone.

Due to potential exceedances of the 1-hour average NO_2 NAAQS, the operation of the proposed project could have a significant adverse impact on air quality. Based on analysis of potential emissions reduction measures, full mitigation of the significant adverse air quality impacts that would potentially result from CFS operations is not possible by the 2017 project launch, even with the application of best available technology available for the types of vessels proposed for use in the CFS. Therefore, unmitigated potential significant adverse air quality impacts cannot be avoided. However, the City, in coordination with NYCEDC, would continue to explore and, where practicable, implement emission reduction measures in the short term and long term.

Noise

The proposed CFS would result in significant adverse noise impacts at open space receptors adjacent to several of the proposed new and upgraded ferry landings and residential receptors adjacent to the proposed new Astoria, Long Island City, and Red Hook-Van Brunt Street ferry landings. The $L_{10(1)}$ noise levels at all of the impacted open space receptors would exceed the 55 dBA threshold recommended for open space uses according to the *CEQR Technical Manual* noise exposure guidance, although existing noise levels conditions at many of these locations already exceed the recommended threshold. Based on the predicted $L_{10(1)}$ noise levels and field observations, the existing building façades and mechanical systems would be sufficient to provide acceptable interior noise levels (i.e., less than 45 dBA) at the impacted residential receptors, even with increased noise levels resulting from the proposed CFS.

Construction

Construction of the proposed landings would mostly occur in water where there would be no dust emissions. While the proposed project would entail pile driving, unlike typical ground-up construction, the proposed project would not involve building demolition and excavation, which often generate the highest levels of air emissions when multiple heavy-duty diesel engines are employed simultaneously. Furthermore, upland construction activities associated with the proposed project would be minimal. At many sites, limited subsurface disturbance would be required for utility installations, to connect each landing to power and telecommunications utilities; at some sites, such as both potential sites for the Soundview landing (sites 1a and 1b), the Roosevelt Island landing (site 4)

and the Red Hook-Atlantic Basin landing (site 8c), additional soil disturbance is anticipated to be required for pile caps supporting the upland portion of a new pier or the removal and reconstruction of deteriorated bulkhead.

Detailed construction plans delineating the ground disturbance that would be needed for the construction of each landing and/or the installation of utilities were not finalized at the time of the FEIS. As coordination on utility connections progress, and detailed designs become available and areas of potential disturbance can be delineated, further consultation with the appropriate agencies will continue in order to avoid the potential for construction related impacts. The key findings of two potential environmental impact areas are discussed in greater detail below.

Historic and Cultural Resources

Consultation regarding the potential impacts of the proposed project on archaeological and architectural resources was initiated with the Landmarks Preservation Commission (LPC) as part of the EIS. LPC consultation will continue as designs and construction plans for the proposed CFS landings become refined. Any required investigations would be determined in consultation with LPC at a time when the full extent of upland construction is determined to avoid impacts.

Archaeological Resources

NYCEDC will continue to consult with LPC to request their determination of the potential archaeological sensitivity of the proposed ferry landing sites. As detailed designs become available and areas of potential disturbance are delineated, supporting information, such as information from any previous archaeological investigations of the sites or surrounding areas, have and will be submitted to LPC as part of continuing consultation. If a site is not determined to be archaeologically sensitive, no further work would be required with respect to that site and archaeological resources. If LPC determines that a proposed ferry landing site has the potential to contain significant archaeological resources that may be impacted by the proposed project, an archaeological documentary study would be prepared in coordination with LPC, and any additional measures required by LPC would be implemented.

Where sites were previously disturbed or where excavation is expected to be very shallow, there would be no potential for significant adverse impacts. For a limited number of sites where these conclusions cannot be made, further consultation with LPC continues to be undertaken. In the case of the Roosevelt Island landing (sites 4a and 4b), for example, the two potential landing locations have been heavily disturbed over the past few decades. Moreover, upland construction is expected to be shallow and would not involve new buildings or structures. No significant adverse archeological impacts are therefore expected at the Roosevelt Island landing sites.

For sites involving state agencies, the State Historic Preservation Act imposes a separate requirement from the State Environmental Quality Review Act (SEQRA) for the state agency to consider "adverse effects" on historic resources and consultation with OPRHP. The City is helping coordinate that consultation. In July 2016, NYCEDC began coordination with OPRHP on behalf of RIOC; no response from OPRHP has been received to date.

Architectural Resources

Several of the proposed landings are located adjacent to known architectural resources, and construction of the landings may result in impacts on these landings. The full extent of the proposed project's potential impacts on adjacent resources would be addressed in continuing consultation with LPC in order to avoid, if warranted, the potential for the proposed project to result in inadvertent direct impacts on architectural resources from adjacent construction, such as ground-borne

construction-period vibrations, falling debris, and damage from heavy machinery. If warranted, a Construction Protection Plan (CPP) would be developed and implemented in consultation with LPC for the Red Hook Stores (site 8a). The CPP would comply with the procedures set forth in the DOB's TPPN #10/88.

In addition, if warranted based on further consultation with LPC, construction protection measures would be coordinated with NYCDOT for the upgrades to the East 90th Street landing and the Midtown/East 34th Street terminal regarding the State / National Register- (S/NR) eligible FDR Drive and for the construction of the new Roosevelt Island landing regarding the Ed Koch Queensboro Bridge (NYC Landmark, S/NR). If required upon further consultation with LPC, CPPs would be provided for any additional architectural resources identified during the course of the review. LPC also reserves the right to flag any direct or indirect impacts on architectural properties as a result of the proposed project. If any such direct or indirect impacts are identified, additional consultation with LPC may be required. With these measures in place, construction of the proposed project would not be expected to result in significant adverse impacts on historic or cultural resources. With these measures in place, no potential significant adverse impacts related to architectural resources are anticipated.

Hazardous Materials

Following initial consultation with the NYCDEP, it was determined that seven of the proposed landing sites required review of potential contamination based on the anticipated preliminary level of subsurface disturbance (e.g., for construction of pier footings or long utility trenches). Phase I Environmental Site Assessments (Phase I ESAs) were performed in accordance with ASTM E 1527-13 to identify Recognized Environmental Conditions (RECs), i.e., "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property." At the potential Roosevelt Island landing site at the oil dock (site 4a), where a high potential for contamination was identified, a Phase II Environmental Site Investigation (Phase II ESI) was also performed.

Site-specific Construction Health and Safety Plans (CHASPs) will be prepared and submitted to the NYCDEP for review and approval prior to construction at each of the following landings: Soundview (sites 1a and 1b), Astoria (site 2), Roosevelt Island-Oil Dock (site 4a), Roosevelt Island-Alternative Site (site 4b), Red Hook-Atlantic Basin (site 8c), and Brooklyn Bridge Park-Pier 6 (site 13).

The CHASPs would address requirements for items such as: soil stockpiling, soil disposal and transportation; dust control; quality assurance; and contingency measures should petroleum storage tanks or contamination be unexpectedly encountered; and measures for worker and community protection, including personal protective equipment, dust control and air monitoring. In addition, if necessary, applicable regulatory requirements would be followed, including those relating to characterization of any excess soil requiring disposal, NYSDEC reporting requirements should evidence of petroleum contamination be identified, management of any asbestos-containing materials, and management of any surfaces with lead-containing or lead-based paint. With these measures, the proposed project would not result in any significant adverse impacts related to hazardous materials.

UNAVOIDABLE ADVERSE IMPACTS

Air Quality

The operation of the proposed CFS could potentially result in significant adverse impacts on air quality in some locations. Specifically, there is the potential for new or exacerbated exceedance of the NAAQS for the 1-hour average concentration of NO_2. These potential significant adverse air quality impacts were projected at the following locations:

- In the areas adjacent to the two existing ferry terminals in Manhattan—Pier 11/Wall Street (site B) and Midtown/East 34th Street (site A)—potential exceedances were projected to occur in the No Action condition potentially affecting areas of residences, non-residential buildings, and open spaces near Pier 11/Wall Street and only open spaces near Midtown/East 34th Street. These exceedances were projected due to the existing ferry services (mostly private and some East River Ferry operations).
- In the With Action condition, these potential exceedances would be exacerbated by the operation of the CFS, potentially resulting in higher concentrations and larger areas affected by ferry emissions than in the No Action or existing conditions. As a result, for both terminals, potential exceedances were projected to occur in the With Action condition at nearby residences and commercial buildings that were not projected to occur in the No Action condition. At Pier 11/Wall Street, potential exceedances are projected to occur at buildings located further inland, in addition to the potential exceedances projected at buildings located closer to the terminal in the No Action condition. At the Midtown/East 34th Street Terminal, potential exceedances at residences and commercial buildings were projected in the With Action condition, whereas no buildings were affected in the No Action condition.
- Potential exceedances of the NAAQS were projected at a single residential location—45-40 Center Boulevard—near the Long Island City landing (site 5a), up to several floors up from ground level.
- Limited areas of open space near eight of the proposed landings could experience exceedance of the standard: Brooklyn Bridge Park-Pier 1 (site G), Brooklyn Bridge Park-Pier 6 (site 12), BAT (site 13), Grand Street (site 7), East 62nd Street (site 3), East 90th Street (site 11), Long Island City (sites 5a and 5b) and Roosevelt Island (sites 4a and 4b).

The City has assessed potential mitigation options aimed at reducing NO_2 emissions from CFS vessels, and determined that, despite the use of best available technology available for the types of vessels proposed for use in the CFS (Tier 3 emissions standards), it will not be possible to fully mitigate the potential significant impacts identified by the time of the anticipated launch in 2017. Therefore, unmitigated potential significant adverse air quality impacts cannot be avoided. However, the City, in coordination with NYCEDC, would continue to explore, and where practicable, to implement emission reduction measures in the short term and long term.

Alterative measures related to the design of the proposed ferry landings and/or the operation of ferry vessels that could avoid unmitigated significant adverse air quality impacts—such as extending landing infrastructure away from the shoreline or relocating the landing along the shoreline to increase the distance to sensitive receptors—were determined to be not feasible. Therefore, the significant adverse air quality impacts at the locations described above are unavoidable.

Noise

Noise produced by the proposed CFS vessels would result in significant adverse noise impacts at open space receptors adjacent to 12 of the proposed new and upgraded ferry landing sites (including one of the potential sites of the Long Island City landing and three of the potential sites for the Red Hook landing) and residential receptors adjacent to the proposed new Astoria, Long Island City-Center Boulevard, and Red Hook-Van Brunt Street ferry landings.

Residential receptors near the proposed Astoria ferry landing (receptors 2-2 and 2-3) were predicted to experience significant adverse noise impacts with the proposed CFS. The $L_{10(1)}$ noise levels at these receptors would be less than 61 dBA. These buildings were observed in the field to have double glazed windows and through-the-wall air conditioning, which would be expected to provide sufficient window/wall attenuation to provide interior $L_{10(1)}$ noise levels less than 45 dBA, which is the level

considered acceptable for residential use according to *CEQR Technical Manual* noise exposure guidance. Consequently, no noise mitigation measures were proposed for these receptors.

The residential receptor near the proposed new Long Island City ferry landing (i.e., receptor 5a-2) was predicted to experience significant adverse noise impacts with the proposed CFS. The $L_{10(1)}$ noise levels at this receptor would be less than 68 dBA. This building was observed in the field to have double glazed windows and central air conditioning, which would be expected to provide sufficient window/wall attenuation to provide interior $L_{10(1)}$ noise levels less than 45 dBA, which is the level considered acceptable for residential use according to *CEQR Technical Manual* noise exposure guidance. Consequently, no mitigation measures were proposed at this location.

The residential receptor near the proposed new Red Hook-Van Brunt Street ferry landing (i.e., receptor 8a-2) was predicted to experience significant adverse noise impacts with the proposed CFS. The $L_{10(1)}$ noise levels at this receptor would be less than 69 dBA. This building was observed in the field to have double glazed windows and central air conditioning, which would be expected to provide sufficient window/wall attenuation to provide interior $L_{10(1)}$ noise levels less than 45 dBA, which is the level considered acceptable for residential use according to *CEQR Technical Manual* noise exposure guidance. Consequently, no noise mitigation measures were proposed for this receptor.

The noise analysis found that the proposed project would result in $L_{10(1)}$ levels exceeding 55 dBA (the threshold recommended for open space uses according to the *CEQR Technical Manual* noise exposure guidance) with increases of more than 3 dBA (the incremental significant impact threshold) at the following open space receptors: Halletts Cove Playground Esplanade (site 2); Andrew Haswell Green Park/East River Esplanade (site 3); Gantry Plaza State Park (site 5a); John V. Lindsay East River Park (site 7); Van Brunt Street Walkway (site 8a); Valentino Pier/Valentino Park (site 8b); Erie Basin Park (site 8d); American Veterans Memorial Pier (site 9); Beach 108th Street Waterfront Esplanade (site 10); East River Esplanade (site 11); Brooklyn Bridge Park—Pier 6 (site 12); and Pier 4 Walkway (site 13).

However, measured existing $L_{10(1)}$ noise levels at all of the open space receptors predicted to experience significant adverse noise impacts were at or above 55 dBA absent the proposed project. There are no feasible and practicable mitigation measures that would be able to decrease noise levels at these open space receptors to the range considered acceptable for open space by the *CEQR Technical Manual*. Changes to landing design/orientation, reductions in ferry service, or the use of advanced technology on ferry vessels to eliminate the predicted significant adverse noise impacts would not be feasible while still meeting the project goal of providing an affordable and convenient ferry service. Therefore, the significant adverse noise impacts at the locations described above are unavoidable.

C. PROJECT MITIGATION COMMITMENTS

Transportation

Traffic conditions were evaluated at six intersections in proximity to the existing Pier 11/Wall Street terminal. During both the weekday AM and PM peak hours new travel demand generated by the proposed CFS would result in significant adverse traffic impacts to one lane group at each of the two intersections—South Street at Old Slip and South Street at Wall Street. These impacts could be fully mitigated through modifications to on-street parking regulations, channelization, and lane designations to make more efficient use of available street widths. Pedestrian conditions were evaluated at 18 pedestrian elements (sidewalks, corner areas and crosswalks) in proximity to the existing Pier 11/Wall Street terminal. The results of the analyses of pedestrian conditions shows that

demand from the proposed project would result in significant adverse impacts at a total of two crosswalks in proximity to the Pier 11/Wall Street terminal during both the AM and PM peak hours—the south crosswalk on Water Street at Wall Street and the north crosswalk on South Street at Gouverneur Lane. The significant adverse impacts to both crosswalks would be fully mitigated by widening each crosswalk by one foot (from 10.5 feet to 11.5 feet). Implementation of the recommended improvements is subject to review and approval by the NYCDOT. After the 2017 launch of the CFS, NYCEDC will coordinate with NYCDOT to confirm that the proposed mitigation measures are warranted and, if so, will implement them.

Air Quality

Based on analysis of potential emissions reduction measures, full mitigation of the significant adverse NO_2 air quality impacts that would potentially result from CFS operations is not possible by the 2017 project launch, even with the application of best available technology available for the types of vessels proposed for use in the CFS. Therefore, unmitigated potential significant adverse air quality impacts cannot be avoided. However, the City, in coordination with NYCEDC, would continue to explore, and where practicable, to implement NO_2 emission reduction measures in the short term and long term, as follows:

- Implement service and operational policies to reduce emissions where practicable, such as tie-up and route-specific vessel and engine tuning and maintenance requirements during the life of any agreement with the operator.
- Investigate the practicability of retrofitting the engines with add-on Nitrous Oxide (NO_x) reduction technology and piloting feasible retrofits on a limited number of vessels as soon as practicable. Following investigation and pilot testing, implementation would be expanded to additional vessels to the extent that retrofits are found to be effective and practicable and there is sufficient time during the life of the agreement with the operator or under subsequent agreements.
- Investigate options for use of Compressed Natural Gas/Liquid Natural Gas powered vessels, either as retrofits or for new vessels in the future.
- Evaluate emission reduction options in the longer term, such that if newer boats designed to achieve Tier 4 emission levels can be designed and introduced in the long term, subsequent contracts may require the use of these boats, so as to accelerate turnover of the fleet if found to be practicable.
- Under the OneNYC policy update process for the transportation sector, the Mayor's Office of Sustainability, in coordination with NYCEDC, will evaluate advanced vessel concepts such as hybrid and all-electric ferries and the role such technologies can play in achieving broader OneNYC air quality and greenhouse gas reduction goals. Research, development, pilot projects, and ultimately operational projects to implement these technologies would be undertaken if found to be beneficial and practicable.

Even if retrofits and other above listed measures can be implemented successfully, some potential significant adverse impacts may remain, but would be limited to small portions of open space areas near some of the landings, and small increases in areas already potentially affected by existing ferry sources adjacent to the terminals. The only exception to this conclusion would be if, in the long term, fully electric ferry operations were feasible and replaced diesel service.

ALTERNATIVES ANALYZED IN THE FEIS

The FEIS examined four alternatives to the proposed project: a No Action Alternative, a No Unmitigated Significant Adverse Impact Alternative, a Brooklyn Army Terminal (BAT) Homeport Alternative and a Brooklyn Navy Yard (BNY) Homeport Alternative. As discussed further herein,

two of the alternatives did not meet the projects goals or objectives (both the No Action Alternative and the No Unmitigated Significant Adverse Impact Alternative). In addition, the measures discussed in the No Unmitigated Significant Adverse Impact Alternative analysis identified numerous issues, including that adopting some of them would likely result in additional significant environmental impacts, were extremely costly, necessitated significant reductions in the frequency of ferry service, necessitated additional approvals from federal and state authorities and could result in conflicts in navigable channels, or relied on technologies that are not yet commercially available to the ferry industry. Indeed, even with a combination of the *available* measures in place, the elimination or even significant reduction of air and noise impacts identified in the FEIS might not be achieved.

Two other alternatives (the Brooklyn Navy Yard Homeport Alternative and the Brooklyn Army Terminal Homeport Alternative) met the Project's goals and objectives though a potential for significant adverse natural resource impacts were identified under both scenarios. The potential natural resource impacts and mitigation measures, if warranted, will be further evaluated in coordination with NYSDEC during the permitting process. Of the two alternatives, one – the BNY Homeport Alternative – advanced the project's goals and objectives further than the other because of its central location and the ability to provide additional ancillary benefits associated with adding CFS service to the BNY campus. Thus, while both alternatives offer additional benefits consistent with the project's goals and objectives, adoption of the BNY Alternative is preferred over the BAT Alternative.

No Action Alternative

The No Action Alternative is the "Future Without the Proposed Project". In this scenario, the five proposed new ferry routes would not be implemented. The ten proposed new landings would not be constructed and the landing sites would remain in their current condition. No changes would be made to the three existing ferry landings and two existing ferry terminals, which would also remain in their current condition. The No Action Alternative would avoid any significant adverse impacts related to traffic, pedestrians, air quality, and noise associated with the proposed project.

No Unmitigated Significant Adverse Impact Alternative

In the No Unmitigated Significant Adverse Impact Alternative, in order to avoid unmitigated significant adverse impacts to air quality and noise, a variety of measures would be required, either independently or in combination. In particular, the measures would include altering landing infrastructure to extend it further away from sensitive receptors or relocating it along the shoreline; increasing headways (i.e. decreasing the frequency of ferry service) at some landings; or using alternative ferry technology such as fully electric engines. The measures utilized at each affected landing would vary due to the nature and extent of the potential impacts.

In most cases, relocation of landing infrastructure would require significant new gangway or pier structures, and would therefore require additional in-water construction which would affect the proposed project's construction schedule and duration and would increase the potential for impacts on in-water natural resources. In most cases, locating landings further out into the water would place the landings closer to navigational channels, which presents the potential for significant operational conflicts with commercial and recreational users of the waterway. In some cases (i.e., the Pier 11/Wall Street terminal), relocating landings to the necessary distance is completely infeasible because of geographic constraints. In addition, reducing ferry service could avoid significant adverse impacts at a limited number of affected landings (and could only avoid significant adverse noise impacts during some periods of the day); in some cases, service at some landings would have to be completely eliminated to avoid impacts altogether. Similarly, altering route headways would not avoid significant adverse air quality impacts, because all of the proposed CFS routes serve one or

both Manhattan terminals, and it would not be feasible to alter headways systemwide in a way that would avoid significant adverse air quality impacts at these terminals. Any reductions or eliminations of service at one landing would affect the overall schedule for the CFS, which would affect the CFS' ability to be financially sustainable and provide an affordable, convenient, and resilient transit option to residents in otherwise isolated neighborhoods.

Finally, while significant adverse air quality impacts could be avoided by utilizing alternative technology, particularly fully electric engines or Tier 4 engines, these technologies are still in development stages and are unavailable for the vessel types anticipated for the CFS fleet. If advanced ferry engine technology were implemented in combination with the relocation of some landings, which could generally avoid significant adverse noise impacts, all significant adverse impacts related to the proposed project could potentially be avoided. However, advanced engine technology would require an extended period of research, development, and piloting before any widespread implementation might be possible, which would likely take several years. Therefore, implementation of advanced engine technology would require that the launch of the CFS is delayed until the technology becomes feasible, which would be counter to the goals of the project to provide an affordable, convenient, and resilient transit option to residents in otherwise isolated neighborhoods.

Brooklyn Army Terminal Homeport Alternative

In the BAT Homeport Alternative, a homeport for the proposed CFS and the existing ERF[4] would be constructed at a City-owned and NYCEDC-managed site at BAT, near the proposed landing for the CFS (site 13). The homeport facility would provide a single centrally-located space in New York City for the CFS/ERF fleet to dock when not in service, as well as space for vessel maintenance, refueling, and operations. The homeport facility would be located south of BAT Pier 4, between the former Piers 2 and 3 (which are now collapsed and fully underwater). The BAT Homeport Alternative would result in significant adverse impacts related to air quality, and may have the potential to result in adverse impacts related to natural resources, but would not result in any other significant adverse environmental impacts not already identified for the proposed project.

In particular, under the BAT Homeport Alternative NO_2 1-hour concentrations within some open spaces in the area are predicted to potentially exceed the NAAQS as a result of vessel operations at the homeport facility. Concentrations are also predicted to potentially exceed the 1-hour NO_2 NAAQS at several residences located to the east in the Sunset Park neighborhood of Brooklyn. Predicted maximum $PM_{2.5}$ annual average increments from the cumulative emission of the homeport and the BAT landing would potentially exceed the CEQR *de minimis* criterion within a limited area on the pedestrian walkway within 25 feet of the northern edge of Pier 4, and adjacent to the boarding area of the landing. However, pedestrians and other users of the pier would not be present outside the hours of ferry operation (6:30 a.m. to 10 p.m.) or the posted public access hours of the pier (dawn till dusk)—the period of time when homeport emissions would significantly impact the open space. Therefore, pedestrians and other users of the pier would not be exposed to increased $PM_{2.5}$ concentrations greater than 0.3 $\mu g/m^3$ over a full year (the averaging duration for the relevant standard and criterion). Total concentrations, including the worst-case background concentration and the projected increments, would not exceed the NAAQS. Based on these factors, which substantially limit exposure to the projected annual average increment, and considering that concentrations would not exceed the health based NAAQS for this pollutant, it was determined that the predicted annual average $PM_{2.5}$ incremental concentrations would not result in a significant adverse impact.

[4] With the integration of the CFS and the existing ERF route under a single operator, the existing ERF route and the five proposed routes would be rebranded as the CFS to form a seamless system. However, to distinguish the future rebranded service from the proposed CFS, the FEIS refers to the CFS and ERF separately.

Although the BAT Homeport Alternative is predicted to potentially result in exceedances of the 1-hour NO_2 NAAQS, including exceedances at several residential receptors, as with other project location sites discussed in the FEIS, the extent of potential exceedances is likely to be different than the area projected by the model. Air pollutant emissions in the blocks east of 2nd Avenue containing residential uses are also expected to be influenced by the adjacent Gowanus Expressway, a highly-trafficked elevated expressway that runs along 3rd Avenue to the east of these blocks. Therefore, some residents of the housing units in these blocks could experience increased frequency of exposures to outdoor NO_2 concentrations exceeding the 1-hour NAAQS in addition to the exposure that they likely already experience with some frequency due to their proximity to the Gowanus Expressway. For those in this population with asthma or other respiratory conditions, the risk or frequency of exacerbation of their condition could increase. However, based on the limited geographic extent of the potential exceedances (limited to portions of four blocks within the larger Sunset Park neighborhood), and the limited population affected within those areas of exceedances, it was determined that the BAT Homeport Alternative would not result in significant adverse public health impacts.

Shading from overwater structures can inhibit growth of submerged aquatic vegetation and negatively influence fish community composition, feeding activity, and growth rates; the BAT Homeport Alternative would result in approximately 15,850 square feet of overwater coverage. While the angle of the sun continuously changes throughout the day and no area of the Upper Bay beneath or around the proposed homeport facility elements would be permanently in shade or shaded to a significant degree, the structures comprising the homeport facility may result in some significant adverse impacts to aquatic biota related to overwater shading. The potential effects of the BAT homeport facility on natural resources would be confirmed in consultation with NYSDEC as part of the waterfront permitting approvals when more detailed designs of the facility are available. To the extent practicable, the homeport facility would be designed to minimize the amount of overwater shading. If NYSDEC confirms that the homeport facility would have a significant adverse impact on natural resources, in particular a significant adverse impact to aquatic biota due to overwater shading, such routine mitigation measures as the removal of overwater structures or debris at other locations within waterways surrounding New York City, would be identified and implemented at that time, to the maximum extent practicable.

Brooklyn Navy Yard Homeport Alternative

In the BNY Homeport Alternative, a homeport for the proposed CFS and the existing ERF route would be constructed at a City-owned site at BNY. Under this alternative, a homeport facility would be constructed perpendicular to Pier C, on the western side of Wallabout Bay near Front Avenue. Similar to the potential homeport facility at BAT, the potential homeport facility at BNY would provide the CFS and ERF vessel fleets space to dock when not in service, with space for basic vessel maintenance, refueling, and operations. Under this alternative, a landing at BNY may be added to the existing ERF route, to take advantage of the BNY's ongoing redevelopment and support the anticipated need for expanded transit access to the BNY campus. The BNY landing would be added to the ERF route in between the South Williamsburg (site F) and Brooklyn Bridge Park—Pier 1 DUMBO (site G) landings.

The BNY Homeport Alternative would result in significant adverse impacts related to air quality, and may have the potential to result in significant adverse impacts related to natural resources, but would not result in any other significant adverse environmental impacts not already identified for the proposed project.

Specifically, under the BNY Homeport Alternative, the 1-hour average NO_2 concentrations are predicted to potentially exceed the 1-hour NO_2 NAAQS at a single residence in the Fort

Greene/Downtown-Heights-Slope neighborhood of Brooklyn. Potential exceedances are also predicted on the industrial-use buildings on the BNY campus itself—ranging from 140 µg/m^3 at the eastern buildings of BNY to 652 µg/m^3 at buildings immediately adjacent to Pier C. These buildings contain a range of commercial and light industrial uses, from architectural design offices (which have more typical working hours) to food manufacturing (which may be 24/7 operations). Therefore, while some of the affected buildings may not be occupied at hours when the highest concentration increments occur (i.e. during the early morning peak operations at the homeport), BNY workers may be present in these buildings during times of day when high concentration increments occur (daytime or evening). No other potential exceedances are predicted to occur at other nearby non-residential buildings and no potential for an exceedance is predicted at the academic spaces within BNY.

Although the BNY Homeport Alternative is predicted to potentially result in exceedances of the 1-hour NO_2 NAAQS, including exceedances at a residential receptor[5], the extent of potential exceedances is likely to be different than the area projected by the model due to the limitations of the model itself. Air pollutant emissions at this location are also expected to be influenced by the Brooklyn-Queens Expressway, a highly-trafficked roadway located to the south. Therefore, some residents of the potentially affected residence could experience some increased frequency of exposures to outdoor NO_2 concentrations exceeding the 1-hour NAAQS in addition to the exposure that they likely already experience with some frequency due to their proximity to the Brooklyn-Queens Expressway. For those in this population with asthma or other respiratory conditions, the risk or frequency of exacerbation of their condition could increase. However, based on the limited geographic extent of the potential exceedance and the limited population affected within this area of exceedance, the BNY Homeport Alternative would not result in significant adverse public health impacts at a neighborhood-wide or city-wide scale.

The BNY Homeport Alternative would result in approximately 9,600 square feet of overwater coverage. While the angle of the sun continuously changes throughout the day and no area of the East River beneath or around the proposed homeport facility elements would be permanently in shade or shaded to a significant degree, the structures comprising the homeport facility may result in some significant adverse impacts to aquatic biota related to overwater shading. The potential effects of the BNY homeport facility on natural resources would be confirmed in consultation with NYSDEC as part of the waterfront permitting approvals when more detailed designs of the facility are available. To the extent practicable, the homeport facility would be designed to minimize the amount of overwater shading. If NYSDEC confirms that the homeport facility would have a significant adverse impact on natural resources, in particular a significant adverse impact to aquatic biota due to overwater shading, such routine mitigation measures as the removal of overwater structures or debris at other locations within waterways surrounding New York City, would be identified and implemented at that time to the maximum extent practicable.

Based on a need to identify a CFS fleet homeporting location that is central to all CFS routes, and the City's continued focus on the redevelopment of the BNY area as an industrial park and employment center, the BNY Homeport Alternative advances the CFS project's goals and objectives further than the BAT Homeport Alternative and, thus, of the two alternatives, is the preferred one. While the

[5] Review of the engine specifications determined that emission rates for the vessel designs are at least 8 percent and at most 30 percent less than those used in the EIS analysis. While concentrations at nearby receptors would not be reduced in direct relation to the reductions in vessel emissions, the smallest emissions reduction in the above range would be expected to far outweigh the reduction in concentrations necessary to comply with the 1-hour NO_2 NAAQS. As a result, it is reasonable to assume that concentrations at the residential building would not exceed the 1-hour NO_2 NAAQS if the emissions reductions were explicitly modeled.

BAT Homeport Alternative is a viable homeporting location that provides benefits similar to those identified for the BNY Homeport Alternative, such benefits are limited by its location farther south along the Brooklyn waterfront. (i.e., farther from the core operational area of the proposed CFS and existing East River Ferry).

D. CONCLUSION

Overall, the Citywide Ferry Service will have numerous significant economic, environmental, civic, and social benefits. The expanded ferry service would accommodate fast-growing residential and commercial areas on the waterfronts of Queens and Brooklyn that are not as well served by the city's subway system and support the ongoing redevelopment of underutilized waterfront areas with new commercial and residential uses. In many areas, expanded ferry service would provide benefits to commuters, including improved travel time, convenience, and comfort, as well as a new recreational resource for residents and visitors.

In addition, the proposed CFS would provide additional service for recreational ferry users to waterfront parks and open spaces such as Pugsley Creek Park in the Bronx, Gantry Plaza State Park in Long Island City, Queens, Governors Island, and Brooklyn Bridge Park in Brooklyn, as well as other waterfront parks and opens spaces such as the public beaches on the Rockaway peninsula, thereby supporting expanded visitation of parks and open spaces and the citywide effort to increase recreational activity on the waterfront.

Finally, the proposed CFS would expand one of the city's most resilient transit alternatives. The City has a goal of strengthening the city's infrastructure to handle future storm and flooding events like Superstorm Sandy in 2012. While there was significant flooding of the city's subway system with attendant service interruptions and costly repairs, the City was able to rely on ferry services to return to normal operation within days of the storm. Additionally, NYCEDC and the City learned a valuable lesson about the ability to quickly implement new service to the Rockaways due to the long-term outages of the A train. The proposed CFS would provide a flexible transportation alternative that would better serve waterfront communities, thereby improving the City's emergency preparedness and ability to respond to transit service disruptions.

The No Action Alternative and the No Unmitigated Significant Adverse Impact Alternative would not accomplish project's goals and objectives. Both the Brooklyn Navy Yard and Brooklyn Army Terminal Homeport Alternatives would achieve the project's goals and objectives, though the BNY alternative advances those objectives and goals to a greater extent than would be realized if the BAT alternative is selected.

On balance, after considering the benefits and impacts of the Citywide Ferry Service disclosed in the FEIS, combined with the need for New York City to provide an affordable and convenient transit option to residents in otherwise transit-isolated neighborhoods, the ODMHED concludes that the social, economic, and environmental benefits provide a rationale to proceed with the project notwithstanding its environmental impacts. In addition, based on a need to identify a CFS fleet homeporting location that is central to all CFS routes, the ODMHED concludes that the Brooklyn Navy Yard Alternative provides social, economic and environmental benefits important to the operation of the CFS and offers additional benefits consistent with the project's goals and objectives that provide a rationale to proceed with the selection of this homeporting location notwithstanding its environmental impacts.

E. CERTIFICATION OF FINDINGS TO APPROVE/FUND/UNDERTAKE

Having considered the relevant environmental impacts, facts, and conclusions disclosed in the FEIS and weighed and balanced relevant environmental impacts with social, economic, and other essential considerations as required in 6 NYCRR 617.11, the Office of the Deputy Mayor for Housing and Economic Development certifies that:

- the requirements of Article 8 of the New York State Environmental Conservation Law (SEQRA) and its implementing regulations found at 6 NYCRR Part 617 and the requirements of City Environmental Quality Review (CEQR) found at Title 62, Chapter 5, of the Rules of the City of New York and as set forth in Executive Order 91 of 1977, as amended, have been met; and
- consistent with social, economic, and other essential considerations of state and city policy, from among the reasonable alternatives available, the Project is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigation measures that the FEIS and this Statement of Findings have identified as practicable.

_____ August 19, 2016

Hilary Semel Date

Assistant to the Mayor

On Behalf of the Office of the Deputy Mayor for Housing Economic Development