

#### IV. CUMULATIVE IMPACTS

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This section of the DEIS evaluates the cumulative impacts (traffic, air quality, water use, sewage discharge and schools) of the proposed action and other pending projects including, but not limited to, the proposed Glen Cove ferry terminal and associated infrastructure, the Villa at Glen Cove, Glen Cove Mews, Lee Gray Court and the MW-3 build-out under a PUD scenario.

##### Pending and Proposed Actions

###### *The Villa at Glen Cove*

The Villa at Glen Cove site consists of four acres on the east side of Glen Cove Avenue. The property comprises two separate parcels divided by Craft Avenue. The pending proposal is for 216 condominiums (54 D.U./acre), including five one-bedroom, 204 two-bedroom, and seven three-bedroom units. Unit prices are anticipated to start at \$350,000.

###### *Glen Cove Mews*

The pending Glen Cove Mews project includes 72 units of age 55+ housing on the east side of Hill Street, between Landing Road and Midge Street. The property consists of 9.33 acres+/- and currently contains a temple. The property is proposed to be subdivided, with the temple maintaining approximately 3.05 acres and the new housing occupying the remaining 6.28 acres.

###### *Lee Gray Court*

The Lee Gray Court project is a redevelopment of a Glen Cove Public Housing Authority property on Lee Gray Court, with 60 new townhouse units, which would replace 38 units currently contained in 19 two-family homes. The project also includes related parking, and a playground space. The townhouses would be ownership units and provided in clusters ranging from two to six attached units. The project would be targeted to several different markets, and includes 20 market-rate units, 20 next-generation units, and 20 housing choice voucher units

###### *MW-3 Build-Out Under a PUD Scenario*

This DEIS also considers the potential impacts from reasonable build-out of the MW-3 District. For the purposes of analysis, the full build-out development scenario is assumed to include the Proposed Action with the remaining approximate 40-acre area of the MW-3 District supporting an additional  $\pm 780$  residential units and approximately  $\pm 50,000$  square feet of office space. This would result in a combined total of approximately  $\pm 1,640$  dwelling units, 25,000 square feet of retail/restaurant and  $\pm 100,000$  square feet of office space within the full MW-3 District.

Any subsequent development of the remaining portions within the MW-3 District would require further review under SEQR regulations, based on actual development plans for these areas. The vast majority of the remaining 40-acres within the MW-3 District is privately owned by multiple property owners, and may contain various levels of contamination. Furthermore, residential

development in this area cannot occur unless 25 or more contiguous acres can be assembled for a new PUD or unless the Proposed Action PUD is expanded.

## A. Traffic

As described in **Section III.F**, the analysis of expected traffic conditions in the year 2016 under the Proposed Action added expected traffic volumes generated by the project to the Future No-Action traffic volumes. The Future No-Action traffic volumes included the following planned/approved transportation improvement projects and other planned developments located in the vicinity of the project site:

- Glen Cove Ferry Terminal and Boart Basin
- Glen Cove Mews
- Glen Cove Villas
- Lee Gray Court
- Roadway Improvements at Route 25A/Glen Cove road Intersection
- Roadway Improvements at Glen Cove Avenue and Sea Cliff Avenue Intersection

**Section III.F** describes potential impacts of the Proposed Action and mitigation measures. In addition to the Proposed Action, the potential impact of development under a full build-out of the remaining sites within the approximate 96 acre MW-3 District was reviewed. This review includes cumulative impacts of other projects and developments, as described above.

### 1. Trip Generation

Estimates of the number of additional weekday AM, weekday PM, and Saturday peak hour trips to be generated by full build-out of the remaining 40 acres in the MW-3 District are summarized in **Table IV.A-1**. As shown, the build-out of the remaining area is projected to generate an additional 326 trips (108 in, 218 out) during the weekday AM peak hour, 378 trips (219 in, 159 out) during the weekday PM peak hour, and 276 trips (151 in, 125 out) during the Saturday peak hour.

Transit and internal trip reductions totaling five percent for the residential component and seven percent for the office component were taken for the build-out of the remaining 40 acres. The complete Trip Generation calculations can be found in the Appendix.

**Table IV.A-1  
Additional Vehicle Trips  
Full Build-Out of MW-3 District**

	Use		Total Additional Trips
	Condos/Townhouses 780 Units	Office Space 50,000 SF	
AM	254	72	326
<i>Entering</i>	44	64	108
<i>Exiting</i>	210	8	218
PM	308	70	378
<i>Entering</i>	207	12	219
<i>Exiting</i>	101	58	159
Saturday	257	19	276
<i>Entering</i>	140	11	151
<i>Exiting</i>	117	8	125

Note: These trips are in addition to the site generated trips under the proposed action.

2. Trip Distribution and Assignment

The same trip distribution percentages used for the proposed action (see **Exhibit III.F-9**) were used for the additional vehicle trips that would be generated should the remaining portion of the MW-3 District be developed.

The additional weekday AM, weekday PM, and Saturday peak hour trip generation estimates, and the trip distribution percentages were used to assign traffic that would be generated by development of the remaining 40 acres to the roadway network. **Exhibits IV.A-1, IV.A-2, and IV.A-3** show the expected additional traffic that would be generated by the full build-out of the 96 acres in the MW-3 District at each of the study intersections during the three peak hour periods.

**Exhibits IV.A-4, IV.A-5 and IV.A-6** present the total intersection volumes under the Full Build-Out scenario for the weekday AM, weekday PM, and Saturday peak hours, respectively. These volumes are obtained by adding the additional expected trips generated by development of the remaining 40 acres to the Proposed Action traffic volumes previously shown in **Exhibits III.F-13 through III.F-15**.

**Table IV.A-2** summarizes the LOS analysis results for all the study intersections under the MW-3 Full Build-Out Condition, assuming implementation of the project’s proposed mitigation. Detailed *Synchro* analysis worksheets for the MW-3 Full Build-Out Condition can be found in the Appendix.

**Exhibit IV.A-1  
MW-3 Full Build-Out Additional Traffic Volumes  
AM Peak Hour**

**INSERT SEPARATE GRAPHIC**

**Exhibit IV.A-2  
MW-3 Full Build-Out Additional Traffic Volumes  
PM Peak Hour**

**INSERT SEPARATE GRAPHIC**

**Exhibit IV.A-3  
MW-3 Full Build-Out Additional Traffic Volumes  
Saturday Peak Hour**

**INSERT SEPARATE GRAPHIC**

**Exhibit IV.A-4  
MW-3 Full Build-Out Combined Traffic Volumes  
AM Peak Hour**

**INSERT SEPARATE GRAPHIC**

**Exhibit IV.A-5  
MW-3 Full Build-Out Combined Traffic Volumes  
PM Peak Hour**

**INSERT SEPARATE GRAPHIC**

**Exhibit IV.A-6  
MW-3 Full Build-Out Combined Traffic Volumes  
Saturday Peak Hour**

**INSERT SEPARATE GRAPHIC**

**Table IV.A-2  
MW-3 Full Build-Out Level-of-Service (LOS) Analysis Results**

Intersection	Approach	Movement	AM Peak		PM Peak		Saturday Peak	
			Delay	LOS	Delay	LOS	Delay	LOS
Lattingtown Road & Forest Avenue	EB	L	3.3	A	5.4	A	3.6	A
		TR	3.6	A	4.1	A	3.2	A
	WB	LTR	6.9	A	9.4	A	7.6	A
	NB	LTR	16.1	B	21.1	C	19.0	B
	SB	LT	15.8	B	22.3	C	19.6	B
<b>Overall</b>			<b>4.3</b>	<b>A</b>	<b>6.3</b>	<b>A</b>	<b>4.9</b>	<b>A</b>
Brewster Street & Herb Hill Road/ Mill Hill Road/Shopping Center	EB	L	31.0	C	30.4	C	30.2	C
		TR	10.7	B	14.4	B	15.2	B
	WB	LTR	17.5	B	18.1	B	22.8	C
		L	4.4	A	17.5	B	8.1	A
	NB	TR	3.5	A	6.3	A	5.0	A
		L	2.9	A	5.6	A	3.5	A
SB	TR	2.9	A	8.1	A	4.5	A	
<b>Overall</b>			<b>5.0</b>	<b>A</b>	<b>10.3</b>	<b>B</b>	<b>7.0</b>	<b>A</b>
Brewster St/Glen Cove Ave & WB Charles St/ Pratt Boulevard	WB	L	31.0	C	24.2	C	28.1	C
		T	38.1	D	39.2	D	39.0	D
		R	11.9	B	15.9	B	12.3	B
	NB	L	11.4	B	20.3	C	17.4	B
		T	24.6	C	34.6	C	34.7	C
		R	29.7	C	18.9	B	23.1	C
	SB	L	27.3	C	40.2	D	37.0	D
TR		15.5	B	30.4	C	26.5	C	
<b>Overall</b>			<b>24.0</b>	<b>C</b>	<b>27.8</b>	<b>C</b>	<b>27.8</b>	<b>C</b>
Glen Cove Ave & Charles Street	EB	L	14.6	B	17.8	B	15.4	B
		T	10.0	B	13.0	B	11.2	B
		R	8.0	A	13.0	B	11.5	B
	WB	LR	6.7	A	9.3	A	6.4	A
		TR	11.7	B	14.1	B	11.7	B
	SB	L	11.6	B	19.3	B	12.2	B
TR		10.7	B	10.9	B	10.7	B	
<b>Overall</b>			<b>10.9</b>	<b>B</b>	<b>13.3</b>	<b>B</b>	<b>11.6</b>	<b>B</b>
Glen Cove Ave & Sea Cliff Ave	EB	L	18.8	B	26.4	C	20.2	C
		TR	18.2	B	16.7	B	19.2	B
	WB	L	26.6	C	31.4	C	27.9	C
		TR	9.9	A	22.9	C	11.2	B
	NB	L	6.4	A	5.6	A	6.4	A
		TR	11.1	B	13.3	B	13.8	B
	SB	L	5.9	A	7.1	A	7.9	A
TR		9.8	A	14.5	B	11.6	B	
<b>Overall</b>			<b>12.1</b>	<b>B</b>	<b>16.0</b>	<b>B</b>	<b>13.9</b>	<b>B</b>
Bridge Street/ Continental Pl & Pratt Blvd	EB	L	9.4	A	49.8	D	45.6	D
		TR	7.2	A	7.4	A	5.9	A
	WB	LTR	7.0	A	11.4	B	7.8	A
		L	18.8	B	26.0	C	26.5	C
	NB	TR	15.5	B	13.1	B	14.4	B
		L	22.5	C	34.2	C	29.9	C
SB	TR	11.7	B	19.8	B	17.1	B	
<b>Overall</b>			<b>8.6</b>	<b>A</b>	<b>13.4</b>	<b>B</b>	<b>11.4</b>	<b>B</b>
Glen Cove Road & Glen Head Road	EB	L	30.3	C	32.4	C	40.3	D
		T	25.9	C	25.0	C	26.6	C
	WB	LTR	45.9	D	53.4	D	52.6	D
		L	18.2	B	25.5	C	28.8	C
	NB	TR	25.3	B	34.4	C	27.7	C
		L	18.2	B	24.2	C	20.5	C
SB	TR	33.0	C	40.8	D	43.3	D	
<b>Overall</b>			<b>30.5</b>	<b>C</b>	<b>37.6</b>	<b>D</b>	<b>37.5</b>	<b>D</b>
Glen Cove Road & Northern Blvd	EB	L	96.7	F	106.9	F	130.8	F
		TR	36.4	D	84.3	F	62.8	E
	WB	L	66.9	E	123.7	F	91.6	F
		TR	54.8	D	66.5	E	79.8	E
	NB	L	114.0	F	125.1	F	138.8	F
		T	48.6	D	101.6	F	78.5	E
		R	22.6	C	22.5	C	14.5	B
	SB	L	92.8	F	134.7	F	115.6	F
		T	79.8	E	64.3	E	60.9	E
R		31.8	C	26.3	C	27.5	C	
<b>Overall</b>			<b>58.7</b>	<b>E</b>	<b>82.1</b>	<b>F</b>	<b>76.5</b>	<b>E</b>

TABLE IV.A-2 (continued)

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Midday Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS
Glen Cove Avenue & Morris Avenue	EB	L	13.4	B	12.9	B	12.0	B
		R	5.6	A	5.4	A	6.1	A
	NB	L	9.0	A	5.9	A	5.4	A
		T	4.6	A	5.2	A	4.1	A
	SB	TR	5.2	A	5.4	A	4.5	A
<b>Overall</b>			<b>5.5</b>	<b>A</b>	<b>5.7</b>	<b>A</b>	<b>4.5</b>	<b>A</b>
Brewster Street & Cottage Row/School Street	EB	LT	32.9	C	33.7	C	34.8	C
		R	0.3	A	0.2	A	0.2	A
	WB	LT	19.3	B	22.3	C	23.8	C
		R	21.5	C	27.2	C	27.4	C
	NB	L	10.5	B	24.0	C	17.0	B
		TR	19.4	B	29.4	C	28.0	C
	SB	L	14.2	B	30.1	C	30.0	C
TR		19.3	B	25.6	C	19.5	B	
<b>Overall</b>			<b>18.5</b>	<b>B</b>	<b>26.1</b>	<b>C</b>	<b>23.9</b>	<b>C</b>
Glen Cove Rd at NY 107 Divide	NB	T	45.0	D	60.3	E	27.6	C
		L	55.9	E	82.6	F	36.6	D
	SB	T	0.6	A	0.4	A	0.6	A
<b>Overall</b>			<b>26.8</b>	<b>C</b>	<b>41.8</b>	<b>D</b>	<b>16.0</b>	<b>B</b>
Herb Hill Road & Charles Street	EB	LT	29.0	C	28.6	C	28.0	C
		R	0.7	A	1.6	A	0.8	A
	WB	LTR	28.6	C	29.9	C	27.9	C
		L	43.0	D	160.3	F	105.3	F
	NB	T	18.1	B	22.1	C	18.2	B
		R	15.0	B	13.7	B	12.3	B
	SB	L	19.7	B	21.7	C	20.0	B
TR		25.8	C	26.9	C	24.6	C	
<b>Overall</b>			<b>22.7</b>	<b>C</b>	<b>58.6</b>	<b>E</b>	<b>46.3</b>	<b>D</b>
Glen Cove Avenue & Shore Road	EB	L	14.4	B	27.9	C	16.8	B
		R	4.5	A	4.9	A	3.9	A
	NB	L	9.5	A	13.9	B	13.1	B
		T	8.4	A	10.6	B	10.2	B
	SB	TR	7.4	A	11.5	B	10.2	B
<b>Overall</b>			<b>8.7</b>	<b>A</b>	<b>14.5</b>	<b>B</b>	<b>11.2</b>	<b>B</b>
Glen Cove Road & Mary Lane/Back Road	EB	LT	46.5	D	68.2	E	46.9	D
		R	3.5	A	3.3	A	3.4	A
	WB	LTR	43.9	D	40.8	D	49.2	D
		L	52.1	D	68.4	E	48.9	D
	NB	TR	8.2	A	19.6	B	7.5	A
		L	25.6	C	37.0	D	43.2	D
	SB	T	58.9	D	65.3	E	34.0	C
R		5.6	A	5.4	A	4.1	A	
<b>Overall</b>			<b>34.1</b>	<b>C</b>	<b>39.2</b>	<b>D</b>	<b>21.8</b>	<b>C</b>
Glen Cove Avenue & Back Road	WB	L	12.8	B	14.1	B	11.7	B
		R	7.0	A	7.6	A	7.6	A
	NB	T	9.9	A	12.0	B	10.5	B
		R	6.6	A	7.0	A	6.6	A
	SB	LT	32.8	D	21.3	C	22.0	C
<b>Overall</b>			<b>20.5</b>	<b>C</b>	<b>13.6</b>	<b>B</b>	<b>14.1</b>	<b>B</b>
Glen Cove Avenue & Glen Head Road	EB	LTR	20.7	C	32.3	C	44.5	D
		LTR	30.6	C	50.2	D	89.0	F
	NB	L	10.2	B	8.9	A	9.0	A
		TR	11.0	B	13.6	B	12.4	B
	SB	L	33.1	C	85.9	F	96.9	F
TR		15.6	B	13.3	B	12.1	B	
<b>Overall</b>			<b>21.3</b>	<b>C</b>	<b>31.6</b>	<b>C</b>	<b>43.7</b>	<b>D</b>
Bryant Avenue & Witte Lane	EB	LTR	19.2	B	14.8	B	20.2	B
		L	80.5	F	61.8	E	39.9	C
	WB	TR	19.3	B	12.1	B	11.2	B
		LTR	17.9	B	28.9	C	17.8	B
	SB	L	51.3	D	16.3	B	9.7	A
TR		12.6	B	5.7	A	6.8	A	
<b>Overall</b>			<b>33.5</b>	<b>C</b>	<b>24.9</b>	<b>C</b>	<b>16.4</b>	<b>B</b>
NY 107 & Glen Head Road	EB	R	81.0	F	35.0	D	17.2	C
	NB	L	12.8	B	11.3	B	9.4	A

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Midday Peak Hour	
			Delay	LOS	Delay	LOS	Delay	LOS
Herb Hill Road & Dickson Street/Garvies Point Road	WB	L	11.2	B	13.1	B	9.7	A
		R	4.0	A	4.9	A	2.8	A
	NB	T	12.8	B	10.9	B	15.2	B
		R	3.8	A	4.3	A	4.2	A
	SB	LT	15.0	B	12.0	B	16.4	B
	Overall			8.6	A	7.9	A	7.7

**Roundabout:**

Herb Hill Road & Dickson Street/Garvies Point Road	AM Peak				PM Peak				Saturday Peak			
	Upperbound		Lowerbound		Upperbound		Lowerbound		Upperbound		Lowerbound	
	Capacity	v/c ratio	Capacity	v/c ratio	Capacity	v/c ratio	Capacity	v/c ratio	Capacity	v/c ratio	Capacity	v/c ratio
Approach												
WB	1376	0.50	1154	0.60	1335	0.66	1116	0.79	1367	0.80	1145	0.96
NB	1228	0.01	1019	0.01	1272	0.04	1058	0.04	1282	0.01	1068	0.02
SB	838	0.23	670	0.28	749	0.16	592	0.20	635	0.19	494	0.25

## B. Air Quality

Short-term construction impacts may occur at any or all of the pending or proposed projects in the City. Short-term air quality impacts could include fugitive dust as a result of excavation, demolition and grading operation. Such construction related air quality impacts would be short in duration. It is expected that each project would employ construction best management practices to reduce potential dust impacts.

Long-term cumulative impacts would include positive air quality impacts expected to result from ferry use (e.g., residents walking or biking to the ferry, or shortened vehicle trips to the ferry). The compact, transit-oriented, and mixed-use character of the build-out of the MW-3 District would be expected to lessen vehicle miles traveled and associated mobile source air inputs compared to conventional suburban patterns in areas without public transportation.

## C. Water Use

Additional development under the build-out of the remaining MW-3 District would increase water usage. According to the Glen Cove Director of Public Works, the City currently has sufficient well capacity to meet maximum day demand in the event that one major well goes out of service. However, since the City is just meeting this requirement; there is no excess well capacity for future growth. The Director of Public Works has indicated that, with the increased water demand resulting from the proposed Glen Isle project and various other proposed developments in the City, there will not be sufficient well capacity to meet future maximum demand in the event that one major well is out of service. If the industrial uses that have recently closed (e.g., Konica, Photocircuits, and Pall Corp.) were reactivated with similar operations, the City would not be able to meet its water demand in the event of loss of one well pump.

Using the same water utilization estimates as analyzed in **Section III.J**, water usage for the additional 780 residential units and 50,000 square feet of office space is approximated to be 415,800 GPD.

Adding these additional average daily residential (407,550 GPD) and office (8,250 GPD) demands to the 662,000 GPD gallons per day of water estimated for development of the 56-area project area would increase water demand for the entire 96-acre MW-3 District to approximately 1,077,800 GPD. Much of the remaining MW-3 District is, however, already developed with active industrial uses. Actual net water consumption for the remaining portions of the MW-3 District would need to be more thoroughly evaluated when actual plans for redevelopment of this portion of the MW-3 District are proposed.

Therefore, at this time adverse impacts related to water services would be those related to well capacity. This limited capacity condition is already facing the City and would similarly be exacerbated by other potential uses (such as reactivation of industrial uses) and general background growth. Assuming suggested measures, as previously presented, are implemented

adverse impacts related to water services would not be anticipated from development of the build-out scenario.

Utilizing the daily flow calculations applied to the Proposed Action and MW-3 build out, it is estimated the Villa at Glen Cove, Glen Cove Mews and Lee Gray Court redevelopment would have a combined domestic water demand of 183,150 GPD (this is a conservative estimate that does not reflect use of existing units that will be replaced at Lee Gray Court). This estimate is based on the actual bedroom counts for the Villa at Glen Cove and Lee Gray Court and an assumption that 50 percent of units at Glen Cove Mews would be one-bedroom units and 50 percent would be two-bedroom units. As described in **Section III.J**, the City has begun to study improving its water infrastructure to accommodate the increased water demand resulting from its desired future growth and various proposed developments in the City, including those identified above.

#### **D. Stormwater Management**

Build-out of the 96-acre MW-3 District in accordance with zoning district regulations would not adversely impact storm water management design within this area of the City. The majority of the remainder of the zoning district, adjacent to the eastern section of the project area, is already paved and developed with a variety of industrial and commercial uses. As such, additional redevelopment within this area, as estimated under the build-out scenario, would likely incorporate more “green” space than exists today, thereby reducing the amount of runoff generated by this area. It is also likely that the design would employ similar stormwater management component to those in the Proposed Action, such as irrigation chambers to capture the first one inch of runoff from the roof areas and infiltration systems to capture and recharge two inches of runoff from these roof areas.

In accordance with applicable regulations, the other proposed developments in the City would similarly be required to employ stormwater management plans that incorporate appropriate mitigation techniques.

#### **E. Sewage Discharge**

Although build-out of the MW-3 and other pending and proposed residential development would further increase the need for sanitary disposal services in the area, no significant adverse impacts are anticipated.

An additional conservatively projected flow of 378,000 GPD (370,500 GPD from the additional 780 residential units, and 7,500 GPD from the additional office space) would increase the average daily sanitary flow (from the entire MW-3 District) to approximately 885,000 GPD. This load, when added to the existing 3.8 million gallons per day currently processed by the City’s treatment plant, would be well below its rated capacity.

Furthermore, the majority of the remaining areas within the approximate 96-acre MW-3 District is presently occupied with a variety of industrial and commercial uses. Redeveloping the

remaining portions of the MW-3 District with new residential and office uses could replace those industrial uses that have historically used a portion of the City's plant capacity.

Therefore, at this time no significant adverse impacts related to sanitary disposal services are anticipated from development of the build-out scenario.

The additional projected sanitary flow generated by the build-out of the MW-3 district (378,000 GPD) is not anticipated to have an adverse impact to the sanitary pumping station and force mains, assuming that these infrastructure components are designed to handle a range of flows and that new pumps can be installed, if necessary, to handle the future flow from build-out of the MW-3 district.

The conservative projected flow from other proposed developments is 166,500 GPD. This load (which does not reflect existing units to be replaced at Lee Gray Court, and assumes 50 percent of the units at Glen Cove Mews would be one-bedroom and 50 percent would be two-bedroom), when added to the existing load currently processed by the City's treatment plant and the projected flow from the Proposed Action and MW-3 District, would be well below the treatment plant's rated capacity.

The existing sanitary pumping station, located near the existing Angler's Club facility, pumps wastewater generated by portion of the Glen Cove community north of Glen Cove Creek under the creek and to the plant. According to information provided by the City's engineering consultant, Nassau County has begun a study of all of the existing pumping stations and infrastructure within the City of Glen Cove to ascertain the condition and determine if improvements need to be made to these facilities. It was reported by Nassau County Department of Public Works personnel that there is no capacity in the existing pumping station or force mains to handle any additional flow.

Several options are being considered by the County for increasing the capacity of the existing pumping station and force mains located on the north side of Glen Cove Creek. Those options include, but are not limited to:

1. Upgrade the existing pumping station and force mains to include the proposed project's flow.
2. Install a separate pumping station and force main(s) to convey the flow from the proposed development and possible future development of the balance of the MW-3 district to the GCWWTP.
3. Install a new pumping station and force main(s) incorporating both existing flows from this area of the City and the proposed development flow.

Since the County has just recently taken over maintenance of the Glen Cove sanitary sewerage systems, they are still studying the existing infrastructure and are not currently in a position to determine which of these may be the preferred option for the conveyance of sanitary flow from the development to the GCWWTP. Regardless of the option that is ultimately selected by the County to address the reported pumping station and force main capacity issue, if new or additional force mains are required, they will be installed by either a jack and bore method or by

directional drilling. Other than jacking and receiving pits which would be located behind the bulkhead on either side of the creek, these methods do not require open cut or trenching to install the force mains, therefore, there would be no impact to the creek as part of this work.

**F. Schools**

Using Rutgers CUPR multipliers, it is estimated that the 860 dwelling units included in the Proposed Action would generate approximately 151 public school children. The estimated public school-aged child generation is reduced to 116 children when the Avalon at Glen Cove school child generation rate is applied to the rental component (see discussion below about this multiplier). Analysis of the hypothetical build-out of the remaining 40 acres MW-3 district assumes that the units would have the same percent of bedroom types as the Proposed Action. It is estimated that hypothetical build-out of the MW-3 district, would generate approximately 138 public school children (see **Table IV.F-1**) based on the application of Rutgers CUPR multipliers.

**Table IV.F-1  
Estimated Public School Children Impact from Build-Out of Remainder of MW-3 District**

Unit Types	No. of Units	Mult. Gr. K-2	Est. Public School Children Gr. K-2	Mult. Gr. 3-6	Est. Public School Children Gr. 3-6	Mult. Gr. 7-9	Est. Public School Children Gr. 7-9	Mult. Gr. 10-12	Est. Public School Children Gr. 10-12
<b>562 Condo Units</b>									
<b>1 Bedroom</b>	141	0.02	3	0.05	7	0	0	0.04	6
<b>2 Bedroom</b>	281	0.00	0	0.03	8	0.02	6	0.00	0
<b>3 Bedroom</b>	140	0.10	14	0.07	10	0.14	20	0.19	27
<b>Total Condo</b>			17		25		26		33
<b>140 Rental Units</b>									
<b>1 Bedroom</b>	49	0.02	1	0.02	1	0.01	0	0.01	0
<b>2 Bedroom</b>	70	0.05	4	0.05	4	0.04	3	0.03	2
<b>3 Bedroom</b>	21	0.14	3	0.20	4	0.12	3	0.17	4
<b>Total Rental</b>			8		9		6		6
<b>78 Workforce Units (Ownership units)</b>									
<b>1 Bedroom</b>	12	0.05	1	0.07	1	0.01	0	0.02	0
<b>2 Bedroom</b>	66	0.02	1	0.04	3	0.02	1	0.01	1
<b>Total Workforce</b>			2		4		1		1
<b>TOTAL</b>	<b>138 Public School Children</b>								

Source: Residential Demographic Multipliers – Estimates of the Occupants of New Housing, New York-All Public School Children: School-Age Children in Public School, Rutgers University, Center for Urban Policy Research, June 2006.

As described in **Section III.I**, another methodology that could be used to estimate the number of school children the Proposed Action would yield would be to look at the school children generation at specific comparable developments on Long Island. In this instance, other mid-rise housing developments have been identified to provide school generation data. AvalonBay Communities, Inc. has developed two Long Island properties that are mid-rise developments, rather than the more typical two- and three-

story townhouse style multi-family developments frequently found in Long Island communities.

AvalonBay Communities commissioned a “School-Aged Children Generation Analysis” of its Long Island properties in 2005 and updated this analysis in 2007. This analysis found that the 109 units in Avalon Towers in Long Beach, which contains one-, two- and three-bedroom rental units, generated no public school-aged children. AvalonBay’s Glen Cove rental development contains 256 dwellings, including studio, one- and two-bedroom units. Four public school-aged children have been generated at this development, (which, though a mid-rise building, varies somewhat from the proposed project’s rental component unit mix), resulting in a child per unit generation rate of 0.016. This is substantially lower than the CUPR multipliers for rental housing. This 0.016 factor has not been used directly since, as indicated above, the Proposed Action’s rental component includes some 3-br units, which typically generate more public school children than smaller units. Instead, the CUPR rental generation multiplier results have been adjusted to account for this locally observed factor. The predicted number of public school children at the Avalon Glen Cove project, based on application of the Rutgers CUPR multipliers, would be approximately 23. (The CUPR materials do not provide a multiplier for studio units. In order to be conservative, a generation rate of 0 for the studios was applied.) The actual rate of schoolchild generation is therefore approximately 17% of the predicted value.

Incorporation of the adjusted rental numbers based on experience with the AvalonBay generation rates yields an estimated generation of 117 school-aged children for the 780 additional units in the hypothetical build-out of the MW-3 district. (see **Table IV.F-2**).

**Table IV.F-2  
Hypothetical Build-Out of Remainder of MW-3 District  
Estimated Public School Impact  
Incorporating Avalon at Glen Cove Experience for Rental Units**

Unit Types	No. of Units	Mult. Gr. K-2	Est. Public School Children Gr. K-2	Mult. Gr. 3-6	Est. Public School Children Gr. 3-6	Multi. Gr. 7-9	Est. Public School Children Gr. 7-9	Mult. Gr. 10-12	Est. Public School Children Gr. 10-12	Totals
<b>562 Condo Units</b>										
1 Bedroom	141	0.02	3	0.05	7	0	0	0.04	6	
2 Bedroom	281	0.00	0	0.03	8	0.02	6	0.00	0	
3 Bedroom	140	0.10	14	0.07	10	0.14	20	0.19	27	
Total Condo										101
<b>78 Workforce Units** (Assumes Ownership townhomes in clusters of 5+ units, all values)</b>										
1 Bedroom	12	0.05	1	0.07	1	0.01	0	0.02	0	
2 Bedroom	66	0.02	1	0.04	3	0.02	1	0.01	1	
Total Workforce										8
<b>Rental Units</b>										
1 Bedroom	49	0.02	1	0.02	1	0.01	0	0.01	0	2
2 Bedroom	70	0.05	4	0.05	4	0.04	3	0.03	2	13
3 Bedroom	21	0.14	3	0.2	4	0.12	3	0.17	4	14
Subtotal Rental (CUPR Multiplier)										29
Local Experience Adjustment Factor										X(0.275)
Total Rental Units										8
<b>TOTAL</b>										<b>117</b>

Sources: Residential Demographic Multipliers – Estimates of the Occupants of New Housing, New York-All Public School Children: School-Age Children in Public School, Rutgers University, Center for Urban Policy Research, June 2006; and *School-aged Children Generation Analysis Long Island, New York, AvalonBay Communities, Inc.*: Prepared February 2005, Revised April 2007. Freudenthal & Elkowitz Consulting Group, Inc.

Note: \*\*Assumes Ownership townhomes in clusters of 5+ units, all values used since housing prices have not been established

The Glen Cove ferry project would not generate school children, nor would Glen Cove Mews, since it is an age restricted development.

It is estimated that Lee Gray Court redevelopment would generate a net increase of two public school children (Table IV.F-3). This relatively minor impact is due to a shift in unit mix.

**Table IV.F-3  
School Age Children Generation Estimate Lee Gray Court**

Number of Bedrooms	Number of Units	Multiplier*	Schoolchildren
<b>Existing Units</b>			
2-bedrooms	6	.22	1
3-bedrooms	22	.62	14
4-bedrooms	10	1.19	12
<b>Total</b>	<b>38</b>	<b>--</b>	<b>27</b>
<b>Proposed Units</b>			
2-bedrooms	20	.22	4
3-bedrooms	40	.62	25
<b>Total</b>	<b>60</b>	<b>--</b>	<b>29</b>

\*Source: Lee Gray Court Environmental Assessment Form, based on Rutgers University, Center for Urban Policy Research, "Residential Demographic Multipliers," 2006. NYS Single-family attached multipliers.

The Villa at Glen Cove would generate approximately 13 public school children, based on the Rutgers CUPR multipliers (see **Table IV.F-4** for a detailed analysis).

**Table IV.F-4  
Estimated Public School Child Generation: The Villa at Glen Cove**

Unit Types	No. of Units	Mult. Gr. K-2	Est. Public School Children Gr. K-2	Mult. Gr. 3-6	Est. Public School Children Gr. 3-6	Mult. Gr. 7-9	Est. Public School Children Gr. 7-9	Mult. Gr. 10-12	Est. Public School Children Gr. 10-12
<b>216 Condo Units</b>									
1 Bedroom	5	0.02	0	0.05	0	0.00	0	0.04	0
2 Bedroom	204	0.00	0	0.03	6	0.02	4	0.00	0
3 Bedroom	7	0.10	1	0.07	0	0.14	1	0.19	1
Sub Totals			1		6		5		1
<b>TOTAL</b>	<b>13 Public School Children</b>								

Source: Residential Demographic Multipliers – Estimates of the Occupants of New Housing, New York-All Public School Children: School-Age Children in Public School, Rutgers University, Center for Urban Policy Research, June 2006.

Note: all numbers have been rounded

It is estimated that the cumulative impact (at final build-out) of the identified proposed and pending projects, including the hypothetical build-out of the MW-3 district, would be the generation of approximately 304 additional school children based on the Rutgers CUPR multipliers.

Using the comparable development public school children generation methodology, it is estimated that the cumulative impact (at final build-out) of the identified proposed and pending projects, including the hypothetical build-out of the MW-3 district, would be the generation of approximately 255 additional school children.

The Glen Cove School District has an estimated available capacity of approximately 742 additional students (see discussion in **Section III.I**). This additional capacity could accommodate the estimated cumulative impact, which would utilize less than 40% of the

available capacity (based on the Rutgers CUPR multipliers) and approximately 34% of the identified capacity if the combined Rutgers CUPR and comparable development methodology is applied.

**Table IV.F-5  
Summary of Cumulative Estimated School Children Impact**

<b>Proposed/Pending Development</b>	<b>Anticipated School Children Generation Over Existing Conditions</b>
Proposed Action	151
Remainder MW-3 Build-Out <sup>1</sup>	138
Glen Cove Ferry	0
Glen Cove Mews	0
Lee Gray Court	2
The Villa at Glen Cove	13
<b>TOTAL</b>	<b>304</b>

<sup>1</sup> Hypothetical scenario

**Table IV.F-6  
Summary of Cumulative Estimated School Children Impact Incorporating Avalon at Glen Cove Experience**

<b>Proposed/Pending Development</b>	<b>Anticipated School Children Generation Over Existing Conditions</b>
Proposed Action	123
Remainder MW-3 Build-Out <sup>1</sup>	117
Glen Cove Ferry	0
Glen Cove Mews	0
Lee Gray Court	2
The Villa at Glen Cove	13
<b>TOTAL</b>	<b>255</b>

<sup>1</sup> Hypothetical scenario

Note: Numbers have been rounded

As discussed in **Section III.I**, The New York State School Report Card Fiscal Accountability Supplement for Glen Cove City School District indicates that in the 2005-2006 school year (the latest year for which data is available from the State) the expenditures per pupil were \$12,145 for general education and \$24,369 for special education. The district classification rate for students with disabilities is 12.84 percent. **Table IV.F-7**, below provides anticipated fiscal impacts of public school child generation for the cumulative impacts of the proposed action, other planned developments and the hypothetical full build-out of the MW-3 District. This table assumes a ten percent increase in average student costs since the 2005-2006 school year. This is a conservative approach for the following reasons:

1. The State calculates expenditures per pupil as a ratio of instructional expenditures to pupils. This is an average cost approach which assumes constant costs with each additional student. In reality, the marginal cost of an additional student is typically much less than the average.
2. This approach does not separate the local real estate property tax portion of the program costs from the portion provided through state aid.

As a result the positive fiscal impacts would likely be substantially greater than estimated.

It is anticipated that the annual impact of the cumulative estimated school child generation would be approximately \$4.6 million annually. The estimated annual tax revenues to the School District from the Proposed Action alone are approximately \$12.4 million. Additional annual tax revenues to the School District would be generated by the other identified actions (e.g., Glen Cove Ferry, Glen Cove Mews, Lee Gray Court, The Villa at Glen Cove). Even without consideration of the tax revenue from these other projects, the District would still accrue an annual surplus of approximately \$7.8 million. Even greater positive annual tax benefits (\$8.6 million) to the Glen Cove School District would be realized based on the incorporation of the comparable development methodology (based on Avalon at Glen Cove) which results in an estimated cumulative generation of 255 public school-aged children.

**Table IV.F-7  
Summary of Estimated School-Age Children Impact**

School-Age Generation	Max. Increase in Number of Public School Students	Estimated Cost/Pupil 2005-06 plus 10%*	Total Increased Cost	Estimated Annual Tax Revenues	Estimated Annual Tax Surplus
General Education	265	\$13,360	\$3,540,400		
Special Education	39	\$26,806	\$1,045,434		
<b>TOTAL</b>	<b>304</b>		<b>\$4,585,834</b>	<b>\$12,422,535</b>	<b>\$7,836,701</b>

Sources: New York State School Report Cared Fiscal Accountability Supplement, published 2008.  
ERA, March 2009.

**Table IV.F-8  
Summary of Estimated School-Age Children Impact  
Comparable Development Methodology**

School-Age Generation	Max. Increase in Number of Public School Students	Estimated Cost/Pupil 2005-06 plus 10%*	Total Increased Cost	Estimated Annual Tax Revenues	Estimated Annual Tax Surplus
General Education	222	\$13,360	\$2,965,920		
Special Education	33	\$26,806	\$884,598		
<b>TOTAL</b>	<b>255</b>		<b>\$3,850,518</b>	<b>\$12,422,535</b>	<b>\$8,572,017</b>

Sources: New York State School Report Cared Fiscal Accountability Supplement, published 2008.  
ERA, March 2009.

**G. Noise**

In addition to traffic noise impacts, the noise analysis methodology for the Proposed Action assessed potential noise impacts from the proposed Glen Cove Ferry (see **Section III.H**). The noise analysis concluded that, in general, in the future with the proposed project, vehicular traffic would be expected to be the dominant noise source throughout the study area.

Based on the results of the noise analysis for the Proposed Action, mobile source noise from new traffic would produce impacts along Herb Hill Road between Dickson Street and Charles Street during the Saturday midday peak hour and on Garvies Point Road during the weekday PM peak hour. Appropriate mitigation would be required. On site, the building design window/wall attenuation measures for the proposed buildings would

be expected to be sufficient to achieve acceptable interior noise levels for each building's intended use. It is anticipated that similar design elements would be included with other projects as necessary.

## H. Impact of Glen Cove Ferry Terminal

The City's Glen Cove Ferry Terminal project is proposed to be constructed on the northern shore of Glen Cove Creek. The July 2007, *Draft Glen Cove Ferry Terminal and Boat Basin Design Report/Environmental Assessment* (updated into a *Final Design Report/Environmental Assessment* in February 2009, as discussed below) indicates that the preferred alternative for the ferry terminal location is a central location along Glen Cove Creek, designed independent of future development, with the ferry on the west side of the site.<sup>1</sup>

The ferry terminal would be approximately 8,000 square feet with associated parking in a parking area adjacent to the facility.

The proposed ferry location would impact the Angler's Club, which is located on property directly adjacent, owned by the City. The ferry terminal project would require use of approximately 2,700 square feet of the area currently used by the Angler's Club. A portion of the terminal building would impact an upland storage area and the safety of the Angler's Club marina operations would be affected by ferry operations.<sup>2</sup> Reconfiguration of the Angler's Club will be required if the ferry terminal is constructed.<sup>3</sup>

The ferry is intended to provide commuter service to the New York City employment market, and potentially other locations along the Long Island Sound. The project site is also approximately one mile from the Glen Cove and Glen Street Long Island Rail Road stations.

The City plans to construct a new ferry terminal and identify a private operator to initiate service by 2010, when infrastructure for the ferry is anticipated to be completed. Although the terminal would precede the majority of the mixed-use development, coordination (e.g., ensuring that access to the ferry terminal and parking are not blocked during construction, installation of complementary landscaping and street furniture at the ferry terminal) will take place to ensure that the two developments function well together and complement each other. The ferry landing location that is currently being contemplated is on the eastern end of the area known locally as the Captain's Cove site. Specific details related to the reintroduction of ferry service to the area are discussed in a separate design report/environmental document for the Glen Cove Creek Ferry.

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<sup>1</sup> *Draft Glen Cove Ferry Terminal and Boat Basin Design Report/Environmental Assessment*. Urbitran Associates, Inc., July 2007.

<sup>2</sup> *Draft Glen Cove Ferry Terminal and Boat Basin Design Report/Environmental Assessment*. Urbitran Associates, Inc., July 2007 .p. 4-182

<sup>3</sup> Ibid.

The ferry terminal and boat basin would be separated from the nearest residences by approximately 150 feet. Along the length of the creek, wetlands and open space would buffer residences from the ferry route.<sup>4</sup> The ferry is expected to use compressed natural gas or low power diesel propulsion when entering the channel area. These propulsion options would produce less noise than turbines or full power diesel propulsion, which would be used in open waters.<sup>5</sup>

Noise abatement measures could include both design options (e.g., exhaust silencers, noise controls for the hydraulic and ventilation systems, engine vibration isolation) and operational controls (e.g. reduced speeds).<sup>6</sup> The Draft Glen Cove Ferry Terminal and Boat Basin Design Report/Environmental Assessment states that it is not anticipated that the ferry terminal would generate significant noise impacts on the area.

The separately planned ferry project also includes parking adjacent to the terminal to serve ferry users. The project's parking supply (separate from the ferry project) was established using a shared parking methodology. This accounts for the proximity of complimentary land uses, and the ability for uses that have differing peak parking periods to share parking resources. This would reduce the overall number of required spaces. For example, spaces in the office building could be available for other site visitor use on weekends, when limited office worker parking would be anticipated. The primary streets within the project site (e.g., Dickson Street, Herb Hill Road, Garvies Point Road) are proposed to remain as City streets. As a result, the City would control on-street parking. Should the City decide in the future that there exists a need for additional on-street parking resources to support ferry usage, it would have the authority to implement changes to its regulations regarding parking on public streets (including determining a need for permits). As detailed in Section III.F, the project supplies sufficient off-street parking to meet its projected demands. Therefore, on-street parking usage would not adversely affect the project.

The Glen Cove Ferry Terminal and Boat Basin Project is a locally administered federally funded project, which is also receiving State funding. Numerous governmental agencies played a role in the environmental review process for the Glen Cove Ferry Terminal and Boat Basin Project, including, without limitation, the Federal Highway Administration, the New York State Department of Transportation, and the City of Glen Cove Industrial Development Agency.

On or about April 7, 2009, the City of Glen Cove Industrial Development Agency, as Lead Agency for the Ferry Terminal and Boat Basin Project under the State Environmental Quality Review Act, issued a Notice of Determination of Non-Significance. The evidence presented in the Final Design Report/Environmental Assessment was used to support the determination of the Glen Cove Industrial Development Agency that the Ferry Terminal and Boat Basin Project would not result in any significant adverse impact to the environment.

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<sup>4</sup> *Draft Glen Cove Ferry Terminal and Boat Basin Design Report/Environmental Assessment*. Urbitran Associates, Inc., July 2007.

<sup>5</sup> *Ibid.*

<sup>6</sup> *Ibid.*

Pursuant to the requirements of the National Environmental Policy Review Act, the Federal Highway Administration and the New York State Department of Transportation issued Notices of Preferred Alternative for the Glen Cove Ferry Terminal and Boat Basin Project and Findings of No Significant Impact.

Should the ferry project not move forward, the project and the overall MW-3 district would suffer several negative impacts, including but not limited, to: (i.) increased vehicular trip generation; (ii.) impaired marketability due to loss of an attractive transportation alternative (i.e., the ferry is likely to attract commuters to New York City); (iii.) impaired marketability of the City, as a whole, for potential weekend visitors from New York City and the region; and (iv.) deviation from identified public policy recommendations encouraging transit-oriented development.

The Applicant and the City therefore have a shared interest in the success of the ferry. In the event that the ferry project fails, the Applicant would be motivated to, and will, cooperate with City to seek other ferry operators for that site. However, the ferry site and the project are ultimately under the control of the City. Any future alternative uses for the site, and the procedures to be used, would be determined by the City in coordination with the redeveloper, and ultimately the Property Owners Association (“POA”).