

3.9 Public Health

3.9.1 Phase I Site Assessment

A Phase I Environmental Site Assessment (ESA) was conducted by Team Environmental Consultants, Inc. (TEAM) in May of 2005 and the full report is included in Appendix G. The report was conducted to ASTM E1527-00 (Standard Practice for Environmental Assessment Process). The objective of the Phase I Environmental Site Assessment (ESA) was to identify whether or not the subject property had any significant environmental concerns present, or liabilities associated with the property.

The conclusion of the report was as follows: "Based on the site setting, availability of a municipal water supply, review of available information, performance of site/regulatory interviews, and findings of the property walk-through inspection, no significant environmental liability issues associated with the subject property were identified."¹ Please refer to Appendix G for the Phase I Environmental Site Assessment Report.

3.9.2 Mitigation - Construction Generated Dust

Dust Control Measures During Construction Activities

Construction activities on the project site may have a potential impact on the local air quality through generation of fugitive or airborne dust. Fugitive dust is generated during ground clearing and excavation activities. Throughout the construction period, passage of delivery trucks and other vehicles over temporary dirt roads and other exposed soil surfaces also generates fugitive dust.

With proper site maintenance and careful attention to construction activities, impacts from fugitive dust can be minimized. The following procedures will be used to minimize the generation of dust during construction and the resultant impact to neighbors:

- Minimizing the area of grading at any one time and stabilizing exposed areas with mulch and seed as soon as practicable;
- Minimizing vehicle movement over areas of exposed soil, and covering all trucks transporting soil;
- Unpaved areas subject to traffic, including the unpaved portion of Fairlawn Avenue, will be sprayed with water to reduce dust generation;
- Paved areas, including Fairlawn Avenue, Atilda Avenue, and Constance Avenue will be cleaned and kept clear of loose dirt that can be re-introduced into the air during vehicle passage.
- A truck vehicle washing pad will be constructed at the Constance Avenue site entrance. The washing pad will be maintained to prevent the tracking of soil onto local streets.

While the generation of dust is the primary air quality concern related to project construction, emissions from diesel construction vehicles is also a potential source of air pollution and impact. The regular maintenance of construction equipment provides the best method to minimize the generation of vehicle emissions and particulate matter. It will be the responsibility

¹ TEAM Environmental Consultants, Inc. Phase 1 Report May, 2005.

of the construction manager to ensure that all equipment on the site is properly maintained and does not produce excessive emissions.

3.10 Safety

During the construction activities for the proposed Waters Edge at Dobbs Ferry 11-lot subdivision, health and safety precautions will be followed in order to protect project employees and the public in the vicinity of the project site. Public safety is considered high priority during construction of this subdivision due to the site's proximity to residences and publicly accessible streets, specifically in the Fairmead neighborhood.

Standard Operating Procedures (SOP) and Occupational Hazard and Safety Administration (OHS) standards will be followed by all on-site personnel during the construction of project. Additional safety procedures during construction will be followed by site employees to ensure the health and safety of the public is protected. It will be the responsibility of the project construction manager to develop and implement the following safety procedures throughout the construction of the Waters Edge project.

Prior to the commencement of construction activities, NYS Code Rule 753 (a.k.a. Industrial Code 53 or Code Rule 53) will be followed. The purpose of Code Rule 753 is to establish procedures for the protection of underground facilities (utilities) in order to prevent damage to public and private property (required by General Business Law Article 36 and Public Service Law Section 119-b). Under Code Rule 753, underground utilities (i.e. Gas, water, sewer, etc.) in the area of proposed construction are marked out (colored spray paint) by the appropriate utility agent. These mark outs occur on the pavement directly above the utility line.

Safety Procedures for Project Employees

Standard Operating Procedures (SOPs)

A site specific Standard Operating Procedure (SOP) for the construction of the Waters Edge at Dobbs Ferry would be implemented by the project construction manager.

In general, SOPs consist of five elements: Title Page, Table of Contents, Procedures and Quality Assurance/Quality Control and References¹. The following topics may be appropriate for the project specific SOP for the construction of Waters Edge at Dobbs Ferry².

- Scope and Applicability (describing the purpose of the process or procedure and any organizational or regulatory requirements),
- Summary of Method (briefly summarizing the procedure),
- Definitions (identifying any acronyms, abbreviations, or specialized terms used);
- Health & Safety Warnings (indicating operations that could result in personal injury or loss of life and explaining what will happen if the procedure is not followed or is followed incorrectly),
- Cautions (indicating activities that could result in equipment damage, degradation of sample, or possible invalidation of results),
- Interferences (describing any component of the process that may interfere with the accuracy of the final product),

¹ Source regarding SOP discussion: Environmental Protection Agency. *Guidance for Preparing Standard Operating Procedures (SOPs)*. March 2001. 28 December 2006. <www.epa.gov>.

² Source regarding SOP discussion: Environmental Protection Agency. *Guidance for Preparing Standard Operating Procedures (SOPs)*. March 2001. 28 December 2006. <www.epa.gov>.

- Personnel Qualifications (denoting the minimal experience the SOP follower should have to complete the task satisfactorily, and citing any applicable requirements, like certification or “ Governmental function”
- Equipment and Supplies (listing and specifying, where necessary, equipment and materials,
- Procedure (identifying all pertinent steps, in order, and materials need to accomplish site specific procedures),
- Data and Records Management (e.g., identifying any forms to be used, reports to be written, and data and record storage information).

Lastly, the SOP designed for the construction of the Waters Edge subdivision will include a Quality Control and Quality Assurance Section, which discusses Quality Control activities that are designed to allow self-verification of the quality and consistency of the work completed on-site.

Occupational Hazard and Safety Administration (OHSA) Standards

The Occupational Hazard Safety and Health Administration standards³ are designed to create a better (healthy and safe) working environment for workers. Appropriate OSHA provisions will be followed by all on-site workers to ensure worker safety and health and will include the following:

- The project employer is responsible for requiring that workers wear the appropriate personal protective equipment (PPE) in all operations where the need for such equipment is necessary to reduce hazards to employees. Such personal protective equipment includes: hard hats, safety vests, protective footwear, protective eye wear, etc.
- Timber shoring will be provided as a method of protection from cave-in in trenches that do not exceed 20 feet in depth;
- Bulldozers, end loader buckets and similar equipment shall be either fully lowered or blocked when being repaired or not in use. All controls shall be in neutral position, with motors stopped and brakes set, unless work being performed requires otherwise;
- All trucks and heavy equipment will have back up alarms.
- All equipment left unattended at night, adjacent to a highway in normal use, or adjacent to construction areas where work is in progress, shall have appropriate lights, reflectors, or barricades equipped with appropriate lights or reflectors, to identify the location of equipment;
- All places of employment shall be kept clean to the extent of that the nature of the work allows.

³ Source regarding OSHA discussion: Occupational Safety and Health Administration. *Standards*. U.S. Department of Labor. 28 December 2006. <www.osha.com>

Safety Procedures for Public Protection

Children, local residents, pets and other members of the public are often curious and like to observe construction activities. They are often not aware of the potential hazards a construction site can present or the necessary precautions one must take while on or near a construction site.

It is the responsibility of the on-site construction manager to do all that is reasonably practicable to prevent public injury at the proposed construction site, even where access to the site is prohibited to the public, safety measures must be enforced.

The following is a list of general guidelines that will be followed to maintain a publicly safe construction site (inaccessible to children and pets):

- Prevent unauthorized persons from entering within the boundaries of the construction site by fencing (i.e. orange construction fencing), signs, barricades or other means; Fencing and barricades will be locked after construction hours;
- Where fencing, signs, or barricades are not practical, or fully reliable to prevent unauthorized personnel (especially children) onto the site, the presence of site personnel will be utilized to prevent unauthorized persons from entering the site.
- Depending on the specific construction activities, signage, barricades, and fencing around hazards, such as open excavation or holes within the site's boundaries will be provided as needed. As noted above, barricades and fencing will be locked after hours.
- The securing of any construction equipment and materials will be provided, especially at night. As noted above, bulldozers and similar equipment would be fully lowered or blocked when not in use. All equipment controls would be in neutral position, with motors stopped and brakes set, when not in use or when stored overnight. As mentioned above, all equipment left unattended at night shall have appropriate lights, reflectors, or barricades equipped with appropriate lights or reflectors, to identify the location of equipment;
- Access to hazardous materials, flammable materials, and equipment would be limited during construction to authorized personnel and would be inaccessible to the general public.
- In addition, the construction site will be secured at the end of each work day through the following activities:
 - Back filling any excavations, where applicable;
 - Fencing or barricading of any excavations or pits where back filling was not practicable;
 - Proper display of warning signs; and
 - Locking of all fenced areas.

3.11.1 Community Character

3.11.1.1 Existing Conditions

The project site consists of 4.4 acres of vacant wooded land and is bordered to the west by the MTA-Metro North Railway line which separates the site from the Hudson River. Adjoining the site to the east is a residential community with single family homes identified in the Village of Dobbs Ferry Final Draft Local Waterfront Revitalization Program (LWRP) as the Fairmead section of the Village. This community consists of a variety of residential styles that were constructed in the 20th century (See Figures located in Section 3.4 Aesthetics and Cultural Resources) and terminates at Broadway (NYS Route 9). (See Figure 2.1 Regional Site Location Map) The project site is bordered to the north by the Saint Christopher's School, an institutional use, on a 11.6 acre tract.

In terms of historic resources, the neighborhood name, Fairmead, is derived from the name of the former estate grounds on which the neighborhood is located and/or abuts. The project site constitutes the remainder of this former estate, named after a previous owner, General Mead. The former estate holdings included a large mansion, manicured grounds, and numerous outbuildings. The existing structure on the site, which is currently unoccupied, was used as service quarters for the estate. The building nor the grounds are historic. There are no National or State Register of Historic Places that abut the project site.

Open Space Inventory

As described in the Inventory and Analysis section of the draft final Village of Dobbs Ferry Local Waterfront Revitalization Program ("LWRP"), the project site is in the OF-6 zoning district. In the OF-6 district construction of single family residences on 5,000 square feet is a permitted use. According to the LWRP, several undeveloped lots exist in the Fairmead section of the Village. The LWRP, Figure IV-1, Area of Land and Water Uses/Zoning recommends that the project site be developed for "residential low density". Furthermore, Figure IV-2, Proposed Waterfront Land and Water Uses Map, illustrates areas recommended for open space and park acquisition - the project site is not identified as a site intended to remain as open space.

The subject property is not identified as open space, as illustrated on the Open Space Inventory Map. However, the Open Space Inventory Report, Section V, suggests that development proposals on vacant land must be carefully evaluated since such development may alter the streetscapes or obscure a scenic view as defined in the LWRP.

Local Waterfront Revitalization Program of Dobbs Ferry

As discussed in Section 3.4, Aesthetic and Cultural Resources, of the DEIS, the Waters Edge project site is located within the Village of Dobbs Ferry Waterfront Revitalization Boundary and New York State Coastal Area Boundary, as defined in the LWRP. However, it is separated from the Hudson River waterfront by the existing and active MTA railroad line. This condition precludes any "water dependent use", as defined in the LWRP, of the Waters Edge site. As mentioned previously, the LWRP recommends that the project site be developed for "residential low density". The LWRP appropriately acknowledges the visual resources in the Village and particularly properties that afford views of the Hudson River.

The LWRP also discusses the Village's regulatory and governmental actions to preserve and enhance those resources.

Draft Dobbs Ferry Community Vision Plan

Fairmead is identified as a distinct neighborhood in the Draft Vision Plan for Dobbs Ferry. The overall vision plan for this neighborhood is to create a coherent character. The Vision Plan identifies several concerns about Fairmead including the concept that this area consists of a number of residential enclaves that have been isolated from other parts of the Town due to the presence of Broadway and its traffic volumes, as well as the institutional uses on large properties that further isolate residential areas. The Community Vision Plan recommends that residential development in Fairmead be conditioned to extend the existing roadway network and protect the views from the upland Riverview Manor neighborhood. The Community Vision Plan recommends that a portion of the project site be retained as open space, and that a proposed greenway path be routed through St. Christopher's, along a corner of the project site, and then along Constance Avenue to Fairlawn Avenue to Broadway.

As noted in the Gotham Design Visual Report, the proposed removal of existing vegetation, regrading of the site, construction of new roads extending the existing street pattern, construction of single-family homes in compliance with zoning regulations, and the landscaping of the site would protect and enhance the views of the River from Fairmead, adjacent properties, public streets, and the Riverview Manor neighborhood.

This portion of the Fairmead neighborhood is an existing single family residential neighborhood. Even though the Proposed Action does not include the suggested portion of open space recommended by the Vision Plan, the Waters Edge development completes this portion of the neighborhood, including the extension of the road network, with a conforming low density single family subdivision. The Water Edge development proposes to improve the views of the Hudson River and points west from the removal of existing understory on site for current and future residents to enjoy from their homes as well as the proposed road network.

Due to the current institutional use of St. Christopher's School, the applicant does not feel that the proposed greenway through the project site is appropriate at this time.

3.11.1.2 Potential Impacts and Mitigation Measures

The Proposed Action is designed to conform with the existing Fairmead neighborhood in addition to improving the views of the Hudson River and beyond within the neighborhood as well as on the proposed lots. The Waters Edge development is a low density development and has been designed to comply with the provisions of the Village Zoning and Land Use and Subdivision Regulations (§300 and §265 of the Village Code, respectively). All of the proposed lots and future homes will meet the zoning requirements of the OF-6 District. As noted previously, this DEIS is for the subdivision of land for residential use and the building orientation, size, architecture and design of the future homes has not been decided upon at this time. However, the future homes are expected to conform to the existing Fairmead neighborhood and reduce the apparent scale of the new structures through the use of steeply sloping roofs and eaves at the one story height. The height of the future homes will comply with the OF-6 Zoning regulations. Where practical, the roofs will slope away from the site yards, increasing the separations between adjacent homes. Material selection and colors chosen for the homes would be compatible with the eclectic nature of the existing Fairmead

neighborhood. For further discussion on Community Character please refer to Section 3.4, Aesthetic and Cultural Resources

The project site, separated from the Hudson by the MTA Metro North Railway, is approximately ninety feet higher in elevation than the river. The Waters Edge development through the removal of existing understory would improve views of the Hudson River from internal roads, the lots as well as from the houses for both the public and homeowner to enjoy. The proposed subdivision would also enhance views of the Hudson River from several of the existing houses located immediately adjacent to the subject property due to the removal of understory. Most significantly, the proposed development would not block or obscure any existing views of the River and beyond that are currently enjoyed by the public. As mentioned in previous chapters of this DEIS, the road system proposed for the Waters Edge subdivision would be dedicated to the Village of Dobbs Ferry. In conclusion, the Proposed Action is consistent with the goals of the LWRP.

The implementation of the Proposed Action would increase the number of people that could take advantage of the valued vista and this vista would become a point enjoyed by all of the neighbors and visitors to Fairmead throughout the year. It is important to note that the existing property including its views are private. However, with the Proposed Action, the private views would become public for many of them would be along a public road system. It is also important to note that the existing plantings on the site obscure the River during the majority of the year and with the implementation of the proposed project, the quality of the view throughout the year will be enhanced².

As described in Section 3.4 Aesthetic and Cultural Resources, the Proposed Action is designed to create valued views of the Hudson River for residents of the proposed homes, neighboring homes, and the public in the vicinity of the subject site along the public road system. The Proposed Action would not adversely impact existing views of the Hudson River or existing views of the east bank from the Hudson River. The Proposed Action would integrate with the character of the existing land use in Fairmead and improve the appearance of the site by creating eleven lots and the future building of eleven (11) homes with architectural character and integrity that will reinforce the historic nature of the surrounding community and the Village of Dobbs Ferry³. No mitigation in regards to Community Character is proposed. Preservation of the existing vegetation and topography of the site will occur where possible. Please refer to the Landscaping Plan, Figure 2-4, for the landscaping proposed for the project site and new road layout.

For further discussion on Community Character please refer to Section 3.4, Aesthetic and Cultural Resources.

²Source: Visual Resource Assessment and Report, Gotham Design, Ltd., May 2006

³Source: Visual Resource Assessment and Report, Gotham Design, Ltd., May 2006

3.11.2 Community Resources and Services

3.11.2.1 Demographics

In order to assess the demand that the Waters Edge at Dobbs Ferry project would place on community services and facilities, the anticipated population, including public school-age children, must be estimated.

Existing Conditions

Table 3.11-1 summarizes the change of population from 2000 to 2004 population for the Town of Greenburgh (incorporated and unincorporated areas) and Village of Dobbs Ferry.

Table 3.11-1 2004 Population Statistics		
Population Characteristic	Town of Greenburgh	Village of Dobbs Ferry
Total Population 2000	86,764	10,622
Total Population 2001	88,798	10,844
Total Population 2002	89,357	10,957
Total Population 2003	89,997	11,044
Total Population 2004	89,991	11,136
Population Change Number	3,160	514
Population Change Percent	3.64%	4.84%
Source - US Census Bureau, Estimates of Residential Population, July 2005.		

The Village of Dobbs Ferry had a total population of 10,622 persons in 2000 while the Town of Greenburgh had a population of 86,764 persons. Based on 2004 Census estimates, the Village of Dobbs Ferry and the Town of Greenburgh had an increase in population of 4.84 percent and 3.64 percent respectively.

Table 3.11-2 2000 Population Statistics			
Population Characteristic	Westchester County	Town of Greenburgh	Village of Dobbs Ferry
Total Population	923,459	86,764	10,622
Total Households	337,142	33,043	3,792
Average Household Size	2.67	2.57	2.55
Average Family Size	3.21	3.10	3.13
Source - US Census Bureau, 2000.			

Table 3.11-2 summarizes select US Census 2000 population characteristics for the Village of Dobbs Ferry, the Town of Greenburgh (both incorporated and unincorporated areas) and Westchester County.

Over the last several decades the average number of persons per household throughout Westchester, including the Town of Greenburgh, had declined from 3.4 persons per household in 1970 to 2.9 in 1980, to 2.5 in 1990. The average number of persons per household in the Village of Dobbs Ferry in 1990 was 2.53. In 2000, however, the average number of persons per household in Westchester County was 2.67, the Town of Greenburgh average was 2.57, and the Village of Dobbs Ferry was 2.55, indicating a slight increase since 1990.

Population Projections

Eleven, four-bedroom single family detached residences are proposed to be constructed in the Waters Edge development. The houses are anticipated to sell at an average price of \$1,200,000.

The population projection for the Waters Edge at Dobbs Ferry development is based on demographic information for the "single-family" housing type in the northeastern United States derived from the 1987 American Housing Survey and reported in the Development Impact Assessment Handbook published by the Urban Land Institute in 1994. This publication was authored by noted practitioners of fiscal impact analysis -- Robert W. Burchell, David Listokin, and William R. Dolphin of Rutgers University's Center for Urban Policy Research -- and remains an authoritative source of demographic multipliers.

Based on the above noted assumptions, a per household multiplier of 3.6248 and a school age children multiplier of 0.8738 were used to estimate the project-generated population. The proposed residential subdivision would add 40 persons to the Village population, including 10 school age children, i.e., between the ages of 5 to 18 years of age.

Potential Impacts and Mitigation Measures

The 2004 projected population for the Village of Dobbs Ferry is 11,136 persons, based on 2004 U.S. Census estimates. The addition of 40 people to the Village's 2004 population represents a 0.36 percent increase. The addition of the residents from the Waters Edge at Dobbs Ferry project is not anticipated to produce any potentially adverse demographic effects, therefore no mitigation measures are proposed.

3.11.2.2 Schools

Existing Conditions

The project site is located in the Dobbs Ferry Union Free School District which consists of the Dobbs Ferry High School, Dobbs Ferry Middle School and Springhurst Elementary School. According to information available from the New York State Department of Education total enrollment in the system in the 2006-2007 school year was 1,435. The school district has 156 certified and 94 non-certified staff.

Table 3.11-3 below summarizes the grade distributions and enrollments of the schools comprising the district:

Table 3.11-3 Dobbs Ferry Union Free School District 2004/2005 School Year		
School	Grades Served	2006-2007 Enrollment
Springhurst Elementary School	K-5	657
Dobbs Ferry Middle School	6-8	327
Dobbs Ferry High School	9-12	451
TOTAL		1,435

Potential Impacts and Mitigation Measures

Based on the proposed number of single family residences, a total of 10 school-age children are projected to reside within the Waters Edge development. Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (1994) and information provided by the Westchester-Putnam School Boards Association in its publication Facts & Figure \$'s 2004-2005, a total of 9 school aged children would attend public schools.⁴ One child would be expected to attend private or parochial school (nonpublic). Thus, the project would add 9 students to the school district, an increase of 0.6 percent, if all children were enrolled in the school system today. This increase of school aged children from the Proposed Action is not expected to impact the Dobbs Ferry School District (i.e. additional staff, supplies, etc.)

The projected student population will be introduced into the School District over a multi-year period (2007-2010). In addition, the nine students introduced into the School District would be enrolled in various grade levels. The introduction of these students into various grade levels over a multi-year period would ameliorate the effect of the increase in school district enrollment associated with this project. The approval and construction period of this project provides time to allow the Dobbs Ferry Union Free School District to implement measures for the introduction of new students from this and other area projects.

Additionally, property tax revenue generated by the 11 residences would offset any potential increase in educational services resulting from this project, even though, as mentioned above, no impacts are expected. As noted in the DEIS Section 3.12, Fiscal Analysis, the additional 9 students introduced to the Dobbs Ferry Union Free School District would increase the total costs to the District by \$187,974 annually. The Waters Edge at Dobbs Ferry development would generate \$272,031 in annual school tax revenues. Thus, based on this analysis a surplus of \$84,057 in property tax revenues would accrue to the school district annually. No mitigation is proposed.

⁴Development Impact Assessment Handbook, Urban Land Institute (1994): 4 BR Single family residence in North-east generates 0.8738 school-age children. Facts & Figure\$ 2004-2005, Westchester-Putnam School Boards Association: Approximately 6.4 percent of school-age children in Dobbs Ferry Union Free School District attend non-public or parochial schools.

3.11.2.3 Police Protection

Existing Conditions

The Village of Dobbs Ferry Police Department provides police protection services to the project area. The Police department currently has a total of 28 full time police officers, 8 marked patrol vehicles, 1 zodiac boat, 2 motorcycles and 2 electric vehicles. The headquarters of the police department are located at 112 Main Street in the Village of Dobbs Ferry at a distance of less than one mile from the project site. Please refer Letter from Village of Dobbs Ferry Police Department in Appendix E.

The department responded to 6,711 calls for service in the year 2005. The probable response time to the project site is estimated to be 3 to 5 minutes. (Refer to Appendix E, Police Department Letter)

Potential Impacts and Mitigation Measures

As per correspondence received from Lt. Betsy J. Gelardi (Appendix E) from the Village of Dobbs Ferry Police Department, no measurable impact on staffing or service levels would be expected from the proposed Waters Edge development.

According to the Final Budget of the Village of Dobbs Ferry for the year 2006-2007, the total adopted budget for the police department was \$3,036,797. The total population of the village in 2004 was 11,136 persons. Therefore, the per capita cost to the village for providing police protection, in a worst case scenario, is approximately \$272. This represents a conservative estimate, since this assumes that the residential population bears the total cost for the police department. In fact, the commercial and institutional uses also place a demand on police protection services. It is conservatively estimated that the addition of 40 persons to the Village would add additional costs of approximately \$10,880 to the Village of Dobbs Ferry to provide police protection to the residents of the Waters Edge development. In reality, as per the letter received from the police department, there would be little additional cost as there would be no measurable impact or demand placed on staffing or service levels.

The project would generate revenues of \$86,940 to the Village of Dobbs Ferry. Based on the Village of Dobbs Ferry Budget 2006-2007 (Appendix J) it can be assumed that \$25,226 (29 percent of the total budget) from the total revenue generated by the project will go towards public safety. Of the total \$25,226 available for public safety, \$19,929 (79 percent of the total public safety budget) will be available to augment police services as necessary. The revenue generated from the proposed development is more than the costs that will accrue to the police services; therefore the Waters Edge at Dobbs Ferry project is not anticipated to have any adverse impacts on police services. No mitigation measures are proposed.

3.11.2.4 Fire Protection

Existing Conditions

The Dobbs Ferry Volunteer Fire Department provides fire protection to the project site. The fire department is an entirely volunteer organization. The department is located at 112 Main Street in the Village of Dobbs Ferry.

The Dobbs Ferry Fire department staff currently consists of 75 volunteer firefighters. Equipment used by the department includes a 1999 Seagrave Pumper, 1995 Pierce Pumper, 1991 Mack Tower Ladder and 1977 Seagrave pumper. (Refer to Appendix E, Fire Department Letter).

The fire department responded to 1,825 calls in the year 2005. The response time to the site from the fire station is expected to be within three minutes. (Refer to Appendix E, Fire Department Letter).

Potential Impacts and Mitigation Measures

The proposed Waters Edge development would introduce 11 new homes and 40 residents to the Village that would be served by the Dobbs Ferry Volunteer Fire Department. According to correspondence from the fire district included in Appendix E, the fire department does not have any plans to expand their department of buildings or staff.

Based on planning standards contained in the Urban Land Institute's 1994 Development Impact Handbook, it is estimated that 1.65 fire personnel per 1,000 population is required to serve a new population. The anticipated increase in population of 40 persons would generate a demand for 0.066 additional fire personnel. Again, the ULI multipliers assume no existing services, thus the actual demand for personnel is expected to be insignificant.

As per the 2006-2007 Final Budget of the Village of Dobbs Ferry was \$273,621. The total population of the Village in 2004 was 11,136 persons. Therefore, the per capita cost to the Village for providing fire protection services, in a worst case scenario, was approximately \$25. Again, this represents a conservative estimate, since the total cost for firefighting services is assigned to the residential population, and not the commercial or institutional uses that also exist in the Village. Based on this information, the addition of 40 persons to the Village would add an additional annual cost of approximately \$1,000 to the Village of Dobbs Ferry to provide fire protection services to the residents of the Waters Edge development.

According to the letter received from Fire Chief Dennis Roth, the Fire Department would not need more man power due to the proposed development but does have an existing need to replace the 1977 Seagrave Pumper, which is a Village wide expenditure. Refer to Appendix E for the Fire Department letter received. The project would generate revenues of \$86,940 to the Village of Dobbs Ferry. Based on the Village of Dobbs Ferry Budget 2006-2007 (Appendix J) it can be assumed that \$25,226 (29 percent of the total budget) from the total revenue generated by the project will go towards public safety. Of the total \$25,226 available for public safety, \$2,775 (11 percent of the total public safety budget) will be available to augment fire services as necessary. The revenue generated from the proposed development

is more than the costs that will accrue to the fire services; therefore the Waters Edge at Dobbs Ferry project is not anticipated to have any adverse impacts on fire services.

3.11.2.5 Emergency Services

Existing Conditions

The Village of Dobbs Ferry Ambulance Corps provides emergency ambulance service to the project area. The Corps is headquartered on Main Street in the Village of Dobbs Ferry. The Corps is New York State Department of Health certified and provides Basic Life Support services.

A letter was sent to the Dobbs Ferry Ambulance Corps regarding the proposed development (see Appendix E). A response has not yet been received.

The primary hospital serving the Village of Dobbs Ferry is the Community Hospital at Dobbs Ferry located at 128 Ashford Avenue in the Village of Dobbs Ferry, New York. The Community Hospital at Dobbs Ferry was constructed in 1987. The hospital building features 50 inpatient beds, three operating rooms, seven-bay emergency center, ambulatory surgery unit, computerized diagnostic library, radiology services and an intensive care unit containing advanced cardiac monitoring and life-support systems. The hospital's staff consists of physicians associated with major medical institutions. The Community Hospital at Dobbs Ferry also has a partnership with St. John's Riverside Hospital which is located approximately five miles outside of Dobbs Ferry in Yonkers, New York.

Phelps Memorial is also approximately five miles from the Village of Dobbs Ferry in located in North Tarrytown, New York.

Potential Impacts and Mitigation Measures

The standard for Emergency Medical Services, according to the Urban Land Institute's 1994 Development Impact Handbook, is 4.1 full-time personnel and 1 vehicle per population of 30,000. The introduction of 40 persons in the Village of Dobbs Ferry results in potential added demand for 0.005 health care personnel and 0.001 vehicles. The proposed project would not have a measurable impact on emergency services such as ambulance or hospital care.

No adverse impacts to ambulance services or hospital facilities are anticipated as a result of the proposed Waters Edge development. Therefore, no mitigation measures are proposed.

3.11.2.6 Solid Waste Disposal

Existing Conditions

A letter has been sent to the Westchester County Department of Environmental Facilities, regarding the generation of solid waste from the Village of Dobbs Ferry. In 2005, the Village picked up 10,178 tons of sold waste, which was delivered to the County transfer station in Yonkers, NY. Thirty - nine percent of which was recycled and delivered to Westchester County Material Recovery Facility in Yonkers, NY and Brookfield Scrap Metal in Elmsford, NY.

Potential Impacts and Mitigation Measure

Based on a standard of four pounds per person per day, the projected 40 residents of Waters Edge would be expected to generate approximately 2.4 tons per month of solid waste. This additional waste generation is not anticipated to have a measurable impact on solid waste collection services in the Village.

3.11.2.7 Sewage Treatment Facilities

Existing Conditions

The project site is currently located within the sanitary sewer district of the Village of Dobbs Ferry and the Westchester County Joint Sewer District⁵. Sewage is treated at the Yonkers sewer treatment plant. The Waters Edge subdivision and future homes are expected to connect to the above districts.

Potential Impacts and Mitigation Measures

Based on a standard of 300 gallons of water usage per day for a four bedroom household, the proposed eleven homes would be expected to generate approximately 3,300 gallons of waste water per day⁶. This additional waste generation is not anticipated to have a measurable impact on above mentioned districts within the Village and County.

3.11.2.8 Neighborhood Quality of Life During and After Construction Phase

The Waters Edge project proposes construction of 11 single-family detached residences to be located on individual lots. The construction of the Waters Edge subdivision is proposed to occur in phases to allow for the sequential development of the site to minimize the impacts from construction. The first phase will include site preparation and the installation of soil erosion control features and the individual residential buildings will be constructed in phases based on market demand in the final phase of construction.

These actions are not likely to permanently alter the quality of life in the local neighborhood adjoining the project site. During construction of the Proposed Action, residences of nearby properties may potentially experience construction related impacts including increased vehicular and truck movements during occasional periods. These are temporary, unavoidable impacts resulting from project construction. Refer to Sections 3.4 and 3.8, respectively for further discussion on Aesthetic Resources, Noise, and Air Quality.

Public Health and Safety have been discussed and evaluated in regards to the Proposed Action and its construction. Please refer to Sections 3.9 and 3.10, respectively.

It is not expected that the quality of life in the local neighborhood would be affected after the completed construction the Waters Edge single-family detached residences. The Proposed Action is similar and would conform to the current use within this portion of the Fairmead neighborhood. Therefore, no mitigation regarding the neighborhood quality of life during and after construction phase is proposed.

⁵Per conversation with Project Engineer on November 15, 2006

⁶*Development Impact Assessment Handbook*, Urban Land Institute (1994):

Please refer to Section 3.8, Noise, regarding hours of construction permitted by the Village Code. The construction of the Proposed Action will conform to such regulations.

Aqueduct and Walking Trail

The Proposed Action would not impact the Aqueduct nor the walking trail within the area. No mitigation measures are proposed. Please refer to Section 3.4, Aesthetics and Cultural Resources for further discussion on the Aqueduct in regards to the potential visual impact from the Proposed Action.

3.12 Fiscal Analysis

3.12.1 Existing Conditions

2005 Property Tax Revenues

The Waters Edge project proposes a eleven (11) lot subdivision with the future development of 11, four bedroom single family detached homes on 37 parcels of land.

The subject property is comprised of the following thirty seven (37) tax lots. For tax purposes these parcels have been combined into the following accounts:

- Section 7, Block 535, Lots 1-4 and 15-19 = Account 3045630
- Section 7, Block 536, Lots 1-4 = Account 3045790
- Section 7, Block 537, Lots 9-22 and P-1 = Account 3045970
- Section 7, Block 537, Lots 23-31 = Account 3046080

The project site has a combined current assessed valuation of \$72,550. The assessed value of the project site is based on its present status as a primarily vacant parcel. Tax lot numbers and current assessed values of the parcels are summarized in Table 3.12-1.

Table 3.12-1 Tax Lots and 2006 Assessed Value			
Village of Dobbs Ferry	Tax Lot	Tax Account number	Assessed Value
	7-535-1, 7-535-2, 7-535-3, 7-535-4, 7-535-15, 7-535-16, 7-535-17, 7-535-18 & 7-535-19	3045630	\$12,300
	7-536-1, 7-536-2, 7-536-3 & 7-536-4	3045790	\$6,500
	7-537-9, 7-537-10, 7-537-11, 7-537-12, 7-537-13, 7-537-14, 7-537-15, 7-537-16, 7-537-17, 7-537-18, 7-537-19, 7-537-20, 7-537-21, 7-537-22 & P-1	3045970	\$46,750
	7-537-23, 7-537-24, 7-537-25, 7-537-26, 7-537-27, 7-537-28, 7-537-29, 7-537-30 & 7-537-31	3046080	\$7,000
Total Assessed Value			\$72,550
Source: Town of Greenburgh, Assessor, Tax Receiver. Village of Dobbs Ferry, Assessor, Tax Receiver. Table prepared by Tim Miller Associates, Inc., 2006.			

Existing Property Tax Revenues - County, Town and Village

Table 3.12-2 provides a summary of the taxes generated by the property at this time. The current assessed value of the project site totals \$72,550 which is based on its present status as a primarily vacant parcel. The net annual property taxes generated presently by the project site are \$67,835, based on the 2006 tax bills.

The net annual property taxes currently generated by the project site and paid to Westchester County are \$6,624, while the net annual revenues to the Town of Greenburgh are \$499 and to the Village of Dobbs Ferry are \$13,273.

Table 3.12-2			
Current Taxes Generated by Project Site			
Taxing Jurisdiction	Assessed Value	Tax Rate*	Current Taxes (\$)**
Westchester County	\$72,550	91.2996	\$6,624
Town of Greenburgh	\$72,550	6.8844	\$499
No. Yonkers Sanitary Sewer District	\$72,550	14.6041	\$1,060
County Refuse District	\$72,550	10.6413	\$772
Village of Dobbs Ferry	\$72,550	182.95508	\$13,273
Dobbs Ferry Union Free School District	\$72,550	628.625300	\$45,607
TOTAL			\$67,835
*2006 Tax Rate per \$1,000 of Assessed Valuation.			
** Current Taxes are rounded off to the nearest value.			
Source: Town of Greenburgh and Village of Dobbs Ferry, Tax Receiver's Office.			

Existing Tax Revenues - Dobbs Ferry Union Free School District

The annual taxes paid to the Dobbs Ferry Union Free School District are \$45,607, based on the school tax rate of \$628.6253/\$1,000 assessed value for the 2006/2007 school year. This tax rate includes a library tax for the district. School taxes are paid biannually in the Fall and Winter.

Existing Tax Revenues - Other Special Districts

The annual property taxes currently generated by the project site and paid to the North Yonkers Sanitary Sewer District are approximately \$1,060.

The annual property taxes currently generated by the project site and paid to the County Refuse District amounts to \$772.

3.12.2 Potential Impacts

Projected Tax Revenues

Consistent with fiscal impact methodology¹, the property tax revenues have been determined by considering what would be generated if the development were completed and occupied today. This approach recognizes that development often requires several years to be completed and that inflation will increase costs and revenues over time. It assumes that the rising costs of public services will be matched by an essentially comparable increase in revenues through increases in the tax rate, all other things being held constant.

¹The Fiscal Impact Handbook, Robert Burchell and David Listokin, 1978.

The Waters Edge development would result in the conversion of vacant land into a residential development. The increased market value of the project site, with these improvements, would result in an increase in property tax revenues.

The projection of future taxes is based on an average selling price for each home (with land) of \$1,200,000, for a projected total market value of \$13,200,000. The assessed value of the project was calculated by multiplying the market value by the 2006 equalization rate applicable to the Village of Dobbs Ferry. The equalization rate for the Village of Dobbs Ferry was 3.36 percent in 2006. Table 3.12-3 summarizes the projected assessed value of the proposed development.

Table 3.12-3			
2005 Assessed Value of Residences at Waters Edge			
Development Type	No of units	Projected Market Value per unit	Projected Assessed Value per dwelling
Residential (4 BR Single Family Homes)	11	\$1,200,000	\$40,320
Total Projected and Assessed Values		\$13,200,000	\$475,200

Based on the above, the total assessed value of Waters Edge at Dobbs Ferry would be \$475,200. Table 3.12-4 summarizes tax revenues generated by the proposed Waters Edge development.

Table 3.12-4		
Projected Tax Revenues		
Waters Edge at Dobbs Ferry		
Taxing Jurisdiction	Rate (per \$1,000 AV*)	Property Tax Revenues**
Westchester County	91.29960	\$43,386
Town of Greenburgh	6.88440	\$3,271
No. Yonkers Sanitary Sewer District	14.60410	\$6,940
County Refuse District	10.64130	\$5,057
Village of Dobbs Ferry Taxes	182.95508	\$86,940
Dobbs Ferry Union Free School District	628.62530	\$272,031***
TOTAL		\$417,625

Source: Town of Greenburgh and Village of Dobbs Ferry, Tax Assessor and Tax Receiver's Office.
 * Assessed Value.
 ** Property tax revenues are rounded off to the nearest value.
 *** STAR tax exemption of \$2,426.49/unit
 Tim Miller Associates, Inc., 2006

Projected Property Tax Revenues - County, Town and Village

Tax revenues generated by the site to Westchester County are estimated to change from \$6,624 to \$43,386 after development of this project. Tax revenues generated by the site to the Town of Greenburgh are estimated to change from \$499 to \$3,271 while the revenues to the Village of Dobbs Ferry are expected to change from \$13,273 to \$86,940.

Projected Tax Revenues - Dobbs Ferry Union Free School District

Residents of the Village of Dobbs Ferry are eligible for a School Tax Relief (STAR exemption). Therefore, the total property tax projected for a typical residence in the proposed subdivision would be approximately \$37,967 after deducting the STAR exemption of \$2,426.49 per unit.

The projected school tax revenues presented are based on the current tax rate for the 2006/2007 school year of \$628.6253/\$1,000 assessed value. The net increase between the total current school tax revenues generated by the site (\$45,607) and the total future (\$272,031) project-generated school tax revenues for the subdivision is projected to be approximately \$226,424.

Projected Tax Revenue - Other Special Districts

The net increase between the total current tax revenues generated by the site for the North Yonkers Sanitary Sewer District (\$1,060) and the total future project-generated tax revenues for the subdivision (\$6,940) is projected to be approximately \$5,880.

The net increase between the total current tax revenues generated by the site for the County Refuse District (\$772) and the total future project-generated tax revenues for the subdivision (\$5,057) is projected to increase by \$4,285.

Costs/Benefits Associated with the Proposed Project with respect to the Village Budget

Village of Dobbs Ferry - Costs/Benefits

The total 2006-2007 municipal budget adopted for the Village of Dobbs Ferry (General Fund) amounts to \$13,200,494. The General Fund includes the costs associated with general government support, public safety, health, transportation, economic assistance, culture and recreation, home and community services, employee benefits and debt service. Of the total budget amount, \$9,189,969 is raised through the property tax levy while the remainder is raised through other revenue sources.

Assuming all costs in the Village of Dobbs Ferry are attributable to residential uses; in the worst case scenario, the cost per person in the Village of Dobbs Ferry is the total budget divided by the total population of the Village. According to U.S. Census data, the total population of the Village of Dobbs Ferry in 2004 was 11,136 persons. Therefore, the per capita cost based on the total budget is \$1,185 and the amount per capita that needs to be raised through property taxes is \$825.

The Waters Edge at Dobbs Ferry development is estimated to increase the population of the Village by 40 persons. Based on the per capita costs noted above, Waters Edge would result in a total cost of \$47,400 annually, of which \$33,000 would be raised through the property tax levy. The proposed Waters Edge at Dobbs Ferry is projected to generate \$86,940 in property tax revenues to the Village. Thus, a surplus in property tax revenues is anticipated. As mentioned previously, this represents a worst case scenario, since the Village also serves numerous nonresidential uses in the community, whose costs to the Village are not accounted for in this analysis. The following narrative estimates per capita costs associated with various budgetary categories. Note that the discussion does not include a discussion of non-property tax revenues

sources which would reduce per capita costs. Again, this also assumes all costs are attributable to residential uses.

Public Safety - Costs/Benefits

Public Safety Costs

In the fiscal year 2006-2007, the total budget for public safety was \$3,830,164 (29% of the total budget). Public safety includes costs associated with Police, Jail, Traffic Control, On Street Parking, Fire, Animal Control, Safety Inspection and Safety Coordinator.

Police Services Costs

The total budget for the expenses related with the police department was \$3,036,797 in 2006-2007, which is approximately seventy nine percent of the total public safety budget. The total population of the Village of Dobbs Ferry in 2004 was 11,136 persons. Therefore the per capita cost to provide police services is approximately \$272. The Waters Edge development is projected to add 40 persons to the population of the Village. Therefore, the approximate costs to the Village to provide police protection services to 40 persons on the proposed development would approximately be \$10,880.

Fire Services Costs

The total budget for the expenses related with the fire department was \$273,621 in 2006-2007, which is approximately seven percent of the total public safety budget. The total population of the Village of Dobbs Ferry in 2004 was 11,136 persons. Therefore the per capita cost to provide fire protection services is approximately \$25. The Waters Edge development is projected to add 40 persons to the population of the Village. Therefore, the approximate costs to the Village to provide fire protection services to the additional 40 persons in the proposed development would be approximately \$1,000.

Benefits - Public Safety, Police and Fire Services

The project would generate revenues of \$86,940 to the Village of Dobbs Ferry. Based on the Village of Dobbs Ferry Budget 2006-2007 (Appendix J) it can be assumed that \$25,226 (29 percent of the total budget) from the total revenue generated by the project will go towards public safety. Of the total \$25,226 available for public safety, \$2,775 (11 percent of the total public safety budget) will be available to augment fire services and \$19,929 (79 percent of the total public safety budget) will be available to augment police services as necessary. The revenue generated from the proposed development is more than the costs that will accrue to the police and fire services; therefore the Waters Edge at Dobbs Ferry project is not anticipated to have any adverse impacts on police and fire services.

Culture and Recreation - Costs/Benefits

The Culture and Recreation item on the Dobbs Ferry budget includes costs associated with parks maintenance, recreation, swimming pool (services and maintenance costs), community center, historical committee, celebrations, adult recreation and summer camps. The total budget for culture and recreation in the Village of Dobbs Ferry was \$977,264 (7.4 percent of the total budget) for the fiscal year 2006-2007. Therefore the per capita cost for providing culture and recreation services to the Village residents is \$88, based on the total population of 11,136

persons in 2004. The additional costs to provide culture and recreation services to the 40 residents of Waters Edge at Dobbs Ferry would be approximately \$3,520.

Based on the Village of Dobbs Ferry 2006-2007 budget (Appendix J), the Village will receive \$6,436 (7.4 percent of the \$86,940) to mitigate impacts related to culture and recreation.

Home and Community Services - Costs/Benefits

Home and Community Services includes costs associated with the zoning board of appeals, planning board, sanitary sewers, storm sewers, sanitation, street cleaning, shade trees (planting, removal etc.) and emergency tenant act protection (ETPA). The total budget for home and Community services is \$967,442 (7.33 percent of the total budget) for the fiscal year 2006-2007.

Utilities - Cost/Benefits

Out of the total Home and Community Services budget \$882,642 (91%) is allocated to utilities such as sanitary sewers, storm sewers, sanitation and street cleaning. Based on the 2004 total population of 11,136, the per capita cost for sanitation services in the Village of Dobbs Ferry is \$79. Therefore the addition of the 40 persons in the Village of Dobbs Ferry would add \$3,160 to the sanitation costs of the Village.

Based on the 2006-2007 budget of the Village of Dobbs Ferry approximately \$6,372 (7.33 percent of \$86,940) will be available to the Village to mitigate home and community services costs. From this amount \$5,799 will be available to the Village to mitigate impacts on utilities.

Education - Cost/Benefits

Dobbs Ferry Union Free School District - Costs/Benefits

The Waters Edge at Dobbs Ferry development would generate annual property tax revenues of \$272,031 to the Dobbs Ferry Union Free School District. Costs associated with the school district are based on school district data summarized in Section 3.11 of this DEIS. Since school costs typically represents the largest share of costs associated with any residential development, the cost to the school district is calculated.

Based on information published by the New York State Education Department (NYSED)², the budget for the 2006-2007 school year for the Dobbs Ferry Union Free School District totaled \$34,076,897. Of this total, \$29,448,763 was raised by the school tax levy; the remainder of the costs are paid through state aid and other revenue sources. According to the NYSED, the school district's public school enrollment for the above mentioned year was 1,410 students. Thus, the per capita student cost to be raised through the property tax levy is approximately \$20,886 per student.

As mentioned in the Community Services section (Section 3.11) of this DEIS, a total number of 10 school aged children generated by the project were calculated based on student multiplier data available from the ULI Handbook. Of the total projected school age children population it was estimated that at least one school aged child would attend parochial or private/non-public

²Property Tax Report Card for Dobbs Ferry Union Free School District (660403) 2006-2007 School Year.

schools. Therefore the impact to the school district was analyzed based on a total population of 9 school aged children.

The additional 9 students introduced to the Dobbs Ferry Union Free School District would increase the total costs to the District by \$187,974 annually. The Waters Edge at Dobbs Ferry development would generate \$272,031 in annual school tax revenues. Thus, based on this analysis a surplus of \$84,057 in property tax revenues would accrue to the school district annually.

3.12.3 Proposed Mitigation Measures

As shown in Table 3.12-5, the proposed project is projected to yield a fiscal benefit to the Village of Dobbs Ferry and the Dobbs Ferry Union Free School District based on the worst-case analysis conducted for the project. As no adverse effects are projected, no mitigation measures are proposed.

Table 3.12-5 Revenue & Cost Summary: Waters Edge at Dobbs Ferry			
Jurisdiction	Projected Taxes (\$)	Projected Costs (\$)	Surplus/Deficit
<i>Village of Dobbs Ferry</i>	\$86,940	(\$33,000)	\$53,940
<i>Dobbs Ferry U.F.S.D.</i>	\$272,031	(\$187,974)	\$84,057

Source: Tim Miller Associates, Inc., 2006.

4.0 ADVERSE ENVIRONMENTAL IMPACTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

The development of the proposed project will result in some adverse environmental impacts which cannot be avoided. Many of these impacts, however, can be mitigated to some extent as described in detail in the preceding chapters. Some of these impacts will be temporary or short term impacts associated with the construction phase of the project, while others will be long term impacts associated with occupancy of the project. The summary below includes brief descriptions of the mitigation measures proposed to minimize the unavoidable adverse impacts if this project is implemented.

Short Term Impacts

- Presence of construction and delivery vehicles on the site and on surrounding roads: construction traffic will use a stabilized construction entrance on Fairlawn Avenue. It is anticipated that most construction trips will travel to and from the site via Broadway (NYS Route 9) to Fairlawn Avenue. The heaviest volume of construction traffic is expected to occur at the beginning of the construction period as site clearing and rough grading is conducted, and when paving and building materials are transported to the site. Site construction activities will comply with Village ordinances that relate to operations on a construction site.
- Potential loss of soil to erosion: the proposed project would result in grading disturbance to approximately 3.9 acres of land. The areas most susceptible to erosion include steep slopes that tend to promote the formation of channeled surface flow and increased runoff velocity. Erosion and sedimentation will be controlled during the construction period by temporary devices in accordance with a Soil Erosion and Sediment Control Plan developed specifically for the project. The plan addresses erosion control and slope stabilization.
- Localized increase in air emissions due to operation of construction vehicles and equipment: construction-related air emissions will result primarily from the use of diesel fuel to operate construction vehicles and equipment. Pollution comes from the combustion process in the form of exhaust and can include hydrocarbons, carbon monoxide, and nitrogen oxides. Well maintained vehicles and equipment help to reduce emissions.
- Increase in ambient noise levels and particulates (dust) due to operation of construction vehicles and equipment: ambient daytime noise levels will increase in the immediate vicinity of the site during project construction. Noise levels will vary considerably depending on the actual location of operating equipment at any particular time.

Long Term Impacts

- Increase in local traffic: trip generation projections for the 11 residential units project a total of 16 trips during the AM peak hour and 14 trips during the PM peak hour. The trip generation associated with the subdivision represents a minor increment in traffic volumes on local roads, and thus will not adversely impact upon future levels of service.
- Increased demand for community services: the projected 40 persons, including 10 school age children, would increase the demand for police, school, fire protection and social services, water supply, road maintenance and waste disposal. Additional revenue provided via property taxes from the developed project to the Village, however, are

Unavoidable Adverse Impacts

February 1, 2007

projected to offset all of the costs of the potential increase in Village services resulting from this project.