

## **1.0 EXECUTIVE SUMMARY**

### **1.1 Brief Description of the Proposed Action**

This Draft Environmental Impact Statement (DEIS) has been prepared in response to a Positive Declaration, by the Planning Board and Board of Trustees, Village of Dobbs Ferry, Town of Greenburgh, Westchester County, New York, in connection with an application of Waters Edge at Dobbs Ferry, LLC. The Planning Board and Board of Trustees are co-lead agencies for this action. This application is for approval of an eleven (11) lot residential subdivision on a 4.4 acre property located on Atilda, Fairlawn and Constance Avenues in the southwest portion of the Village, overlooking the Hudson River.

The reader is advised to take note: This is an application for the subdivision of land that upon approval will give the applicant the right to construct roads and infrastructure and make application for building permits for residential homes that conform to the Dobbs Ferry zoning code. Any variance from the code will require an action from the Village Zoning Board of Appeals. Homes have not been designed at this point in time and footprints shown on project plans are illustrative only. They may be larger or smaller than those shown.

This DEIS examines the potential environmental impacts that may result from this proposed 11 lot residential development, known as "Waters Edge". The potential construction of residences on the lots are evaluated, although the applicant has not designed homes and has not detailed footprints, homes sites, or styles or other construction details at this time.

In a previous layout and in prior presentations to the Planning Board and Board of Trustees, earlier in 2006, the Waters Edge subdivision was shown as a twelve (12) lot subdivision, however, after a Subsurface Soil and Foundation Investigation (SSFI Report) by a geotechnical engineer [Carlin - Simpson and Associates] was commissioned and reviewed, it was clear that an adjustment in the subdivision layout was necessary in order to adhere to the recommendations of the geotechnical engineer. This adjustment resulted in the number of lots being reduced from 12 to 11 and a modest reconfiguration of the road layout.

The DEIS has been prepared in accordance with the State Environmental Quality Review Act (SEQRA) and Part 617 of the implementing regulations. The scope of the DEIS was established by the Village Board of Trustees and the Village Planning Board, acting as the SEQRA co-lead agencies, in cooperation with all other involved agencies. The Scoping Document for the DEIS was adopted by the co-lead agencies on September 12, 2006. This Scope is included in this document in Appendix A

### **1.2 Project Description and Location**

For the project, Waters Edge at Dobbs Ferry, LLC, proposes to subdivide 4.4 acres of land located within the Village of Dobbs Ferry, Town of Greenburgh, Westchester County, New York. The subject property consists of open lawn and brush, with occasional trees occurring throughout much of the property. The majority of the site is flat, though along its western limits, the site slopes steeply toward the Metro North railroad tracks and the Hudson River beyond. An existing residence is located on the northern portion of the property. This residence is unoccupied and is schedule for demolition.

The project site is zoned OF-6 One Family Residence District, which requires a 5,000 square foot minimum building lot and a maximum building height of 2.5 stories. The OF-6 zone allows single family detached dwellings and customary accessory uses such as garages; studios, offices, and swimming pools as-of-right. The subject property is comprised of the following thirty seven (37) tax lots:

- Section 7, Block 535, Lots 1-4 and 15-19
- Section 7, Block 536, Lots 1-4
- Section 7, Block 537, Lots 9-22
- Section 7, Block 537, Lots 23-31

The project site is located on the east side of the Metro-North Railroad right of way (ROW), on the East Bank of the Hudson River, in the southwestern portion of the Village of Dobbs Ferry. The project site is located at the end of Fairlawn Avenue and west of Constance Avenue in the neighborhood known as Fairmead. The Fairmead name comes from the estate that used to be located on the project site. The property is approximately 250 feet west of Broadway (NYS Route 9).

Single family development is located directly to the south and east of the property within the Fairmead neighborhood. Further east, across Broadway (NYS Route 9), is also an existing single family residential neighborhood. St. Christopher's, Inc., an institutional use, is located directly north of the project site and St. Cabrini Nursing Home is located north of St. Christopher, Inc. Both developments are located on the west side of Broadway. Multifamily residences are located south of the project site, beyond the Fairmead neighborhood, in the Village of Hastings-on-Hudson. The western portion of the site is comprised of steep slopes that descend to the land adjacent to the Metro-North right of way.

An existing condition plan and full-size subdivision plans (Plan Set) prepared by Paul J. Petretti P.E, L.S., CPSWQ - CPESC ("project engineer") accompany this DEIS.

#### Proposed Lots

The Proposed Action is an eleven (11) lot subdivision of 4.4 acre parcel of land in the southwest portion of Village of Dobbs Ferry. The area of the proposed lots range from approximately 7,000 square feet to 25,000 square feet with an average lot size of approximately 13,000 square feet.

The Proposed Action will change the appearance of the site by introducing eleven (11) new homes that are intended to reinforce the historic nature of the surrounding community and the Village of Dobbs Ferry<sup>1</sup>. The homes are expected to be built in compliance with the OF - 6 zoning district. The architecture of the proposed homes of the Waters Edge subdivision is expected to complement and continue the Fairmead neighborhood character.

The proposed layout of this property is organized around a newly designed road system, which complements the existing road system of Fairmead. Ten of the eleven lots will front on a new looped road which will connect to Fairlawn Avenue. Three of the proposed lots are located along the western ridgeline of the property. Lot 11 is located in the northeastern portion of the site and fronts on the northern section of Atilda Avenue, which runs perpendicular to the western portion of Fairlawn Avenue. Roads internal to the project will be constructed to Village

<sup>1</sup> Source: Visual Resource Assessment and Report, Gotham Design, Ltd., May 2006

standards and will be 28 feet wide. On street parking will be prohibited. Refer to the Plan Set attached to this document.

The proposed project includes a Conservation Easement on the bank that lies between the developed portion of the site and the Metro North Railroad tracks. This easement would function as a buffer between the Metro North tracks and the proposed lots.

### **1.3 Potential Impacts and Proposed Mitigation Measures**

This section of the Executive Summary summarizes the potential impacts and proposed mitigation measures by major subject category.

#### **1.3.1 Geology, Soils and Topography**

On-site soils were mapped, and are described, by the United States Department of Agriculture, Natural Resources Conservation Service in the Soil Survey of Putnam and Westchester Counties, New York (Soil Survey). The mapped soil units consist of Knickerbocker (KnB) and Riverhead (RhE) soils.

Slopes range from 0% to 10% in the interior of the site, and between twenty-five and fifty percent at the western limits of the site adjacent to the Metro North rail line. Most of the site is fairly level.

Existing steep slopes, as defined by the Village of Dobbs Ferry Combined Land Use Ordinance are slopes greater than 15 percent to slopes over 25 percent. The applicant notes that areas of steep slopes have been calculated by the project engineer and deducted from the proposed parcels areas in accordance with Chapter 300-35 of the ordinance.

The Proposed Action involves the temporary disturbance of some 3.9 acres of the 4.4 acre Waters Edge site, and the collection and discharge of stormwater into the Hudson River following construction.

In order to reduce stormwater-induced impacts from the project, the applicant has designed erosion and sediment control practices in accordance with current and accepted protocols. Accordingly, an Erosion and Sediment Control Plan, that includes construction sequencing, has been included in the Stormwater Pollution Prevention Plan (SWPPP, Appendix B) prepared for the Waters Edge project. All soil erosion and sediment practices will be installed in accordance with NYSDEC, and New York State Standards and Specifications for Erosion and Sediment Control and any applicable conditions of approval.

The applicant notes that disturbance of the site will be performed sequentially as residences are constructed on individual parcels. The entire site will not be disturbed at one time. The applicant further notes that a Certified Professional Erosion and Sediment Control Specialist (CPESC) will be engaged to oversee implementation of the Erosion and Sediment Control Plan.

### *Cut and Fill*

With respect to cuts and fills, it is expected that there will be a net export of material from the site of 5,000 to 6,000 cubic yards (cy). Total required cuts are estimated to be approximately 12,000 cubic yards of which around half will be used to fill the ravine.

The onsite ravine will be filled at the start of the job as the drainage system needs to be installed during the first phase of construction (see construction sequence in Project Description). The project engineer and geotechnical engineer have reviewed the soil conditions onsite and believe that the material onsite can be used for fill.

The majority of material for the ravine will come from cutting from the western loop road and lowering the grades of proposed lots 1 and 2. This aforementioned amount of cut is anticipated to satisfy most of the fill requirements for the ravine and will not require fill from foundation excavations or the importation of significant volumes of fill from offsite. Fill for the ravine is estimated to be 6,000 to 6,500 cubic yards.

The removal of topsoil from the site will involve an estimated 2,000 cubic yards of earth movement. This will likely be stockpiled onsite and used to relandscape yards.

The balance of excess material will be excavated from residential foundations and will occur over time as residential lots are built out. Assuming approximately 500 to 600 cubic yards of materials would come from each residential foundation, some 40 to 50 truck trips would be required to remove material that cannot be used on site (assuming that small dump trucks are used). Locations where fill might be purchased or disposed of are not known at this time and minimal offsite trucking of soil or fill materials will be required.

### *Geotechnical Considerations*

As mentioned above, after the Subsurface Soil and Foundation Investigation (SSFI Report) was commissioned and reviewed, an adjustment in the subdivision layout was necessary in order to adhere to the recommendations of the geotechnical engineer. This adjustment resulted in the number of lots being reduced from 12 to 11 and a modest reconfiguration of the road layout. The SSFI Report is located in Appendix H of this document. The road layout of the Proposed Action moved east in order to satisfy the recommendations of the geotechnical engineer.

Of primary concern were the four lots originally platted between the proposed Waters Edge road and the Metro North rail line, where almost all the steeper topography of the subject site is situated. The plat has been altered to show only three residences at the aforementioned location, and said residences are proposed to be situated at a greater distance from the top of the existing slope, in order to adhere to the recommendations of the geotechnical engineer.

The applicant's plans call for filling the ravine in the northwest quadrant of the site and placing existing surface drainage (that has in fact, created the ravine and continues to contribute to erosion and unstable condition), in a below grade pipe, so as to eliminate erosion and bring about a much more stable condition. This will, in particular, benefit the downstream facilities, such as the culvert under the Metro North line, that will no longer be impacted by sediment laden stormwater.

The existing slope will be stabilized through a series of actions. The existing, improperly functioning, stormwater management system will be replaced and as noted previously surface water will be fully contained in a new piped system, therefore not affecting local soils. The new residences will be constructed a minimum of 20 feet away from the top of the slope.

A geotechnical engineer will be retained to review future decks at the rear of proposed residences for the three homes on the western side of the property. The existing grade at the top of the slope will be lowered approximately 8 to 10 feet. By reducing the height of the slope, the factor of slope stability safety is increased. The new residences will have walkout basements and retaining walls will be required between the structures.

Stormwater control will be beneficial to protecting the existing slope and is thus, proposed in conjunction with other remedial activities. The proposed stormwater infrastructure will remedy the existing condition that impinges upon the integrity of the slope by collecting and safely conveying runoff away from the slope. This will prevent saturation of the soils and reduce unstable conditions. The proposed residences in this area will not have foundation drains that could add water to the slope, and all roof drains will be connected to the stormwater collection system.

A slope stabilization system will be constructed on the slope to provide further protection. This system may include soil nailing, a well established technique used to reinforce and strengthen an existing slope. The soil is reinforced by installing closely spaced grouted steel bars (or "nails") into the slope. The grouted nails will increase the shear strength of the overall soil mass. Please refer to Section 3.1, Geology, Topography, Soils, for a detailed discussion of the procedure for installation of the soil nails and wire mesh.

#### *Proposed Residences*

At present, the locations of proposed residences, finished floor elevations, and site grading have not been finalized. Upon completion of final designs, the information will be forwarded to the applicant's geotechnical consultants to confirm the appropriateness of the designs and so that any additional recommendations can be developed for each of the individual residences.

The new structures will be designed to resist stress produced by lateral forces computed in accordance with Section 1615 of the New York State Building Code. During the geotechnical investigation, topsoil and existing fill were encountered at the surface in the test borings extending to depths ranging from 1'6" to 2'0" below the existing ground surface. The topsoil and existing fill are not desirable bearing materials for the new residences and must be completely removed from the planned building areas down to the virgin soil.

Since basements are planned for the new residences, the existing fill will be removed from these areas during the basement excavations. The removal of the surface layers and existing fill shall extend at least 10 feet beyond the limits of the new building lines. Once the planned footing elevation has been achieved, the new foundations may be installed, bearing on new compacted fill or virgin sand.

All exterior foundations shall bear at least 42 inches below finished grade for protection from frost. The wall footings shall have a minimum width of 18 inches and column footings, if required, shall have a minimum dimension of 30 inches. After the footings and foundation walls

are completed, fill will be required to backfill these excavations and to raise grades in the building area to the slab subgrade elevation.

New fill is required on site and shall consist of sand and gravel. Fill requirements and installation procedures are discussed in full in Section 3.1 of this document. The new floor slabs may be designed as a slab on grade supported on the virgin soil and the new compacted fill. A minimum of six (6) inches of crushed stone gravel is proposed beneath the slabs for drainage. Building settlement will be less than ½-inch, which is within tolerable limits for these structures<sup>2</sup>.

Foundation drains are not proposed for the new structures. However, the outside face of the basement walls must be waterproofed. The basement walls shall be backfilled in layers approximately one foot thick and the new fill shall be compacted with small hand guided vibratory compactors to at least 92% of its Maximum Modified Dry Density. Outside the residence area, the backfill placed adjacent to the foundation walls shall consist of either suitable on-site soil or imported sand and gravel containing less than 20% by weight passing a No. 200 sieve.

### *Retaining Walls*

There is a retaining wall proposed at the north side of the property. The retaining wall is a low wall at approximately 2 to 4 feet in height. The topography of the area proposed is relatively flat. Little or no stabilization would be required for the proposed retaining wall.

Upon completion of the final project design of future homes, a determination will be made concerning the requirement for retaining walls between the residences near the top of the soil slope. The type of wall and elevations that may be required are unknown at this time.

### *Filling the Ravine*

The applicant proposes to fill in the existing eroding ravine on the property to construct a formal, property function stormwater infrastructure system at the outset of construction. Stormwater pipes would be placed in the fill as the initial step to control site runoff beneath the ravine to the system passing under the Metro North lines to the Hudson River. The ravine would be filled in lifts of free draining earth that would be compacted to prevent future movement of soil. Filling the ravine and constructing the stormwater infrastructure would eliminate the existing erosion of the ravine bottom, thereby eliminating the existing source of sediment now entering the Hudson River. Specific measures have been proposed in the project specific Erosion and Sediment Control Plan to mitigate potential impacts in the ravine.

### *New York State and Westchester County*

Stormwater discharges during, and in some cases following, construction are regulated by the New York State Department of Environmental Conservation pursuant to the State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activities (GP-02-01). GP-02-01 requires that a SWPPP, that includes an Erosion and Sediment Control Plan, be developed and implemented for projects such as Waters Edge at Dobbs Ferry. The SWPPP prepared for the Waters Edge project has been developed in compliance with GP-02-01.

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<sup>2</sup> Source: Subsurface Soil and Foundation Investigation, Carlin - Simpson and Associates, November 17, 2006.

The Waters Edge SWPPP, the implementation of which is to be overseen by a qualified professional, complies with NYSDEC requirements.

*Village Ordinance Governing Steep Slopes*

Steep slopes are included in the definition of Environmentally Sensitive Areas set forth in Section 300-2B of the Village Code and are protected under Section 300-35, which imposes a requirement to deduct a certain percentage of the area of lots with steep slopes, those ranging from 15% to over 25%, from the buildable area calculation. Disturbance of steep slopes are also generally regulated under the Declaration of Policy provisions of Section 300-68 of the ordinance and by the requirement for an Erosion and Sediment Control Plan to mitigate potential impacts associated with steep slope disturbances, as set forth in Section 300-72E(!) of the Village Code.

The proposal reflects a reduction in lot area calculated pursuant to the ordinance and includes the required Erosion and Sediment Control Plan as part of the propped project.

**1.3.2 Surface Water Resources**

No surface water resources in the form of wetlands, watercourses, or waterbodies, are present on the project site. The site is outside the limits of the Hudson River's 100 year flood plain as depicted on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map.

A ravine is located on the north western portion of the project site. Correspondence between Village of Dobbs Ferry staff and the project engineer have confirmed that the existing ravine on project site is and would continue to be a maintenance concern for the Village Department of Public Works (DPW). For this reason and to implement certain aspects of the Proposed Action, including the construction of future residences, the proposed looped road, and the stormwater drainage system, the applicant proposes to fill the existing eroding ravine completely.

This element of the project will involve the elimination of the existing outfall from the stormwater drainage system, and conveyance piping that now connects the outfall to the drainage system in the existing roads. A new outfall and associated piping (including below grade piping) to connect the existing drainage system to the proposed drainage system, would be constructed during the filling process of the ravine.

The Proposed Action includes the construction of a stormwater drainage system that would include a series of hooded catch basins with sumps located in the new road system and piping to convey stormwater from the proposed road to the Metro North flume. This construction, which includes the filling of the existing ravine, would eliminate the eroding channel at the base of the ravine that currently conveys stormwater to the Metro North flume. This element of the Proposed Action would reduce the annual sediment load that discharges into the flume and eventually the Hudson River.

Stormwater discharges such as proposed with the Waters Edge at Dobbs Ferry project are regulated by the NYSDEC under the State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activities (GP-02-01). At present, untreated stormwater from the largely developed drainage area, in which the project site is located, currently discharges directly onto the site. From there the untreated stormwater is conveyed to the culverts under the MTA rail line, and into the Hudson River, by either overland flow, or by the existing stormwater drainage system that currently discharges into the ravine.

With the exception of catch basin and the improperly constructed, and largely ineffective, conveyance system, no constructed stormwater controls or treatment facilities, such as detention basins exist on the site, or in the drainage area. Nor is any stormwater that discharges onto the site treated prior to entering the site.

The Waters Edge project is a proposed 11-lot subdivision that is likely to result in eleven (11) single family homes. Pesticide and fertilizer applications by future homeowners would need to meet the same State, County and local regulations as must be met by other developments in the community. Current data indicates that, if applied correctly, contemporary pesticides will not migrate to any great extent, and will break down rather quickly after application. Similarly, the future use of herbicides and insecticides at the site in the future is not expected to represent an adverse impact on surface water quality. Because of treatment of stormwater flows and the low anticipated levels of these substances, no significant adverse impacts on water bodies or water-courses (i.e. Hudson River) is anticipated.

Potential impacts on the Hudson River associated with fecal coliform bacteria (FCB) are not anticipated as a result of this proposal either. The disposal of wastewater by a sewer system approved by the County Health Department will reduce the potential for increased coliform levels. Other possible FCB sources, including pets and waterfowl, will not be significantly greater than the existing wildlife population on site and therefore should not cause increased FCB loading.

No activities are proposed as part of the action in any area designated as a Flood Plain. Further, post construction peak rates of stormwater discharge will be substantially the same as they are in pre-construction conditions. As such, no downstream flooding impacts, or impacts on any flood plains, are anticipated to result from the Proposed Action.

The Proposed Action includes a SWPPP with an Erosion and Sediment Control Plan to prevent erosion and sedimentation during construction. By implementing the measures specified in the proposed Erosion and Sediment Control Plan, the applicant will reduce potential adverse impacts on the Hudson River, and off site properties, and realize a project that will result in beneficial impacts on the water quality in the receiving waters.

Since the Proposed Action is a residential project involving less than five acres of disturbance (project site is 4.4 acres), and does not discharge to a waterbody on NYSDEC's Priority Waterbody List, and because the site is not in a Total Maximum Daily Load (TMDL) watershed, no post construction stormwater controls are required by NYSDEC to mitigate potential impacts associated with post construction changes in stormwater. As such, no significant adverse impacts associated with post construction changes in the volume, rate of discharge, or increased pollutant loading in stormwater are anticipated.

### **1.3.3 Terrestrial and Aquatic Resources**

The project site is approximately 4.4 acres in area and consists of open lawn and brush, with occasional trees occurring throughout much of the property. The existing vegetative community is comprised primarily of invasive and generally non-native plant species. By letter of October 4, 2006, the New York State Department of Environmental Conservation Division of Fish, Wildlife, and Marine Resources indicated that the New York Natural Heritage Program database does



not identify any rare or State-listed plants on the project site, or in the immediate vicinity of the site.

The site as it exists has limited potential for use by a wide variety of wildlife species. The suburban surroundings, with relatively high density housing and close proximity to Broadway (NYS Route 9), does not present ideal habitat conditions for any but those species that are best adapted to an urban/suburban landscape.

Neither field observations, or the NYSDEC Natural Heritage Program database, revealed the presence of any rare, endangered, or unusual plant or animal species on the subject property. Further, based upon on-site evaluations, the project site was determined to be limited in the number of uncommon or unusual species that it can support. Prior site disturbance, regular maintenance of landscaped areas, proximity to roads, railroads and existing dwellings create an urban/suburban environment which is suitable only for those species that are most adaptable to human presence.

Preferred bald eagle nesting and roosting habitats include mature old growth canopy and super canopy trees (especially white pines). Although none of the vegetation communities on the site provide important nesting, breeding, or roosting sites for eagles, and the site's proximity to the Hudson River precludes acceptable open water habitat for fishing, it is possible that eagles occasionally use the largest of the trees for resting and feeding. However, no eagles were observed on, or adjacent to, the site during the June 2005 or August 2006 field investigations conducted on the site by representative of the applicant. Accordingly, bald eagles are not expected to use this property and no impacts on eagles, or their habitats or migratory patterns are anticipated from development of the 4.4 acre site.

Landscaping for the subdivision will include the installation of Village approved street trees. Buffer plantings on the north side of the subject site will extend for some 350 feet and will be installed before certificates of occupancy for homes on those specific lots where buffer landscaping is proposed are granted. No fencing is proposed at this time.

The new plantings will provide street trees along the new roads. Foundation plantings around the homes, side and rear yard plantings to buffer between new homes and existing homes will be done based on the preference of future individual homeowners. Buffer planting along the northerly boundary with St. Christopher's and infill planting in the ravine area will be done along with home construction on those individual lots.

#### **1.3.4 Aesthetic and Cultural Resources**

The property consists of approximately 4.4 acres of open lawn, brush and occasional trees. The majority of the property is level, with the exception of the steep slope that descends east to west along the western portion of the site<sup>3</sup>. The base of the slope forms the east bank of the Hudson River. There is a ravine on the property, as described in the Visual Report, that "was formed by two landfill operations and the placement of a storm sewer outlet, which flows into the Hudson River"<sup>4</sup>. An existing house is located along the northern property boundary, adjacent to St. Christopher's, Inc. The house is unoccupied and scheduled for demolition.

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<sup>3</sup> Source: Visual Resource Assessment and Report, Gotham Design, Ltd., May 2006

<sup>4</sup> Source: Visual Resource Assessment and Report, Gotham Design, Ltd., May 2006

The project site is located in the Fairmead neighborhood of Dobbs Ferry. Fairmead is a subdivision of an eclectic collection of single family homes. The styles of the existing homes in Fairmead include several variations of neocolonial design.

North of Fairmead is St. Christopher's, Inc., which is a private, not-for-profit corporation that provides homes and an education as well as other services to children placed by the state. East of Fairmead is composed of single family homes, whereas south of the neighborhood includes several multifamily apartment buildings in the Village of Hastings-on-Hudson. The Metro North right of way and active rail line border Fairmead to the west.

The proposed project would convert approximately 4.4 acres of vacant wooded and landscaped property to residential use. Grading activities to prepare the site would result in minor topographic alterations which may alter views of the site. Construction of residential dwellings and lawns may likewise alter views. Portions of the property may appear more open with the removal of the tree canopy and vegetation as viewed from the surrounding roads and residential areas that adjoin the site.

The project could be potentially visible from a number of public viewing places, mostly the roads within Fairmead. Grading activities to prepare the site would result in minor topographic alterations which may alter views of the site. Construction of residential dwellings and lawns may likewise alter views. Portions of the property may appear more open with the removal of the tree canopy as viewed from the surrounding roads and residential areas that adjoin the site.

The Proposed Action would alter the visual character within the Fairmead neighborhood by introducing eleven new lots and future homes of similar character and design in the Fairmead neighborhood. Thus, while a change in the vegetative density and the addition of new structures will be evident from area roads, there are no adverse impacts to the visual conditions anticipated from the Waters Edge development. The Proposed Action is expected to enhance several views of the Hudson River and points west from existing and proposed public roads (i.e. proposed looped road) within Fairmead. The project would effectively complete the existing Fairmead neighborhood. The future homes will be constructed in accordance with the zoning setback and building height regulations and will be sited similarly to the existing structures located in Fairmead.

The site is not likely to be visible from the Metro North right of way due to the steep slope and vegetation located along the western portion of the site. However, limited views of the site may be seen during off-leaf conditions from the Metro North right of way and by commuters riding Metro North and Amtrak trains.

The Proposed Action includes a Conservation Easement on the western bank that lies between the developed portion of the site and the Metro North Railroad tracks. This easement would function as a buffer between the Metro North tracks and the proposed lots.

The site is not likely to be visible from the Metro North right of way due to the steep slope and dense vegetation located along the slope and western portion of the site. However, limited views of the site may be seen during off-leaf conditions from the Metro North right of way and by commuters riding Metro North and Amtrak trains.

The proposed project includes a Conservation Easement on the western bank of the project site that lies between the developed portion of the site and the Metro North Railroad tracks. This

easement would function as a vegetative buffer between the Metro North tracks and the proposed lots.

The Waters Edge subdivision, proposes three lots, parallel to the Hudson River, along the top of the slope facing west. The future homes to occupy these lots would be visible from the Hudson River and points west. The remaining lots are located further east from the ridge line and homes constructed on those lots would not be visible from the Hudson River.

Current views of the River enjoyed from existing roads and properties would not be adversely impacted by the construction of the Waters Edge subdivision. The views of the River and points west from St. Christopher's and the St. Cabrini nursing home to the north and the multifamily developments to the south of the site would not be impacted from the Proposed Action.

#### *Future Homes and Architecture*

The Proposed Action, as discussed in this DEIS, is a proposal for the subdivision of land. Once the subdivision is approved by the co-lead agencies, the project will proceed through site plan approval. The construction of the eleven (11) homes may be completed by the applicant or another developer. As before mentioned, the design and layout of the proposed homes would ultimately need the approval of the Village Architectural Review Board. Presently, the design, size and architectural style of the intended homes and other construction have not been decided upon.

However, it is anticipated that the eleven homes at Waters Edge at Dobbs Ferry would be of an architecture style designed to compliment and complete the Fairmead neighborhood and surrounding area. The style and scale of the new homes would be of similar to the homes existing in the Fairmead neighborhood and southern Westchester County.

The proposed development will not impact any known historic or cultural resources.

#### **1.3.5 Critical Environmental Area**

The proposed project complies with existing land use policies and zoning regulations of the Village of Dobbs Ferry. The density and character of the project is compatible with other residential development in its surrounding areas and would be an appropriate use of the site.

The project is not expected to have an adverse impact on the adjacent residential and institutional uses, on the Hudson River Critical Environmental Area (CEA), or the Village of Dobbs Ferry Local Waterfront Revitalization Program (LWRP). The proposed residential development of the 4.4 acre property would be compatible with the adjoining residential and institutional uses.

#### **1.3.6 Transportation**

The project site is located west of Broadway (NYS Route 9) in the Fairmead neighborhood in the Village of Dobbs Ferry. Access into Fairmead from Broadway is via Fairlawn Avenue, which is a two lane looped road that provides two access points from Broadway into the existing neighborhood. Constance and Atilda Avenues branch off Fairlawn Avenue and provide access to the project site and the existing homes located in Fairmead.

The proposed layout of the property conforms to a newly designed road system, which complements the existing road system of Fairmead. Ten of the eleven lots will front on a new

looped road which will connect to Fairlawn Avenue. Lot 11 located in the northeastern portion of the site, fronts along the northern section of Atilda Avenue. Roads internal to the project will be constructed to Village standards and will be 28 feet wide. On street parking will be prohibited.

Traffic to be generated by the 11 single family residences was based on 12 single family residences from an earlier plan for the Waters Edge subdivision. This conservative generation of traffic (a worst case scenario) was projected using the Trip Generation, Institute of Transportation Engineers (ITE), 7th edition, Washington, DC, 2003. The future residential use is expected to generate 17 trips during the a.m. and 16 trips in the p.m. peak hour.

Existing peak hour (2005/2006) traffic volumes were collected for the weekday a.m. peak hour, weekday p.m. peak hour and for weekend peak. Data was also collected when school was not in session.

This traffic analysis evaluates existing and future traffic conditions at two (2) existing intersections in proximity to the proposed project. The following intersections were analyzed.

- US Route 9 (Broadway) and Fairlawn Avenue (north access)
- US Route 9 (Broadway) and Fairlawn Avenue (south access)

Traffic volumes and levels of service were measured for the Existing condition. These conditions were compared with the No-Build condition which represents the traffic condition expected in the year that the proposed development is projected to be fully occupied, but without project-generated traffic added to the network. The projected build year is 2007/2008.

To account for other potential background developments in the area, the 2005 existing traffic volumes were increased by a factor of 2 percent per year to project traffic volumes to 2007/2008.

Based upon field observations and the detailed analysis undertaken during the preparation of Section 3.6 Transportation of this DEIS, the following findings are presented:

- The site is provided good local access via Broadway (NYS Route 9), Fairlawn Avenue, Atilda Avenue and Constance Avenue.
- Traffic to be generated by the 12 single family residences was projected using the Trip Generation, Institute of Transportation Engineers (ITE), 7th edition, Washington, DC, 2003. The future residential use is expected to generate 17 trips during the a.m. and 16 trips in the p.m. peak hour.
- The morning peak hour for the studied intersections occurs between 8:00 a.m. and 9:00 a.m. and the afternoon peak hour occurs between the 4:30 p.m. and 5:30 p.m. The peak hours are influenced predominantly by commuter traffic. The proximity of the subject site to area schools and associated bus traffic contributes to a heavy vehicle mix in this area (about eight percent). On non-school days, the p.m. peak occurs between 5:00 p.m. and 6:00 p.m.
- The volumes data collected by the NYS DOT are consistent with the December 2005 and October 2006 manual counts. A comparison of the NYS DOT counts with the manual counts taken while school was not in session (October 9, 2006) indicated that the non school day volumes were lower than the school day volumes. Therefore,

the critical time period for analysis of traffic conditions is the school day weekday a.m. and p.m. peak hours.

- The study intersections were evaluated for existing levels of service. Capacity analysis calculations for Existing, No-Build, and Build conditions are provided in the appendices of this DEIS (Appendix I - EAF). Please refer to Section 3.6 Transportation for further discussion.
- There is no change to the traffic operating levels of service expected as a result of the proposed Waters Edge project compared to either Existing or No-Build Conditions. All lane groups are expected to continue to operate at the more efficient levels of service C or better, during both the a.m. and the p.m. peak hour periods.

The traffic associated with the Water's Edge at Dobbs Ferry will not have a significant impact on the operating conditions of the adjacent roadways and intersections. Accordingly, safe and efficient operating conditions will be provided for through traffic as well as for traffic destined to the site.

### **1.3.7 Energy**

Both short-term and long-term energy consumption effects are associated with all residential construction projects. Short-term energy consumption impacts would occur during construction of the proposed development, primarily due to the consumption of fossil fuels through the operation of power equipment and construction vehicles.

Once constructed, the eleven (11) residential single family homes would be occupied by households that would place long-term demands on various energy sources. Energy conservation in New York is regulated at the state level for new residential and commercial construction. The Waters Edge development would be constructed in accordance with the New York State Energy Code. In effect since 2002, the code specifies basic requirements that are mandatory for newly constructed buildings.

### **1.3.8 Noise**

Existing noise levels at the Waters Edge site are influenced by surrounding land uses since the site is vacant. A dwelling located on the northern boundary of the site, is currently not inhabited and is scheduled for demolition. Background noise is primarily from vehicles traveling along Broadway (NYS Route 9) to the east of the site and train noise from the Metro North right of way west of the property. Additional noise was associated with the residential uses in the vicinity of the property, such as lawn mowers, leaf blowers and children playing. As a note, the trains running along the Metro North right of way were operating on an afternoon weekday peak schedule. Therefore, the ambient noise readings were influenced by the peak train schedule.

The project would not introduce a major new stationary source of noise and would not introduce noise sources different from typical residential neighborhoods.

Although the application is for the subdivision of land, not the construction of homes, home construction will inevitably result. Construction will occur during normal working hours, within the hours of 7:30 AM to 6:30 PM Monday through Friday and possibly Saturday, consistent with the Village Code. No work will be permitted on Sunday or on specific holidays specified in the Code

All construction vehicles and equipment will be well maintained and operated in an efficient manner, thereby minimizing noise to the greatest extent practicable.

It is anticipated that nearby properties will experience elevated noise levels at occasional periods during construction. This is a temporary, unavoidable impact resulting from project construction.

### **1.3.9 Public Health**

The section does not address the existing conditions of the project site and surrounding area. The purpose of the Public Health section was to address the potential impacts from the Proposed Action on public health during construction.

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 reintroduced into the air during vehicle passage.
- A truck vehicle washing pad will be constructed at the Fairlawn 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 of the construction manager to ensure that all equipment on the site is properly maintained and does not produce excessive emissions.

### **1.3.10 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 (SOPs) and Occupational Hazard and Safety Administration (OHSA) 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 (children, local residents, pets and other members of the public) is protected. Refer to Section 3.10, Safety for the safety procedures to be followed throughout the construction of the Waters Edge project.

### **1.3.11 Community Character**

This section of the DEIS addresses police protection, fire protection, ambulance service, educational facilities, and utilities. The Waters Edge Subdivision would add 40 persons to the Village's population, including 10 school-age children

#### *Population*

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.

#### *Educational Facilities*

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.

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.<sup>5</sup> 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.

However, the projected student population will be introduced into the School District over a multi-year period (2007-2010). In addition, the nine students would be enrolled in various grade levels. The introduction of 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.

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<sup>5</sup> Development 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.

*Police Protection*

According to the Village of Dobbs Ferry Police Department, no measurable impact on staffing or service levels would be expected from the proposed Waters Edge development. See Section 3.11 for further discussion.

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, it can be assumed that \$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.

*Fire Protection*

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. The project would generate revenues of \$86,940 to the Village of Dobbs Ferry. Based on the Village of Dobbs



Ferry Budget 2006-2007, it can be assumed that \$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.

#### *Emergency Services*

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.

#### *Solid Waste*

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 of solid waste per month. This additional waste generation is not anticipated to have a measurable impact on solid waste collection services in the Village.

#### *Sewage Treatment Facilities*

The project site is currently located within the sanitary sewer district of the Village of Dobbs Ferry and the Westchester County Joint Sewer District. Sewage is treated at the Yonkers sewer treatment plant. The Waters Edge subdivision and future homes are expected to connect to the above districts.<sup>6</sup> 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 day<sup>7</sup>. This additional waste generation is not anticipated to have a measurable impact on above mentioned districts within the Village and County.

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<sup>6</sup> Per conversation with Project Engineer on November 15, 2006

<sup>7</sup> Development Impact Assessment Handbook, Urban Land Institute (1994):

### 1.3.10 Fiscal

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 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.

Consistent with fiscal impact methodology<sup>8</sup>, 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.

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.

The total assessed value of Waters Edge at Dobbs Ferry would be \$475,200. The total project-generated tax revenues is estimated to be \$417,625 annually. The Dobbs Ferry Union Free School District would benefit from the largest increase in revenues, approximately \$272,031 annually. The Village of Dobbs Ferry would receive \$86,940 annually. Westchester County would receive approximately \$43,386 annually. The Town of Greenburgh would receive approximately \$3,271 annually. Annual property tax revenues that would accrue to the North Yonkers Sanitary Sewer District would be \$6,940 and the County Refuse District would receive \$5,057 annually.

#### *Costs to the Village of Dobbs Ferry*

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

<sup>8</sup> The Fiscal Impact Handbook, Robert Burchell and David Listokin, 1978.

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

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

#### *Police Services*

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*

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.

### Culture and Recreation Costs

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 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.

Home and Community Services Costs

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 for the fiscal year 2006-2007.

*Utilities*

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.

*Dobbs Ferry Union Free School District*

The Waters Edge at Dobbs Ferry development would generate annual property tax revenues of \$272,031 to the Dobbs Ferry Union Free School District. 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 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.

**1.4 Summary of Project Alternatives**

The DEIS examines five alternatives as follows:

- 1) No Action Alternative
- 2) Alternative Subdivision Plans
  - i. Conventional Subdivision (Maximum Number of Lots)
  - ii. Ravine Preservation Alternative (with use of cul de sacs)
  - iii. Ravine Preservations Alternative (without of use of cul de sacs)
  - iv. Subdivision with Maximum Number of Lots
  - v. Conservation Subdivision Alternative

The above alternatives are described below.

#### **1.4.1 No Action Alternative**

In accordance with SEQRA regulations, the No Action alternative must evaluate the adverse or beneficial site changes that are likely to occur in the reasonably foreseeable future in the absence of the proposed action. In this instance, the No Action alternative would result in the project site remaining vacant. The existing house onset would remain unoccupied. This alternative is not consistent with the objectives of the applicant and the allowable uses permitted under local zoning. In order for the site to remain permanently vacant, the Village or a conservation organization would need to acquire the property for open space purposes and compensate the property owner accordingly.

As noted above, the geotechnical analysis conducted by Carlin - Simpson and Associates concluded that the site's existing condition was at risk for potential surface slides [slope failures]. Such a failure could result from a sudden rise in the groundwater elevation due to heavy rainfall, broken water lines, or an adverse change in the surface drainage that saturated the slope.

The existing slope, if left untreated, could potentially slide in the event of heavy rainfall or a adverse change in the surface drainage. This could result in damage to any house in close proximity to the top of the slope as well as the adjacent railroad<sup>9</sup>.

Under the No-Action alternative, none of the impacts identified in this report, whether adverse or beneficial, would occur.

#### **1.4.2. Alternative Subdivision Plans**

##### **1.4.2.1 Conventional Subdivision (Maximum Lot Count Subdivision) Alternative**

The proposed plan is a conventional subdivision, but it is not built out to the full lot count that the zoning would allow. The maximum lot count that a conventional subdivision would yield is, conservatively, 17 lots. Therefore the Maximum Lot Count Subdivision would have six (6) more lots than the proposed subdivision.

The Maximum Lot Count Subdivision, aside from having more lots, would be characterized by smaller lots and generally smaller units. This development scheme would impact as much of the natural environment as the proposed subdivision with fewer lots as there would be more drive-ways and other features associated with the additional homes than there would be with fewer units, therefore offsetting the larger home sizes of the fewer unit proposal.

##### **1.4.2.2 Ravine Preservation Alternative**

The Ravine Preservation Alternative illustrates fourteen (14) homes placed on lots that revolve around a street layout designed specifically to avoid crossing and filling the existing ravine. This alternative would entail a northerly cul de sac terminus to Constance Avenue, and a through connection at the southerly side of the site for Fairlawn Avenue.

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<sup>9</sup> Source: Subsurface Soil and Foundation Investigation, Carlin - Simpson and Associates, November 17, 2006.

Since the street system would not be rectilinear and the objective would be preservation of the ravine, this design would result in varied and irregular lot configurations. Homes would face in a variety of directions and would be less predictable in placement than found in a typical rectilinear street system development.

The Constance Avenue cul de sac would allow nine (9) new lots to be sited along this street. Two of lots would be deep through lots to the Metro North Railroad, one lot would be a flag lot, and six lots would be shallower but conforming lots. The Fairlawn Avenue through street would have a turnaround on the northern side on which five lots would front. Two (2) additional lots would front on the south side of the street.

While there would be some impact on the edge of the ravine from three (3) lots where house footprints would break over the 80 foot contour, the impact is very minimal and may be mitigated on at least two (2) lots by using custom home footprints.

#### **1.4.2.3 Ravine Preservation Alternative Without a Cul de Sac**

The Ravine Preservation Alternative without the use of at least one cul de sac is not feasible. Since the ravine intrudes into the center of the site, the only practical way to avoid impacting it is to develop a cul de sac on the north side and provide a separate road on the south side. The effect of looping a road through the property is unavoidably to fill or cross the ravine with a section of road. The Proposed Plan clearly shows the loop road crossing the ravine. It would require filling at least half the ravine for a road at grade. Spanning the ravine with a bridge structure would be very costly and ultimately would involve a significant amount of disturbance in footings at either end and clearing trees for the span itself. In short a loop road system will inevitably impact the ravine. Therefore this alternative has not been further explored.

#### **1.4.2.4 Subdivision Without New Roads**

This alternative is essentially the same alternative as the Ravine Preservation Alternative which closely, though not exactly, follows the previously mapped Constance Avenue and Fairlawn Avenue extensions, and the current travel ways in those locations. The Ravine Preservation Alternative terminates the Constance Avenue extension in a cul de sac. When it was shown as a mapped street it simply dead ended at the St. Christopher School property line. The Fairlawn Avenue connection in the Ravine Preservation Alternative is also similar to the previously mapped street except that it is more curvilinear and has a bump out for lot frontages off the travel way.

#### **1.4.2.5 Conservation Subdivision Alternative**

This alternative would require the use of Zoning Code provisions found in Article XVIII, Grouped or Clustered Housing. This section of the code specifically references "...promote the conservation of the remaining open space, preserve and enhance natural beauty and resources and permit reasonable development of large plots of land that are not topographically suitable for the construction of a conventional one-family-home subdivision." The Grouped or Clustered Housing code is designed for parcels of twenty (20) acres or more, clearly larger than the subject parcel, though the Village Board may reduce the minimum parcel size for applying these provisions.

This section of the Code goes on to describe various forms of allowable housing as attached, semidetached, detached, grouped or clustered. To be effective on a site as small as the subject

site, this section of the code would require a cluster design on lots that would not appear harmonious with the existing neighborhood, and would be unattractive in their own right, or would result in the development of townhouse or other multifamily format which would also be out of character with the existing single family neighborhood. Also the number of units in this development alternative would be based on the maximum allowable lots from a conventional subdivision and would therefore be 17 units.

Since this type of development would be inconsistent with the single family detached home character of the existing neighborhood, and is not a housing type that the project sponsor is considering for the site, this alternative has not been further developed.

### **1.5 List of Involved Agencies and Interested Agencies and Parties**

As of the date of this document, the following are known to be involved agencies and interested parties (agencies and parties) to this action.

#### Involved Agencies

- Village of Dobbs Ferry Planning Board
- Village of Dobbs Ferry Village Board
- Village of Dobbs Ferry Department of Public Works
- Village of Dobbs Ferry Conservation Advisory Board
- MTA – Metro North
- NYS Department of Environmental Conservation
- NYS Department of State
- U.S. Army Corps of Engineers
- Westchester County Department of Environmental Facilities
- Westchester County Health Department
- Westchester County Planning Department

#### Interested Agencies And Parties:

- Village of Dobbs Ferry Police Department
- Village of Dobbs Ferry Fire Department
- Village of Dobbs Ferry Volunteer Ambulance Corps
- Dobbs Ferry Union Free School District
- New York State Office of Parks, Recreation and Historic Preservation
- Town of Greenburgh
- Village of Hastings-on-Hudson
- Scenic Hudson
- Fairmead Association

*Permits and Approvals*

As co-lead agencies, Village of Dobbs Ferry Board of Trustees and Planning Board have primary responsibility for review of this application and for determining its conformity with the Village's zoning and subdivision regulations. The proposed action would require the following approvals or referrals:

Involved and Interested Agencies and Required Approvals, Permits, Review

- |  |  |
|--|--|
| ♦ Village of Dobbs Ferry Board of Trustees     | Site Plan Approval   |
| ♦ Village of Dobbs Ferry Planning Board        | Subdivision Approval   |
| ♦ Department of Public Works                   | Street Opening Permit  |
| ♦ Architectural Review Board Permit            | Architectural Review Of Future Residents                               |
| ♦ Westchester County Department of Health      | Realty Subdivision Approval<br>Water and Sewer Main Extension Approval |
| ♦ Westchester County Planning Board            | 239m Review<br>NITA Stormwater Discharge                               |
| • NYS Department of Environmental Conservation | SPDES General Permit   |
| • Metro North Railway                          | Stormwater Discharge   |

**1.6 Unavoidable Adverse Impacts**

The development of the proposed project will result in some adverse environmental impacts which cannot be avoided. These include short term construction impacts, short term increase in potential erosion, and construction noise and activities. Long term impacts include changes to the character of the neighborhood associated with conversion of the site to residential use. The summary in Section 4.0 Unavoidable Adverse Impacts includes brief descriptions of the mitigation measures proposed to minimize the unavoidable adverse impacts if this project is implemented.

**1.7 Irreversible and Irretrievable Commitment of Resources**

The proposed plan will commit the project site to residential use. Once committed to this use, the site will be unavailable for other uses for the foreseeable future.

Development of the project will result in the loss of vegetation and wildlife habitat. The wildlife habitat located on the project is suitable only for those species that are most adaptable to human presence, as noted in Section 3.3, Terrestrial and Aquatic Resources. Landscaped



portions of the developed area will provide additional habitat for species adaptable to areas of residential land use.

The finite resources that will be irretrievably committed by implementation of the Proposed Action are the materials and energy required for construction and for maintenance of the development afterward. Construction will involve the commitment of a variety of natural resources. These include, but are not necessarily limited to, concrete, asphalt, steel, lumber, paint products, and other building materials. However, it should be noted that many of the materials utilized for construction may at some time be recycled or reused. The operation of construction equipment will result in consumption of fossil fuels and other finite energy sources.

When completed, the new residences will require the consumption of fossil fuels either directly as heating fuel or indirectly as electricity. The regional electrical grid is also supplied in part by nuclear generating stations as well as generating stations utilizing renewable energy such as hydroelectric and wind power resources. There will also be solid waste disposal requirements associated with the project, however, a significant portion of the total solid waste stream (30%) can be expected to be recycled.

Construction of the project will require a commitment of person hours of labor, which can be viewed as beneficial to the community, the local economy, and the construction industry. It is anticipated that a portion of the construction-related workers at the site will come from the Village of Dobbs Ferry, Town of Greenburgh, and other surrounding Westchester County towns. The construction trade workers would have a short term positive impact on existing local businesses that provide goods and services such as food, convenience shopping, machinery lubricants, repairs and fuels.

## **1.8 Discussion of Issues and Potential Controversy**

People from the local neighborhood attended the scoping meetings for this project and requested that the scoping outline be amended to include some of their concerns. The items in bold in the scoping outline in the appendix reflects some of these issues that includes project density, size of future homes, changes to neighborhood character, construction impacts, filling of the ravine, etc.