SWAN LAKE ESTATES

DRAFT ENVIRONMENTAL IMPACT STATEMENT Kelly Bridge Road Subdivision

TOWN OF LIBERTY, SULLIVAN COUNTY, NEW YORK Tax Map Number: Section 44, Block 1, Lots 1 & 8

> Project Sponsor: AJM at Swan Lake, LLC, 11 Wendover Drive Huntington, New York 11743 Attention: Mr. Tony Murolo (631) 673-6860

Lead Agency: New York State Department of Environmental Conservation Region 3, Division of Environmental Permits, 21 South Putt Corners Road, New Paltz, NY 12561-1696 Attention: Scott Sheeley, Deputy Regional Permit Administrator (845) 256-3000

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Lead Agency Acceptance Date: _____

Date, Time and Place of of Public Hearing:

Written Comments Will be Accepted by the Lead Agency Until:

November 30, 2006

Swan Lake Estates Draft Environmental Impact Statement Town of Liberty, New York

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Executive Summary

Executive Summary November 30, 2006

1.0 EXECUTIVE SUMMARY

This Draft Environmental Impact Statement (DEIS) has been prepared in response to a Positive Declaration issued by the New York State Department of Environmental Conservation (NYSDEC) in connection with a residential subdivision application from AJM at Swan Lake, LLC, (the "Applicant"). The Swan Lake Estates project originally consisted of two residential subdivisions, the Kelly Bridge Road subdivision and the Lake Marie Road subdivision, both owned by the applicant and located on the northeast side of Swan Lake. Subsequent to the Positive Declaration and initial State completeness review of the DEIS, the Applicant has withdrawn the proposed 19 lot subdivision application for the Lake Marie Road site (Appendix A). This property will remain in its current state for use and/or sale by the Applicant. For the purposes of this DEIS, Swan Lake Estates refers to the Kelly Bridge Road subdivision.

Based on the requirements of the Scope, this DEIS evaluates only the possible impacts to wildlife associated with the proposed residential subdivision. This document has been prepared in accordance with the State Environmental Quality Review Act (SEQRA) and Part 617 of the implementing regulations. The DEIS contents were documented in by a scoping outline established by NYSDEC, acting as lead agency, in cooperation with all other involved agencies and interested parties. The NYSDEC adopted a Final Scoping Document for this DEIS on May 22, 2006, which can be found in Appendix A of this DEIS.

1.1 Description of the Proposed Action

The proposed Swan Lake Estates site is located on the northeast side of Swan Lake, west of Kelly Bridge Road, in the Town of Liberty, Sullivan County. Swan Lake is an approximately 352 acre water body used for a variety of recreational purposes including fishing and boating.

The project site is located on the west side of Kelly Bridge Road east of County Road #142 and northwest of the Kelly Bridge which spans a narrow portion of Swan Lake. It is comprised of two tax lots designated as Section 44, Block 1, Lots 1 and 8, comprising a total of 114.02 acres. The property lies within the Rural Development (RD) zoning district which allows single family detached housing by right.

The site is currently undeveloped, with the exception of the proposed road which has been cleared and graded, and vegetated with second growth hardwood and coniferous forest. Two wetlands, classified as a mix of palustrine forested, palustrine scrub shrub and palustrine emergent, fringe Swan Lake on the property. The site also supports large canopy trees, including white pine along the lake shore, which serve as roost trees for nesting bald eagles.

The applicant proposes to subdivide this area into a total of 21 lots. One lot, proposed Lot 13, will remain in common ownership of the Homeowner's Association and will provide a common lake access. The remaining 20 lots will be developed with single-family detached residences. Excluding the common lot, which is proposed to be 2.38 acres, lots will range from 3.00 acres to 8.37 acres in size. Of these 20 lots, 16 will be larger than 5.00 acres.

With lot sizes of 3 acres or more, the plan complies with all requirements of the Town of Liberty Zoning Code. The RD zoning district has a minimum lot size of 60,000 square feet, or approximately 1.4 acres.

Owners of Lots 3 through 12 will have frontage on Swan Lake. These lots will be permitted to have pathways to access the lake shore and private floating docks not to exceed 100 square feet in size. The proposed homes, with the exception of Lot 7, will be setback a minimum of 200 feet from the lake shore.

All proposed lots will be served by individual wells and septic systems.

Lot 13, the common lot, will contain a pavilion, parking area and a path to the lake with a floating dock not to exceed 200 square feet. These facilities will be available for use by the residents of the subdivision and their guests. The Homeowner's Association will own and maintain the common lot and the access road through the subdivision.

Access to the site is from Kelly Bridge Road north of Kelly Bridge at a point approximately 0.4 miles north of its intersection with County Road #142. Kelly Bridge Road can also be accessed from Ferndale Loomis Road roughly 1.6 miles to the northeast of the site.

There are no easements affecting the site and there are no known plans for development on abutting parcels owned or under contract by the Applicant. A list of abutting properties is included below.

40-1-5.2 GAFS Realty Inc. 40-1-9 Elzbieta & Agnes Freulich 44-1-2.2 AJM @ Swan Lake Estate LL 44-1-9.1 Bob's Fishing Hole Inc. 44-1-12.1 GAFS Realty Inc. 44-1-12.2 Kanti & Carmel Tavadia

1.2 List of Involved Agencies

Agencies having approval and permitting authority for the proposed action ("Involved Agencies") are listed below:

New York State Department of Environmental Conservation, as Lead Agency Region 3, Division of Environmental Permits and Bureau of Wildlife 21 South Putt Corners Road New Paltz, New York 12561-1696

Town of Liberty Planning Board 120 North Main Street Liberty, New York 12574

New York State Department of Health Corning Tower Empire State Plaza, Albany, NY 12237

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1.3 List of Interested Agencies

Interested Agencies for the project are listed below:

- Town of Liberty Police Department
- White Sulphur Springs Volunteer Fire Department
- Liberty Central School District
- Town of Liberty
- U.S. Fish and Wildlife Service

1.4 Summary of Existing Conditions, Potential Impacts and Mitigation Measures

For the purposes of this DEIS, discussion of impacts and mitigation are restricted to those associated with bald eagles that nest on Swan Lake.

1.4.1 Existing Conditions

Swan Lake Estates and surrounding areas have supported a pair of nesting bald eagles for at least the past eleven years (including 2006). These eagles have utilized a total of five large white pine trees on or in the immediate vicinity of the Swan Lake shoreline. Two of these trees are located on the same side of the lake to the northwest of the proposed development. The remainder of the nest trees are located on the opposite side of the lake, to the west, of the proposed development site. Nest trees are not present on the proposed Kelly Bridge Road subdivision site. The potential for impacts of the Swan Lake Estates on the bald eagles, which are a Federally and New York State listed threatened species, was the primary issue resulting in a Positive Declaration and development of this DEIS.

1.4.2 Potential Impacts

Nesting eagles on Swan Lake are potentially influenced by people using both gasoline and human powered watercraft, fishing along the shore, and the use and maintenance of the existing residences on the lake.

Potential impacts associated with the proposed Swan Lake Estates development include both short-term effects due to the construction of the proposed single family homes and required infrastructure and long-term effects of home occupancy and recreational use of the lake.

Development of proposed subdivision will result in the clearing of approximately 33 acres, of second growth forest. Approximately 81 acres will be preserved in its natural state. Less than one one-hundreth of an acre of the existing 5.11 acres of wetlands and 1.5 acres of the 24 acres of wetland adjacent area will be disturbed as a result of the proposed development.

1.4.3 Mitigation Measure

The National Guidelines for Managing Bald Eagles encourage land owners to work cooperatively with state or federal wildlife agencies "...to address management issues." Consistent with this guideline, the Applicant has developed, in collaboration with the NYSDEC, a mitigation plan to offset potential impacts to the eagles associated with the proposed subdivisions. The agreed upon mitigation measure are summarized below.

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Based on comments from the NYSDEC on the original Town approved subdivision plan a number of changes were made to protect the nesting eagles from potential impact related to the development. These incorporated measures, include the following, to preserve eagle roost trees and minimize visual impacts:

- Relocated the common lot dock to maximize the distance between it and eagle nest trees across the lake.
- Reduced the width of the access paths to lake,
- Reduced the diameter of the saplings and shrubs that can be removed to create the paths,
- Limited clearing of the paths to hand saws and other non-powered means, and
- Changed the configuration of the paths to maximize the distance between them and the eagle nest trees across the lake.

Swan Lake Overall Plan

The Applicant has agreed to place the roughly 31 acre lot that contains the eagle nest trees across the lake from the proposed development in a conservation easement. The NYSDEC will be granted the right to access the property to monitor and research eagle nesting activity.

The Applicant proposes to prohibit the use of any and all gasoline powered watercraft including those currently in use on the lake, restricting vessel access to those powered by small electric motors, wind, oars or paddles. While the NYSDEC agrees that this measure will minimize disturbance to the resident bald eagles, this is not a recommendation or requirement of the agency. In addition, three "RESTRICTED AREA" signs will be installed in the lake at or near the primary protection zone limit around the three nest trees on this parcel.

1.5 Summary of Project Alternatives Considered

The New York State Environmental Quality Review Act (SEQRA) calls for a description and evaluation of reasonable alternatives to the proposed action that are feasible, considering the objectives and capabilities of the project sponsor. The proposed project is presented in detail in the Project Description of this document and associated impacts are thoroughly assessed in this report. Three project alternatives and the "No Build" alternative were included in the Lead Agency's adopted Scope and are described in Chapter 5.0.

1.5.1 No Build Alternative

The No Build Alternative is the condition under which development of the project site would not take place. The site would remain in its current state with no impact to existing habitat. Given the viability of this site for development under the existing zoning regulations of the Town, the No Build Alternative, or the continuation of the primarily vacant state of the project site, is not a likely alternative.

1.5.2 Maximum Density Alternative

This alternative indicates the maximum density allowed under the current zoning designations for the site. No bald eagle nesting tree protection zones or protection of wetlands, wetland buffers (adjacent areas) or streams are considered with this alternative.

In the RD zoning district the development standards are as follows:

- Minimum Lot Size: 60,000 square feet
- Minimum Lot Width & Depth: 200 feet
- Minimum Front Yard: 50 feet
- Minimum Side Yard: 25 feet
- Minimum Back Yard: 25 feet

Applied to the Kelly Bridge Road site these restrictions yield a total of 76 lots. As a result of the physical constraints of the project site, a total of 53 lots are proposed under the Maximum Density Alternative, which is 32 more than the proposed action. This alternative would result in a greater amount of development than under the proposed action and a total of 68 acres of disturbance.

1.5.3 Cluster Subdivision Alternative

Single-family cluster development is allowed by special use permit in the RD zoning district. An alternative that complies with the Town of Liberty cluster regulations has been developed for the project site.

For the proposed subdivision, this alternative results in a total of 76 lots. The lot size has been reduced from 60,000 square feet to 30,000 square feet. This alternative is designed to create no impact to wetlands or wetlands buffers. There are no primary eagle protection zones or stream corridors on the Kelly Bridge Road parcel and this alternative proposes all development outside of the 1500 foot secondary protection zone of all nest trees on Swan Lake. This Alternative results in increased impacts due to the increased development.

1.5.4 Preferred Alternative

The Scoping Outline adopted for this DEIS requires the consideration of a preferred alternative. The proposed plan, which calls for 21 lots and approximately 33 acres of disturbance, is the preferred alternative and is discussed in depth throughout this DEIS.

1.5.5 Conventional Alternative

A Conventional Subdivision Alternative for the site has been designed to meet the minimum lot areas for the RD zoning district. This alternative would avoid all impacts to wetlands, streams and secondary protection zones (1500' radii) around the bald eagle nesting trees with the exception of the floating dock and a small portion of the access path to the lake proposed for Lot 13. At its closest point, this dock lies approximately 1450 feet from the closest of the five nest trees.

The Conventional Subdivision Alternative would result in an increase, by 32 to 53, in the number of lots compared with the proposed plan. This alternative requires an additional 35 acres of site disturbance, from 33 acres under the proposed plan to 68 acres, thereby resulting in greater impacts.

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Chapter 2.0

Description of Proposed Action

Project Description November 30, 2006

2.0 DESCRIPTION OF THE PROPOSED ACTION

Introduction

This Draft Environmental Impact Statement (DEIS) has been prepared in response to a Positive Declaration issued by the New York State Department of Environmental Conservation (NYSDEC) in connection with an application of Swan Lake, LLC. for approval of the proposed residential subdivision, known as Swan Lake Estates. The Swan Lake Estates project originally consisted of two residential subdivisions, the Kelly Bridge Road subdivision and the Lake Marie Road subdivision, both owned by the applicant and located on the northeast side of Swan Lake. Subsequent to the Positive Declaration and initial State completeness review of the DEIS, the Applicant has withdrawn the proposed 19 lot subdivision application for the Lake Marie Road site (Appendix A). This property will remain in its current state for use and/or sale by the Applicant. For the purposes of this DEIS, Swan Lake Estates refers to the Kelly Bridge Road subdivision.

The proposed Kelly Bridge Road subdivision lies on roughly 114 acres of land in the Town of Liberty, Sullivan County, New York. The Positive Declaration and the SEQRA Full Environmental Assessment Form, upon which the NYSDEC's determination of significance was based, are included in Appendix A.

This DEIS examines the potential environmental effects that may result from the proposed Kelly Bridge Road 21-lot residential subdivision known as the "Swan Lake Estates". 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 a scoping outline developed by the NYSDEC, acting as the SEQRA lead agency, in cooperation with all other involved agencies. After review of comments submitted on the Draft Scope for the DEIS circulated on March 31, 2006, the NYSDEC adopted the Final SEQRA Scoping Document (Scope) on May 22, 2006. This Scope is included in Appendix A of this document.

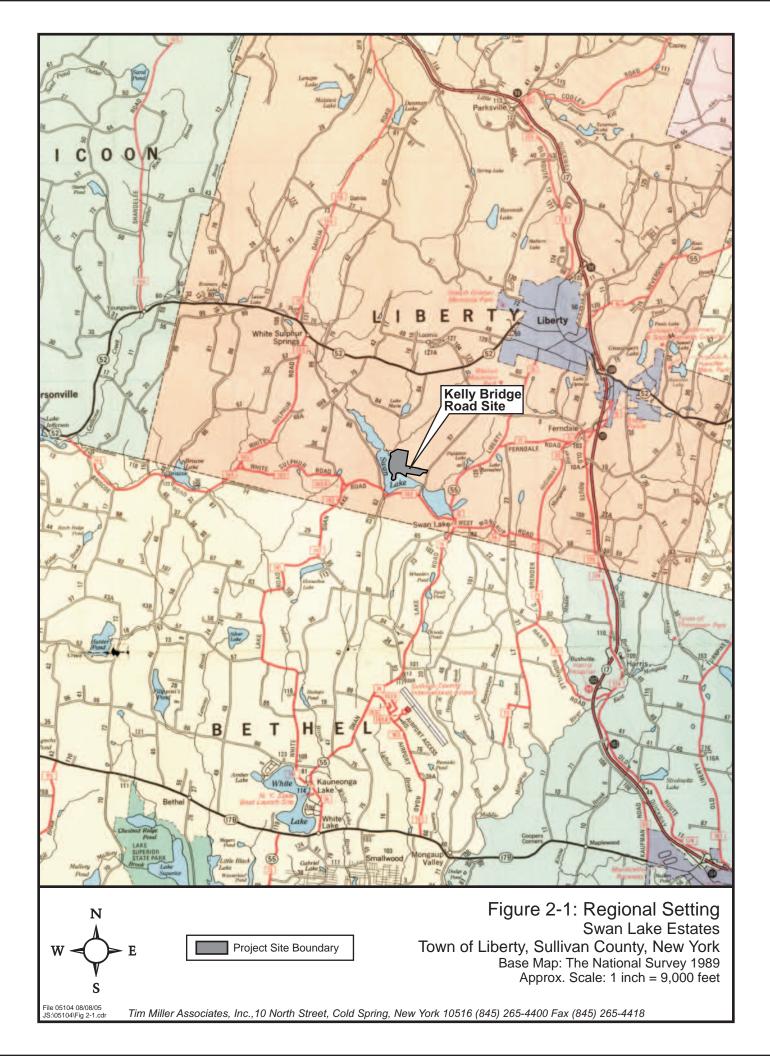
2.1 Site Location and Description

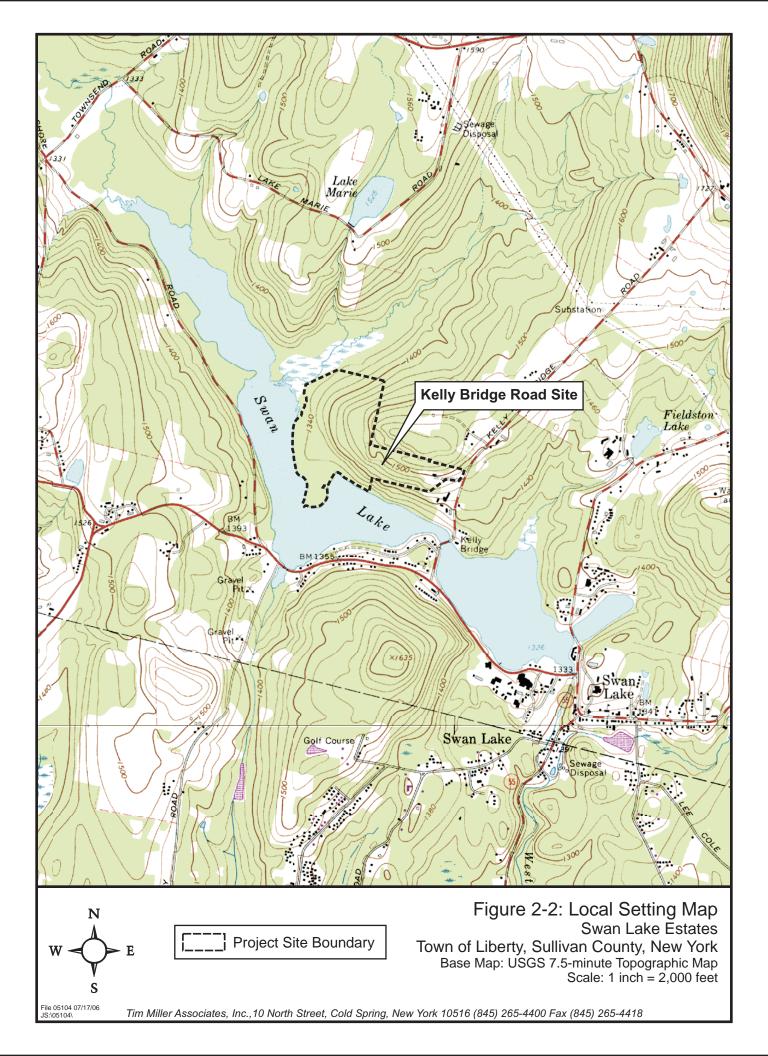
The Swan Lake Estates site is located on the east side of Swan Lake, west of Kelly Bridge Road, in the Town of Liberty, Sullivan County. The regional and local settings of the Kelly Bridge Road subdivision are shown in Figures 2-1 and 2-2.

There is development in the immediate vicinity of the project site, the vast majority of which is single-family homes. The hamlet of Swan Lake is located to the south east approximately a mile and a half from the Kelly Bridge Road site. Swan Lake supports a hotel, two delis (one with a gas station), a landscape contracting business, a hairdresser, a motel, and several seasonal businesses (open approximately two months a year) including a pizzeria, an antiques store and a bakery. Also located in the hamlet are a fire house, a post office and a synagogue.

The project site is composed of two parcels, Tax Map 44, Block 1, Lots 1 and 8, comprising a total of 114.02 acres. The property has approximately 230 feet of road frontage on Kelly Bridge Road (Town Road #97). The site is currently undeveloped and vegetated with forest, with the exception of the proposed road which has been cleared and graded. The subject property consists almost entirely of wooded land located in the RD Rural Development zoning district, which allows single family residential development by right.

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The property is irregularly shaped extending over 3,600 feet from Kelly Bridge Road along the shoreline of Swan Lake. Starting at Kelly Bridge Road with a width of approximately 230 feet, it widens to approximately 2,900 feet at its widest point near the back end of the parcel. There are no easements on this property.

Single family development is located directly across Swan Lake, to the south of the property and along Kelly Bridge Road to the north. Figure 2-3 shows the project site delineated on a 2004 aerial photograph. Locations of existing structures on adjacent properties can be seen on this figure. The following is a list of adjacent property owners:

40-1-5.2 GAFS Realty Inc.
40-1-9 Elzbieta & Agnes Freulich
44-1-2.2 AJM @ Swan Lake Estate LL
44-1-9.1 Bob's Fishing Hole Inc.
44-1-12.1 GAFS Realty Inc.
44-1-12.2 Kanti & Carmel Tavadia

2.1.1 Subdivision Plan

The applicant proposes to subdivide this area into a total of 21 lots. One lot, proposed Lot 13, will remain in common ownership of the Homeowners Association and will provide a common lake access. The remaining 20 lots will be developed with single-family detached residences. Excluding the common lot, which is proposed to be 2.38 acres, lots will range from 3.00 acres to 8.37 acres in size. Of these 20 lots, 16 will be larger than 5.00 acres. All of the proposed home sites will meet the zoning requirements of the Rural Development (RD) zoning district, which allows one-family dwellings on 60,000 square foot lots.

The proposed homes are planned to average 2,000 square feet of gross floor area with four bedrooms. These homes are anticipated to sell for \$650,000 to \$1,000,000. The anticipated project population is 63 persons, including 19 school age children. The planned period of construction is approximately 24 months.

The development has been designed to comply with the provisions of the Town Subdivision Regulations. The overall proposed subdivision plan is shown in Figure 2-4 and in the full size engineering drawing included at the rear of this document. The proposed plan provides for new single family homes on upland areas of the site to preserve setbacks from Swan Lake, site wetlands, wetland buffers (adjacent areas) and areas of steep slope to the greatest extent practicable. Approximately 75 acres of the site is proposed to remain undisturbed woodland. The 5.11 acres of wetlands also fall outside of the proposed development area. Sizable areas of undisturbed open space are anticipated to remain at the rear of Lots 2-14.

A common lot is proposed for this subdivision and will provide a recreation area for the residents. This common lot will be 2.38 acres. It will contain a pavilion, parking area and a path to the lake with a floating dock not to exceed 200 square feet. These facilities will be available for use by the residents of the subdivision and their guests. The Homeowner's Association will own and maintain the common lot and the access road through the subdivision.

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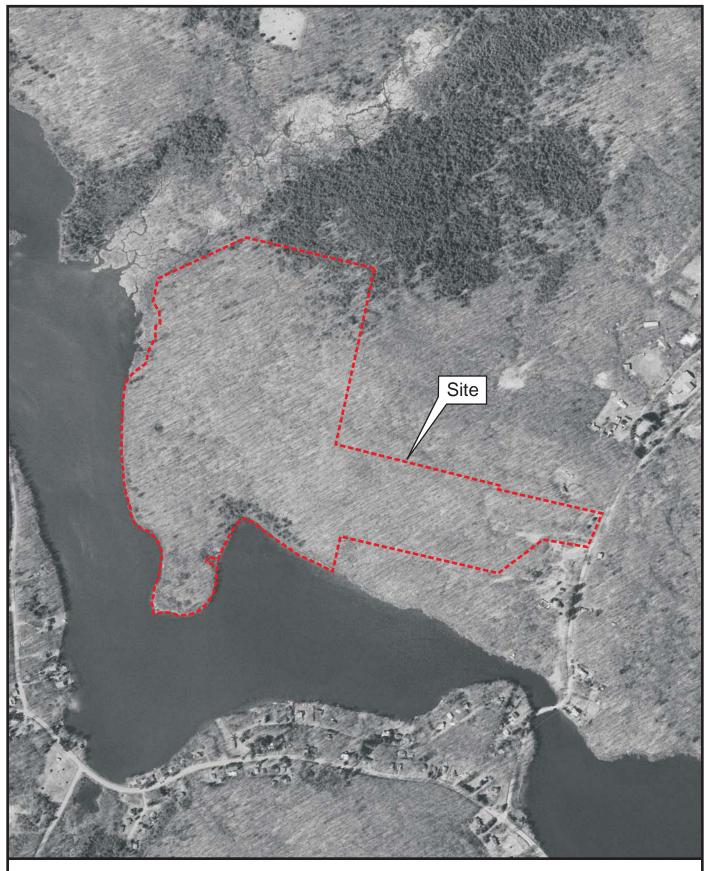




Figure 2-3: Kelly Bridge Road Aerial Photo Swan Lake Estates Town of Liberty, Sullivan County, New York Base Map: NYS GIS Clearinghouse, 2004 Aerial Approx. Scale: 1 inch = 600 feet

^{7/06} *3.cdr Tim Miller Associates, Inc., 10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418*

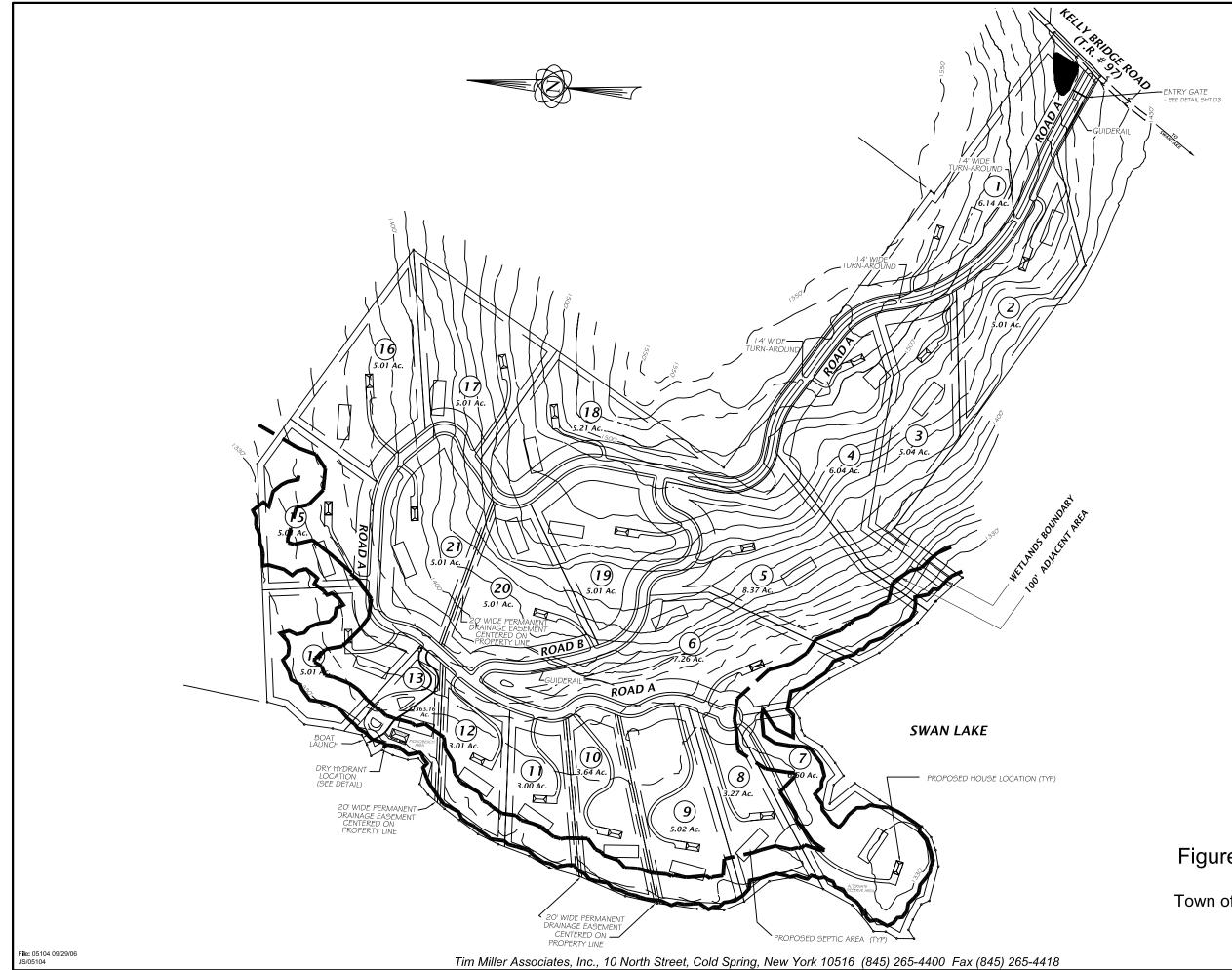


Figure 2-4: Kelly Bridge Key Plan Swan Lake Estates Town of Liberty, Sullivan County, New York Source: Wasson Engineering, Rev. 1/24/05 Scale: 1" = 350'

2.1.2 Access

The Kelly Bridge Road Subdivision will create 20 new single family homes that will take access from a curvilinear access road, approximately 5,800 feet long, through the property connecting to Kelly Bridge Road. A secondary internal road, approximately 1,400 feet long, connects to the main access at two points, creating an internal loop. These access roads will be 30 feet in width within a 50-foot right-of-way. The new access roads will be owned and maintained by a Homeowner's Association after completion of the development.

Each new house site will be accessed by its own driveway. Driveways will be 12 feet wide and will have a turnaround area next to the house.

Homeowners will access the hamlet of Swan Lake by travel on Kelly Bridge Road, County Road #142 and County Road #15. Kelly Bridge Road can also be accessed from Ferndale Loomis Road to the northeast.

2.1.3 Land Use and Zoning

Land in the vicinity of the Kelly Bridge Road project site is predominantly zoned for residential uses of various densities. The majority of land in the vicinity is zoned RD, Rural Development, or AC, Agricultural Conservation. Property located on the south shore of Swan Lake is zoned RS, Residential Settlement, and RH, Resort Hotel. The RS district extends north along both sides of Kelly Bridge Road and along the southern border of the Village of Liberty. The IC, Industrial Commercial, zoning district occurs along both sides of NYS Route 17.

The project site is currently zoned as Rural Development (RD) as is contiguous land to the north and east. Other RD zoning districts are located north of Route 52 near the Youngsville area and to the southeast, east and northeast of the Village of Liberty. Land zoned AC, Agricultural Conservation, is adjacent to the northwest boundary of the project site.

Present RD zoning allows single family dwellings and customary accessory uses such as garages; barns, sheds, and stables; and swimming pools as-of-right. The following uses are allowed by-right:

- Livestock, poultry or dairy farming;
- Raising crops, orchards or vineyards;
- Greenhouses, nurseries and tree farms;
- Hunting or fishing camps and wildlife preserves;
- Kennels;
- Boarding or tourist homes;
- Convenience retail establishments;
- Personal service shops;
- Business and professional offices;
- Restaurants and taverns;
- Funeral homes; and,
- Summer camps.

A Special Use permit is required for the following uses:

- Natural resource extraction and processing operation;
- Farm equipment sales and service operations;
- Commercial stables and riding academies;

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- Cemeteries;
- Animal hospitals;
- Farm and garden stores and feed and fertilizer businesses;
- Auction barns;
- Single-family cluster development;
- · Sawmills and other wood products industries;
- Public and semi-public uses;
- Essential services; and
- Ski areas.

Table 2-1 below lists the various bulk requirements applicable to the project.

Table 2-1 Compliance with Bulk Requirements - Kelly Bridge Road Subdivision						
	Required Minimum Required Maximum					
					Building Coverage	
60,000	200	50	25	25	35 feet	15%

The Kelly Bridge Road subdivision will result in a total of 20 new homes on 114 acres, which is a density of one dwelling per 5.7 acres.

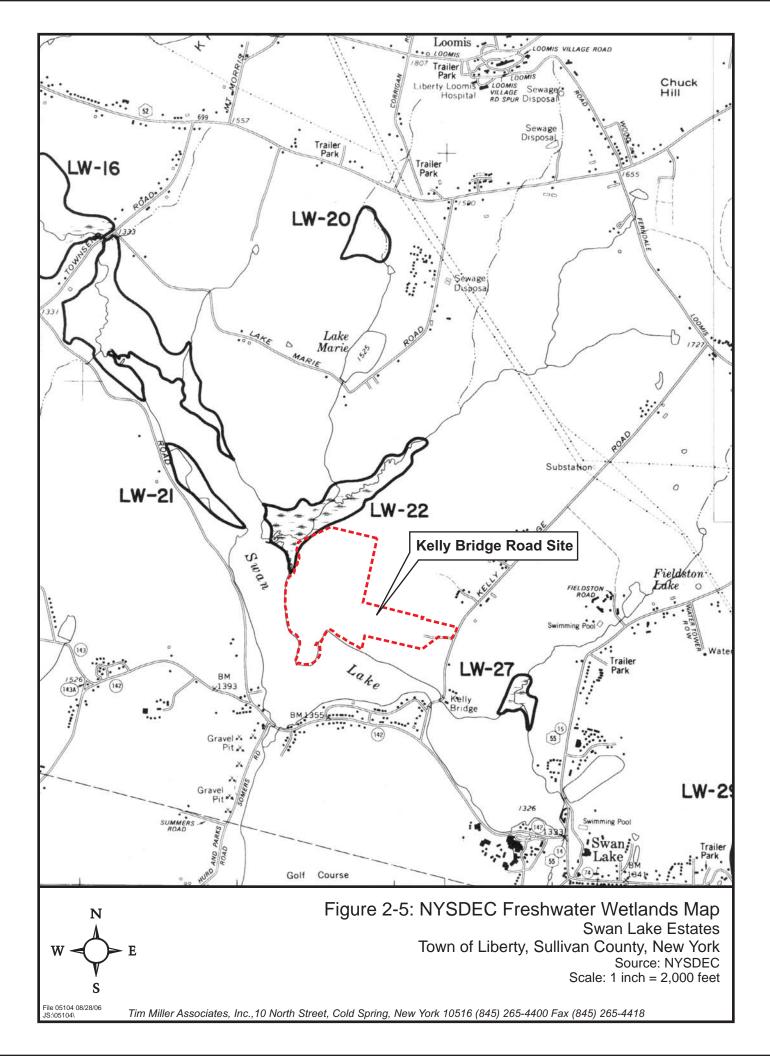
2.1.4 Environmental Characteristics

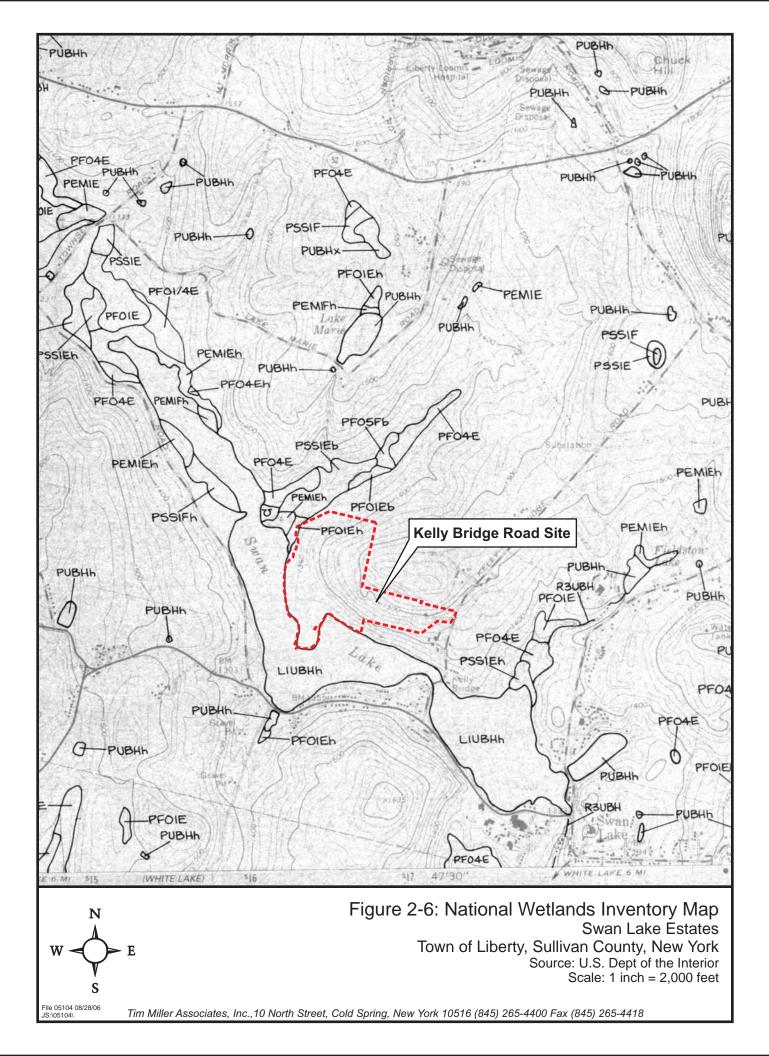
The site contains wetlands (A and B), totaling approximately 5.11 acres in size, which border Swan Lake. All wetland areas on the property are regulated under Federal and State laws and fall under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and the New York State Department of Environmental Conservation (NYSDEC) respectively. These previously unmapped wetlands are associated with the State mapped wetland LW-22 which is located to the northeast of Swan Lake between the two proposed subdivisions (Figure 2-5, NYSDEC Freshwater Wetlands Map). At the federal level, this wetland fringe ties to mapped palustrine forested and palustrine emergent wetlands to the west of the site (Figure 2-6, National Wetlands Inventory Map). No other wetlands are located on the project site.

The portions of the State wetland on the site were delineated by NYSDEC in December, 2004. A jurisdictional determination was not sought from the USACE as resources regulated by this agency will not be impacted by the proposed development. The 100-foot wide State regulated wetland adjacent area is depicted on the project plans.

The vast majority of the Kelly Bridge Road site is characterized by mature second growth deciduous forest with an area dominated by conifers in the northern most corner. The site has a well developed tree canopy, although the presence of stone walls indicates that the site was probably more open in the past and had been used for various farming activities. Vegetation in the wetlands on this site include highbush blueberry, sensitive fern, soft rush and red maple. The lake shore also supports several large white pines and dead trees (snags).

Overall, the site vegetation appears to be healthy and productive. Species abundance appears to be typical for a second growth upland community. The under story is generally open in the





interior of the site and denser near the site boundaries, in the areas of fallen trees and in the wetlands. The proposed road has been cleared and graded.

As noted above, none of the previously identified bald eagle nesting sites are located on the proposed Kelly Bridge Road site. However, the large trees and especially the white pines and snags along the lake shore provide the eagles with roosting habitat.

The Kelly Bridge Road development will replace approximately 33 acres of wooded land with roadway and developed house lots consisting of impervious surfaces (roadway, driveways, and buildings) and landscaped areas. Upon completion, new impervious surfaces will cover approximately 12 acres of the project site. Disturbed areas that are not paved or otherwise built upon will be restored with lawns and landscaping, covering some 21 acres of the site. A summary of project site disturbance is provided in Table 2-2.

Table 2-2 Disturbance Calculations - Kelly Bridge Road Subdivision (Acres)			
	Existing Acreage	Disturbed Acreage	Post-Development Acreage
Forested	108.91	33.00	75.91
Meadow	0.00	0.00	0.00
Wetlands	5.11	Less than 0.01	5.11
Landscaped Areas/Lawns	0.00		21.00
Impervious Surfaces	0.00		12.01
TOTAL	114.02	33.00	114.02
Source: Wasson Engineering, 2006			

2.1.5 Site Utilities

The Swan Lake Estates site is not serviced by town water or sewer. The Town water and sewer districts provide services to residences on the south side of Swan Lake along Shore Road, Swan Lake Road and County Road #142. Service has not been extended to the north. As a result, the residences proposed for the development will be served by individual wells and subsurface treatment systems (SSTS).

2.1.6 Road Network

Kelly Bridge Road (Town Road #97) runs roughly northeast/southwest terminating at County Road #142 to the south and Ferndale Loomis Road (Town Road #3) to the north. Ferndale Loomis can be used to travel to Route 52 and Route 55 northwest of the proposed development. County Road #142, an east/west route in the vicinity of the proposed project, intersects with Route 55 in Swan Lake. Lake Marie Road (Town Road #84) terminates at Townsend Road (Town Road #70) to the west and Route 52 to the north. Townsend Road can be used to access either County Road #142 via Shore Road (Town Road #85) or Route 52. Several County Roads lead to Route 17 to the east. Route #52 runs through both Liberty to the northeast and White Sulfur Springs to the northwest.

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2.2 Project Purpose, Need and Benefits

Sullivan County and the Town of Liberty are areas of steadily growing population and continuing demand for housing. The development of the site into a residential subdivision will provide much needed new housing stock. The proposed project will provide a modern residential neighborhoods for persons seeking to live in the Town of Liberty, and would produce a modest, sustainable use of land that is currently underutilized.

2.2.1 Project Purpose and Need

This project is being proposed consistent with the Town of Liberty Zoning Districts to address the need for low density housing in a location that is accessible to major transportation routes in the region. The proposed development will help ensure that the Town maintains an adequate supply and range of housing stock.

The proposed project intends to address the public and community objectives by accomplishing the following:

- Increase the Town's housing stock and help satisfy the demand for single family residences in the Town of Liberty and in Northern Sullivan County;
- Create a financially viable project that is compatible with the Town Zoning Ordinance;
- Achieve a balance between development that will house new community members and the cost of community services to support that development;
- Preserve existing bald eagle nesting habitat, wooded and wetland areas and wetland adjacent areas to protect potentially sensitive habitat and minimize the fragmentation of wildlife habitat.

2.2.2 Benefits of the Project

Development of new housing in Liberty will provide social benefits to the local area and the region by increasing its workforce and the available pool of civic minded residents, some who may be volunteers in local social services. Additionally, new homeowners who will reside at Swan Lake Estates will utilize area retail, personal service, and other commercial services. It is the Applicants assessment that this development would increase both the tax base and the money available to be spent at businesses on retail goods and services. A portion of these expenditures would be made at local area restaurants, supermarkets, convenience stores, apparel and household goods stores. In addition, the proposed development will increase the demand for service related businesses (e.g. landscaping, home maintenance).

Some of the benefits of the proposed project are the following:

- Provides new housing stock to meet the continuing demand and ownership opportunities for housing in the Town of Liberty and Sullivan County;
- Provides a low density residential area at roughly one home per 5.5 acres;
- Provides short-term employment during construction for an estimated 30 to 40 persons including secondary employment/economic benefits for local and regional businesses resulting from the construction activities;

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- Preserves approximately 81 acres of land (71 percent of the site) as open space and undisturbed natural habitat;
- Preserves virtually all of existing wetland habitat and the vast majority of the wetland buffer; and
- Preserves, in perpetuity, roughly 31 acres of land across the lake from the proposed developments in conservation easement which supports three nest trees and other important bald eagle habitat around nest trees including roosting sites on Swan Lake.

2.2.3 Objectives of the Applicant

The Applicant intends to subdivide the project site, install the required infrastructure and develop an exclusive, single-family, residential, lakeside community providing recreational opportunities on Swan Lake in creating a financially viable project. The project responds to a demand for high quality, 4-bedroom housing in the Town of Liberty and Sullivan County. This particular project is of a low density (approximately 0.2 units per acre) and is expected to support housing developed in conformance with the Town's Zoning Ordinance which permit single family residential development on 1.37 to 2.00 acre lots.

2.3 List of Required Approvals and Permits

Approvals and referrals required for this project and agencies having approval and permitting authority for the proposed action ("Involved Agencies") are listed below.

State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater (GP-02-01)

New York State Department of Environmental Conservation, as Lead Agency Region 3, Division of Environmental Permits and Bureau of Wildlife 21 South Putt Corners Road New Paltz, New York 12561-1696

Article 24 Freshwater Wetlands Permit

New York State Department of Environmental Conservation, as Lead Agency Region 3, Division of Environmental Permits and Bureau of Wildlife 21 South Putt Corners Road New Paltz, New York 12561-1696

Subdivision Approval

Town of Liberty Planning Board 120 North Main Street Liberty, New York 12574

Realty Subdivision Approval - Septic Systems and Wells

New York State Department of Health Corning Tower Empire State Plaza, Albany, NY 12237

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Chapter 3.0

Existing Setting, Potential Impacts, and Mitigation Measures

3.0 POTENTIAL ENVIRONMENTAL IMPACTS

Introduction

This section of the DEIS evaluates the potential significant impacts to natural resources that may result from the proposed development projects. The focus of this section, per the adopted Scope, is the bald eagle.

3.1 Wildlife

The project site is located near nest sites used by bald eagles (*Haliaeetus leucocephalus*). The bald eagle is a federally- and State-listed threatened species. As such this bird species is afforded protection under both state and federal laws. As a result of the bald eagle's recovery, the USFWS is considering delisting this species; removing it from the list of species protected under the Endangered Species Act. If delisted, the bald eagle will continue to be protected under "The Bald and Golden Eagle Protection Act", "The Lacey Act" and "The Migratory Bird Treaty Act". The USFWS has also developed "Draft National Bald Eagle Management Guidelines" (dated February 2006) that will "...apply to bald eagles...in the event the species is no longer listed as threatened under the Federal Endangered Species Act (ESA)." The public review of this document ended in June of 2006.

Existing management guidelines, including the Northern States Bald Eagle Recovery Plan¹ (copy of the cover sheets provided in Appendix B; available online) and BAEA Management Guidelines² (relevant portions included in Appendix B), have been generated to provide measures that can be taken to protect and maintain existing bald eagle populations throughout its range in the U.S. including the incorporation of protection zones around known nesting trees.

The proposed mitigation for impacts associated with the development of the Swan Lake Estates is based on the later as it is a more recent document, is more protective of eagles and was provided to the Applicant by the NYSDEC. A copy of these guidelines can be obtained from the New York State Department of Environmental Conservation (NYSDEC) and/or the U.S. Fish and Wildlife Service. Relevant pages of this document are included in Appendix B of his document. These guidelines establish Primary (330 to 750 foot radius) and Secondary (660 to 1500 foot radius) Protection Zones around eagle nest trees. The Guidelines acknowledge that "[z]one boundaries are most effective if customized to individual sites through case-by-case review" and that the "...zones should be adjusted to accommodate physical features of the landscape and the tolerances or special needs of eagles at individual sites." A list of acceptable and unacceptable activities for each of the protection zones are defined in this document.

The NYSDEC Bald Eagle Fact Sheet³, which contains a description of the species, information on the birds life history, its distribution and habitat in the state, its protected status, and information on management and research needs can also be found in Appendix B herein.

¹ U.S. Fish and Wildlife Service. 1983. Northern States bald eagle recovery plan. U.S. Fish and Wildlife Service, Twin Cities, Minnesota. 76 pp.

² U.S. Fish and Wildlife Service. 2000. BAEA Management Guidelines. 15 pp.

³ New York State Department of Environmental Conservation. 2006. Bald Eagle Fact Sheet. Website: http://www.dec.state.ny.us/website/dfwmr/wildlife/endspec/baeafs.html.

3.1.1 Existing Conditions

General Vicinity

The area surrounding the project sites and Swan Lake consists predominantly of forested uplands, various wetlands, streams, lakes and ponds and sporadic residential development and agricultural lands.

Swan Lake and the surrounding terrestrial habitat have supported a pair of nesting bald eagles for at least the past eleven years (2006 included). These eagles have nested in a total of five large white pine trees (*Pinus strobus*) on or in the immediate vicinity of the lake's shoreline⁴. The Overall Lake Plan contained in the Bald Eagle Mitigation Plan prepared for this project (Appendix C) depicts the location of the five nest trees (A, B, C, D and E) on Swan Lake. Two of these trees (D and E) are located on the property where the Lake Marie Road subdivision was proposed (see the Conceptual Subdivision Plan for the Lake Marie Road site contained in the Appendix C, Bald Eagle Mitigation Plan) with the remaining three trees (A, B and C) clustered on a peninsula on the opposite side of the lake from the proposed subdivision. Additional mature trees along and in the immediate vicinity of the lake's shoreline, including some on the proposed development site, represent good roosting habitat for these birds.

Four of the five nest trees (A, B, C and E) are in areas with little or no recent disturbance. The fifth tree (D) is within approximately 100 feet of a mowed lawn and a cleared access path that leads down to the lake. Both cleared areas are associated with an existing cabin on the what was the proposed Lake Marie Road project site.

The eagles nested in the cluster of three trees across the lake from the proposed subdivision in 1996 through 2000 and again in 2005 and 2006. Nest tree E located closest to the lake and furthest from the cleared areas near the existing cabin was used by this pair of eagles in 2003 and 2004. The tree nearest the cabin (D) was the location of an active nest in both 2001 and 2002.

In addition to eagles, the woodlands in the vicinity of and on the proposed development sites provide wildlife habitat for a number of local species, including deer, raccoon, opossum, chipmunks, and squirrels. Regionally, bird species that reside or nest within canopied forests, at the forest edge and in the open meadows are also likely to be present, including woodpeckers, thrushes, owls, and warblers. The mature trees and snag trees on these sites also offer a number of cavity nesting opportunities for woodpeckers, owls and small mammals.

Currently, there are residences along the southern end of Swan Lake to the west of Kelly Bridge Road and to the north of County Road #142. Many of these residences are occupied year round and some have floating docks from which gasoline powered boats are operated.

Kelly Bridge Road Subdivision

The vast majority of the Kelly Bridge Road site is characterized by mature second growth deciduous forest with an area dominated by conifers in the northern most corner. The site has a well developed tree canopy, although the presence of stone walls indicates that the site was

⁴ New York State Department of Environmental Conservation. 2005. NY: 30 Swan Lake Eagle Nesting Territory, Sullivan Co. Confidential Information of the NYSDEC Division of Fish, Wildlife, and Marine Resources, Endangered Species Unit.

probably more open in the past and had been used for various farming activities. The age class of the woodlands on site is rather uniform, with most of the overstory comprised of pole to saw-timber sized deciduous hardwoods. The trees forming the canopy in the deciduous forest include American beech (*Fagus grandifolia*), maples (*Acer* spp.), yellow birch (*Betula lutea*), and black cherry (*Prunus serontina*). The northern, coniferous portion of the site is dominated by a mix of eastern hemlock (*Tsuga candensis*) and white pine with individuals of the deciduous tree species, noted previously, interspersed. Individuals of the two conifer species can be found within the deciduous forest as well.

The portion of the site adjacent to Swan Lake supports a fringe wetland (under the jurisdiction of both the State and Federal governments) which varies in width from zero to approximately 100 feet and totals approximately 5.11 acres in size. To the northwest of the property is a State (LW-22) and Federally mapped wetland. LW-22, which is approximately 150 acres in size, is considered a Class II wetland by the NYSDEC. The off-site wetland contains a stream (NYSDEC Class B(t); Water Index Number D-10-22-P128-3) that flows from roughly northeast to southwest and discharges into Swan Lake. Both on-site wetlands can be classified as a mix of palustrine forested, palustrine scrub shrub and palustrine emergent wetlands. Vegetation in the wetlands on this site include highbush blueberry, sensitive fern, soft rush and red maple. The lake shore also supports several large white pines and dead trees (snags).

The portion of the State wetland on-site was delineated by NYSDEC in June 2005. A jurisdictional determination from the USACE was not sought as impacts to these resources associated with the proposed development fall well below the trigger threshold for requiring permits from this agency. The 100-foot wide State regulated wetland adjacent area is depicted on the project plans.

Overall, the site vegetation appears to be healthy and productive. Species abundance appears to be typical for a second growth upland community. The under story is generally open in the interior of the site and denser near the site boundaries, in the areas of fallen trees and in the wetlands. The proposed road has been cleared and graded.

As noted above, none of the previously identified bald eagle nesting sites are located on the proposed Kelly Bridge Road site. However, the large trees and especially the white pines and snags along the lake shore provide the eagles with roosting habitat.

Swan Lake

Swan Lake is an approximately 352 acre impounded open water body immediately to the south of the proposed development site. It is classified as a Class B water body by the NYSDEC and has been assigned the Water Index Number D-10-22-P128. Lake depths range from six to seven feet near the dam at Kelly Bridge Road, four to six feet near the proposed development, three to five feet in the area of nest trees A, B, and C, and two to four feet in the vicinity of nest trees D and E. At the northeast end of the lake, depths are shallowest with emergent aquatic vegetation in water less than one foot. Wetland and aquatic vegetation are present along lake shoreline where water depths are shallow or at or just below the ground surface.

In addition to the wetlands on the project site, there are other State- and federally-mapped wetlands along the lake shore. The State mapped wetland LW-16, which is located on the northwest end of Swan Lake, extends just over two miles to the north west of the end of Swan Lake (Liberty West Quadrangle). This wetland is considered a Class II wetland by the

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NYSDEC. At the federal level, this wetland fringe is mapped as a series of palustrine forested and palustrine emergent wetlands. State mapped wetlands LW-21 (northwest of nest trees A, B and C) and LW-27 (east of Kelly Bridge Road on the northern side of the lake) also border the lake. LW-21 is mapped as an emergent scrub/shrub wetland complex on the NWI while LW-27 is depicted as a scrub/shrub and forested wetland. One additional wetland area mapped only at the federal level is a pond with an associated forested wetland located on the opposite side of the lake from the proposed development and on the south side of Route 142.

Two unnamed tributaries to Swan Lake (NYSDEC Water Index Numbers D-10-22-P128-2 and D-10-22-P128-12) run roughly north to south flowing into Swan Lake on its northeast side to the west of the project site. The eastern most tributary flows through State wetland number LW-20 and Lake Marie prior to discharging into Swan Lake. The western most tributary flows through the east end of wetland LW-16. Both of these tributaries are classified as B(t) streams affording them protection under State law.

A tributary (Water Index Number D-10-128-1, Class B) to Swan Lake flows through the lower portion (mouth to where it crosses White Sulphur Road) of wetland LW-16. Sub-tributaries to this watercourse include Krom Hollow and five others including one that flows through wetland LW-15 and one that flows through wetland LW-14.

Another tributary to the lake flows roughly northeast to southwest through wetland LW-27 before discharging into the lake. The State Water Index Number and Classification for this watercourse are D-10-128-4 and B(t) Respectively.

The watercourse that flows over the dam and out of Swan Lake (Water Index Number D-10-22) is classified as B by NYSDEC. This watercourse, the West Branch of the Mongaup River, flows roughly south and converges with the Mongaup River just north of the Swinging Bridge Reservoir. The reservoir, used by Mirant Corporation for the purpose of power generation, is currently dewatered to allow for repair of the dam. The Mongaup River ultimately flows into the Delaware River.

Swan Lake supports a variety of waterfowl, including mute swan, mallard, merganser and Canada geese, and fish, including small and large mouth bass, perch, sunfish, crappies, bullhead and pickerel.

The pair of bald eagles nesting on Swan Lake do so because large white pines and other tree species along the shore and in close proximity to the lake provide good nesting and roosting habitat and the existing fish and waterfowl populations provide sufficient food resources to support the pair and their offspring.

3.1.2 Potential Impacts

It has been documented that interactions between eagles and humans has resulted in a variety of eagle reactions from temporary, flying from one roost to another, to more permanent, including the abandonment of a nest site. However, eagle responses to these interactions and the threshold at which these interactions become intolerable to the eagle(s) vary among the population (BAEA Management Guidelines, Appendix B). The pair of eagles using Swan Lake have had, at a minimum, an eleven year history of interacting with and successfully nesting in close proximity to humans.

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Recent observational data suggests that bald eagles are becoming more tolerant of human disturbance near nesting sites with some states reporting urban nesting populations.⁵ Analyses of studies conducted by Florida's Game and Freshwater Fish Commission (GFC), indicate that productivity of nests in urban areas do not differ significantly from nests in more rural areas.⁶ In addition, the Pennsylvania Game Commission's 2001 Wildlife Management Annual Report found that in the two years prior to the study, Bald Eagle nest sites were significantly closer to human structures and roads than were nest sites established in earlier years.⁷ Finally, a pair of bald eagles was observed building a nest in Washingtonville, in Orange County this past March. According to reports in the Times Herald-Record Newspaper, the eagles had initially chosen a dead tree behind a residence.⁸

Past and existing conditions that the current pair of eagles nesting on Swan Lake have been exposed to include: swimming by local residents; boating in both gasoline and human powered water craft; and fishing from boats and the shore. The eagles appear to be unaffected by the habitation of the existing residences along the shoreline and some of the activities on and in the vicinity of the lake. However, nestling mortality was observed in 1999 when boaters flushed adults from one of the nest trees and movement of the adult birds from Nest Tree D was observed following clearing and mowing of the foot path from the cabin located on Lake Marie Road. While it should be noted that some, if not all, of these human activities were ongoing prior to this pair of eagles choosing to nest on Swan Lake, human activity in close proximity to the nest tree has effected this nesting pair of eagles.

Looking to the future, the impacts associated with the proposed subdivisions would include both short-term effects due to the construction of the proposed single family homes and required infrastructure, mainly increased noise resulting from lot clearing, grading and building activities and alteration of habitat near the lake, and long-term effects of home occupancy, mainly increased noise and visual impacts related to human activity near and on the lake and the permanent change of forested habitat in the vicinity of the lake to homes, roads and maintained lawns.

Distances between nest trees A, B and C and the proposed home locations can be seen on the Overall Lake Plan, Appendix D of the Bald Eagle Mitigation Plan. At roughly 1550 feet distant, outside the Secondary Protection Zone, the building on the Common Lot (Lot 13) is the closest to a nest tree. The closest dock, that proposed for the Common Lot, is approximately 1450 feet from the closest nest tree. Nest trees D and E are over 3800 and 3000 feet from the nearest proposed building (Lot 14) respectively and further from the closest proposed dock. Where there is a direct line of site between trees A, B, and C and the proposed development, none exist between trees D and E and the project site.

Noise during construction of the developments may cause the eagles to move to quieter areas on the lake to roost and forage. This impact would be short term and temporary. The eagles would be expected to continue to use roost trees and forage in the lake once noise levels return

⁵ Clark, Gary. "Regal Eagles". *Texas Park and Wildlife Magazine*, March 2006. Texas Parks and Wildlife Website: http://www.tpwmagazine.com/archive/2006/mar/ed_4/.

⁶ U.S. Fish and Wildlife Service Southeast Region. May 18, 1999. *Multi-Species Recovery Plan for South Florida*. Page 2-245. Website: http://www.fws.gov/southeast/vbpdfs/species/birds/baea.pdf.

⁷ Pennsylvania Game Commission - Štate Wildlife Management Agency. *2001 Wildlife Management Annual Report: Wildlife Diversity Section*, "Bald Eagle Breeding and Wintering Surveys". Website: http://www.pgc.state.pa.us/pgc/cwp/view.asp?a=490&q=154094&pp=12&n=1#71101.

⁸ Kristina Wells. March 30, 2006. "Bald Eagles pick Washingtonville". Time Herald-Record. Website: http://www.recordonline.com/archive/2006/03/30/news-kweagleatr-03-30-06.html.

to an acceptable level. While construction activity is ongoing, it is anticipated that the eagle pair will continue to use the nest trees on the opposite side of the lake from the proposed subdivisions. Noise related to home occupancy would be at levels less than those during construction and, since the eagles already live with this type of noise, would likely not have significant impact on eagle activity whether on-site or on the lake.

The eagle habitat on the site will not be significantly impacted as a result of the alteration of existing habitats in the internal portions of the sites. The roosting habitat along the lake shore of property will be undisturbed by the proposed development. Houses will be set back a minimum of 200 feet from the lake shore (with the exception of the house on the peninsula, Lot 7, where the available home site configurations limit setback distances) and lot clearing which will be limited to the area immediately surrounding the home.

Potential impacts related to the proposed access paths to the lake and docks is not expected to be significant. The paths from the private and common lots have been designed to limit impacts to eagles by prohibiting the cutting of trees and configuring the paths to limit direct line of site to the eagle nest trees across the lake. As a result none of the eagle roost trees along the shoreline will be impacted. Use of any of the proposed lake access paths will likely cause an eagle roosting in a tree in close proximity to the path to relocate. Impacts to foraging, and nesting is not anticipated as a result of the use of the paths on either of the two sites.

After five years of nonuse, a nest tree is considered inactive; the nest is no longer considered a viable option for the territorial pair of eagles and is therefore afforded no protection. Nest Tree D, which is in close proximity to the existing lawn and lake access path associated with the cabin on Lake Marie Road, has not been used over the past four seasons, since 2002. In addition, with the remaining four nest trees in more isolated areas and closer to the lake, it is expected that this tree will likely not be used again.

Impacts to the eagles and their roosting, foraging and nesting habitat resulting from use of the lake and proposed docks, while not anticipated to be significant, may occur. While the pair of eagles that nest on Swan Lake have been doing so in conjunction with the use of lake for recreational purposes, including the use gasoline powered boats on the lake, the proposed development will increase the number of people using the lake for recreation, thereby increasing the level of human/eagle interaction. The pair of eagles was flushed from a nest site by boaters in 1999.

The proposed Common Lot dock and those for Lots 9, 10, 11 and 12 will be in a direct line of sight from the eagle nest trees A, B and C but not from trees D and E. Distances to these docks from the closest of the nests (C) range from 1450 to 2190 feet. These docks are relatively small in size and are to be used by home owners and their guests for swimming and launching non-gasoline engine and/or human powered boats. Due to the distance to the nest trees, swimmers are not expected to impact the eagle nest sites. An eagle roosting or foraging in the area of the docks will likely move to another location on the lake. The use of kayaks canoes and small electric motor powered boats may temporarily alter the eagles roosting and foraging activities as well. With the proposed mitigation measures in place, impact to the nest sites are not anticipated as a result of this type of recreation.

Fish are the bald eagle's main prey and as a result this bird species generally nests and roost in close proximity to relatively large water bodies that support a fishery sufficient to provide the

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food they require. Bald eagles will also prey on waterfowl. Swan lake provides habitat for a variety of both fish and waterfowl.

The Swan Lake Estates development will have limited impact on Swan Lake itself. Stormwater and erosion and sediment control plans for the proposed subdivision will comply with all applicable state regulations. All the stormwater running off of the developed sites will meet state requirements for quantity and quality. As a result, impacts to foraging habitat for these eagles is not anticipated.

Impacts to bald eagle winter habitat would not result from the development of the proposed project. Swan Lake freezes over during the winter. Bald eagles require open water to forage for their main food source, fish. As a result the nesting pair would travel to a location where open water and a reliable food source is present throughout the winter. Eagles from this region travel to areas as close by as local reservoirs and the Hudson River to as far away as the Chesapeake Bay.

The project, as proposed, will have no impact to the lands contiguous to Swan Lake. The Applicant has no plans for further development in the area.

The potential impacts identified above will be offset by mitigation measures developed in collaboration with NYSDEC. These measures are documented in the Bald Eagle Mitigation Plan (Appendix C) and in the following section of this DEIS.

The 19 lot subdivision originally proposed for the Lake Marie Road parcel has been withdrawn, therefore impacts associated with that development no longer exist.

3.1.3 Proposed Mitigation Measures

This section contains the language in the Bald Eagle Mitigation Plan (the Plan) for the Swan Lake Estates Developments along with additional items requested by the NYSDEC after the Plan was completed. Mitigation measures were guided by information presented in the BAEA Guidelines for Managing Bald Eagles (dated November 2000) available from the NYSDEC. This document "supersedes" the older Northern States Bald Eagle Recover Plan (dated July, 1983).

As noted in the National Guidelines for Managing Bald Eagles, "[v]arying levels of protection for eagles may be needed due to differing eagle responses to human activity or site-specific factors such as topography and vegetation." The guidelines encourage land owners to work cooperatively with state or federal wildlife agencies "...to address management issue." Consistent with this guideline, the Applicant has met with representatives from the NYSDEC Bureau of Wildlife, Endangered Species Program on several occasions including once at the originally proposed project sites (Kelly Bridge and Lake Marie Road) on Swan Lake, to develop a site-specific plan to mitigate for impacts to bald eagles and their habitat associated with the proposed Kelly Bridge Road and Lake Marie Road subdivisions. This collaborative effort led to the agreement that the following mitigative actions would be employed by the Applicant as part of the overall development plan to offset the above-identified impacts.

It is important to note that this particular pair of eagles has been able to successfully nest on Swan Lake with the existing level of human activity and noise associated with the homes, boats and other ongoing recreational activities. However, human activities in close proximity to a nest tree has negatively impacted this pair of eagles in the past.

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Kelly Bridge Road Subdivision

The proposed Common Lot 13 dock has been relocated from the original proposed location to a point as far south along the shoreline as practical, thereby maximizing the distance between it and eagle nest trees "A", "B" and "C" (see Appendix D, Overall Lake Plan of the Bald Eagle Mitigation Plan) and reducing visual impacts to the nesting eagles.

While owners of Lots 3 through 12 can have their own floating docks, only those at Lots 9 through 12, if installed, would be visible from the eagle nest trees "A", "B" and "C" at distances ranging from 1450 to 2190 feet (see Appendix D, Overall Lake Plan of the Bald Eagle Mitigation Plan). None of the proposed docks would be visible from nest trees "D" or "E".

The width of the proposed pathways from the homes to the lake shore on Lots 3 through 12 has been reduced from the originally proposed 12 feet to 8 feet. In addition, the diameter at breast height of saplings and shrubs that can be removed to create these pathways is now three inches down from the originally proposed four inches. The Homeowner's Association documents will be modified to reflect these changes. All clearing required to create the proposed pathways would be done by hand to reduce potential noise impacts. Finally, each pathway has been reconfigured to incorporate a curve to increase the distance to the nest trees and eliminate a direct line of sight from the lake and the nest trees to the proposed homes. Refer to Appendix B of the Bald Eagle Mitigation Plan for details on all of these mitigation measures.

Clearing outside of the pathway limits in the wetland and its associated adjacent area would be prohibited. As a result existing roost trees along the lake shore on the project site will remain undisturbed and visual impacts minimized.

In order to avoid visual impacts to nesting eagles, seasonal restrictions are generally placed on construction activities nearby nest trees. At distances beyond the limits of the secondary protection zone, visual impacts remain a concern depending upon the local landscape and vegetation. In the past, the NYSDEC has required that all construction activities within one half mile of a nest tree and in direct line of sight of the nest be seasonally restricted (i.e. no development between the beginning of January and the end of August).

The development as proposed, while less than one half mile from nest trees A, B and C, will not be in direct line of sight of the trees as the plan maintains an area between the proposed development and the lake shoreline in which vegetation, including all trees and the vast majority of shrubs, will remain undisturbed. Homes on Lots 7 through 14, the lake shore lots in direct line of sight of nest trees A, B and C, are proposed to be located at least 200 feet from the lake shoreline. SSTS for these homes are to be located roughly 100 to 200 feet from the lake shore. On Lot 7, the clearing associated with the drive, the area of disturbance closest to the nest trees is proposed to be approximately 80 feet. As a result of the vegetated buffer to be protected along the lake shore between the nest tees and the proposed development, including all mature trees, visual impacts should not occur and mitigation is therefore not proposed.

The Applicant has agreed to place tax parcel 44-1-2.5, the roughly 31 acre lot that contains eagle nest trees "A", "B" and "C", in a conservation easement. Refer to Appendix D of the this DEIS for a copy of the updated draft of the Deed of Conservation Easement revised in accordance with the NYSDEC's most recent comments. The three eagle nest trees and the

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surrounding terrestrial habitat on the property are to be protected in their natural state in perpetuity. Any proposed change to this protection would require NYSDEC consent. As part of the declaration, the NYSDEC will be granted the right to access the property to monitor and research eagle nesting activity.

Lake Marie Road Subdivision

The 19 lot subdivision originally proposed for the Lake Marie Road parcel has been withdrawn (Appendix A). Impacts associated with that proposal are no longer relevant and mitigation is therefore not proposed.

Swan Lake

The Applicant owns the lake and proposes to prohibit the use of any and all gasoline-powered watercraft including those currently in use on the lake. Restricting vessel access to those utilizing small electric motors, wind, oars or paddles will reduce existing noise levels and their potential future impacts on nesting bald eagles. While the NYSDEC agrees that this measure will minimize disturbance to the resident bald eagles, this is not a recommendation or requirement of the agency.

At the request of the NYSDEC, the Applicant has agreed to an additional mitigation measure to offset existing and future impacts associated with the use of boats, canoes and kayaks on the lake. Three "RESTRICTED AREA" signs will be installed in the lake at or near the agreed to primary protection zone limit (350 feet) around the three nest trees on the 31 acre parcel to be protected by a conservation easement. Refer to Appendix E of the Bald Eagle Mitigation Plan for a copy of the "RESTRICTED AREA" sign to be used. The signs will be mounted on steel poles (or similar) driven into the lake bottom to a depth sufficient to prevent them from being dislodge by the formation and movement of ice in the lake.

With the incorporation of the mitigation measures noted above, the NYSDEC has agreed that development in accordance with the restrictions identified in this document and on the included plans, will not significantly impact nesting bald eagles or their local habitat.

Chapter 4.0

Unavoidable Adverse Environmental Impacts if the Project is Implemented

4.0 UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS 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 the stabilized construction entrances to access the development sites. It is anticipated that construction trips will travel to and from the project site via County Route #142 although some may use Route 52. The heaviest volume of construction traffic is expected to occur at the beginning of the construction period as sites are cleared and rough grading is conducted, and when paving and building materials are transported to the sites. Site construction activities will comply with Town ordinances that relate to operations on a construction site.
- Potential loss of soil to erosion the proposed Swan Lake Estates project would result in grading disturbance to approximately 55 acres of land across both project sites. 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 each project site.
- 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 sites during project construction. Noise levels will vary considerably depending on the actual location of operating equipment and the type of equipment in use at any particular time. Blasting is not anticipated for the construction of the project.

Long Term Impacts

 Loss of woodland and meadow vegetation and associated wildlife habitats - In total, approximately 179 acres of the project sites will be left undisturbed to serve as natural habitat. Following construction, approximately 17 acres, of the site would become impervious. These impervious areas would no longer serve as plant or

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wildlife habitat. Proposed mitigation measures that will offset this impact include stormwater management systems to preserve water quality, restoration of approximately 39 acres of the disturbed area with lawn and landscaped areas.

Impacts associated with the use of the developed properties and Swan Lake -Increased human activity associated with home ownership and recreation on the Swan Lake, including increased noise, has the potential to impact the pair of bald eagles that nest on the lake. A mitigation plan to offset these potential impacts has been developed in collaboration with the NYSDEC and is provided in Appendix C of this DEIS. Chapter 5.0

Alternatives to the Proposed Action

5.0 ALTERNATIVES

Section 617.9(b)(5) of the regulations implementing SEQRA requires that a draft environmental impact statement include a description and evaluation of the range of reasonable alternatives to the proposed action which are feasible, considering the objectives and capabilities of the project sponsor. The range of alternatives must include the "No Build" alternative.

The Scoping Document for this DEIS requires an evaluation of the following alternatives:

- No Build Alternative
- Maximum Density Alternative
- Cluster Subdivision Alternative
- Preferred Alternative
- Conventional Alternative

These five alternatives are described and evaluated below. As per the Scoping Outline adopted for this DEIS, alternative layouts have been prepared and are compared to the proposed action's (Preferred Alternative's) impacts. The alternatives have been designed by the project engineer, Wasson Engineering. A summary of the essential elements of the alternatives considered is included in Table 5-1 at the end of this Chapter.

5.1 No Build Alternative

In accordance with SEQRA regulations, the No Build alternative must evaluate the adverse or beneficial impacts that would occur in the reasonably foreseeable future in the absence of the proposed action. Under the No Build alternative, none of the impacts identified in this report, whether adverse or beneficial, would occur. This is effectively an open space preservation alternative.

The No Build alternative would be inconsistent with the objectives of the applicant/property owner. In order for the parcels to remain in their current state or as open space, the Town or a land conservation organization would need to acquire the currently undeveloped portions for open space purposes and compensate the property owner accordingly.

For purposes of this analysis, the No Build alternative assumes that the proposed project site would remain vacant, therefore, no impacts would occur.

Flora and Fauna Resources: No disturbance of existing woodland or wetland vegetation would occur under the No Build alternative. The site would continue to provide habitat and cover for local wildlife.

Land Use & Zoning: The project site would remain vacant and available for development in any of the as of right uses permitted in the RD Zoning district. The RD zoning district requires a minimum lot size of 60,000 square feet, which would result in a maximum build-out of approximately 76 lots for this development parcel.

Construction-related Impacts: Under this alternative, the short term impacts associated with construction including noise and fugitive dust would not occur. There would be no temporary increase in vehicular traffic resulting from construction activities.

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Long-Term Use Impacts: Under the No Build condition, the long term impacts associated with use of the subdivision by homeowners, including the introduction of new noises associated with homeownership including operation of yard maintenance equipment and replacement of forest with lawns, would not occur.

5.2 Maximum Density Alternative

This alternative indicates the maximum density allowed under the current zoning designations for the parcels.

In the RD zoning district the development standards are as follows:

- Minimum Lot Size: 60,000 square feet
- Minimum Lot Width & Depth: 200 feet
- Minimum Front Yard: 50 feet
- Minimum Side Yard: 25 feet
- Minimum Back Yard: 25 feet

Applied to the Kelly Bridge Road site these parameters yield at total of 83 lots. Remove the area needed for roads, water supply and sewage treatment and the total lot count is reduced to 58.

The Maximum Density Alternative presented in this DEIS proposes a total of 53 lots, all that can be reasonably oriented on the project site given its physical constraints and layout in combination with the above lot width and depth requirements. Bald eagle nesting tree protection zones, disturbance to wetlands, wetland buffers and streams are not incorporated in this alternative.

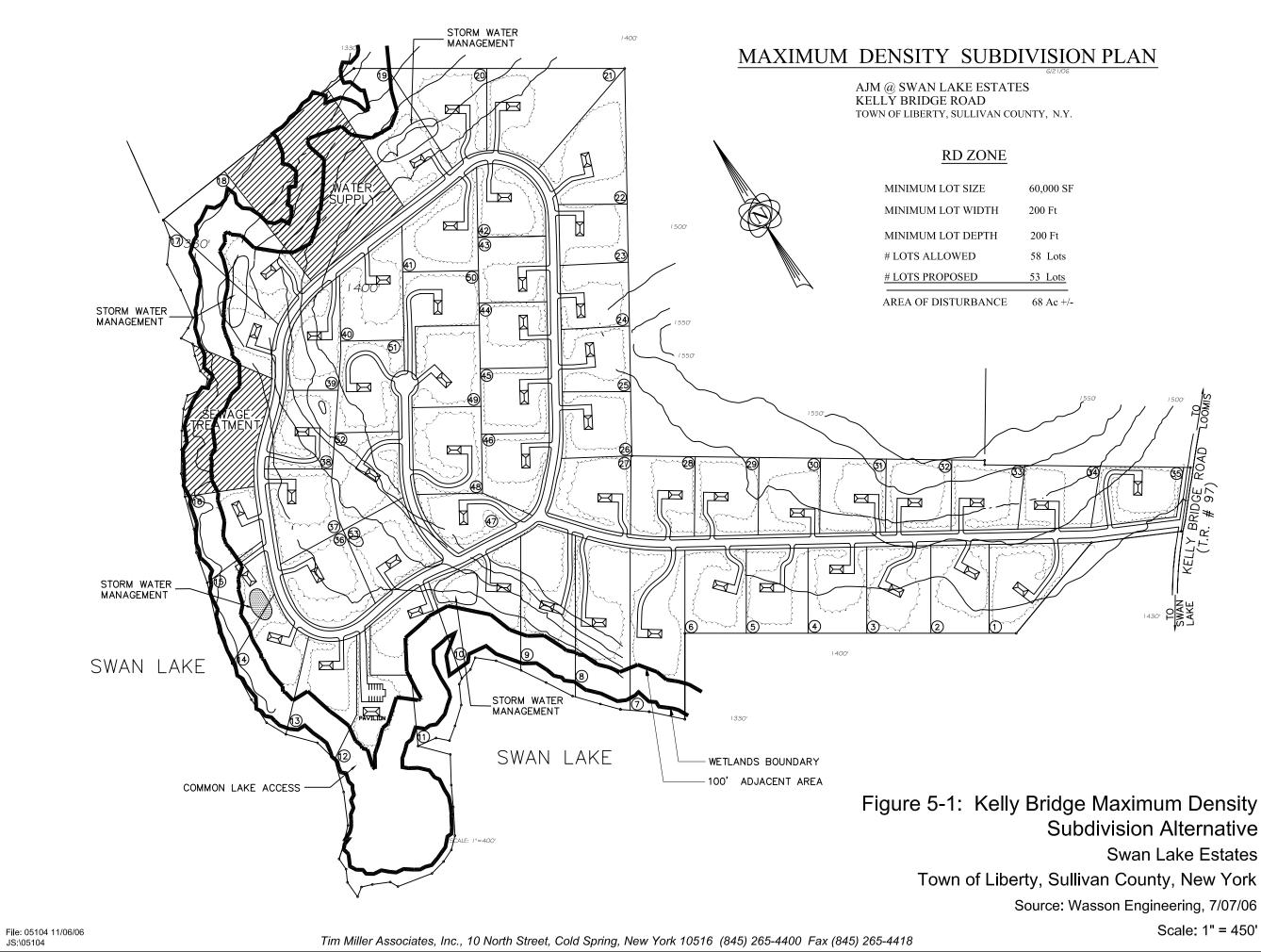
Flora and Fauna Resources: This alternative would result in a total of 68 acres of woodland disturbance, which is 35 acres more than under the proposed Preferred Alternative. Thus, the biological impact would be greater compared to the proposed action.

Land Use & Zoning: This alternative demonstrates the full build-out of the project parcel coinsuring physical constraints and lot size requirements. It would result in a total of 53 lots, one of which would be the common lot, as shown in Figure 5-1. This alternative results in 32 more lots, than the proposed Swan Lake Estates plan for the Kelly Bridge Road subdivision. Since the current zoning of the Kelly Bridge Road site is RD, the minimum lot size under this alternative is 60,000 square feet, which is approximately 1.37 acres.

Construction-related Impacts: Under this alternative, based upon the increased lot count, the short term impacts associated with construction including noise and fugitive dust would be greater when compared with the proposed plan. There would be a greater level of construction activity, thus short-term increases in vehicular traffic would be increased compared to proposed plan.

Long-Term Use Impacts: The long-term impacts associated with the Kelly Bridge Road Maximum Density Alternative would be much greater than the proposed plan, since there would be more residential lots and more areas converted to impervious surfaces or lawn. Additionally, noise from residential sources, such as lawnmowers, will be increased as a result of the increased development, as would visual impacts resulting from the recreational use of the shoreline and lake, resulting in greater potential for disturbance to the resident bald eagles.

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60,000 SF	
200 Ft	
200 Ft	
58 Lots	
53 Lots	
68 Ac +/-	

Subdivision Alternative Swan Lake Estates Source: Wasson Engineering, 7/07/06 Scale: 1" = 450'

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Finally, this alternative would result in a greater volume of traffic, both during construction and once the homes are occupied.

5.3 Cluster Subdivision Alternative

The Scoping Outline adopted for this DEIS requires the consideration of a cluster subdivision alternative that would avoid all impacts to wetlands, streams and agreed to primary protection zones (350 foot radius) for bald eagle nesting trees. Single-family cluster development is allowed by special use permit for the RD Zoning District. According to the Zoning Law, Chapter 84 of the Town of Liberty Code, clustering must occur on an area of ten acres or more and include a minimum of ten dwelling units. The density for clustering is determined by subtracting any areas within right-of-ways, proposed streets or occupied by public utility easements from the total tract area for the project and applying the minimum lot size required for the applicable zoning district. There are no maximum lot count limits associated with cluster development under the Town of Liberty Zoning Law whether tied to a maximum density subdivision plan or otherwise; i.e. in accordance with the ordinance, the cluster subdivision can have more units than the maximum density subdivision ¹.

The minimum Lot size for this project site (30,000 square feet), one-half the normal requirement under full buildout, without consideration of other constraints, would be 115 lots. The proposed conforming plan and its impacts are described below.

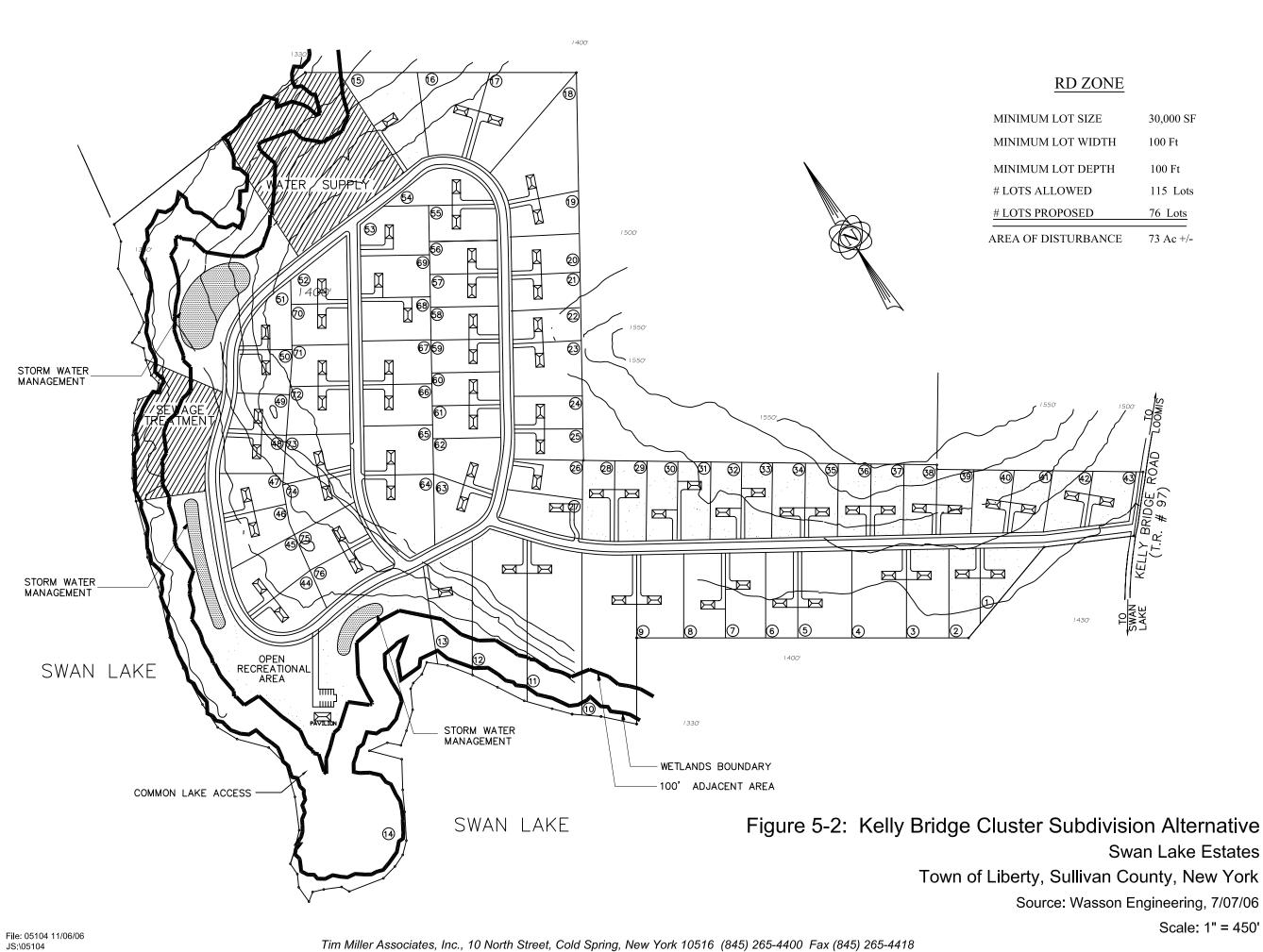
As illustrated in Figure 5-2, this alternative would result in a 76-lot subdivision when considering physical constraints, the proposed road, water supply and sewage treatment areas. This alternative is designed to create no impact to wetlands or wetlands buffers. There are no eagle protection zones or stream corridors on this parcel.

Flora and Fauna Resources: The Cluster Subdivision Alternative would result in 73 acres of woodland disturbance, which is 40 acres more than with the proposed action. As a result, impacts to natural resources would be greater under this alternative.

Land Use & Zoning: This alternative would allow a total of 76 lots, of which one would be the common lot, to be developed on the project parcel. A cluster subdivision in the RD zone requires a minimum lot size 30,000 square feet, or just under three-quarters of an acre, compared to the 60,000 square feet required for a conventional subdivision under the RD district. Home lots under the Proposed Action range from approximately 130,500 to roughly 364,500 square feet. The majority of lots under this cluster alternative would share a common driveway with one of the adjacent lots. The common lot would continue to provide recreational opportunities and lake access for the residents. The Cluster Alternative plan would result in a greater number of homes on smaller lots and more disturbance than the proposed action.

Construction-related Impacts: Under this alternative, based upon the increased lot count, the short term impacts associated with construction including noise and fugitive dust would be greater as compared to proposed plan. There would be a greater level of construction activity, thus short-term increases in vehicular traffic would be increased compared to the proposed plan.

¹ Personal telecon between the project engineer and the Town Planning Board Attorney (Mr. Walter Grigliano) on November 17, 2006.



IINIMUM LOT SIZE	30,000 SF
IINIMUM LOT WIDTH	100 Ft
IINIMUM LOT DEPTH	100 Ft
LOTS ALLOWED	115 Lots
LOTS PROPOSED	76 Lots
REA OF DISTURBANCE	73 Ac +/-

Swan Lake Estates Town of Liberty, Sullivan County, New York Source: Wasson Engineering, 7/07/06 Scale: 1" = 450'

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Long-Term Use Impacts: The long-term impacts associated with this Alternative would be increased when compared with the proposed action, since there would be an increased number of residential dwellings. Noise generated by the residential uses would also be increased as would visual impacts, resulting from the increased recreational use of the lake. This alternative would result in a greater volume of traffic on local roads, both during construction and once the homes are occupied.

5.4 Preferred Alternative

The Scoping Outline adopted for this DEIS requires the consideration of the preferred alternative. The proposed plan is the preferred alternative and is discussed in depth throughout this DEIS.

5.5 Conventional Subdivision Alternative

The Scoping Outline adopted for this DEIS requires the consideration of a conventional subdivision alternative that would avoid all impacts to wetlands, streams and secondary protection zones for the bald eagle nesting trees. The conforming plan and its impacts are described below.

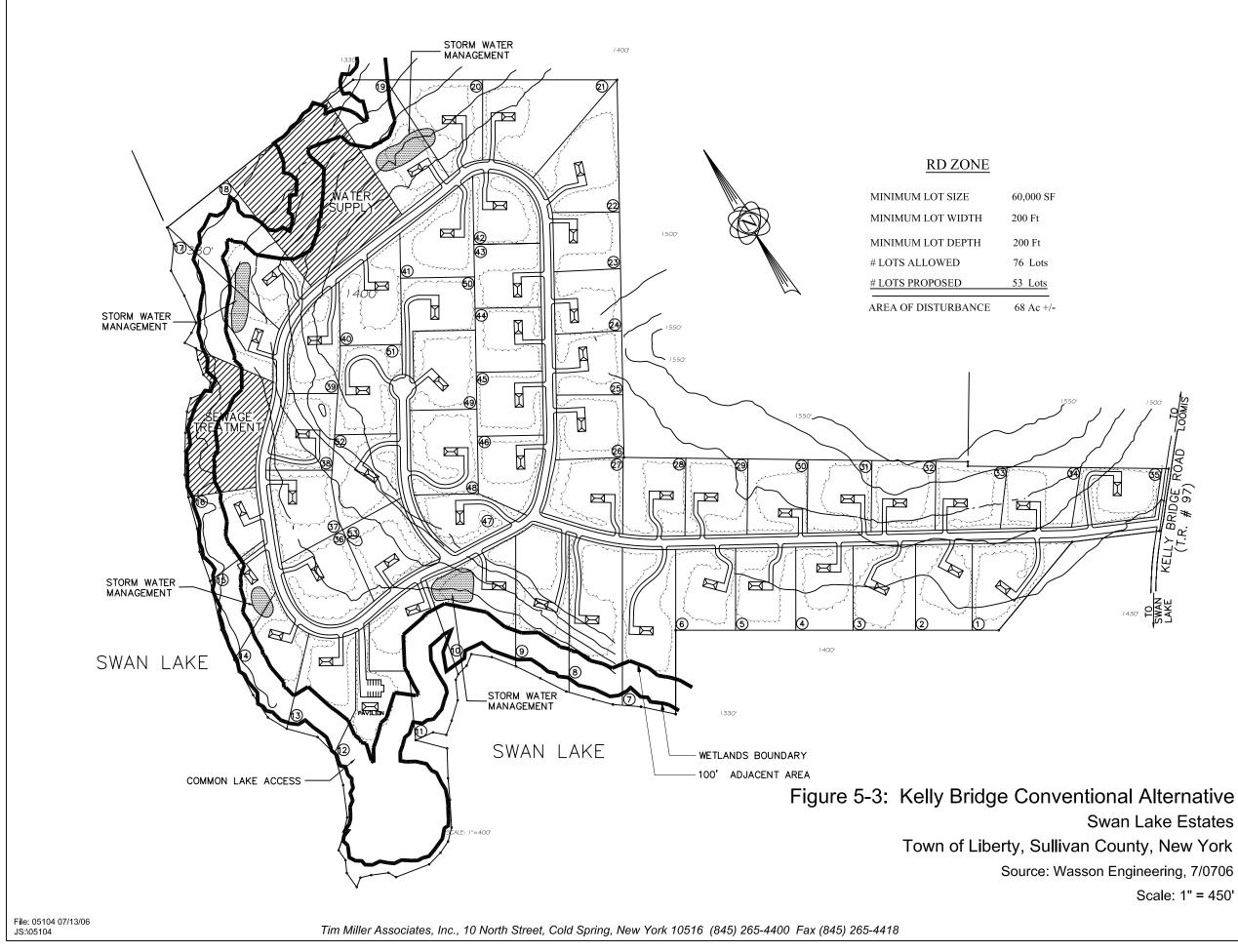
Since the Kelly Bridge Road project parcel contains no bald eagle nesting trees, home and infrastructure development within the 1500 foot secondary protection zone, or streams, the Conventional Subdivision Alternative would be similar to the Maximum Density Alternative, as shown in Figure 5-3.

Flora and Fauna Resources: This alternative would result in a total of 68 acres of woodland disturbance, which is 35 acres more than the proposed Preferred Alternative. Thus, the biological impact would be greater when compared to the proposed action.

Land Use & Zoning: This alternative demonstrates the full build-out of the project parcel. It would result in a total of 53 lots, one of which would be the common lot. This alternative results in 32 more lots than the proposed plan for the Kelly Bridge Road subdivision. Since the current zoning of the Kelly Bridge Road site is RD, the minimum lot size is 60,000 square feet, or approximately 1.37 acres, under this alternative.

Construction-related Impacts: Under this alternative, based upon the increased lot count, the short term impacts associated with construction including noise and fugitive dust would be greater when compared to proposed plan. There would be a greater level of construction activity, thus short-term increases in vehicular traffic would be increased compared to proposed plan.

Long-Term Use Impacts: The Conventional Subdivision Alternative for the Kelly Bridge Road Subdivision would result in greater long-term impacts than the proposed plan. This is due to the increased number of residential units and the increased area of impervious surfaces and lawns that would result from this alternative. Traffic resulting from this alternative would be greater than under the proposed action.



Swan Lake Estates Source: Wasson Engineering, 7/0706 Scale: 1" = 450'

Alternatives September 27, 2006

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				Table 5-1 Comparison of Alternatives	1 ternatives			
Alternative	Lot Count	Lot Total Count Disturbance	Wetland Disturbance	WetlandWetlandAdjacentNumberDisturbanceAreaDisturbanceOf Docks	Number Of Docks	Water Supply	Sewage Treatment	Distance Between Nest Tree and Nearest Structure
No Build	0	0	0	0	0	N/A	N/A	N/A
Maximum Density	53	+/- 68 Acres	0	+/- 0.5 Acre	10	Private Central Water	Private Central Sewage	1500 Feet
Cluster	92	+/- 73 Acres	0	+/- 0.2 Acre	2	Private Central Water	Private Central Sewage	1800 Feet
Preferred	21	+/- 33 Acres	< 0.01 Acre	+/- 1.5 Acres	11	Individual Well	Individual Septic	1550 Feet
Conventional	53	+/- 68 Acres	0	+/- 0.5 Acre	10	Private Central Water	Private Central Sewage	1500 Feet
Source: Wass	on Engin	Source: Wasson Engineering and Tim		Miller Associates, Inc., 2006				

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Issues Not To Be Addressed in the DEIS

6.0 ISSUES NOT TO BE ADDRESSED IN THE DEIS

According to the Final Scope adopted by the NYSDEC, the following issues were determined to be not relevant or environmentally significant and required no further evaluation as part of this Draft Environmental Impact Statement:

- Impacts on Transportation;
- Wetlands and Vegetation;
- Water Quality;
- Land Issues;
- Community Character;
- Aesthetics;
- Noise;
- Air Quality;
- Community Services and Growth Inducing Impacts;
- Historic or Cultural Resources
- Impacts on Non-listed Plants and Wildlife;
- Critical Environmental Areas;
- Dam Safety;
- Property Values; and
- Effects on the Use and Conservation of Energy Resources.