

STAMP Land Management Plan

Town of Alabama, Genesee County, New York



**GENESEE COUNTY ECONOMIC
DEVELOPMENT CENTER**

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EXECUTIVE SUMMARY

This comprehensive Land Management Plan (LMP) has been developed for the Science & Technology Advanced Manufacturing Park (STAMP, the Site) in the Town of Alabama, Genesee County, New York. Site development is being implemented by the Genesee County Industrial Development Agency d/b/a the Genesee County Economic Development Corporation (GCEDC), in conjunction with the Genesee Gateway Local Development Corporation (GGLDC), the non-profit real estate affiliate of the GCEDC. The LMP establishes the basis for managing the varied natural resources and land uses located on the 1,263-acre STAMP Site, setting guidelines and goals, and specifying actions to achieve those goals. This document is based on an analysis of current conditions; existing Site plans and studies; and regional plans and conservation strategies. This LMP will guide land use management at the STAMP Site throughout project development.

The GCEDC March 12, 2012 State Environmental Quality Review (SEQR) Findings Statement identifies a long-term LMP as a mitigation measure to implement throughout construction and following Site development. Specific mitigation measures and conditions that are relevant to this planning document include identification of construction Best Management Practices (BMPs) to avoid impacts to soil and water, integration of aquatic resource mitigation measures and stormwater management plans, open space designations, maintenance of existing snowmobile trail connections, development of pedestrian trails to connect employees with retail and services in the hamlet, sequence of utility development, requirement of site plan approval by the Town of Alabama, and maintenance of existing agriculture until Site construction.

Implementation of the LMP is the responsibility of the GCEDC and may be supported by a technical advisory committee. Development of the plan is consistent with numerous other plans, activities and requirements. These include SEQR Findings, the Aquatic Resource Mitigation Strategy (ARMS), Site master planning and infrastructure development, ongoing environmental and cultural resource investigations, development of a Business Park Association, Town of Alabama Site Design Guidelines as adopted, Town of Alabama Comprehensive Plan/Zoning as adopted, the Green Genesee Road Map, Genesee County Smart Growth, and Genesee Sno-Packers Snowmobile Club Trail Map.

The STAMP project was initiated in 2005 and the Site was selected based on a 18-month review of alternatives in Genesee County. A thorough evaluation of Site background, history, cultural and natural resources, utilities, and region has been conducted by the GCEDC as detailed in Section 4. Technical studies and analysis are utilized to optimize site design and minimize adverse impacts to sensitive resources.

STAMP provides for the development of a high technology campus accommodating advanced technology manufacturing space and related uses providing direct employment of an estimated

9,000 people. At full buildout, the Site is projected to support 6,100,000 SF of buildings, parking, roads, and utilities. The Site is designed in a campus style setting, protective and complimentary to the natural landscape and includes hundreds of acres of protected natural resources and open space.

the STAMP Site has been rezoned as a Technology District (TD) broken down into three sub-districts, namely TD1, TD2 and TD3, each of which has its own set of permitted uses under the Town Code. TD1 is the primary heavy manufacturing/industrial district. Permitted uses in TD1 include but are not limited to technology manufacturing, light industry, technology or environmental demonstration facilities, warehousing and distribution facilities, professional offices, public utilities and accessory uses and buildings. TD2 is the secondary/support light-industrial district. Permitted uses in TD2 include but are not limited to light industry, office buildings, professional offices, warehousing and distribution facilities, community and cultural facilities, including museums, medical/health related services, public utilities and accessory uses and buildings. TD3 is the final district encompassing mostly commercial and retail uses. Permitted uses in TD3 include but are not limited to office buildings, professional offices, retail trade, restaurants, shopping centers, parks and pedestrian trails and accessory uses and buildings.

The development of STAMP is expected to occur over a 20-year period. Development will progress from design to infrastructure installation (e.g. roads and utilities) to construction of facilities and parking areas. Active agriculture will be maintained up until actual construction of infrastructure and facilities. Over time, ecological communities and land uses will transition through stages to a projected future build out condition. Site development detail including soil and water BMPs, mitigation, construction sequence and specifications, public use, and common infrastructure development and maintenance is provided in Section 5 and Appendix A.

Land management goals, objectives, and strategies have been developed based on current conditions, land use needs and development priorities at the STAMP Site, the properties of the ecoregion to which it belongs, and the trends and conservation priorities of the surrounding watersheds. Important elements of land management goals, objectives, and strategies include construction BMPs, mitigation requirements and conditions as stated in Lead Agency and Town of Alabama SEQR Findings and permits, Town of Alabama design guidelines, and principles of biodiversity, connectivity, integration with public use, and sustainable land management practices.

Land management goals include:

1. Maintain agricultural activities and/or hay fields until Site development
2. Minimize fragmentation of high quality forested areas and increase patch size of his quality forest stands.
3. Protect and restore a connected network of wetlands, streams and buffers.
4. Protect and enhance headwater streams and stream corridors.

5. Protect and enhance habitat connections, diversity, and resilience
6. Establish and maintain open space areas in natural cover or landscaping compatible with adjacent land use.
7. Provide public use opportunities compatible with planned development

Monitoring and management of the natural resources are critical to guide the implementation and refinement of the LMP and maintain the values gained throughout the implementation phase. An Implementation Team will meet annually to develop a list of priority projects and projected timelines to achieve the land management goals listed above. Management and maintenance issues are likely to change as implementation and monitoring of the LMP commences. Initially active management will be required to achieve land use goals, however a focus of this LMP is to minimize long term management and maintenance requirements.

The goals and objectives of the LMP should be reviewed every five years and should include a summary of Annual Work Plans to date, results of management actions and monitoring activities, and the status of objectives. Modifications to the LMP will include adjustments to objectives, addition or removal of strategies and techniques necessary to reach goals, and contingencies for unforeseen changes to project development plans. The LMP Implementation Team should communicate substantive project changes with Site tenants, project partners, and the local community.

Implementation of this LMP is the responsibility of GCEDC. However, resources and support may be sought from multiple sources and programs to realize short and long-term goals and projections. To ensure sustained and dedicated funding, LMP goals and objectives should be considered in purchase agreements with future tenants and be included in the planned Business Park Association Declaration. Plan implementation and monitoring activities should be grouped with ongoing or upcoming requirements such as mitigation for impacts associated with the Site development. Open space management services such as seeding and planting buffers, mowing landscaped areas, and treating invasive species could be provided by local farmers in exchange for leasing active agricultural areas. Partnerships should be developed to reduce management costs.

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ABBREVIATIONS AND ACRONYMS

ARMS	Aquatic Resource Mitigation Strategy
BMPs	Best Management Practices
CWCS	Comprehensive Wildlife Conservation Strategy
EOP	Erie-Ontario Plain
FGEIS	Final Generic Environmental Impact Study
GCEDC	Genesee County Economic Development Center
GEIS	Generic Environmental Impact Study
GGLDC	Genesee Gateway Local Development Corporation
HUC	Hydrologic Unit Code
IZA	Incentive Zoning Agreement
JPA	Joint Permit Application
LMP	Land Management Plan
MSL	Mean Sea Level
NIOSH	National Institute for Occupational Safety and Health
NLE	Northern Long-eared Bat
NWI	National Wetlands Inventory
NYPA	New York Power Authority
NYSDEC	New York State Department of Environmental Conservation
NYSOPRHP	New York State Office of Parks Recreation and Historic Preservation
OSHA	Occupational Safety and Health Act
RCM	Reed Canary Marsh
RCRA	Resource Conservation and Recovery Act
SEQR	State Environmental Quality Review
SPCC	Spill Prevention Control and Countermeasure
SPDES	State Pollution Discharge Elimination System
STAMP	Science & Technology Advanced Manufacturing Park
SVAP	Stream Visual Assessment
SWPPP	Storm Water Pollution Prevention Plan
TD	Technology District
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Services
WMA	Wildlife Management Area
WNY PRISM	Western New York Partnership for Regional Invasive Species Management
WWTP	Wastewater Treatment Plant

1.0 INTRODUCTION

1.1 BACKGROUND

The Genesee County Industrial Development Agency d/b/a the Genesee County Economic Development Corporation (GCEDC), in conjunction with the Genesee Gateway Local Development Corporation (GGLDC), the non-profit real estate affiliate of the GCEDC, has been working on the development of the Western New York Science & Technology Advanced Manufacturing Park (STAMP or the Project), an advanced manufacturing technology campus on approximately 1,263 acres located on the west side of New York State Highway 77/63, approximately five miles north of the I-90/New York State Thruway (Site) in the Town of Alabama, New York. Figure 1 provides a location map showing the boundary of the STAMP Site (the Site). Appendix A provides a series of maps illustrating the most current Master Buildout Plan.

The potential environmental impacts of STAMP were evaluated pursuant to, and in accordance with, Article 8 of the Environmental Conservation Law and the regulations adopted pursuant thereto being 6 NYCRR Part 617, as amended (collectively State Environmental Quality Review or SEQR) utilizing a Generic Environmental Impact Statement (GEIS). The GCEDC, as lead agency, issued a Final GEIS (FGEIS) for the Project on January 19, 2012 and a Written Findings Statement (GCEDC's Findings) on March 12, 2012. The Town of Alabama issued an Involved Agency Findings Statement on August 13, 2012. As lead agency, the GCEDC conducted an updated SEQR analysis to review proposed changes to STAMP since completion of the GEIS. Based on this review, a Lead Agency Amended Findings Statement was issued by GCEDC in July 2016.

1.2 PURPOSE

Section 6.5.2 of the GCEDC March 12, 2012 SEQR Findings Statement referenced above identifies a long-term Land Management Plan (LMP) as a mitigation measure to implement throughout construction and following Site development. The purpose of the LMP is to ensure implementation of the Best Management Practices (BMPs) and mitigation measures identified during the SEQR process to avoid, minimize, and mitigate potential impacts to the natural resources at the Site. This Plan will serve as a guide to GCEDC, future tenants, the Town of Alabama, and other involved parties during the development and management of the Site. The Town of Alabama specifically identifies the LMP in its Findings Statement issued August 3, 2012 as a tool for site plan approval and review of future Site development.

In support of this purpose, the LMP provides a natural resource inventory and overview of current conditions found at the STAMP Site and describes management strategies to maximize ecological

functions at the Site which in turn supports the watershed and the surrounding landscape before, during, and after Site buildout. The philosophy or guiding principles of the LMP are stewardship, adaptive ecosystem management, compliance, consistency with existing plans and requirements, and incorporation of community involvement. These principles reflect a philosophy of sustainability and resilience. The GCEDC seeks to optimize and balance the value of the STAMP Site from an ecological, societal, and financial perspective.

As required by SEQR, prior to approving the Incentive Zoning Agreement (IZA) to rezone the Site to Technology District (TD), the Town Board of the Town of Alabama issued its own SEQR Finding Statement as referenced above. The Town Board Findings included all the mitigation imposed upon the Project by the GCEDC along with some additional mitigation measures. Specific mitigation measures and conditions that are relevant to this planning document include the following:

1. Identification of BMPs to avoid and minimize impacts to soils in adjacent, undisturbed areas.
2. Identification of BMPs to avoid and minimize impacts to streams and other waters during construction activities.
3. Overview of restoration, enhancement, and protection of onsite wetlands and streams in undisturbed areas as part of an approved mitigation strategy for impacts to regulated waters. The mitigation strategy is to be implemented, and protected areas are to be owned by an entity other than the Town of Alabama.
4. Overview of stormwater management plans designed in accordance with the NYS Stormwater Management Design Manual. Site stormwater features are to be owned and managed by an entity other than the Town of Alabama.
5. Identification of open space and natural resource areas at the Site to be owned by an entity other than the Town of Alabama, development of interim and final land use goals and management requirements.
6. Development of a trail system owned and maintained by an entity other than the Town of Alabama.¹
7. Clarification of the sequence of utility development and road construction including construction of the Main Access Road prior to completion of the first development project

¹ At the July 10, 2017 Town Board Meeting, the Town of Alabama concluded that a trail system was important for employee pedestrian access to retail and services in the Hamlet and that general public use of this trail system was not required. Management and maintenance of the trail system for general public use is not a recommendation of this Land Management Plan.

and construction of a bypass road before 70% buildout and clarification of ownership and maintenance of utilities and Site roads by an entity other than the Town of Alabama.

8. Requirement for Dark Sky Compliant lighting and review of design guidelines described in the GEIS and Town of Alabama local law.
9. Requirement for site plan (including landscape plans) approval by the Town of Alabama prior to construction activities throughout Site development.
10. Planning for existing agriculture to be maintained at the Site until construction.

1.3 TECHNICAL ADVISORY

The development and implementation of the LMP will be the responsibility of the GCEDC and designated GCEDC staff. At times, the LMP and management actions will be supported by input from technical staff representative of several agencies and organizations with natural resource management responsibilities, background, and interests. These groups may be contacted periodically to provide technical knowledge on the various management issues that are incorporated into this document. The primary function of the technical advisory process is to provide technical advice on the development and implementation of natural resource management strategies for the STAMP Site. The technical advisory process may include the following agencies and organizations:

- Genesee County Planning
- New York Green, Inc.
- Town of Alabama
- Cornell Cooperative Extension of Genesee County
- Genesee County Soil and Water Conservation District
- New York State Department of Environmental Conservation (NYSDEC)
- New York State Department of Parks, Recreation & Historic Preservation
- U.S. Fish and Wildlife Service Iroquois National Wildlife Refuge
- U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program
- U.S. Department of Agriculture Natural Resource Conservation Service

The technical advisory process facilitates input through discussions regarding management issues during periodic meetings held by the GCEDC as necessary throughout the year. Input is also provided through technical review of documents prepared in support of natural resource management at the STAMP Site.

2.0 CONSISTENCY WITH OTHER PLANS, ACTIVITIES AND REQUIREMENTS

The LMP must be consistent with other plans, activities, and requirements that govern the STAMP Site's general development and operation. These include SEQR Findings, as previously mentioned, the Aquatic Resource Mitigation Strategy, Site master planning and infrastructure development, ongoing environmental and cultural resource investigations, development of a Business Park Association, Town of Alabama Site Design Guidelines as adopted, Town of Alabama Comprehensive Plan/Zoning as adopted, the Green Genesee Road Map, Genesee County Smart Growth, and Genesee Sno-Packers Snowmobile Club Trail Map. Each of these are summarized below. Where aspects of these various other plans, activities, and requirements affect this plan, those aspects will be integrated by direct reference in the corresponding location.

2.1 SEQR FINDINGS STATEMENTS

Findings Statements were issued by GCEDC (March 12, 2012) and the Town of Alabama (August 13, 2012). These statements identified the use of a Site long-term land management plan as a mitigation measure for potential impacts identified during SEQR relating to terrestrial and aquatic ecology, agriculture, stormwater, and land use. The GCEDC Findings outlined specific requirements of the LMP including the identification of strategies for managing future development areas, open space areas, and wildlife habitat. The Town of Alabama Findings specified the LMP as a tool for guiding site plan development and site plan approvals. Multiple mitigation measures identified in these Findings Statements including construction BMPs and development of open space buffers and trails, are applicable to this LMP.

2.2 AQUATIC RESOURCE MITIGATION STRATEGY

In November 2013, the GCEDC submitted a Joint Permit Application (JPA) to the U.S. Army Corps of Engineers (USACE) and the NYSDEC for unavoidable impacts to wetlands and streams at the STAMP Site. The JPA included a conceptual Aquatic Resource Mitigation Strategy (ARMS) that was revised in December 2014 and updated in July 2016. The conceptual mitigation strategy proposes to compensate for unavoidable impacts to federally regulated wetlands and streams through on-site preservation of remaining wetlands and streams, wetland and stream restoration and enhancement including preservation of 100' buffer around remaining and restored wetlands and along each side of the streams. These mitigation goals are incorporated into the LMP as detailed in Sections 5 and 6 and the monitoring and adaptive management strategies presented in Section 7.

2.3 SITE MASTER PLAN

The STAMP Site Master Plan as presented in the Final GEIS (January 2012) provided for the development of a high technology campus accommodating over 6 million square feet of advanced technology manufacturing space and related uses providing direct employment of over 9,000 people. Phase 1 of the Master Plan involved attracting a technology manufacturing tenant to develop a facility of approximately 1 million square feet. Per the FGEIS and the GCEDC's Findings, the basic and overall purpose of the Project is to develop an advanced manufacturing technology center in Genesee County. The Project targets green-technology and advanced manufacturing companies involved in developing and manufacturing clean technology, renewable energy and/or energy efficient products. These companies include semi-conductor manufacturers, photovoltaic solar cell manufacturers, flat panel display manufacturers including medical imaging display, bio-pharmaceutical/nanotechnology-enabled industries, and green technology research and development for energy efficient building products. The Site Master Plan continues to evolve. Due to the large size of the Site and the developments in the global marketplace over the last several years, the Master Plan has been updated to accommodate a large semiconductor manufacturing complex in the northwest quadrant of the Site. The Master Plan has also evolved to provide greater detail on the location of buildable areas (Appendix A, Map 3), open space, trail networks, zoning districts, infrastructure including roads and utility corridors. The most current version of the STAMP Master Plan will be used to guide and inform this LMP (Appendix A). The LMP Adaptive Management Process defined in Section 7 will accommodate changes as the Master Plan continues to evolve.

2.4 ONGOING RESOURCE INVESTIGATIONS

Numerous environmental and cultural resource investigations have been completed at the Site. These are summarized and referenced in Section 3.0. Other ongoing or required investigations include five-year updates to the Site's aquatic resource delineation and jurisdictional determination and invasive species inventories and management. These types of investigations will be identified as part of the Implementation and Adaptive Management Process described in Section 7.

2.5 BUSINESS PARK ASSOCIATION

A STAMP Business Park Association will be developed to manage shared utilities and resources among landowners at the STAMP Site. These may include roads, protected natural resource areas, open space buffers, trails, Site Entry area, and utilities. A Business Park Association Declaration of Covenants, Conditions, Restrictions, and Easements (Declaration) will be developed to define the rights and responsibilities of Association members as they relate to these shared utilities and resources. This LMP will provide guidance to the conditions outlined in the Declaration including location and extent of protected natural resource areas, open space buffers, and trail networks.

This LMP will also outline land use guidelines and projected monitoring and maintenance requirements within these areas.

2.6 TOWN OF ALABAMA COMPREHENSIVE PLAN, ZONING, AND DESIGN GUIDELINES

The Town of Alabama is developing an updated Comprehensive Plan to manage the potential changes to their community because of STAMP Site development. The Town has approved zoning and adopted design guidelines for each Technology District (TD-1, TD-2, TD-3) at the STAMP Site. The Town of Alabama Technology Districts Design Guidelines (Appendix E) are referenced in the code regulating the Town's Technology Districts and will be applicable to prospective tenants during site design and approval. Management goals, strategies, and recommendations in the LMP will be in accordance with the Town's Comprehensive Plan, zoning, and adopted design guidelines, directly referenced where appropriate.

2.7 AGRICULTURAL PROTECTION PLANS

Genesee County and the Town of Alabama are currently developing agricultural protection plans. The majority of the STAMP Site is currently in active agriculture and will remain so until development occurs. Agricultural activities prescribed by this LMP prior to Site development will be in accordance with goals, strategies, and recommendations available in existing planning documents and updated in accordance with ongoing agricultural protection planning efforts.

2.8 GENESEE COUNTY SMART GROWTH PLAN

The Genesee County Smart Growth Plan was completed in 2001 as a mitigating action for the Genesee County Water Supply Project. The Plan is intended to encourage the revitalization of villages and hamlet areas and protect valuable agricultural resources. The goals of the Plan are to focus County resources to support economic development opportunities in the most promising locations; encourage the revitalization of existing industrial areas, business districts, and residential neighborhoods in the City of Batavia and developed village areas; and protect farmland and the rural character of the countryside, and maintain the viability of agriculture. Development in each Town within Genesee County is guided by Smart Growth Development Area maps. These maps and the Plan are regularly updated (at least every three years). In 2013, at the request of the Town, the County added the STAMP Site as a designated priority development area under the Smart Growth Plan.

2.9 GREEN GENESEE ROAD MAP AND ALABAMA GREEN ACTION PLAN

Over the past two years, and related directly to the proposed development at the STAMP Site, Genesee County and the Town of Alabama have engaged in a sustainable land use planning effort. This effort has resulted in the development of the Green Genesee Road Map and Alabama Green Action Plan. This planning effort has resulted in the development of maps, plans, and tools that guide development away from an ecological network made up of high quality natural asset cores, buffers, and connecting corridors to facilitate protection of environmental services such as clean water, clean air, wildlife habitat, outdoor recreation, and rural character. The STAMP Site includes mapped natural assets and a portion of an ecological network corridor. The Site Master Plan currently identifies these areas for permanent protection. This LMP has been developed in accordance with the goals, strategies, and recommendations prescribed by the Green Genesee planning effort.

2.10 GENESEE SNO-PACKERS SNOWMOBILE CLUB

The Genesee Sno-Packers Snowmobile Club has developed a network of snowmobile trails across Genesee County to facilitate winter outdoor recreation for its membership and visiting snowmobilers. This network is maintained through right of way permissions across the rural landscape. The trail network currently traverses the STAMP Site entering from the south at Crosby Road and exiting to the east and the north. This LMP will facilitate maintenance of a snowmobile trail connection on the STAMP Site.

3.0 SITE HISTORY & PROJECT BACKGROUND

This section provides a brief history of the STAMP Site and an overview of project development activities.

3.1 SITE HISTORY

Prior to European settlement, the STAMP Site was predominantly comprised of upland forests, riparian areas, and forested wetland systems. Before the 18th century, the region around the STAMP Site was occupied by the Neutral, Wenro, and/or Erie Nations. These groups were driven out or absorbed by the Seneca Nation from the east in the middle of the 17th century. Fishing and hunting camps were established primarily along Tonawanda Creek. In 1797, the Big Tree Treaty created the Tonawanda Reservation which was 45,000 acres in size and included the STAMP Site. The STAMP Site was removed from the territory as a result of the Buffalo Creek Treaty in 1826. As of 1857, the current Tonawanda Seneca Nation includes 7,549 acres including lands immediately adjacent to the west edge of the STAMP Site.

Cultural resource investigations resulted in the identification of artifacts that also suggest pre-contact habitation of portions of the STAMP Site dating to Archaic and Woodland periods (up to 4,500 years ago). Post European settlement, the Site and surrounding areas were logged and cleared for agriculture purposes, primarily as croplands and hayfields. Most families that settled in and adjacent to the STAMP Site lived on farmsteads where they grew corn and wheat, raised cattle and sheep, and cultivated apple orchards. The historical trend in the 20th century until today has been the shift from small family farmsteads to larger, consolidated farming operations. The Site continues to be farmed today except for a few residences along Crosby Road and forested wetland areas unsuitable for farming. See Figure 2 for a series of historical photos from 1938 to 2008.

3.1.1 Land Ownership

Prior to the initiation of the STAMP project, the STAMP Site was composed of 26 privately-owned parcels. Since project initiation in 2007, GCEDC and GGLDC acquired 19 parcels consisting of 1,071.40 acres of the Site to prepare for project development. A map showing locations of individual parcels within the STAMP Site and immediately adjacent to the Site is provided in Appendix B along with a table listing names and addresses of all property owners currently owning land within and adjoining the STAMP Site.

3.2 PROJECT BACKGROUND

STAMP was initiated by the GCEDC in 2005 through discussions that included state officials and industry expert CH2M HILL regarding New York's emerging relevance and global

competitiveness in advanced technology (Nano-Tech, High-Tech, Clean-Tech) manufacturing. Sites were evaluated in Genesee County over a period of 15 to 18 months in 2006 and 2007. The confluence of electrical utilities, available transportation and airport assets, Buffalo-Rochester regional demographics, and NYS strategic success in semiconductor research and development, as well as manufacturing, supported these additional site evaluations and selection of STAMP site. Project planning for STAMP continued with the completion of an initial feasibility study in 2008 (IDC Architects, 2008). Following completion of the feasibility study, GCEDC completed the SEQR process for the STAMP Site with issuance of the FGEIS and Findings Statements in 2012.

The STAMP Technical Team, comprised of GCEDC staff, engineering, planning, environmental and legal consultants, has engaged in numerous meetings with county, municipal, and Tonawanda Seneca Nation representatives regarding STAMP and proposed development of the Site. The Technical Team has also engaged in several pre- and post-application meetings with USACE, NYSDEC, and U.S. Fish and Wildlife Service (USFWS) regarding the federal and state permitting process necessary for the Site development. Since 2005, there have been a significant number of events and a significant amount of information collected at the STAMP Site to support planning and design, directly relating to land management of the Site. Appendix C provides a tabular summary of events relevant to Site development and land management from 2005 to present.

4.0 CURRENT CONDITIONS

The following section provides a detailed description and assessment of existing conditions including natural resources (land use, topography, soils, vegetation, wildlife, wetlands, streams, and watershed) and cultural and community resources.

4.1 NATURAL RESOURCES

There are abundant natural resources within and adjacent to the STAMP Site. Onsite resources within portions of the Site include wetlands, streams, forest blocks, habitat for wildlife including listed species, high quality farmland soils, and important connections to adjacent waterways, wetlands, and forests. The STAMP Site is being developed by the GCEDC in a manner consistent with their interest in sustainable economic growth in Genesee County and conservation of the County's abundant natural resources. In support of sustainability and conservation, the GCEDC initiated natural resource assessments for the STAMP Site including site specific and landscape level analysis to identify and integrate natural resource conservation opportunities into the planning and development process. A summary of the current land use and natural resources at the Site is provided in the sections below.

4.1.1 Topography

The topography of the STAMP Site can be described as flat to moderately sloping with a general slope towards the northwest (Figure 3). Steeper slopes on the STAMP Site are associated with the banks of Whitney Creek. Total topographic relief on the STAMP Site is approximately 70 feet; ranging from approximately 630 feet above mean sea level (MSL) in the northwest corner of the property to 700 feet above MSL in the southeast corner. The STAMP Site topography is generally characterized by a number of small, mostly ephemeral stream tributary basins, draining in a northwesterly direction.

4.1.2 Soils

Soils within the STAMP Site consist of glacial till deposited as ground moraines and drumlins and in proglacial lacustrine sediments. Most soils on the STAMP Site consist of Odessa silt loam, Collamer silt loam, Lakemont silty loam, Canandaigua silt loam, and Niagara silt loam, which together comprise nearly 70% of the soils within the STAMP Site. The published soil survey of Genesee County² identifies a total of 32 soil series mapped on the STAMP Site. Figure 4 shows the soils mapped within the STAMP Site. Information pertaining to each mapped soil type included on the STAMP Site is in Table 1.

² USDA-NRCS. 2010. Soil Conservation Service Soil Survey of Genesee County, NY.
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Table 1. Soil Series and Phases Mapped Within the STAMP Site

Soil Symbol	Soil Series and Phase	Parent Material	Drainage Class	Hydric Classification
ApA	Appleton silt loam, 0-3% slopes	Calcareous loamy till	Somewhat poorly drained	Inclusions possible
ApB	Appleton silt loam, 3-8% slopes	Calcareous loamy till	Somewhat poorly drained	Inclusions possible
ArB	Arkport very fine sandy loam, 1-6% slopes	Glaciofluvial or deltaic deposits	Well drained	Inclusions unlikely
CaA	Canandaigua silt loam, 0-32% slopes	Silty and clayey glaciolacustrine deposits	Poorly drained	Hydric
ClB	Collamer silt loam, 2-6% slopes	Silty and clayey glaciolacustrine deposits	Moderately well drained	Inclusions unlikely
DuB	Dunkirk silt loam, 2-6% slopes	Silty and clayey glaciolacustrine deposits	Well drained	Inclusions unlikely
DuC	Dunkirk silt loam, 6-12% slopes	Silty and clayey glaciolacustrine deposits	Well drained	Inclusions unlikely
GnB	Galen very fine sandy loam, 2-6% slopes	Deltaic deposits	Moderately well drained	Inclusions unlikely
HaA	Halsey silt loam, 0-4% slopes	Loamy glaciofluvial deposits	Very poorly drained	Hydric
HIA	Hilton loam, 0-3% slopes	Calcareous loamy till	Moderately well drained	Inclusions unlikely
HIB	Hilton loam, 3-8% slopes	Calcareous loamy till	Moderately well drained	Inclusions unlikely
La	Lakemont silty clay loam	Calcareous loamy till	Poorly drained	Hydric
LmB	Lima silt loam, 3-8% slopes	Loamy till	Moderately well drained	Inclusions unlikely
LoA	Lyons silt loam, 0-3% slopes	Calcareous loamy till	Poorly drained	Hydric
MnA	Minoa very fine sandy loam, 0-2% slopes	Deltaic or glaciolacustrine deposits	Somewhat poorly drained	Inclusions possible
NgA	Niagara silt loam, 0-2% slopes	Silty and clayey glaciolacustrine deposits	Somewhat poorly drained	Inclusions possible
OdA	Odessa silt loam, 0-2% slopes	Reddish clayey and silty glaciolacustrine deposits	Somewhat poorly drained	Inclusions possible
OdB	Odessa silt loam, 2-6% slopes	Reddish clayey and silty glaciolacustrine deposits	Somewhat poorly drained	Inclusions possible
OnC	Ontario loam, 3-8% slopes	Calcareous till	Well drained	Inclusions unlikely
OnC	Ontario loam, 8-15% slopes	Calcareous till	Well drained	Inclusions unlikely
OnD	Ontario loam, 15-25% slopes	Calcareous till	Well drained	Inclusions unlikely

Table 1. Soil Series and Phases Mapped Within the STAMP Site				
Soil Symbol	Soil Series and Phase	Parent Material	Drainage Class	Hydric Classification
OvA	Ovid silt loam, 0-3% slopes	Loamy till	Somewhat poorly drained	Inclusions possible
OvB	Ovid silt loam, 3-8% slopes	Loamy till	Somewhat poorly drained	Inclusions possible
PhB	Palmyra gravelly loam, 3-8% slopes	Loamy over sandy and gravelly glaciofluvial deposits	Well drained	Inclusions unlikely
PsA	Phelps gravelly loam, 0-3% slopes	Loamy glaciofluvial deposits	Moderately well drained	Inclusions unlikely
PsB	Phelps gravelly loam, 3-8% slopes	Loamy glaciofluvial deposits	Moderately well drained	Inclusions unlikely
SeB	Schoharie silt loam, 1-6% slopes	Reddish clayey and silty glaciolacustrine deposits	Moderately well drained	Inclusions unlikely
ShC3	Schoharie silty clay loam, 6-12% slopes, eroded	Reddish clayey and silty glaciolacustrine deposits	Moderately well drained	Inclusions unlikely
Te	Teel silt loam	Silty alluvium	Moderately well drained	Inclusions possible
W	Water	NA	NA	NA
Wk	Wakeville silt loam	Silty alluvium	Somewhat poorly drained	Inclusions possible
Wy	Wayland silt loam	Silty and clayey alluvium	Poorly drained	Hydric

4.1.3 Vegetative Communities

The STAMP Site is primarily agriculture lands with most remaining areas undeveloped uplands and wetlands (Figures 5-7). A small percentage of the STAMP Site is developed with existing utility line rights-of-way, roads, and residential homes and buildings. Twelve (12) ecological communities have been identified at the STAMP Site and are described according to the Ecological Communities of New York State (Edinger 2014). These twelve communities include upland areas including successional shrubland, successional northern hardwood, cropland/field crop, cropland/row crop, successional old field, rich mesic forest, and successional southern hardwood communities. The wetland areas are comprised of floodplain forest, reed canary/Phragmites marsh, shallow emergent marsh, shrub swamp, and hardwood swamp communities. Vegetative communities are described with additional detail below. Table 2 lists each community long with the community's state and global rank according to the New York Natural Heritage Program. All communities documented on the STAMP Site are considered G4/S4 or G5/S5 which translates to "apparently or demonstrably secure in their range at the global and state levels."

Ecological Community	State Rank
Successional Shrubland	G4/S4
Successional Northern Hardwood	G5/S5
Rich Mesic Forest	G4/S2-S3
Floodplain Forest	G4/S4
Cropland/Field Crop	G5/S5
Cropland/Row Crop	G5/S5
Reed Canary/Phragmites Marsh	NA
Shallow Emergent Marsh	G5/S5
Successional Old Field	G4/S4
Shrub Swamp	G5/S5
Successional Southern Hardwood	G5/S5
Hardwood Swamp	G5/S4S5

The successional shrubland community consists of the following species: grey dogwood (*Cornus racemosa*), staghorn sumac (*Rhus typhina*), white ash (*Fraxinus Americana*), reed canary grass (*Phalaris arundinacea*), goldenrod (*Solidago spp.*), common red raspberry (*Rubus idaeus*), crack willow (*Salix fragilis*), annual bluegrass (*Poa annua*), summer grape (*Vitis aestivalis*), tartarian honeysuckle (*Lonicera tatarica*), silky dogwood (*Cornus amomum*), common dandelion (*Taraxacum officinale*), Queen Anne's lace (*Daucus carota*), goldenrod (*Solidago spp.*), teasel (*Dipsacus sylvestris*), yellow rocket (*Barbarea vulgaris*), aster (*Aster spp.*), and false baby's breath (*Galium mollugo*).

The successional northern hardwood and rich mesic forest communities consists of the following species: eastern cottonwood (*Populus deltoids*), tartarian honeysuckle (*Lonicera tatarica*), American hornbeam (*Carpinus caroliniana*), multiflora rose (*Rosa multiflora*), white willow (*Salix alba*), spring avens (*Geum vernum*), Japanese barberry (*Berberis thunbergii*), summer grape (*Vitis aestivalis*), quaking aspen (*Populus tremuloides*), eastern hop hornbeam (*Ostrya virginiana*), red maple (*Acer rubrum*), American beech (*Fagus grandifolia*), white ash (*Fraxinus Americana*), Pennsylvania sedge (*Carex pennsylvanica*), New York fern (*Thelypteris noveboracensis*), poison ivy (*Toxicodendron radicans*), silver maple (*Acer saccharinum*), big tooth aspen (*Populus grandidentata*), pin cherry (*Prunus pennsylvanica*), cut leaf toothwort (*Cardamine concatenate*), green ash (*Fraxinus pennsylvanica*), Christmas fern (*Polystichum acrostichoides*), Virginia strawberry (*Fragaria virginiana*), fowl bluegrass (*Poa palustris*), shagbark hickory (*Carya ovata*), black cherry (*Prunus serotina*), eastern woodland sedge (*Carex blanda*), freeman's maple (*Acer freemanii*), cockspur hawthorn (*Crataegus crus-galli*), sugar maple (*Acer saccharum*), white oak (*Quercus alba*), shellbark hickory (*Carya lacinosa*), dogtooth violet (*Erythronium americanum*), garlic mustard (*Aliaria petiolata*), ramp (*Allium tricoccum*), false baby's breath (*Galium mollugo*),

early meadow rue (*Thalictrum dioicum*), common red raspberry (*Rubus idaeus*), crack willow (*Salix fragilis*), and may apple (*Podophyllum peltatum*).

The floodplain forest community consists of the following species: eastern cottonwood (*Populus deltoides*), red maple (*Acer rubrum*), American hornbeam (*Carpinus caroliniana*), pin cherry (*Prunus pennsylvanica*), green ash (*Fraxinus pennsylvanica*), American beech (*Fagus grandifolia*), yellow birch (*Betula allegheniensis*), American elm (*Ulmus americana*), eastern hemlock (*Tsuga canadensis*), ostrich fern (*Matteuccia struthiopteris*), sensitive fern (*Onoclea sensibilis*), fowl bluegrass (*Poa palustris*), black ash (*Fraxinus nigra*), hawthorn (*Crataegus spp.*), large leaf avens (*Geum macrophyllum*), giant goldenrod (*Solidago gigantea*), fowl manna grass (*Glyceria striata*), summer grape (*Vitis aestivalis*), box elder (*Acer negundo*), tartarian honeysuckle (*Lonicera tatarica*), silky dogwood (*Cornus amomum*), rough avens (*Geum laciniatum*), garlic mustard (*Alliaria petiolata*) and riverbank grape (*Vitis riparia*).

The cropland/field crop community consists of the following species: common wheat (*Triticum aestivum*), red clover (*Trifolium pratense*), annual bluegrass (*Poa annua*), common ragweed (*Ambrosia artemisiifolia*), old field cinquefoil (*Potentilla simplex*), colt's foot (*Tussilago farfara*), reed canary grass (*Phalaris arundinacea*), white clover (*Trifolium repens*), annual bluegrass (*Poa annua*), common dandelion (*Taraxacum officinale*), Queen Anne's lace (*Daucus carota*), goldenrod (*Solidago spp.*), teasel (*Dipsacus sylvestris*), timothy (*Phleum pratense*), false baby's breath (*Galium mollugo*), Kentucky bluegrass (*Poa pratensis*), common speedwell (*Veronica officinalis*), and alfalfa (*Medicago sativa*).

The cropland/row crop community consists of the following species: soybean (*Glycine spp.*), corn (*Zea mays*), annual bluegrass (*Poa annua*), common dandelion (*Taraxacum officinale*), and common speedwell (*Veronica officinalis*).

The reed canary/Phragmites marsh community consists of the following species: eastern cottonwood (*Populus deltoides*), silky dogwood (*Cornus amomum*), reed canary grass (*Phalaris arundinacea*), common reed (*Phragmites australis*), green ash (*Fraxinus pennsylvanica*), tartarian honeysuckle (*Lonicera tatarica*), fowl bluegrass (*Poa palustris*), goldenrod (*Solidago spp.*) and riverbank grape (*Vitis riparia*).

The shallow emergent marsh community consists of the following species: water plantain (*Alisma plantago-aquatica*), staghorn sumac (*Rhus typhina*), multiflora rose (*Rosa multiflora*), common burdock (*Arctium minus*), reed canary grass (*Phalaris arundinacea*), Pennsylvania smartweed (*Polygonum pensylvanicum*), fowl bluegrass (*Poa palustris*), water knotweed (*Polygonum amphibium emersum*), black willow (*Salix nigra*), tartarian honeysuckle (*Lonicera tatarica*), silky dogwood (*Cornus amomum*), common reed (*Phragmites australis*), Queen Anne's lace (*Daucus carota*), bebb willow (*Salix bebbiana*), white clover (*Trifolium repens*), silky willow (*Salix sericea*), goldenrod (*Solidago sp.*), small spike false nettle (*Boehmeria cylindrical*), green ash (*Fraxinus pennsylvanica*), grey dogwood (*Cornus racemosa*), aster (*Aster spp.*), box elder (*Acer*

negundo), white willow (*Salix alba*), grape (*Vitis sp.*), narrow leaf cattail (*Typha angustifolia*) and giant goldenrod (*Solidago gigantea*).

The successional old field community consists of the following species: annual bluegrass (*Poa annua*), reed canary grass (*Phalaris arundinacea*), barnyard grass (*Echinochloa crusgalli*), Russian olive (*Elaeagnus angustifolia*), tartarian honeysuckle (*Lonicera tatarica*), teasel (*Dipsacus sylvestris*) and switch grass (*Panicum virgatum*).

The shrub swamp community consists of the following species: grey dogwood (*Cornus racemosa*), silky dogwood (*Cornus amomum*), green ash (*Onoclea sensibilis*), wild cucumber (*Echinocytis lobate*), crooked stem aster (*Aster prenanthoides*), aster (*Aster spp.*), bebb willow (*Salix bebbiana*), fowl bluegrass (*Poa palustris*), fringed sedge (*Carex crinite*), box elder (*Acer negundo*), crack willow (*Salix fragilis*), tartarian honeysuckle (*Lonicera tatarica*), skunk currant (*Ribes glanulosum*), creeping jennie (*Lysimachia nummularia*), marsh marigold (*Caltha palustris*), sedge (*Carex spp.*), white willow (*Salix alba*), eastern cottonwood (*Populus deltoides*), broad leaf cattail (*Typha latifolia*) and summer grape (*Vitis aestivalis*).

The successional southern hardwood community consists of the following species: eastern cottonwood (*Populus deltoides*), eastern white pine (*Pinus strobus*), pin cherry (*Prunus pennsylvanica*), red spruce (*Picea rubens*), Norway spruce (*Picea abies*), tartarian honeysuckle (*Lonicera tatarica*), glossy buckthorn (*Rhammus frangula*), eastern woodland sedge (*Carex blanda*), spring avens (*Geum vernum*), common dandelion (*Taraxacum officinale*) and summer grape (*Vitis aestivalis*).

The hardwood swamp community consists of the following species: white willow (*Salix alba*), green ash (*Fraxinus pennsylvanica*), tartarian honeysuckle (*Lonicera tatarica*), grey dogwood (*Cornus racemose*), fowl bluegrass (*Poa palustris*), summer grape (*Vitis aestivalis*), silver maple (*Acer saccharinum*), eastern cottonwood (*Populus deltoides*), American hornbeam (*Carpinus caroliniana*), northern spicebush (*Lindera benzoin*), pin cherry (*Prunus pennsylvanica*), eastern hop hornbeam (*Ostrya virginiana*), fringed sedge (*Carex crinite*), common frog bit (*Hydrocharis morsus-ranae*), poison ivy (*Toxicodendron radicans*), swamp white oak (*Quercus bicolor*), cockspur hawthorn (*Crataegus crus-galli*), shagbark hickory (*Carya ovata*), eastern woodland sedge (*Carex blanda*), Pennsylvania sedge (*Carex pennsylvanica*), fineleaf sheep fescue (*Festuca filiformis*), Virginia strawberry (*Fragaria virginiana*), shellbark hickory (*Carya laciniosa*), American elm (*Ulmus Americana*), giant goldenrod (*Solidago gigantea*), water purslane (*Ludwigia palustris*), Canada clearweed (*Pilea pumila*), multiflora rose (*Rosa multiflora*), silky dogwood (*Cornus amomum*), cinnamon fern (*Osmunda cinnamomea*), rattlesnake mannagrass (*Glyceria Canadensis*), white snake root (*Eupatorium rugosum*), fowl manna grass (*Glyceria striata*), large leaf avens (*Geum macrophyllum*), blue wood aster (*Aster cordifolius*), heal all (*Prunella vulgaris*), red maple (*Acer rubrum*), yellow birch (*Betula allegheniensis*), eastern hemlock (*Tsuga canadensis*), American beech (*Fagus grandifolia*), New York fern (*Thelypteris noveboracensis*),

grey dogwood (*Cornus racemose*), upright sedge (*Carex stricta*), dogtooth violet (*Erythronium americanum*), rough avens (*Geum lacinatum*), soft rush (*Juncus effuses*), quaking aspen (*Populus tremuloides*), bebb willow (*Salix bebbiana*), marsh marigold (*Caltha palustris*), wood anemone (*Anemone quinquefolia*), herb Robert (*Geranium robertianum*), field horsetail (*Equisetum arvense*), white ash (*Fraxinus Americana*), pussy willow (*Salix discolor*), hawkweed (*Hieracium spp.*), goldenrod (*Solidago spp.*), common dandelion (*Taraxacum officinale*), large leaf avens (*Geum macrophyllum*), freeman's maple (*Acer freemanii*), common red raspberry (*Rubus idaeus*) and giant goldenrod (*Solidago gigantea*).

4.1.4 Agriculture

There are currently 25 individual fields considered agricultural on the STAMP Site ranging in size from approximately two acres to 90 acres with a combined total of approximately 961 acres (Figure 6). Many fields are leased to local farmers to produce forage and grains (primarily corn) for dairy operations. In 2016, most agricultural land at the STAMP Site was planted to row crops including corn and soybeans.

Active agricultural lands at the STAMP Site represent less than 1% of the total crop land acres located in Genesee County (*i.e.*, 0.65%), and approximately 1.7% of total cropland acres located in Agricultural District No. 2. There are approximately 148,584 acres of cropland located in Genesee County, with approximately 120,365 acres of this total classified as prime farmland. Agricultural District No. 2 encompasses 55,143 acres of land located in the Towns of Alabama, Batavia, Elba, Oakfield, and Pembroke. Of the approximately 961 acres of the Site currently being used for farming, approximately 275 acres are classified as prime farmland soils. These represent 0.23% of the total prime farmland located in Genesee County and 0.49% of the total prime farmland acreage located in Agricultural District No. 2.

4.1.5 Wildlife Habitat

The STAMP Site is located within the Erie-Ontario Plain (EOP) Ecozone (<http://www.fs.fed.us/land/pubs/ecoregions/ch17.html#222I>, accessed October 2016). The EOP Ecozone is that area adjacent to Lakes Erie and Ontario where the land is generally flat with a subtle slope up and away from the lake basins. Elevations within the EOP Ecozone are typically less than 800 feet above MSL. The forest type associated with this ecozone is predominantly elm-red maple-northern hardwood. Only about one-fifth of the land is forested. Multiple ecological community types are found within this Ecozone, including riverine, lacustrine, palustrine, terrestrial, and subterranean. Palustrine and terrestrial ecological communities are found on the STAMP Site.

The majority of the habitat types on the STAMP Site are agriculture lands, old field, shrub, forest, and/or wetland habitat. The ecological communities identified on the STAMP Site are not considered rare habitats, and are common throughout New York State and within the surrounding watersheds. These communities, including the agriculture lands, support various avian and

terrestrial wildlife species common to the area including passerine birds, raptors, woodpeckers, and game birds such as Canada geese (*Branta canadensis*), and wild turkeys (*Meleagris gallopavo*). Common mammal species using the site include white-tailed deer (*Odocoileus virginianus*), raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), and small mammals. Both uplands and wetlands support common amphibian and reptile species such as northern leopard frogs (*Rana pipiens*), American toads (*Bufo a. americanus*), painted turtles (*Chrysemys picta marginata*), and garter snakes (*Thamnophis s. sirtalis*).

Nineteen (19) wildlife and plant species of concern were identified by USFWS, NYSDEC Natural Heritage Program and NYSDEC Division of Environmental Permits as historically or potentially occurring on the STAMP Site (Table 3). The area was thoroughly examined during March – August 2010 for suitable habitat and evidence of occurrence of any of these species using survey methodology specified by the New York Natural Heritage Program and NYSDEC (Earth Dimensions, Inc. 2011). Two additional winter raptor surveys were conducted at the site in the months of January and February 2011 using the NYSDEC’s Wintering Raptor Stationary Survey Protocol. A Phase I Summer Habitat Assessment was completed for the northern long-eared (NLE) bat (*Myotis septentrionalis*) in May 2016.

Species	Listing Status
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened in NYS/Federally Threatened
Pied-billed Grebe (<i>Podilymbus podiceps</i>)	Threatened in NYS
Heartleaf Plantain (<i>Plantago cordata</i>)	Threatened in NYS
Nodding Pogonia (<i>Triphora trianthophora</i>)	Endangered in NYS
Persius Duskywing (<i>Etynnis persius persius</i>)	Endangered in NYS
Karner Blue (<i>Plebejus melissa sanntelis</i>)	Endangered in NYS/Federally Endangered
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)	Special Concern in NYS
Henslow’s Sparrow (<i>Ammodramus henslowii</i>)	Threatened in NYS
Horned Lark (<i>Eremophila alpestris</i>)	Special Concern in NYS
Least Bittern (<i>Lxoblychttis exilis</i>)	Threatened in NYS
King Rail (<i>Rallus elegans</i>)	Threatened in NYS
Black Tern (<i>Chlidonias niger</i>)	Endangered in NYS
Short-eared Owl (<i>Asio llammetts</i>)	Endangered in NYS
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	Threatened in NYS/Federally Protected
Northern Harrier (<i>Circus cyaneus</i>)	Threatened in NYS
Houghton’s Goldenrod (<i>Oligoneuron houghtonii</i>)	Threatened in NYS/Federally Threatened
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	Federally Threatened
Bog Turtle (<i>Glyptemys nuthlenbergii</i>)	Endangered in NYS/Federally Threatened
Eastern Massasauga (<i>Sistrurus catenatus catenatus</i>)	Endangered in NYS

Heartleaf plantain (*Plantago cordata*), horned lark (*Eremophila alpestris*), and northern harrier (*Circus cyaneus*) were all observed at the STAMP Site. A bald eagle (*Haliaeetus leucocephalus*) was also observed flying over the STAMP Site. None of the other potentially occurring species were observed at the STAMP Site.

4.1.6 Aquatic Resources

The STAMP Site does not lie within a FEMA 100-year floodplain. Surface water resources on the Site include wetlands, ephemeral streams, and Whitney Creek, a perennial stream (Figure 7). A field delineation of aquatic resources was conducted in spring 2010 using methodology specified by the Corps of Engineers Wetlands Delineation Manual (January 1987) and Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (October 2009) to map all aquatic resources meeting federal criteria (Earth Dimensions, Inc. July 14, 2010 Revised November 16, 2011). In addition to mapping wetland boundaries and drainage ways, assessment data were collected in spring 2010 to determine the condition and quality of existing wetlands and to describe the primary functions and services they provide (Earth Dimensions, Inc. 2010 - Functions and Values Assessment). An updated field delineation was conducted in October 2016 to verify and/or update the aquatic resource delineation.

Wetlands

Figure 7 shows the locations and regulatory status of all delineated wetlands on the STAMP Site. Table 4 provides a list of wetlands delineated on-site with their identification number, community type, size, jurisdiction, primary functions and values, and a condition rating. An approved jurisdictional determination and boundary confirmation was completed by USACE in February 2012 with minor modifications which are reflected in the data presented here. There were 47 wetlands (totaling approximately 107 acres) delineated at the STAMP Site. Most wetlands were ranked low to medium quality based on factors including hydrological disturbance, presence of invasive species, adjacent land use, fragmentation, human activity, and deforestation (Table 4, Figure 8). There were several wetlands, comprising more than half of the wetland acreage, that were ranked high quality (Wetlands 2, 6, 9, and 20). High quality ranking was based on connectivity, presence of native, diverse vegetation communities, and wildlife habitat potential. The primary functions and values provided by wetlands at the STAMP Site include flood-flow alteration, nutrient removal/retention/transformation, sediment/toxicant retention, and wildlife habitat.

Table 4. Existing Wetlands Within the STAMP Site and Associated Technical Information

Wetland Number	Community Type(s)/ Comments	Wetland Size (acres)	Jurisdiction	Primary Functions/Values	Condition
1	PFO Hardwood Swamp and PEM Cattail Marsh, adjacent to active farming, high quality, subdued kettle hole on the lake plain	0.63	USACE/NYSDEC ¹	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat, potential t/e species habitat	High
2	PFO Floodplain Forest and PFO Hardwood Swamp, with linear water course through farmed areas, linear features, include reed canary grass, nice uplands within, some areas shrubby in field, few openings, adjacent to active farming, high quality, slight micro-depressions, lake plain, kettle holes	18.48	USACE/NYSDEC	floodflow alteration, nutrient removal, wildlife habitat, potential t/e species habitat	High/Low
3	PSS scrubby, fragmented by farming, overgrown with vines, invasive species, debris, adjacent to active farming	0.07	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
4	In hedge row, PEM/PSS, scrubby, reed canary grass, adjacent to active farming	0.45	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low/Medium
5	PFO hardwood swamp, fragmented by farming, small, adjacent to active farming	0.04	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low/Medium
6	PFO hardwood swamp, edges contain invasive species, adjacent to active farming, dissected lake plain, flowing water in sw direction in concave trough	4.43	USACE/NYSDEC	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat, potential t/e species habitat	High
7	PEM Shallow Emergent Marsh, fragmented by farming, small, adjacent to active farming	0.06	NON	nutrient removal, wildlife habitat	Medium
8	PFO Hardwood Swamp and PSS Shrub Swamp, contains farm pond with fish, adjacent to active farming	0.99	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium/High
9	PFO Hardwood Swamp, adjacent to active farming, high quality, nearly level micro-relief, lake plain, power line right of way through wetland	1.71	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat, potential t/e species habitat	High
10	PEM Shallow Emergent Marsh, farmed, possibly contains contaminants, water stagnant adjacent to active farming	1.55	USACE	nutrient removal, wildlife habitat	Medium

Table 4. Existing Wetlands Within the STAMP Site and Associated Technical Information

Wetland Number	Community Type(s)/ Comments	Wetland Size (acres)	Jurisdiction	Primary Functions/Values	Condition
11	PEM- Reed Canary Marsh (RCM), adjacent to active farming, concave	0.11	NON	nutrient removal, wildlife habitat	Low
12	PSS Shrub Swamp, in hedgerow, adjacent to active farming	0.08	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
13	PSS Shrub Swamp, in hedgerow	0.38	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
14	PSS Shrub Swamp, in hedgerow, adjacent to active farming	0.06	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
15	PEM Shallow Emergent Marsh, man-made farm pond, adjacent to active farming, ground moraine, concave	0.25	NON	nutrient removal, wildlife habitat	Medium
16	PEM Shallow emergent marsh reed canary grass, adjacent to active farming	0.05	NON	nutrient removal, wildlife habitat	Low
17	PSS Shrub Swamp, in hedgerow, adjacent to active farming	0.02	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
18	PSS Shrub Swamp, in hedgerow, adjacent to active farming, slightly concave	0.15	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
19	PSS Shrub Swamp, in hedgerow, adjacent to active farming	0.34	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
20	PFO Floodplain Forest, PSS Shrub swamp and PFO Hardwood Swamp, with linear water course through farmed areas, includes reed canary grass nice uplands within, some areas shrubby in field, few openings, adjacent to active farming, concave drainageway, concave, lake plain, kettle hole	31.75	USACE/NYSDEC	floodflow alteration, nutrient removal, wildlife habitat, potential t/e species habitat	High/Low
21	PFO Hardwood Swamp, adjacent to active farming, hemlock swamp within as well as vernal pools	0.50	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat, potential t/e species habitat	Medium
22	Whitney Creek corridor, Class C- non-trout, PFO Hardwood Swamp, some invasive species, fish present in channel, fringe of wetlands/floodplains, adjacent to	6.93	USACE	floodflow alteration, nutrient removal, wildlife habitat, potential t/e species habitat	High

Table 4. Existing Wetlands Within the STAMP Site and Associated Technical Information

Wetland Number	Community Type(s)/ Comments	Wetland Size (acres)	Jurisdiction	Primary Functions/Values	Condition
	active farming, high quality, concave, small farm dump area located by D28				
23	PEM Shallow emergent marsh adjacent to active farming	0.33	USACE	nutrient removal, wildlife habitat	Medium
24	PEM Phragmites marsh adjacent to active farming, lake plain, concave	0.40	NON	nutrient removal, wildlife habitat	Low
25	PEM cattail marsh adjacent to active farming, adjacent to road, concave drainage way	0.23	NON	nutrient removal, wildlife habitat	Low/Medium
26	PEM/PSS linear water course through farmed areas, includes reed canary grass, some areas shrubby in field, adjacent to active farming, concave	1.37	USACE	nutrient removal, wildlife habitat	Low
27	PFO Hardwood swamp, fragmented edges from farming, squared wood edges, upland islands within, farm pond or old farm dump within some logging trails present and/or debris, adjacent to active farming, wetland hummocks	3.75	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium
28	PFO Hardwood swamp, small, adjacent to active farming	0.02	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat, potential t/e species habitat	Medium
29	PFO Hardwood swamp, fragmented from farming, squared wood edges, upland islands within, some logging trails present and/or debris, adjacent to active farming, vernal pools present	4.66	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat, potential t/e species habitat	Medium
30	PSS Shrub Swamp, along road/ part of road side ditch, adjacent to active farming, lake plain, concave	0.25	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
31	PSS Shrub Swamp- scrubby, Old channel scar, adjacent to active farming, lake plain, concave and convex, ground moraine, convex slope to maintained drain, old foundation found, some debris at southern end.	0.64	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
32	PEM Shallow Emergent/Cattail Marsh, adjacent to active farming	0.05	NON	nutrient removal, wildlife habitat	Medium

Table 4. Existing Wetlands Within the STAMP Site and Associated Technical Information

Wetland Number	Community Type(s)/ Comments	Wetland Size (acres)	Jurisdiction	Primary Functions/Values	Condition
33	PFO hardwood swamp with some shrubs, some open water, garbage, somewhat disturbed from farming, adjacent to active farming, ground moraine, concave, excavated pit	0.31	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low/ Medium
34	PEM/PSS linear water course through farmed areas, include reed canary grass, some areas shrubby in field, adjacent to active farming, irregular topography, slightly altered, lake plain	1.78	USACE	nutrient removal, wildlife habitat	Low
35	PEM shallow emergent marsh, overgrown and scrubby, some debris, old foundation within wetland area, adjacent to active farming	0.11	NON	nutrient removal, wildlife habitat	Medium
36	PFO Hardwood swamp, fragmented edges from farming, squared wood edges, upland islands within, some logging trails present and/or debris	12.04	USACE/NYSDEC	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat, potential t/e species habitat	Medium
37	PFO Hardwood swamp, fragmented edges from farming, squared wood edges, upland islands within, some logging trails present and/or debris	5.63	USACE/NYSDEC	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat, potential t/e species habitat	Medium
38	PSS Shrub Swamp, in hedgerow, adjacent to active farming	0.02	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low
39	PEM/PSS linear water course through farmed areas, include reed canary grass, some areas shrubby in field, adjacent to active farming	0.89	USACE	nutrient removal, wildlife habitat	Low
44	PEM Shallow emergent marsh	0.06	USACE	nutrient removal, wildlife habitat	Medium
46	PEM/PSS linear water course through farmed areas, include reed canary grass, some areas shrubby in fields, very dense in spots	1.72	USACE	nutrient removal, wildlife habitat	Low
47	PEM Shallow emergent marsh, roadside, Phragmites and reed canary grass, concave, recessional moraine	0.06	NON	nutrient removal, wildlife habitat	Low
48	PSS- shrub swamp, successional shrubland, very dense in spots	2.08	USACE	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium

Table 4. Existing Wetlands Within the STAMP Site and Associated Technical Information					
Wetland Number	Community Type(s)/ Comments	Wetland Size (acres)	Jurisdiction	Primary Functions/Values	Condition
49	PSS- shrub swamp, successional shrubland, very dense in spots	0.11	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium
50	PSS- shrub swamp, successional shrubland, very dense in spots	0.97	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium
51	PFO/PEM hardwood swamp and reed canary grass marsh in hedgerow	0.22	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low/Medium
52	PSS- shrub swamp, successional shrubland, very dense in spots	0.56	NON	floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium

¹Wetlands identified as NYSDEC Jurisdiction are based on communication with NYSDEC staff but are not currently mapped by NYSDEC

Streams

Three main drainages flow east to west across the STAMP Site fed by small ephemeral and intermittent ditches and drainage ways (see Figure 9). These streams, ditches, and drainage ways combined make up a total of approximately 30,053 linear feet. Whitney Creek cuts across the southwest corner of the STAMP Site. A drainage corridor (Tributary 5) bisects the STAMP Site north of Whitney Creek and includes a significant area of relatively intact headwater wetlands and stream habitat. A third, more severely impacted drainage (Tributary 3) bisects the STAMP Site to the north of the second corridor. This third corridor along with the majority of other drainage features and wetlands on the STAMP Site have been heavily impacted by ditching, draining, deforestation of buffers, and associated farming activities (Figures 5 and 9).

Sixteen stream reaches within seven tributaries and Whitney Creek were surveyed by CC Environment & Planning in July 2013 at the STAMP Site using the Stream Visual Assessment Protocol (SVAP) Version 2 (U.S. Department of Agriculture 2009). This protocol ranks streams based on criteria such as channel condition, bank condition, riparian area quality and quantity, pools, fish and aquatic invertebrate habitat, hydrologic alteration, canopy cover, and nutrient enrichment. The ranks determined for each criterion are averaged and a final score is calculated. This score allows for a quantitative means of comparing different streams or sections of streams.

Scores for the STAMP Site survey ranged from a low of 0.9 (severely degraded) to a high of 7.7 (good). Three tributaries fell into the severely degraded category, 4 into the poor category, 6 into the fair category, and 3 into the good category (Table 5). No reaches fell into the excellent category. Figure 9 shows the location and ranking of each tributary.

Tributary	Length (Linear Feet)	Weighted Average Score
1	833.06	7.5 - Good
2	3,309.22	0.83 - Severely Degraded
3	11,517.32	4.45 – Poor
4	2,012.05	4.93 – Poor
5	4,679.24	5.97 – Fair
6	2,310.00	6.3 – Fair
7	1,094.91	3.7 – Poor
Whitney Creek	4,297.23	7.55- Good
Total	30,053.04 ¹	

¹A total of 30,053 linear feet of stream were surveyed in the field. This total number provides a more precise measure of total length of stream at the STAMP Site than the desktop estimate of 33,900 linear feet presented previously. Impact and mitigation calculations are based on the more precise field survey data.

4.2 CULTURAL RESOURCES

Historic maps and site files indicate that several portions of the STAMP Site have potential prehistoric and historic significance. Development of the STAMP Site requires review to identify potential impacts to cultural resources. Several cultural resource investigations have been completed to date in association with STAMP to document and protect historic resources. Cultural resource investigations have been completed for the STAMP Site by Deuel Archaeology & CRM in 2010 and by the Archaeological Survey, Department of Anthropology at the State University of New York at Buffalo in 2013 and 2016. Appendix D provides the most recent cultural resource investigation update including maps and figures showing status, recommendations, and remaining investigations. Investigations include consultation and review with New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) and the Tonawanda Seneca Nation.

Overall, studies have determined that portions of the STAMP Site have a high degree of sensitivity for prehistoric sites, and a moderate-to-high degree of sensitivity for historic sites. The initial Phase IA study completed in 2010 identified prehistoric sites ranging from stray finds to small lithic scatters to camps, habitation sites and ceremonial sites. Historic sites identified included map documented structures, middens, barns, outbuildings, and house foundations. Phase IB testing in 2013 resulted in the recovery of artifacts (primarily prehistoric) and the identification of 27 archeological sites including 21 prehistoric sites, 6 historic sites, and scattered artifacts grouped as one site termed “STAMP Stray Finds.” Where these archeological sites intersect with planned development at the STAMP Site, additional investigation is required or has been completed under Phase II investigations. Protection of resources at these locations is ensured through avoidance or data recovery under Phase III investigations and mitigation. See Appendix D for the most current information on the status of the STAMP Site cultural resource investigations and Site maps.

4.3 COMMUNITY RESOURCES AND UTILITIES

A small percentage of the STAMP Site is developed with existing utility line rights-of-way, roads, and residential homes and buildings.

4.3.1 Public Use

Current public use activities at the STAMP Site are limited. A snowmobile trail crosses the Site entering from the south, west of Crosby Road and extending north to a farm lane (historically Patterson Road) where it exits the Site to the north near Route 77 and to the east at Route 77/63 (Figure 10).

Properties immediately adjacent to the STAMP Site include public lands owned and managed by NYSDEC as part of John White State Wildlife Management Area (WMA, Figure 10). These lands support a variety of public use activities including hiking, cross country skiing, wildlife observation, snowmobiling and hunting.

4.3.2 Utilities

Water and Wastewater

The STAMP Site consists of agricultural land and a few residential houses that do not contain municipal water service or fire protection and are served by private wells. The STAMP Site does not contain municipal sanitary sewer service. The nearest municipal water supply sources are located in the Village of Oakfield, approximately 5.7 miles to the east of the Site, and in the Town of Pembroke, approximately 4.7 miles to the south of the Site. The nearest municipal wastewater treatment facilities are located in the Villages of Oakfield and Corfu (approximately 9 miles from the Site).

Energy and Gas

The STAMP Site lies within the Niagara Hydro Power Zone, which has the potential to provide a low-cost, renewable source of energy for users at the Site. A 115 kV line currently traverses the Site. A 345 kV line is located just north of STAMP.

Roads

The STAMP Site is bounded by three roads with NY Route 77 to the north, NY Route 77/63 to the east, and Judge Road to the south. Crosby Road extends north/south through the Site. NY Route 77 and NY Route 77/63 are classified as rural minor arterial roadways and Judge Road and Crosby Road are classified as local streets. Crosby Road serves several residences along the north end and historically a residence in the center of the Site which is now abandoned. Crosby Road receives a relatively significant amount of local traffic serving as a short cut between Route 77 and Judge Road. There are two gravel farm lanes maintained for agricultural operations on the Site. These include the historic Patterson Road (an abandoned roadway extending west from Crosby Road) and an unnamed road entering the site from Judge Road and extending north, over Whitney Creek to active farm fields.

4.3.3 Land Use and Zoning

The Site and surrounding areas are predominantly agricultural lands, recreational and open space, and large lot residential development. There are 10 residences within the STAMP Site. Most of these have been purchased by GCEDC and have been vacated. Houses along Crosby Road are proposed for demolition.

At project inception, the entire Site was zoned A-R (Agricultural-Residential). Pursuant to an Incentive Zoning Agreement between the Town of Alabama and GCEDC (Appendix F), the site has been rezoned to a Technology District (TD) to permit advanced manufacturing and related support facilities at STAMP. Pursuant to the rezoning amendment, the TD was broken down into three (3) sub-districts, namely TD1, TD2 and TD3, each of which has its own set of permitted uses under the Town Code. TD zoning includes buffer zones as described below. Appendix A, Map 2 illustrates TD and buffer zoning.

TD1 is the primary heavy manufacturing/industrial district. Permitted uses in TD1 include but are not limited to technology manufacturing, light industry, technology or environmental demonstration facilities, warehousing and distribution facilities, professional offices, public utilities and accessory uses and buildings.

TD2 is the secondary/support light-industrial district. Permitted uses in TD2 include but are not limited to light industry, office buildings, professional offices, warehousing and distribution facilities, community and cultural facilities, including museums, medical/health related services, public utilities and accessory uses and buildings. TD2 is designed to serve as a buffer between more intensive land uses in TD1 and commercial/retail uses in TD3 or residential and agricultural uses adjacent to the Site.

TD3 is the final district encompassing mostly commercial and retail uses. Permitted uses in TD3 include but are not limited to office buildings, professional offices, retail trade, restaurants, shopping centers, parks and pedestrian trails and accessory uses and buildings.

Buffer zones are including in the TD zoning. A 100-foot buffer zoned A-R will remain along the perimeter of the Site and property lines shared with existing houses, roads, and the hamlet of Alabama to maintain exiting viewsheds as well as the rural character surrounding the Site. This includes establishment of a trees and shrubs within the 100-foot A-R buffer along the north edge of the Site. A 100-foot buffer along a ridgeline and planned bypass road will remain undeveloped to provide visual separation between the Hamlet of Alabama and Site development. This includes a 40-foot buffer east of the planned bypass road in TD2. An additional 300-foot open space buffer is established along the edges of TD1 and TD2 on the west, south, and a portion of the east side of the Site to total 400 feet of open space buffer in these areas. This buffer is expanded to a total of 500 feet adjacent to John White State WMA in the southeast corner of the Site. Permitted uses in buffer zones include establishment and maintenance of natural cover, landscaping, fencing, signs, access drive and utility crossings and snowmobile, pedestrian trails.

4.3.4 Easements

National Grid currently owns and maintains a 115 kV power transmission line and right-of-way that currently bisects the Site. No other easements currently exist on the Site.

4.4 REGION AND LANDSCAPE

Consideration of the surrounding landscape is critical to the development of land management plans. This section provides an overview of the ecoregion and watershed properties and conservation priorities that influence and guide natural resources management planning at the STAMP Site. Aligning natural resource management goals and strategies with landscape level priorities as defined by ecoregions and watersheds is consistent with NYSDEC's Comprehensive Wildlife Conservation Strategy (CWCS). The CWCS was completed in 2005 to address the

wildlife species (and their habitats) in greatest need of conservation in the state. The CWCS is a collaborative effort among agencies, organizations and individuals with an interest in New York's wildlife (<http://www.dec.ny.gov/animals/9404.html>). Aligning natural resource planning at the STAMP Site with the state CWCS effort will help guide site specific conservation priorities and facilitate the partnership development and funding support necessary to implement conservation actions.

4.4.1 Ecoregion

An ecoregion is an area defined by similar soil, physiography, climate, hydrology, geology and vegetation. The STAMP Site is located in the Eastern Great Lakes Lowlands Level III (Ontario Lowlands Level IV) Ecoregion (Figure 11, Bryce et al. 2010). The Eastern Great Lakes Lowlands Ecoregion has a climate marked by warm summers and cold, snowy winters. Cropland is the dominant vegetation in a landscape that was previously an area of mixed coniferous-deciduous forests. The remaining forests present sugar maple, yellow birch, eastern hemlock, basswood, and eastern white pine; beech occurs on warmer sites. Dry sites are dominated by red oak, pine, and cedar. Wetter sites support red maple, black ash, white spruce, tamarack, and eastern white cedar. Rivers, lakes, streams, and wetlands are common. The Ontario Lowlands Level IV Ecoregion is defined by the historic extent of Glacial Lake Iroquois. Climate is modified by the proximity to Lake Ontario resulting in reduction in summer heat and winter cold and higher precipitation. Current land use is dominated by agriculture surrounding large urban centers. Dairy and livestock are common and the soils and climate are also suitable for a wide range of fruits, vegetables, and other specialty crops. Prior to agricultural clearing, vegetation cover was largely beech-maple forest. Only scattered woodlots remain.

4.4.2 Watershed

A watershed, or drainage basin, is an area of land that shares a common destination for all surface and groundwater drainage. A definition provided by John Wesley Powell, scientist geographer, puts the importance of the watershed scale for land use planning into perspective: "*A watershed is that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community.*" Several watershed levels have been considered and evaluated to provide a broad geographic context to guide land use decisions at the STAMP Site including the Niagara River/Lake Erie Basin, the Tonawanda Creek Watershed – Middle Tonawanda Sub-Basin (Figure 12) and a more specific watershed evaluation conducted by the GCEDC of Whitney Creek subwatershed (Jacobs 2010, Figure 12). Watershed reviews and assessments provide an analysis of land use features of local and regional watersheds that encompass the STAMP Site and evaluate the connection between natural resources on the STAMP Site and site-specific and watershed conservation priorities. This section provides a summary of the watershed assessment.

A watershed assessment of Whitney Creek (a subwatershed of the Tonawanda and Niagara Rivers) was conducted to provide a broader context of the surrounding landscape to guide design and development strategies at the STAMP Site, and to identify conservation priorities and mitigation strategies at the STAMP Site and within the surrounding watershed. A key function of the watershed assessment is to analyze land use features of local and regional watersheds that encompass the STAMP Site in order to evaluate the connection between natural resources on the STAMP Site and STAMP Site-specific and watershed conservation priorities. The watershed assessment also provides a landscape-level perspective useful in consideration of the mitigation actions discussed below.

The Whitney Creek Watershed, which is modified based on actual flow from Middle Tonawanda Hydrologic Unit Code (HUC): 041201040304 and Oak Orchard HUC: 041300010403, has a drainage basin of 12,810 acres and is associated with the Niagara River Watershed which flows eventually into Lake Ontario (Figure 12). Based on 2001 Land Use Land Cover (NRCS 2001) and current aerial imagery, Whitney Creek Watershed is dominated by agriculture (47%), forest and forested wetlands (26%) and non-forested wetlands (17%). Only 4% of the watershed has been developed (Figure 13). Approximately 5,160 acres (40%) of the watershed is publicly owned by state or federal agencies preserving a large, intact area of natural lands in the northwest portion of the watershed. Agricultural, developed areas and habitat fragmentation are prevalent in the southeastern, headwater portion of the watershed. This headwater area has very little forest cover, and significantly more wetland loss based on existing land cover, wetland, and soils data. The streams in the southeastern section of the watershed are not well protected and much of the stream length lacks forested buffer due to adjacent high intensity land uses.

An approximation of historic wetlands for the Whitney Creek Watershed was developed based on soils classified as >80% hydric (soils >80% of a soil map unit classified as hydric by the Natural Resource Conservation Service) and current National Wetlands Inventory (NWI) and NYSDEC-mapped wetlands. Former wetlands were defined as areas that are mapped hydric soils (>80% of map unit) but not mapped as wetlands based on the latest wetland maps. Historically, approximately 41% of the land area of the watershed was wetland. Based on the most recent wetland maps 36% percent of the watershed area is currently wetland which constitutes a very small overall loss in wetlands. A comparison of NWI and NYSDEC mapped wetlands at the STAMP Site to the results of the actual wetland delineation map, which shows much greater wetland acreage, support the trend seen elsewhere in this region that there are more wetlands than are currently mapped – suggesting this loss is even smaller. The greatest wetland loss is evident in the southeastern portion of the watershed along with degradation and loss of forested stream buffers.

Table 6. Whitney Creek Watershed Land Use Land Cover in 2001

Whitney Creek Watershed Land Use/ Cover (2001)	Total Acres	Percent of Watershed
Forest	3,338	26%
Emergent Wetlands	2,134	17%
Agriculture	6,073	47%
Developed	569	4%
Water	654	5%
Other (barren, shrub/ scrub)	696	1%
Total Area	12,810	

Based on the Whitney Creek Watershed assessment, land use planning should build upon the value of the existing natural resources by strategically protecting and restoring lands to maintain and enhance intact habitat in the northwestern reaches of the basin and restore habitats that have been degraded in the southeastern section. Located in the middle of the watershed at the transition between active agriculture and protected, intact habitats, the STAMP Site can be developed to protect and improve existing, high quality headwater wetlands, streams, and stream buffers, as well as contribute to the improvement of the water quality, flood reduction, and aquatic habitat on-site and in downstream waters. Based on natural resource assessments conducted at the STAMP Site and within the watershed, two conservation priorities were identified for this project in the Whitney Creek Watershed: 1) Protect and restore headwater streams and wetlands; and 2) Re-establish stream buffers in native vegetative cover.

4.4.3 Regional Trends/Demographics

Historically much of the landscape surrounding the STAMP Site has been altered by human activities (primarily agriculture). Remaining forestlands are patchy and fragmented with low diversity and lack of structure. Invasive plant and animal species have become problematic for many habitat types and there have been continued declines in many native species.

The human population has declined over the past 10 years regionally. According to recent U.S. Census data, the population of the Town of Alabama was 1,869 (2010) and Genesee County was about 58,937 (2015), which changed little from the 2000 U.S. Census (slight decrease). The state population increased slightly more than 2% over this ten-year period. As a comparison, the national population increase was 9.7%.

In spite of the overall trend of population decline, there has been a continued increase in land development. Land consumption has outpaced population growth, which can be economically detrimental (Pendall, 2003). As with most regions, sustainable development compatible with natural resource conservation is critical to avoid further fragmentation of sensitive habitats and threats to the rare species that depend upon them.

4.4.4 Regional Priorities

Regional priorities applicable to natural resource conservation opportunities at the STAMP Site were identified from the assessment of regional and state plans and site specific and watershed conditions and trends. Table 7 provides a list of plans reviewed for applicable priorities. Regional priorities considered in development of this LMP focus on specific watershed functions, habitats, vegetation communities, wildlife species, economic development, land use, and community resource needs.

Table 7. Regional Plans
North American Waterfowl Management Plan – Atlantic Coast and Northern Forest Joint Ventures
Partners in Flight Physiographic Region __ Plan
Bird Conservation Region 13 Ontario Landbird Conservation Plan
Southeast and Northeast Lake Ontario Comprehensive Wildlife Conservation Strategies (NYSDEC)
Niagara River Watershed Management Plan
Green Genesee Smart Genesee/Town of Alabama Green Action Plan
Agricultural Protection Plans

5.0 PROPOSED MASTER PLAN

5.1 SITE DEVELOPMENT OVERVIEW

Per the FGEIS and the GCEDC Findings and the GCEDC SEQR Update and Updated Findings (2016), STAMP provides for the development of a high technology campus accommodating over 6 million square feet of advanced technology manufacturing space and related uses providing direct employment of an estimated 9,000 people (Appendix A). The basic and overall purpose of the Project is the development of an advanced manufacturing technology center in Genesee County. The Project is designed to target green-technology and advanced manufacturing companies involved in developing and manufacturing clean technology, renewable energy and/or energy efficient products including semi-conductor manufacturers, photovoltaic solar cell manufacturers, flat panel display manufacturers including medical imaging display, bio-pharmaceutical/ nanotechnology-enabled industries, and green technology research and development for energy efficient building products. The Master Buildout Plan for STAMP currently accommodates a large semiconductor manufacturing complex in the northwest quadrant of the Site to ensure the ability to host multi-facility 450mm semiconductor manufacturing and related support services and industries.

Advanced manufacturing facilities are customized for each specific company. However, key facility benchmarks, layouts and building components are standard and are incorporated into the Site Master Buildout Plan. The building layouts illustrated in the Master Buildout Plan maps will accommodate the needs of companies that locate at STAMP and are conceptual for the purpose of review and planning. The exact placement of buildings within the various development areas will respond to market demand and building prototypes proposed by the individual companies that locate at STAMP.

As described in Section 4.3.3, pursuant to a rezoning amendment and the IZA, and in support of the diversity of facilities required to develop the Site, the STAMP Site was established as a Technology District (TD) broken down into three sub-districts, namely TD1, TD2 and TD3, each of which has its own set of permitted uses under the Town Code (Appendix A, Map 2). In review, TD1 is the primary heavy manufacturing/industrial district. Permitted uses in TD1 include but are not limited to technology manufacturing, light industry, technology or environmental demonstration facilities, warehousing and distribution facilities, professional offices, public utilities and accessory uses and buildings. TD2 is the secondary/support light-industrial district. Permitted uses in TD2 include but are not limited to light industry, office buildings, professional offices, warehousing and distribution facilities, community and cultural facilities, including museums, medical/health related services, public utilities and accessory uses and buildings. TD3 is the final district encompassing mostly commercial and retail uses. Permitted uses in TD3 include but are not limited to office buildings, professional offices, retail trade, restaurants,

shopping centers, parks and pedestrian trails and accessory uses and buildings. The various building types and elements fundamental in the establishment of a semiconductor manufacturing site are described in more detail below.

Technology Manufacturing

Technology manufacturing uses will be located on the low-lying, less visible portion of the STAMP Site, distant from the Hamlet of Alabama. Advanced manufacturing facilities consist of related buildings where the actual manufacture and/or assembly of technological components occur. In addition, depending on the technology, a series of utility buildings and warehouse areas are required to support the manufacturing facilities themselves. These uses are illustrated in the dark purple color in Appendix A, Map 1.

Advanced manufacturing/semiconductor facilities typically require contiguous sites no less than 500 acres in size to accommodate the factories, their related components and storage areas, bulk high purity gases, a service yard for delivery and movement of components, large staging areas for assembly and construction vehicles (craft assembly areas), parking for employees and other vehicles, stormwater management areas, and ample setbacks and buffer zones from adjacent development.

Semiconductor facilities are typically multi-story buildings with large footprints and building heights of approximately 160-180 feet. The tool sets that create the varied outputs of the advanced manufacturing facilities, along with the production flows for the manufacture of goods, also influence the size, shape and configuration of any given factory.

Craft Assembly Areas

Craft Assembly Areas have been designed in accordance with the standard size needs for a chip fab manufacturer to provide a centralized location for laydown areas. The Craft Assembly Area is a necessity as the science technology and advanced manufacturing sector is in a continuous state of fabrication, construction and facility upgrades to support the latest technological developments. The two Craft Assembly Areas indicated in the Master Buildout Plans (Appendix A) will be used for staging for external and internal equipment, construction laydown and storage areas, construction deliveries, temporary construction parking or other uses required by the tenants during and after construction activities. Once the manufacturer begins construction on the first chip fab building and the first phase of construction, the Craft Assembly Areas will be used for construction of additional phases. After full buildout, the Craft Assembly Areas will continue to be used for any additional supporting processes of the Chip Fabs.

Flex Space Support Uses

Smaller-scale support uses are predominately located on the eastern portion of the site nearer to Allegany Road/NYS 77-63 and the Hamlet of Alabama (Appendix A, Map 1). These buildings consist of uses that support the workings of the advanced technology manufacturing buildings. Some examples of typical flex/support uses in this context are: mask and gown

production/cleaning facilities, manufacturers of components necessary for the core manufacturing processes, original equipment providers and parts suppliers, and the like.

Because this use category considers flexible buildings and a range of uses, particular site sizes necessary for each building will be determined by the company locating in such a building at STAMP. In addition to the building footprints, sites will include service and parking areas, as appropriate, as well as buffers, setbacks, and stormwater management facilities as outlined in the Technology Zoning District, created for STAMP as a part of this study and illustrated in Appendix A, Map 2.

In terms of STAMP, 45,000-square foot floorplates are illustrated as an average size. Most flex buildings require a service yard or loading docks, at a minimum, in order to load goods on trucks to supply the advanced manufacturing facilities. Depending on the specific use, parking will be necessary for employees, as well as visitor parking for potential vendors and the like. An average building height for this category of building types is 30 feet, though sometimes multi-floor buildings are constructed with second story office functions that will require a 45-foot maximum height. The components and companies needed to support advanced technology manufacturing are evolving by the day, with the overall industry requirements, so the ultimate size of buildings and their precise locations will be determined by the market at the time a company decides to locate at STAMP.

Office Support Uses

Another support building type developed at advanced technology campuses are office buildings. In some cases, office buildings are constructed immediately adjacent to advanced manufacturing buildings to specifically support individual companies, such as corporate headquarters for the adjacent advanced manufacturing company. However, office buildings are also developed for independent companies whose functions generally relate to the high tech industry. These buildings might be conceived as corporate headquarters, research and development facilities, or speculative office buildings that may be subdivided and leased to smaller companies. These uses are illustrated in orange in Appendix A, Map 1.

Because there are many types of offices and office uses, particular site sizes necessary for each building will be determined by the company locating in such a building at STAMP. In addition to the building footprints, sites will include service and parking areas, as appropriate, as well as buffers, setbacks, and stormwater management facilities.

In terms of STAMP, 20,000 square foot floorplates, typically referred to as Class ‘A’ office space, are illustrated as an average size. Office buildings may be larger to accommodate a specific tenant, or separate buildings may be linked together in a corporate headquarters application. In addition, some buildings may be subdivided and leased by a master developer. Most office buildings require a service entry and/or loading dock for typical deliveries. Depending on the specific developer or tenant, parking will be necessary for employees, as well as visitor parking and drop-off areas. A

maximum average building height for this category depends upon the number of stories, and building heights could range from 20 to 65 feet. Office buildings, their ultimate layout within the campus, as well as individual building heights and configurations, will depend on each specific company locating at STAMP.

Retail Support Uses

Supporting retail uses are planned as an extension of the rural-town feel and character of the Town of Alabama. Retail support uses are intended to compliment both the scale and character of the Hamlet, and support both the STAMP development, as well as the general needs of the community. Examples of potential support retail uses are restaurants, small stores, convenience uses, such as dry cleaners and coffee shops, and small offices for businesses that prefer to be in the Hamlet setting, such as attorneys, doctors, accountants, and the like. This area of the plan will link to the greater STAMP development by a road and trail extending diagonally southwest over the site's ridgeline. Retail support uses are illustrated in the northeast corner of the Site, see Appendix A, Map 1.

Lot sizes for such uses will vary, and will need to accommodate parking and service entries, as necessary. Such retail support uses will be tied together with public sidewalks, street trees, and potentially on-street parking along the new roads to extend the Hamlet character into the STAMP site.

Retail support buildings will be sized and suited to the character and scale of the Hamlet of Alabama. Building heights will also closely match those of the existing buildings in the Hamlet so that this area truly feels like an extension of the Hamlet. Retail uses at STAMP, including the ultimate size of buildings and their precise locations will be determined by the market at the time businesses decide to locate at STAMP.

Parking and Service Areas

Parking and service areas will be associated with the various development sites, and will be built to serve the needs of the build-out of each parcel. Parking is envisioned as surface lots throughout the Project site. The ultimate number of parking spaces built will be in accordance with the zoning requirements set forth for the district in the Town of Alabama Town Code for TD.

Buffers

Buffers are an important component of the Master Buildout Plan to establish separation between development and natural resources, development and residential, and create a campus style setting. As presented in Section 4.3.3, a 100-foot buffer zoned Ag Residential will remain along the perimeter of the Site to maintain existing viewsheds and support the rural character surrounding the Site. Trees and shrubs will be established within the 100-foot A-R buffer along the northern edge of the Site. A 100-foot buffer along a ridgeline and planned bypass road will remain undeveloped to provide visual separation between the Hamlet of Alabama and Site development. This includes a 40-foot buffer east of the planned bypass road in TD2. An additional 300-foot

open space buffer is established along the edges of TD1 and TD2 on the west, south, and a portion of the east side of the Site to total 400 feet of open space buffer in these areas. This buffer is expanded to include another 100 feet (500 feet total) adjacent to John White WMA in the southeast corner of the Site. Buffers will be managed to support natural cover or open space landscaped with native species. Buffers may contain trails, signs, fencing, and utility and access road crossings.

5.2 FULL BUILD OUT

The current STAMP Master Buildout Plan is illustrated in a series of maps provided in Appendix A. At full buildout, the Site is projected to support 6,100,000 SF of buildings, parking, roads, and utilities in 775 acres of developable area. Full development is expected to take place in phases over a 20-year period. As described above, the Site is designed in a campus style setting, protective and complimentary to the natural landscape and includes 488 acres of protected natural resources and open space (See Maps 3 and 4 in Appendix A).

The following sections provide details about the development of the Site to full build out. Refer to Appendix A for illustrations.

5.2.1 Site Access and Roadways

There will be three entry points to STAMP. A boulevard entry (Main Site Entry) will extend from NYS Route 77/63 west to the heart of the campus. A secondary access road will extend off Judge Road on the south side of the Site. The Site may also be accessed from Lewiston Road (NYS Route 77) along the north edge of the Site.

A traffic impact study was completed as part of the SEQR process in 2010 and 2011. As development increases on the STAMP Site, offsite roadway improvements will be required in phases to accommodate and mitigate the increased traffic levels. Most of these improvements will take place within existing road rights-of-way. Some of the improvements may require additional right-of-way acquisitions. From a traffic study standpoint, the following phases were evaluated:

- Phase I: 1,000,000 square feet (SF) of development;
- Phase II: 4,200,000 SF (70% Build Out); and
- Phase III: 6,100,000 SF (Full Build Out).

For Phase I: 1,000,000 SF, required roadway improvements could be limited to:

- Construction of a Main Entrance Roadway from NYS Route 77.
- A turn signal installation on NYS Route 77 @ Ledge Road.
- Monitor intersection for traffic signal on NYS Route 77 @ Judge Road.
- Potential construction of an eastbound right turn lane on Judge Road @ NYS Route 77.

For Phase II: 4,200,000 SF, possible roadway improvements could include (additional traffic studies would take place as development of the Site progresses):

- Traffic signal on NYS Route 77 @ Judge Road.
- Turn lane along NYS Route 77 from Bloomingdale Road to Judge Road.
- Traffic Signal on NYS Route 77 @ Bloomingdale Road.
- Northbound & southbound left turn lanes on NYS Route 77 @ Ledge Road.
- Turn lane along NYS Route 77 from Akron Road to Indian Falls.
- Traffic signal and northbound left turn lane on NYS Route 77 @ STAMP Main Entrance Roadway.
- Northbound left turn lane, realignment, and stop control on NYS Route 77 @ STAMP Bypass Road.
- Monitor intersection for traffic signal on NYS Route 77 @ Lewiston Road.
- Southbound right turn lane (restriping) and southbound right turn arrow on Route 77 @ I-90 Exit Ramp.
- Eastbound right turn lane on Akron Road @ NYS Route 77.
- Eastbound left turn lane on I-90 Exit Ramp @ Route 77.
- Eastbound left and right turn lanes on STAMP Main Entrance Roadway.

For Phase III: 6,100,000 SF, additional future traffic studies along NYS Route 77, from Bloomingdale Road to Judge Road will be required, at a minimum, to determine additional roadway improvements that may be necessary.

5.2.2 Utilities

Electric

The initial phase(s) of Site development are expected to be serviced by electric from the onsite National Grid 115 kV power transmission line that currently bisects the Site. When the Project's electric power needs exceed the capacity of the 115 kV transmission line, a connection will be made to the New York Power Authority (NYPA) dual 345 kV bulk transmission lines. These lines are located approximately 500 feet north of the STAMP Site.

Natural Gas

The STAMP Site will connect to natural gas service via an existing 24-inch high pressure natural gas transmission main that is located approximately 500 feet north of the STAMP Site. The transmission main is owned by Empire Pipeline and operated by National Fuel Gas.

Water Supply

This targeted industry for STAMP requires a reliable, high-capacity source of high-quality potable water, and the ability to properly manage the subsequent wastewater generated from both sanitary and industrial process water applications. The availability of water resources and large diameter water mains is limited in the vicinity of the STAMP Site. A water/wastewater alternatives analysis was conducted, and recommendations were developed to provide up to 12 million gallons per day (MGD) of potable water supply and to manage 12 MGD of wastewater generated at the STAMP Site.

The initial and construction phase(s) of STAMP will be supplied water via a new offsite 12-inch transmission water main. The water main will extend from the Village of Oakfield existing water system located approximately seven miles to the east along NYS Route 63 to Routes 77/63 and into the STAMP Site. The Village of Oakfield recently constructed a new 500,000 gallon water storage tank and replaced their 12-inch transmission water main. The new 12-inch water main will supply the Site with approximately 200,000 gallons per day along with a proposed Town of Alabama Water System. The first phase of water main developed at the Site will be constructed along the proposed Main Entrance Roadway off Route 77/63.

When the STAMP water supply needs exceed the capacity of the initial 12-inch transmission main, a new 24-inch transmission water main may be constructed to connect water from Niagara County, near the Town of Royalton, approximately seven miles to the northwest. The new transmission line will necessitate upgrades of existing water mains and pump stations within Niagara County. Water treatment plant improvements may also be required depending on the final STAMP water supply needs. The 24-inch transmission water main project would be a joint effort with the Niagara County Water District and designed and constructed to supply up to 12 million gallons per day (MGD) to the Project.

Wastewater

At full buildout, STAMP is expected to generate 1.0 MGD of sanitary sewer effluent. The sewer effluent would be pumped approximately 12 miles to the north to the existing Village of Medina Wastewater Treatment Plant (WWTP) for treatment. The Medina WWTP has adequate excess operational and permit capacity to handle 1.0 MGD. The force main would be installed in and adjacent to existing road rights-of-way to transport the wastewater. A new sanitary sewer pump station, constructed on the STAMP Site, would pump the effluent through a newly constructed force main.

At full buildout STAMP is expected to generate 11.0 MGD of process wastewater. Once the amount of process wastewater reaches a certain threshold, it may be pumped approximately 24 miles north to Lake Ontario and discharged directly to the Lake through a dilution diffuser. If required, the process wastewater would be pre-treated to meet regulatory discharge limits. A new pump station, constructed on the STAMP Site, would pump process wastewater through a newly

constructed force main. The force main would be installed in existing road rights-of-way likely bypassing the Village of Medina to Lake Ontario.

Telecommunications & Data

STAMP is expected to be serviced by any one or more local communications network providers. Connecting lines would be installed in the right-of-way adjacent to the existing road.

5.2.3 Stormwater

The Proposed Development will result in additional disturbed and impervious area at the STAMP Site. At full build out, approximately 775 additional acres of impervious area will be created at the site. These changes in covertype and increases to impervious area will require the construction of stormwater management facilities to attenuate changes in stormwater quality and quantity resulting from construction activities and development areas.

A preliminary stormwater management report was completed in 2011. Appendix A, Map 1 identifies primary stormwater management areas which will include conveyance swales, detention basins, and controlled outlet structures. Detention basins will serve two purposes in stormwater management for the site; quantity control and quality control. These basins help to control quantity by attenuating peak flows from the site during storm events through storage capacity. The basins will be equipped with outlet structures that will allow water to flow from the basins at a controlled rate. Storage volume above the level of the outlet will allow for storage capacity in the basin during large storm events. The storage provided by the detention basins also provides stormwater quality control. By holding the stormwater in storage prior to discharge offsite, sediment and other suspended solids are allowed to drop to the bottom of the basin. This keeps these solids from being deposited into the receiving waters at the site. These permanent basins will be supplemented with temporary detention basins, constructed to provide stormwater quality and quantity attenuation during each phase of construction.

Aside from the change in covertype and permeability at the site, construction of STAMP will also result in changes in the direction of stormwater flow across the site. Currently, Tributary 3, where the anchor development of the project will be located, drains in a northwesterly direction across the site. When the phased construction of STAMP reaches its second semiconductor fab, the required site construction will cut off the existing drainage of Tributary 3 across the site. This drainage flow will be rerouted to Tributary 5. Preliminary analysis on Tributary 3 indicates that the 10-year storm flow is approximately 185 cfs and the 100-year storm flow is approximately 310 cfs at the point of rerouting. At the point where this stream enters the northwest wetland system (Wetland 2), the flow is approximately 229 cfs for a 10-year storm and approximately 372 cfs for a 100-year storm. The stormwater management systems located in the northwest portion of the site will be designed to match the flow in the proposed conditions. Therefore, while Tributary 3 may be relocated, the amount and quality of water directed to the wetland systems can be maintained.

Constructed facilities at the STAMP Site will be designed in accordance with state and local regulatory requirements. In addition to primary stormwater pond facilities, point source treatment practices will be implemented as required in the NYSDEC Stormwater Management Design Manual. The point source treatment practices may include rain gardens for roof drainage, bio-retention swales or infiltration trenches for parking areas, and a variety of other practices. Vegetated open swales are natural drainage paths which can be used instead of constructing underground closed storm sewers to increase the time of concentration, reduce the peak discharge, and provide infiltration. Rain gardens manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression. Stormwater planters are defined as small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve water quality. Bioretention areas are defined as shallow stormwater basins or landscaped areas which utilizes engineered soils and vegetation to capture and treat runoff. The practice is often used at parking lots where stormwater can sheet flow into the swale. Buffers for these treatment practices have been incorporated into the overall conceptual plan for the project. As development occurs, additional stormwater studies and calculations will be required to determine compliance and adequate sizing of associated treatment methods.

Prior to the start of any construction, each tenant will be required to prepare an individual Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the New York State Environmental Conservation Law to obtain coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharge from Construction Activities (GP-0-10-001). As discussed above, each plan will be prepared following the New York State Standards and Specifications for Erosion and Sediment Control and the NYSDEC Stormwater Management Design Manual.

Any potential stormwater discharges will be permitted and regulated as required by NYSDEC to match or be below existing peak stormwater flows. Stormwater runoff will be controlled on the Site through a diversity of stormwater management practices. These may include:

- preservation of undisturbed areas;
- protection and enhancement of existing wetlands;
- preservation of vegetated buffers along waterways, wetlands and property boundaries;
- locating development in the least sensitive areas and avoiding aquatic resources to the greatest extent possible;
- restoration of soil properties and porosity;
- development of stormwater ponds, vegetated swales and a collection system; and
- other green infrastructure techniques including porous pavement, rain gardens and green roofs.

These stormwater management practices will be designed to protect downstream waters and habitats by reducing the volume and velocity of stormwater and by filtering runoff. Stormwater management practices must comply with the technical standards in effect at the time the developer submits the applicable SPDES “Notice of Intent” for the site, including runoff reduction criteria (e.g., green infrastructure). These standards must be included with the SWPPP for the site. Given the lengthy build-out time frame estimated for this site, additional future SPDES stormwater management criteria may also apply to construction on this site. Stormwater management activities will also be designed to avoid negative impacts to wetland buffer areas. All stormwater flows will be treated and controlled prior to discharging through green infrastructure treatment practices such as bioswales and rain gardens.

5.2.4 Buffers and Open Space

As previously discussed, the Project is developed at a low density, with less than 65% of the site to be developed. In response to community comments and consultation with the Tonawanda Seneca Nation, wide landscape buffers will surround the STAMP Site along property lines shared with other property owners, as well as the Hamlet of Alabama and the Tonawanda Seneca Nation. The purpose of these buffers is, in part, to maintain existing viewsheds and the rural character of the area surrounding the STAMP Site (Appendix A, Maps 1, 3, and 4). Trees will be planted within the buffer along the property adjacent to the Tonawanda Seneca Nation and within the 100-foot A-R buffer along the northern edge of the Site. A 100-foot buffer along the ridgeline that runs between the existing Hamlet of Alabama and the northern portion of the Site will remain undeveloped to provide visual separation between the Hamlet and the Project. Central to the Site’s ecological network is a natural area corridor that runs east to west across the site. This natural area will be protected and enhanced to maintain and improve ecological functions provided by existing headwater streams, stream buffers and wetlands. This natural area corridor, along with the Whitney Creek corridor and various wetlands throughout the campus, will anchor the open space system.

The significant acreage of natural resource area and open space is preserved in accordance with the rural, agricultural character of the area. Retention and enhancement of natural corridors, including wetlands, streams and forest blocks maintain important ecological functions. The majority of the green space planned at the site will be restored, enhanced, and permanently protected and maintained as part of a wetland and stream mitigation strategy to compensate for the impacts to wetlands and streams by proposed development. A pedestrian trail network is planned for the Site, and will link to the Hamlet, retail areas, each major buildable area (Appendix A, Map 3), and adjacent public lands. The current trail design shown in Appendix A, Map 4 is conceptual. As sites are developed at STAMP, the actual route will be refined.

Facilities designed for the STAMP Site will protect and connect to the natural resource area and open space, and support the rural landscape (see Appendix E – Town of Alabama Design Guidelines) using the design methods listed below:

- Design building heights and materials to visually integrate into the existing rural setting
- Design exterior lighting to be dark sky compliant
- Minimize removal of existing trees, hedgerows, and other native vegetation
- Create vegetated buffers around parking areas and landscaped islands and medians
- Utilize native vegetation in landscape plans
- Clearly delineate and avoid impacts to protected natural resource areas
- Adherence to signage guidelines in terms of size, height, and lighting
- Placement of utilities underground to the maximum extent possible
- Adherence to architectural and setback guidelines

5.2.5 Health and Safety

Environmental and health and safety laws and regulations guide the design, construction, and operation of the advanced technology manufacturing facilities to be located at the STAMP Site. All future manufacturing activities to be conducted at the STAMP Site shall be subject to the appropriate NYSDEC regulations including those requirements set forth in the Hazardous Substance Bulk Storage Program (6 N.Y.C.R.R. Parts 595-599) and Petroleum Bulk Storage Program (6 N.Y.C.R.R. Parts 612-614). In addition, all hazardous materials transferred to and from the Site shall only be transported in Department of Transportation-approved containers by licensed chemical transporters. The storage and use of any petroleum and hazardous substances at the STAMP Site shall be subject to the federal Spill Prevention Control and Countermeasure (“SPCC”) rules.

Facility system design and daily operations at STAMP shall also comply with all applicable Uniform Fire and Building Codes and a site-specific Hazardous Material Management Plan shall be prepared and submitted to the Town of Alabama Fire Department for approval prior to the issuance of any Certificates of Occupancy. All employees handling hazardous materials or wastes will be trained in accordance with applicable Occupational Safety and Health Act (OSHA) and Resource Conservation and Recovery Act (RCRA) regulations. Multiple environmental health and safety programs shall be implemented at the Site in order to comply with the applicable provisions of the Town of Alabama Zoning Law, RCRA, New York State Department of Labor regulations, the Emergency Planning and Community Right-to-Know Act, and OSHA regulations.

Hazardous process chemicals shall not be stored at any locations at the STAMP Site without the user of such chemicals first providing a Hazardous Materials Inventory Statement to the Town of Alabama Fire Department and other local emergency services agencies as part of a comprehensive safety emergency planning effort for the Project. All manufacturing facilities to be located at the STAMP Site shall comply at all times with applicable U.S. Environmental Protection Agency

(USEPA), OSHA and National Institute for Occupational Safety and Health (NIOSH) requirements (as applicable). As a result of the substantial self-policing efforts of the technology manufacturing industry, and with the mandated compliance to all applicable local, federal and state regulatory programs, any potential environmental and health and safety concerns will be avoided and/or minimized to the maximum extent practicable.

5.2.6 Construction Methodology

The STAMP campus will be developed incrementally, in phases, over time and in response to market demand and other economic factors, such as funding and the interest of the development community. Each phase of development and each new tenant will be required to adhere to thresholds and conditions of SEQR and other existing or required Site permits and reviews. Projects must be designed in accordance TD Design Guidelines as adopted by the Town of Alabama (Appendix E). Construction methodology will incorporate BMPs to avoid and minimize impacts to soil and water as described below. For each new development of the Site, including infrastructure projects, site plans require Town of Alabama approval prior to construction.

Limits of Work Area

The work area associated with STAMP is referred to as the buildable or developable area and includes approximately 775 acres. Disturbance will generally be approximately 30 feet beyond all built structures, such as buildings, impervious areas, and stormwater management facilities, as depicted in Appendix A. During each construction phase, the limits of work will be clearly defined so that erosion and sediment control measures can be designed for all disturbed areas prior to construction. The limits of work indicated will maintain buffer areas from remaining wetlands and streams.

Construction Sequence

STAMP will be implemented in phases in response to market demand and other economic factors, such as funding and the interest of the development community. The phasing strategy for STAMP is to advance utility development and road construction including construction of the Main Access Road prior to completion of the first development project. This phase is in progress along with marketing to attract a first tenant to anchor the first phase of development. Once an initial tenant is secured, it is anticipated that a variety of supporting uses will be attracted to the Site, along with additional manufacturing facilities. The construction of additional infrastructure and roads will advance with Site development, specifically, the construction of a bypass road across the northeast corner of the Site before 70% buildout.

Construction Best Management Practices

Throughout construction, care shall be taken to ensure protection of the environment and other Site and regional assets. A comprehensive list of BMPs will be implemented. These BMPs typically apply to erosion and sediment control (described below), handling of petroleum liquids,

noise mitigation, air pollution prevention, site security, and protection of existing facilities. BMPs for the STAMP Site will be focused on the elements and methods listed below.

- Protection of the streams and wetlands outside of the proposed limits of disturbance
 - Survey and clearly mark limits of disturbance
 - Use temporary or permanent construction fence in sensitive areas
 - Provide full time oversight during construction by qualified staff
 - Develop an approved Stormwater Pollution Prevention Plan for construction
 - Develop a petroleum product handling plan to prevent spills and provide protocols for spill response
 - Require heavy equipment cleaning prior to Site access to reduce spread of invasive species
- Noise level reduction
 - Limit construction to daylight hours
 - Utilize proper mufflers on heavy equipment
- Air quality protection
 - Apply water to access and temporary access roads regularly to limit dust generation

Erosion and Sediment Control Measures

Erosion and sediment control facilities will be erected at the start of the construction process. While all erosion measures begin as temporary, some elements of these features remain in place long term to continue the protection of the resource adjacent to STAMP. The Erosion and Sediment Control Measures to be employed are in accordance with the BMPs as depicted in the manual “New York State Design Manual for Erosion and Sediment Control” and are as follows:

- Stormwater volume control
 - Attenuate peak flows from both the 25-year and 100-year 24 hour storms with stormwater detention basins
- Minimization erosion of open areas
 - Limit open areas (areas stripped of vegetation) during construction
 - Limit exposure of open areas to stormwater runoff using swales and berms
 - Seed all open areas when inactive for more than one week
 - Use erosion control blankets and turf reinforcement mats on steep slopes and areas of concentrated flow
 - Use check dams along drainage ditches to slow runoff velocity
 - Provide rip rap outlet protection at all ditch and culvert outfalls to prevent erosion
- Removal of sediments
 - Extended detention of stormwater runoff in stormwater detention basins
 - Use of silt fence across slopes down-gradient from construction areas
 - Place silt traps along drainage ditches to provide pooling and sediment drop out

A general SWPPP will be developed during the detailed design phases for Site development and will include the stormwater runoff calculations for the site at full build out, which outlines how peak flows of stormwater runoff from the developed areas will be attenuated to current conditions utilizing stormwater detention basins as well as other drainage features. Other sections of the SWPPP will present the erosion and sediment control plan for construction, including a general list of erosion and sediment control features that will be used to implement this plan. A pollution control plan that outlines procedures for prevention of and response to spills of pollutants such as petroleum and leachate will be included in the SWPPP.

Specifications for Permanent Restoration

As discussed above, during construction, all disturbed areas will be restored by approved methods within one week of becoming inactive. Methods include seeding with an approved, native seed mix and mulch or erosion control blanket (on sloped areas), and rip rap or turf reinforcement mat with seeding in areas that will receive concentrated stormwater runoff. Specifications for seed mixes, mulching methods and protocols for use of erosion control materials are included in the general SWPPP.

5.3 INTERIM AND FUTURE LAND USE

As described in Section 4, the STAMP Site and surrounding areas largely consist of agricultural lands, natural cover, recreational open spaces, and a limited amount of large lot residential development. STAMP proposes modern-high technology manufacturing and ancillary uses utilizing less than 65% of the STAMP Site. The remaining acreage at the Site will be preserved for open space and the protection and management of environmentally sensitive resources.

Implementation of STAMP will significantly alter the pattern of existing land uses, transforming primarily open space and agricultural land into an advanced technology campus. All vegetative communities to be impacted are rated as secure throughout their range both globally and in New York State. The restoration and re-vegetation of any areas that do not require long term use for the operation of STAMP along with the preservation of all remaining wetlands, streams and upland buffer vegetation communities on the Site will serve to mitigate these impacts. The increase in impervious area will be mitigated through implementation of site-specific measures, including stormwater detention basins, as described in Section 5.2. To compensate for impacts to wetland vegetation communities, a compensatory mitigation plan is proposed as described below and in Appendix F.

As previously stated, the development of STAMP is expected to occur over a 20-year period. Development will progress from design to infrastructure installation (e.g. roads and utilities) to construction of facilities and parking areas. Active agriculture will be maintained up until actual construction of infrastructure and facilities. Over time, ecological communities and land uses will transition through stages to a projected future build out condition. Table 8 and Appendix A, Maps

6 and 7, compare current and projected future land uses at the Site. Projections are based on the Site Master Buildout Plan detailed in Section 5.2 and illustrated in Appendix A, and the land management goals, objectives and strategies described in Section 6 below.

Land Use	Current (acres)	Full Build (acres)
Cropland/Hay	961	0
Forest/Wetlands	202	402
Open Space	55	86
Developed	45	775
TOTAL ACRES	1,263	1,263

5.3.1 Agricultural and Residential

Full development of STAMP will result in a loss of agricultural use at the Site. The potential loss of future agriculture use of the STAMP Site represents less than 1% of the total crop land acres located in Genesee County (*i.e.*, 0.65%), and approximately 1.7% of total cropland acres located in Agricultural District No. 2. There are approximately 148,584.30 acres of crop land located in Genesee County, with approximately 120,365 acres of this total classified as prime farmland. Agricultural District No. 2 encompasses 55,143.18 acres of land located in the Towns of Alabama, Batavia, Elba, Oakfield, and Pembroke. Approximately 961 acres of the STAMP Site are currently being used for farming. The total area of prime farmland located within the STAMP Site is approximately 275 acres, representing 0.23% of the total prime farmland located in Genesee County and 0.49% of the total prime farmland acreage located in Agricultural District No. 2.

It is currently anticipated that the transition of active agriculture will begin with a cessation of farming activities in relatively small areas associated with planned construction of the Main Access Road in 2017 (approximately < 20 acres). The next transition will be the cessation of active farming within 100' buffers adjacent to existing wetlands and streams projected to occur in 2020 (see Section 6). After this, farming will continue until tenants are established, site plans have all necessary permits and approvals, and construction begins.

A small area of the Site includes residential parcels with houses, buildings, lawns, and driveways. Residential structures are scheduled for demolition following acquisition by GCEDC. Debris will be cleared from these areas and they will continue to be maintained as managed open space through periodic mowing during summer months.

Refer to Table 8 and Appendix A for additional details and illustrations.

5.3.2 Aquatic Resources

Aquatic resources at STAMP were identified, evaluated, and considered throughout the design process. The first consideration was to determine if wetland and stream impacts could be avoided

entirely. The second consideration was to minimize potential impacts in terms of both quantity and quality to the greatest extent possible. The third consideration was to describe a mitigation strategy that would compensate for all unavoidable impacts. Based on this process, surface water resources potentially impacted by proposed development at the Site have been avoided and minimized to the greatest extent practicable and an onsite mitigation strategy has been developed to compensate for unavoidable regulated impacts. Approximately 99 acres of existing wetlands and 27,100 linear feet of existing streams will be protected from impacts associated with Site development. A mitigation strategy will be implemented to compensate for impacts to approximately 4.96 acres of federally regulated wetlands and 3.34 acres of non-jurisdictional wetlands (total of 8.30 acres, Table 9) and approximately 9,446 linear feet of ephemeral stream (Table 10) by replacing functions of impacted aquatic resources and priority functions and services identified for the surrounding watershed. Impacts include those described in the tables below.

Table 9. Wetlands Impacted by STAMP					
Wetland Number	Community Type(s)/ Comments	Jurisdiction	Primary Functions/Values	Condition	Wetlands Impacted (ac)
2	<u>Impacted portion</u> = PEM/PSS, reed canary grass, adjacent to active farming	USACE	Floodflow alteration, nutrient removal, wildlife habitat, potential t/e species habitat	Low	1.18
3	PSS – fragmented by agriculture, invasive species, debris, adjacent to active farming	USACE	Floodflow alteration, sediment/toxicant retention, nutrient removal	Low	0.07
4	PEM/PSS – in hedgerow, adjacent to active farming	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal	Low/Med	0.45
10	PEM Shallow Emergent Marsh, farmed, possibly contains contaminants, water stagnant adjacent to active farming	USACE	Nutrient removal, wildlife habitat	Medium	1.55
11	PEM- Reed Canary Marsh (RCM), adjacent to active farming, concave	NON	Nutrient removal, wildlife habitat	Low	0.11
12	PSS Shrub Swamp, in hedgerow, adjacent to active farming	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal	Low	0.08
13	PSS Shrub Swamp, in hedgerow	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal	Low	0.38
14	PSS Shrub Swamp, in hedgerow, adjacent to active farming	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal	Low	0.06
15	PEM Shallow Emergent Marsh, man-made farm pond, adjacent to active farming, ground moraine, concave	NON	Nutrient removal, wildlife habitat	Medium	0.25

Table 9. Wetlands Impacted by STAMP

Wetland Number	Community Type(s)/ Comments	Jurisdiction	Primary Functions/Values	Condition	Wetlands Impacted (ac)
16	PEM Shallow emergent marsh reed canary grass, adjacent to active farming	NON	Nutrient removal, wildlife habitat	Low	0.05
17	PSS Shrub Swamp, in hedgerow, adjacent to active farming	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low	0.02
18	PSS Shrub Swamp, in hedgerow, adjacent to active farming, slightly concave	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low	0.15
19	PSS Shrub Swamp, in hedgerow, adjacent to active farming	USACE	Floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low	0.34
26	PEM/PSS linear water course through farmed areas, includes reed canary grass, some areas shrubby in field, adjacent to active farming, concave	USACE	Nutrient removal, wildlife habitat	Low	1.37
28	PFO Hardwood swamp, small, adjacent to active farming	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat, potential t/e species habitat	Medium	0.02
33	PFO hardwood swamp with some shrubs, some open water, garbage, somewhat disturbed from farming, adjacent to active farming, ground moraine, concave, excavated pit	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Low/ Medium	0.31
35	PEM shallow emergent marsh, overgrown and scrubby, some debris, old foundation within wetland area, adjacent to active farming	NON	Nutrient removal, wildlife habitat	Medium	0.11
47	PEM Shallow emergent marsh, roadside, Phragmites and reed canary grass, concave, recessional moraine	NON	Nutrient removal, wildlife habitat	Low	0.06
48	<u>Impacted portion:</u> PSS- shrub swamp, successional shrubland, very dense in spots	USACE	Floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium	0.41
49	PSS- shrub swamp, successional shrubland, very dense in spots	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium	0.13

Wetland Number	Community Type(s)/ Comments	Jurisdiction	Primary Functions/Values	Condition	Wetlands Impacted (ac)
50	PSS- shrub swamp, successional shrubland, very dense in spots	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium	0.97
52	PSS- shrub swamp, successional shrubland, very dense in spots	NON	Floodflow alteration, sediment/toxicant retention, nutrient removal, wildlife habitat	Medium	0.56
				Total Wetlands Impacted	8.63 acres
				Total Regulated Wetlands Impacted	4.92 acres

Name	Size of Impact (LF)	SVAP Weighted Average Score
Tributary 2	3,312.14	0.83 – Severely Degraded
Tributary 3	5,283.52	4.45 - Poor
Tributary 4	850.76	4.93 - Poor
Total	9,446.42	

The objectives of the conceptual mitigation strategy are as follows:

- Preservation of approximately 99 acres of wetlands of equal or greater value and similar type onsite (20:1 preservation ratio) plus protected buffer around each protected wetland.
- Restoration and protection of a minimum of a minimum of 10 acres of wetland of similar type onsite (approximately 2:1 restoration ratio) plus protected buffer.
- Enhancement of approximately 15 acres of existing wetland (invasive species control).
- Preservation and enhancement of streams on-site at a mitigation credit to debit ratio greater than 1:1 as per USACE Buffalo District guidance. This includes preservation of all remaining streams onsite including preservation of a 100' riparian buffer along each side of the stream, and enhancement of 14,189.76 linear feet of stream.

To accomplish the proposed wetland mitigation objectives listed above, approximately 402 acres will be preserved in perpetuity. The protected mitigation area includes 99 acres of existing wetlands, approximately 11 acres of restored wetlands (PEM-wet meadow/transitional wetland), approximately 15 acres of enhanced wetlands (invasive species management), and 27,0100 linear

feet of existing stream. Approximately 14,190 linear feet of the protected stream length will be enhanced by restoring riparian buffer (tree and shrub planting within 100' along each side of streams). This area also includes streambank remediation along 11,456 linear feet of the enhanced stream area. The remaining acreage comprising the mitigation area is protected as additional upland buffer. Table 11 and Appendix A, Map 5 provides details associated with the location, size and type of each proposed mitigation component at the STAMP Site.

Total Mitigation Area	402 acres
Existing Wetlands	99 acres
Restored Wetlands	11 acres
Enhanced Wetlands	15 acres
Existing Streams (LF)	27,100 linear feet
Enhanced Streams	14,190 linear feet
Upland Buffer	292 acres

5.3.3 Cultural Resource Protection and Mitigation

As discussed in Section 4.2 and Appendix D, extensive cultural resource investigations have been, and continue to be, conducted at the STAMP Site. Several sites within STAMP have been identified to have artifacts of significant cultural resource value. These artifacts have primarily been classified as having important research potential and mitigation by removal of artifacts is required prior to Site construction.

5.3.4 Public Use and Recreation

At full buildout approximately 86 acres of STAMP Site shall be established and maintained as open space/landscaped areas managed to provide greenspace and recreational areas for employees and the general public. Landscaped portions of these areas will be maintained on a regular basis through mowing or trimming to facilitate maintenance, public use and safety, and an aesthetic environment. The STAMP Site is adjacent to the John White State WMA where outdoor recreation, including hunting, is available to the public. A minimum 500-foot open space buffer will be maintained along the STAMP Site's boundary adjoining the John White State WMA, also in natural cover and with minimal maintenance of vegetation.

Snowmobile trails already exist at the site (Figure 10) and will be maintained with a shift in location as development progresses (Appendix A, Map 3). Pedestrian trails will be developed concurrently with development of the Site (Appendix A, Map 3) to connect employees with TD3 and the hamlet. Section 6 provides additional details regarding public use of the Site.

5.3.5 Common Infrastructure

Site development will require the transfer of property comprised of multiple privately-owned parcels to GCEDC. As transfers continue, property will initially be owned and managed by the GCEDC with transfer to tenants as the Project develops. However, there are some elements of STAMP development that have been identified as shared infrastructure. These elements will be in part, or in whole, shared by future STAMP tenants, users, and, in some cases, the general public. An important consideration is the design, establishment, and maintenance of these shared resources. Guidance on roles and responsibilities is provided here. A Business Park Association will be developed that will further clarify and confirm roles and long-term responsibilities.

Aquatic Resource Mitigation Areas

As described above, approximately 402 acres of the site will be protected in perpetuity as part of the mitigation for unavoidable impacts to wetlands and streams. This area, shown in Appendix A, Map 5) will be protected with a deed restriction and transferred with land sale to tenants. The long-term management of the mitigation areas will be the responsibility of GCEDC or a third party such as New York Green, Inc. or Genesee County Parks funded by a management endowment. Long term management activities are described in detail in Section 6 and include maintenance of protected area signage, reports of encroachment, and invasive species identification and management if necessary. It will be the responsibility of tenants to adhere to deed restrictions and avoid impacts to these protected areas by adhering to design guidelines and construction and facility operation BMPs.

Open Space Landscaping

In addition to the protected mitigation area described above, approximately 86 acres of the site is within an open space buffer area (Appendix A, Map 4). This area is not considered developable and is targeted to be maintained in natural cover or landscaped open space. Management of this area is guided by buffer zoning described in the IZA in Appendix F, and is the responsibility of landowners. Long term management activities associated with open space areas are described in detail in Section 6 and include mowing, haying, maintenance of signage, and invasive species identification and management if necessary. It will be the responsibility of tenants to adhere to permitted uses and design guidelines pertaining to open space buffer areas.

Other Common Infrastructure

Several other, smaller areas of the STAMP Site may be considered common infrastructure including trails, parking areas, shared stormwater features, the main site entry, road, utilities and utility areas, and lighting. The development and maintenance of these features are guided by Lead Agency and Town of Alabama SEQR Findings and the Town of Alabama Design Guidelines. The Business Park Association will define the roles and responsibilities of tenants and involved entities at the STAMP Site as these shared features are developed.

6.0 LAND MANAGEMENT GOALS

The following land management goals, objectives and strategies are based on current conditions, land use needs and development priorities at the STAMP Site, the properties of the ecoregion to which it belongs, and the trends and conservation priorities of the surrounding watersheds. Important elements include construction BMPs, mitigation requirements and conditions as stated in Lead Agency and Town of Alabama SEQR Findings and permits, Town of Alabama design guidelines, and principles of biodiversity, connectivity, integration with human use, and sustainable land management practices. Goals and objectives are introduced for the broad land uses categories listed in Section 5.3, Table 8, followed by supporting information and specific strategies or actions to achieve the stated objectives. These management goals are subject to adjustment with Site development. A process of adaptive management is described in Section 7.

6.1 AGRICULTURE

Goal: Maintain agricultural activities and/or hay fields until Site development.

Background/Rationale

Existing areas of active agriculture, hay fields, and successional old field habitats are largely within developable areas identified at the STAMP Site (Figure 6, Appendix A, Maps 6 and 7). Agriculture at STAMP includes field crops with a lesser amount of hay/pasture. Croplands provide economic and natural resource benefits to the STAMP Site and surrounding community. Active agriculture can provide diversity in habitat. Waste grains after harvest provide wildlife food and active working of the lands prior to development or restoration prevent colonization by invasive species.

The STAMP Site is adjacent to a managed grassland area which is part of the NYSDEC John White State Wildlife Management Area. Bird species of conservation concern that rely on grassland habitats such as the northern harrier have been observed in the vicinity of the STAMP Site and could benefit from specific management. Maintaining some portion of the STAMP Site in an early successional state such as hay fields or old field areas will contribute toward biodiversity on the STAMP Site as a whole. Such areas can provide nesting habitat for grassland birds, foraging areas for raptors, and habitat for many species of butterflies and other insects if managed appropriately.

Hay or old field management is also an inexpensive way to maintain areas most suitable to future development opportunities if farming is abandoned or no longer viable. These areas will require periodic mowing (after August 1) and provide interim habitat until any such development occurs.

Objectives

1. Maintain agriculture until construction of planned and approved infrastructure and facilities throughout Site development.
2. Establish 100' of vegetated buffer between all active cropland and wetlands and streams by 2020.

Strategies

1. Farm croplands using BMPs with minimal use of pesticides, herbicides, responsible manure application, retention of hedgerows, and using minimal soil disturbance methods including no-till methods where feasible.
2. Delay mowing of early successional old field habitats and grassland areas within open space/buffers until after August 1.
3. Discontinue farming and seed at least 100 feet of natural buffer in active farmland areas immediately adjacent to wetlands and streams. Allow these buffers to naturally regenerate into shrub and forest cover.

6.2 FOREST STANDS

Goal: Minimize fragmentation of high quality forested areas and increase patch size of high quality forest stands.

Background/Rationale

Forested lands in the region provide critical breeding habitat for a significant number of state species of concern including neotropical migratory birds, raptors, vernal pool salamanders and other species of amphibians, and NLE bats. Management of existing forested lands, reforestation of selected buffer areas, and connecting existing forest blocks will improve and maintain the quality of forest habitat, reduce forest fragmentation, and support regional and watershed priorities.

Large forest blocks support many plant and animal species by providing intact forest habitat that is not affected by adjacent land uses. The forest must be large enough to provide interior habitat where light and noise from the adjacent land use edge cannot penetrate and that is less affected by invasive species that tend to concentrate at edges between natural and developed land uses. The STAMP Site is in an area of transition from large, intact forest blocks on the Tonawanda Seneca Nation to increasing fragmentation eastward into Genesee County. Many of the remaining forests on the STAMP Site and the surrounding watershed are mosaics of upland, wetland and headwater streams. Protecting and restoring this mix of upland and wetland forests will provide the greatest benefit to wildlife and watershed functions. In addition to providing critical habitat for wildlife, large forest blocks provide recreation opportunities for residents and tourists to the area. These

areas accommodate hunting, bird watching, hiking, cross-country skiing, mountain biking, and other forms of recreation.

Shrubland communities will develop as interim habitat during reforestation. Shrublands are habitat patches with woody plants typically less than 10 feet tall with scattered open patches of grasses and forbs. These communities provide nesting, brood rearing, feeding and cover habitats for early-successional wildlife, many of which are declining throughout North America. Of approximately 40 bird species associated with shrublands, 22 are significantly declining in eastern North America. These declines are largely due to shrub habitat loss associated with development and ecological succession. Allowing buffer areas that are currently in agriculture or successional old field to naturally regenerate into shrubland on their way to forest stands will add diversity to habitat types and may support species in decline such as American Woodcock, Yellow-breasted Chat, Golden-winged Warbler and Chestnut-sided Warbler.

Objectives

- Protect existing forest and early successional forest habitat upon commencement of the ARMS.
- Reforest through planting and natural succession approximately 25 acres currently farmed within the 400' buffer along the west side of STAMP adjacent to the Tonawanda Seneca Nation by 2020.
- Allow natural development and succession of approximately 90 acres currently farmed within open space buffer zones.

Strategies

- Protect existing and regenerating forests within the ARMS area with deed restrictions.
- Ensure that appropriate BMPs and aquatic resource and wildlife priorities are considered in adjacent area developments.
- Reforest selected agricultural areas (Appendix A, Map 7) with native tree species using both active and passive techniques as funding allows.
- Allow interim shrubland habitat to develop via natural succession of agricultural and successional old field areas. Natural succession is projected to provide interim shrubland habitat and eventually mature forest cover in these areas.
- Monitor regenerating forest areas to ensure natural colonization by native species and identify and manage invasive species as needed (See Appendix G).

6.3 WETLANDS

Goal: Protect and restore a connected network of wetlands, streams and buffers.

Background/Rationale

Wetlands are the link between land and water. They are transition zones where the flow of water, the cycling of nutrients, and the energy of the sun meet to produce a unique ecosystem characterized by hydrology, soils, and vegetation—making these areas very important features of a watershed. Wetlands provide flood storage for all properties downstream. When wetlands are lost, this storage capacity is removed and water is transmitted directly to streams causing elevated water levels which often leads to flooding and erosion. Wetlands also remove pollutants that are in water including nitrogen, phosphorus, and sediment either directly through surface water transmitted to the site or precipitation and groundwater that may have elevated nitrogen and phosphorus levels. Studies show that groundwater beneath wetlands is lower in nitrogen than uplands because of a wetland’s unique ability to remove nitrogen through denitrification, which requires a carbon source (organic matter in soils) and the absence of oxygen (created with flooded conditions). Carbon storage is another important wetland function. When wetlands are drained, carbon stored in vegetation and in the organic matter in soils is released to the atmosphere. Wetlands provide habitat for plants and animals that are specifically adapted to wet conditions during all or part of their life cycle, including many species of conservation concern. Wetland loss threatens species populations and ultimately, biodiversity; an important factor in the resilience of wildlife and human health.

The goal, objectives, and strategies outlined here are in accordance with ARMS requirements as detailed in Section 5.

Objective

- Delineate and clearly mark with appropriate signage 100’ wetland buffer areas that are currently or potentially adjacent to active land use such as agriculture and infrastructure (roads, utilities, parking areas, buildings) in 2019.
- Protect approximately 99 acres of existing wetlands and a 100’ upland buffer with commencement of the ARMS.
- Restore and protect approximately 11 acres of wetland within the 400’ open space buffer on the west side of the Site with commencement of the ARMS.
- Enhance approximately 15 acres of existing wetland through invasive species control with commencement of the ARMS.

Strategies

- Protect existing and restored wetlands and buffers with deed restrictions prior to Site ownership transferring from GCEDC to future tenants. Install additional signage as needed.
- Cease farming activities within marked 100' buffers in 2020 and seed with a native cover mix.
- Ensure that appropriate BMPs and aquatic resource and wildlife priorities are considered in adjacent area developments throughout Site development.
- Restore wetland habitat via excavation and placement of berms to retain water during the growing season and planting to native wetland community prior to impacts to regulated wetlands.
- Manage invasive species at restored and enhanced wetland areas (See Appendix G).

6.4 STREAMS

Goal: Protect and enhance headwater streams and stream corridors.

Background/Rationale

Inseparable from wetlands and wetland values, streams are critical ecological pathways providing habitat for diverse organisms and support for both upland and aquatic nutrient and energy transport. Together, wetlands, streams and their upland buffers create an important natural resource at the STAMP Site providing multiple services including water filtration, flood control, air and temperature moderation, and aesthetic, educational, spiritual, and recreational value. Headwater streams and stream buffers at STAMP can be managed to provide benefits to developments at the STAMP Site and downstream areas of the watershed. Small headwater streams slow the transport of water from storm events in their channels and adjacent buffers which reduces flood levels downstream and prevents flood damage. Additionally, they are the primary source of organic matter and nutrients that supports the food web and ultimately, fisheries downstream. When headwater streams are degraded or removed, the surface water is diverted downstream directly into larger streams. The increased quantity and magnitude during storm events may cause stream channels to become incised, which degrades the stream habitat and can isolate the stream from the floodplain, removing even more natural flood storage capacity in the watershed. Although this may seem insignificant when considering one headwater stream, on the watershed level, headwater streams make up most of the length of waterways so the cumulative impact can have a large effect on the entire system.

Stream buffers (natural habitat adjacent to streams and rivers) improve the instream habitat and water quality of downstream waters. Forested buffers improve habitat in the adjacent stream for fish and other aquatic species by providing shade and regulating the temperature of the water. The water temperature in streams with un-forested buffers has higher fluctuations. This, in combination with increased vegetation in the streams because of more sunlight penetration, can lead to low oxygen levels. Forested buffers also improve the water quality of surface and shallow groundwater before it reaches the stream by retaining sediment and removing nutrients. The STAMP Site has the opportunity to protect, restore, and improve headwater streams and forested buffers. Such actions will benefit Whitney Creek and contribute to the improvement of the water quality, flood reduction, and aquatic habitat in the surrounding watersheds and ultimately, the Niagara River and Lake Ontario.

Objectives

- Delineate and clearly mark with appropriate signage 100' stream buffer areas that are currently or potentially adjacent to active land use such as agriculture and infrastructure (roads, utilities, parking areas, buildings) in 2019.
- Protect approximately 27,100 linear feet of stream and stream buffer with commencement of the ARMS.
- Enhance approximately 14,190 linear feet of stream with commencement of the ARMS.

Strategies

- Protect existing streams and buffers with deed restrictions prior to Site ownership transferring from GCEDC to future tenants. Install additional signage as needed.
- Cease farming activities within marked 100' buffers by 2020 and seed with a native cover mix.
- Plant native tree and shrub species or allow successional growth at least 100' along either side of streams that currently lack forest buffer by 2020.
- Ensure that appropriate BMPs and aquatic resource and wildlife priorities are considered in adjacent area farming, construction, and landscaping activities throughout Site development.
- Replace existing culvert at Whitney Creek with a fish and wildlife passage culvert by 2020.
- Integrate stream conservation efforts with ongoing stormwater improvement plans.

6.5 CONNECTIVITY AND BIODIVERSITY

Goal: Protect and enhance habitat connections, diversity, and resilience.

Background/Rationale

When considered in the broader landscape of the watershed, conservation measures at the STAMP Site could also serve to increase connectivity and reduce fragmentation of wetlands, forest blocks and headwater streams and stream buffers. Maintaining and expanding the connectivity of forested and aquatic areas will preserve wildlife habitat, floodwater retention and water quality. Connectivity is an especially important consideration for plant and animal populations to be able to disperse and relocate when local conditions change. As suitable habitat is reduced and fewer options are available, species are at greater risk of being lost from an ecosystem. Protecting and enhancing a network of natural areas at the STAMP Site will contribute toward greater connectivity in the watershed as a whole and provide important benefits to the people living in the watershed including flood storage, wildlife habitat, recreation opportunities, and carbon storage. Habitat connectivity and diversity create resilience in wildlife populations and natural communities across the landscape.

Invasive plants, animals, and diseases have the potential to dramatically change natural environments and negatively affect wildlife habitat and outdoor recreation opportunities. Invasive species are usually non-native species that were intentionally or accidentally released. They create problems by becoming extremely abundant, spreading to new areas, out-competing native species and altering ecosystem processes. Examples of well-known invasive species include: chestnut blight, gypsy moth, emerald ash borer, common reed, purple loosestrife, Japanese knotweed and Japanese honeysuckle. The negative effects of invasive species are well known and can impact all types of ecosystems. Invasive species cause decline and sometimes extirpation of native species resulting in significant cost to ecosystems and financial loss as well. The NYSDEC has an Invasive Species Council and actively supports the Partnership for Regional Invasive Species Management, or PRISM. The Western New York Partnership for Regional Invasive Species Management (WNY PRISM) was formed in 2014 to help prevent or minimize harm caused by invasive species to New York's environment, economy, and human health. The WNY PRISM protects the natural and cultural integrity of aquatic and terrestrial areas in the eight westernmost counties of New York including Genesee County (<http://www.wnyprism.org>). WNY PRISM identifies priority invasive species that have been observed or are potentially present at STAMP. These include: emerald ash borer, Canada thistle, black and pale swallow-wort, bush honeysuckles, reed canary grass, common reed, common buckthorn, and knotweeds. These and other invasive species will be monitored and managed when necessary to support resilient ecosystems as per the invasive species monitoring protocol outlined in Appendix G.

Biodiversity can also be supported proactively. Habitat structures and habitat amenities can be utilized to improve habitat for wildlife and support biodiversity at the local scale. Such habitat improvements also create wildlife viewing opportunities and education and research tools. Nest

boxes and bird houses can be installed for species including the eastern bluebird, wood duck, Mallard, American kestrel, purple martin, and black-capped chickadee. Other structures include turtle basking logs and wildlife loafing structures in wetlands, bat houses, and butterfly houses.

Objectives

- Reestablish approximately 115 acres of forest habitat by full buildout.
- Enhance approximately 14,190 linear feet of stream buffer with commencement of ARMS.
- Develop and implement a Site invasive species protocol to protect all natural areas on the STAMP Site from the introduction and spread of invasive plant species throughout and after Site development.

Strategies

- Reforest selected agricultural areas (Appendix A, Map 7) with native species using both active and passive techniques as funding allows.
- Maintain existing trees including hedgerows to the maximum extent feasible.
- Delineate and clearly mark stream buffer areas that are currently or potentially adjacent to active land use such as agriculture and timber harvest.
- Plant native tree and shrub species or allow successional growth at least 100' along either side of streams that currently lack forest buffer.
- Replace existing culvert at Whitney Creek under farm lane with a fish and wildlife passage culvert.
- Implement a protocol to prevent the introduction of invasive species into the STAMP Site via human activities associated with infrastructure development, construction of facilities, agricultural activities, and natural resource management. and agricultural activities (e.g. cleaning heavy equipment before bringing it onsite, Appendix G).
- Implement an early detection/rapid response protocol to detect and control any new invasive species populations.
- Remove invasive species using a diversity of methods as appropriate to the species and conditions (e.g., hand pulling, cutting, flooding, shading, herbicide, biological control).
- Install and maintain bird houses, nest boxes, loafing platforms, and bat and butterfly houses in appropriate habitats.

6.6 OPEN SPACE/LANDSCAPING

Goal: Establish and maintain open space areas in natural cover or landscaping compatible with adjacent land use.

Background/Rationale

While not formally protected by deed restriction, open space/landscaped areas identified on the Future Conditions Map (Appendix A, Map 7) are largely within buffers identified in the Master Buildout Plan and zoned for specific uses. These areas serve to provide natural cover or landscaped areas to support the natural resources and campus style development of the Site and support the rural character of the surrounding community.

Management of open space areas is to be in accordance with SEQR Findings and in a way most compatible with adjacent land uses. Some areas designated as open space adjacent to natural resource areas will be most appropriate in natural cover with no management costs or additional requirements. Other areas closer to planned development and along roadways will be more appropriately landscaped and maintained through mowing and planting and pruning vegetation.

Objectives

- Establish and maintain a 100-foot buffer zone Ag-Residential around the perimeter of the Site except for adjacent to TD3.
- Establish and maintain an additional 300-foot buffer of open space along any TD lot line abutting a Residential or Agricultural-Residential District except for the property zoned TD3 in the northeast corner of the Site. Measure the 300 feet from the edge of the portion of the Site zoned to TD, inwards.
- Establish and maintain a minimum 400-foot buffer along the west side of the Site adjacent to the Tonawanda Seneca Nation.
- Establish and maintain a minimum 500-foot structure set back adjacent to John White State Wildlife Management Area.
- Establish approximately 115 acres of open space in natural cover (forest) by full buildout.
- Establish 86 acres of open space as managed/manicured landscaped areas (hay, old field, lawn) by full buildout.
- Restrict via zoning activities in open space buffers to natural resource management activities, landscaping and maintenance, fencing, signage, limited road and utility crossings and related utility uses.

Strategies

- Locate fencing or utility related uses permitted in buffers along the interior edge of the open space buffers adjacent to TD zones.
- Plant or allow open space areas targeted for natural cover to naturally revegetate.
- Develop landscape plans for manicured areas within open space buffers as per Lead Agency and Town of Alabama SEQR Findings and Town of Alabama Design Guidelines. Guidelines include native vegetation and low impact maintenance requirements. These areas are most appropriate in open space areas adjacent to roads and planned development.

6.7 PUBLIC USE

Goal: Provide public use opportunities compatible with planned development.

The STAMP Site can provide limited public use opportunities in the form of outdoor recreation, research and education so long as these opportunities are compatible with Site industrial and support service operations and with the natural resource goals described above. The GCEDC can partner with snowmobile clubs, nonprofits, and local schools and universities to maintain continued use of the snowmobile trails and to coordinate research and education opportunities. Research and education opportunities may include required natural resource inventories and assessments, wildlife habitat management techniques, aquatic resource studies, watershed functions and services evaluations, general nature study and grade school education. Similar relationships can be developed or expanded to include research and education topics associated with conservation issues related to sustainable development, advanced manufacturing, stormwater, water systems, and wastewater treatment, etc.

Outdoor recreation opportunities are abundant in the region. However, the GCEDC may offer unique opportunities by maintaining and providing connections for existing snowmobile trails as previously discussed. The GCEDC may also allow hunting by permit. Public relations and habitat management can benefit from public use and recreation as well. Outdoor recreation improves quality of life and has been demonstrated to generate significant income for the surrounding businesses supporting the local economy. Over \$3.1 billion was spent on outdoor activities in New York in 2006 (The 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation). Maintaining hunting opportunities prior to development and supporting hunting on adjacent areas after full build out can help manage deer populations that might otherwise damage crops, reforestation attempts, and alter habitat types.

Objectives

- Continue to provide snowmobile trail access points to maintain Site crossing and connectivity with existing regional trail system.

- Annually evaluate needs and opportunities for hunting, education and research activities that benefit Site management.

Strategies

Strategies to continue and expand public use opportunities include:

- Continue and expand relationships with local and regional schools and universities to identify research opportunities and priorities.
- Develop guidelines and a format for research proposals to encourage, allow and guide meaningful research activities at the STAMP Site.
- Work with local snowmobile club to maintain snowmobile trails across the Site.
- Explore the option of opening and maintaining designated hunting zones for deer, migratory birds (American woodcock), and turkey and other small game within the guidelines of state seasons.
- Develop public communication materials to define opportunities and guidelines associated with public use of the STAMP Site and maintain boundary lines to clearly designate property ownership.
- Develop a public use management plan and guidelines to effectively and safely manage multiple uses on the STAMP Site.

7.0 IMPLEMENTATION

Implementation of the strategies identified in the LMP will require coordinated and consistent effort. Monitoring and management of the natural resources are critical to guide the implementation and refinement of the LMP and maintain the values gained throughout the implementation phase. Implementation, monitoring and management are the actions required to transform any management plan from a document gathering dust on a shelf into a dynamic tool for natural resource management and conservation.

7.1 IMPLEMENTATION TEAM

An Implementation Team will be formed comprised of GCEDC staff and may include contractors, consultants and partners as necessary to implement strategies, monitor results and apply adaptive management principles to periodically update and refine the LMP. The Implementation Team will meet annually to develop a list of priority projects and projected timelines to achieve the land management goals described above. The Implementation Team may:

- Hold regular meetings and develop progress reports and updates.
- Develop a list of priority projects and projected timeline.
- Develop annual work plans to complete projects and achieve natural resource goals.
- Monitor outcomes of management actions.
- Refine goals and strategies as needed.
- Coordinate maintenance of pedestrian trails, open space, and other public use amenities.
- Facilitate the technical advisory process as desired.
- Interface with public interest regarding land management goals at the STAMP Site.

Annual work plans will identify all necessary actions, staff, funding, and resources to achieve annual priorities. A sample annual work plan is provided in Appendix H.

7.2 MONITORING AND MAINTENANCE

Monitoring progress and measuring the outcome of management actions as prescribed by the conservation strategies presented above is a critical component of ensuring successful implementation of the LMP. A monitoring program should be developed that uses standardized, repeatable methods. Ecological monitoring, done properly, will provide important data about the effectiveness of the restoration and management program. It requires that the response of the managed communities be checked regularly. This is usually achieved by measuring ecological

indicators such as plant community and vegetation, hydrology and wildlife. Monitoring methods include establishing permanent photo stations and sampling plots (emphasis on areas targeted for restoration or active management), herbaceous and woody plant inventory, community mapping, invasive species surveys, stream flow and water quality measurements, wildlife surveys, public use surveys and hunter harvest information. A monitoring program should be simple and easy, yet provide information that shows the response and change in the land.

Integrating monitoring activities associated with other plans and required site activities (e.g. ongoing stormwater management and surface and groundwater monitoring) is an efficient way to conduct monitoring for the LMP. Combining monitoring needs with permit requirements (e.g. onsite wetland and stream mitigation monitoring) and research projects will also create synergy and decrease monitoring costs. Monitoring should always involve adaptive management in the form of revisiting goals, objectives and strategies. This is a critical component of Implementation Team review.

7.3 ADAPTIVE MANAGEMENT PROCESS

Management and maintenance issues are likely to change as implementation and monitoring of the LMP commences. A focus of this LMP is to minimize long term management and maintenance requirements. Initially active management will be required to achieve land use goals described in Section 6. Active management may include:

- Planting/survival monitoring/replanting
- Mowing/brush hogging/haying
- Manual removal of invasive or undesirable species or herbicide application
- Repair and maintenance of habitat improvement structures, fencing, and signage
- Installation and maintenance of fencing
- Garbage removal
- Installation and maintenance of warnings, public safety, interpretive, and property signs
- Drainage control
- Handicap access
- Public notices and announcements
- Facilitation of research activities

Successful management of the STAMP Site's natural resources will require incorporation of habitat and public use management activities into Annual Work Plans and designated funds and resources.

The goals and objectives of the LMP should be reviewed every five years. Review should include GCEDC, members of the Technical Team, implementation partners, Site tenants, and the Town of Alabama. This review should include a summary of Annual Work Plans to date, results of management actions and monitoring activities, and the status of objectives. Modifications to the LMP will include adjustments to objectives, addition or removal of strategies and techniques necessary to reach goals, and contingencies for unforeseen changes to project development plans. The LMP Implementation Team should communicate substantive project changes with Site tenants, project partners, and the local community.

8.0 RESOURCES AND SUPPORT STRATEGIES

Implementation of this LMP is the responsibility of GCEDC. Resources and support may be sought from multiple sources and programs to realize short and long-term goals and projections. To ensure sustained and dedicated funding, LMP goals and objectives should be considered in purchase agreements with future tenants and be included in the planned Business Park Association Declaration. Plan implementation and monitoring activities should be grouped with ongoing or upcoming requirements such as mitigation for impacts associated with the Site development. Open space management services such as seeding and planting buffers, mowing landscaped areas, and treating invasive species could be provided by local farmers in exchange for leasing active agricultural areas. Partnerships could be developed to reduce management costs. Potential partners might include:

- New York Green, Inc.
- Watershed Committees
- County Planning Departments
- County Parks and Highways
- Soil and Water Conservation Districts
- Cornell Cooperative Extension of Genesee County
- Natural Resource Conservation Service
- Colleges and Universities
- Agricultural Boards
- US Fish and Wildlife Service Private Lands Program
- NYS Department of Environmental Conservation Technical Assistance

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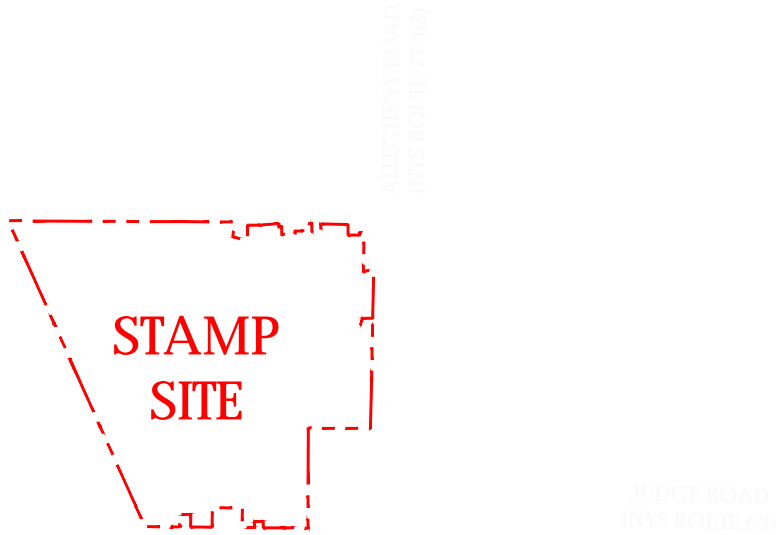
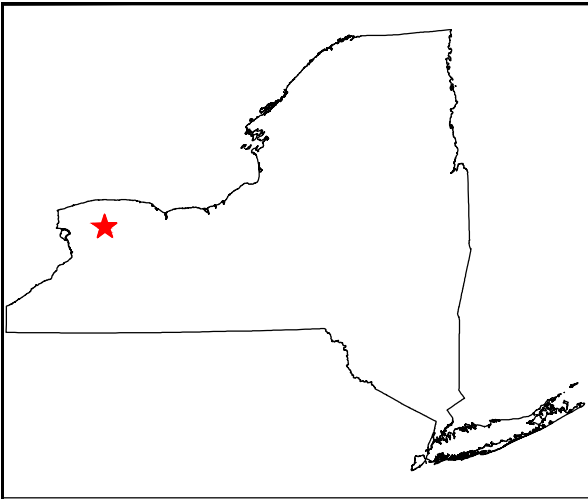
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FIGURES



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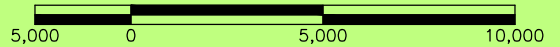
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NORTH



1 INCH = 5,000 FEET

LOCATION MAP
STAMP LAND MANAGEMENT PLAN
TOWN OF ALABAMA, GENESEE COUNTY, NY

DATA SOURCE: GENESEE COUNTY GIS

FIGURE 1



1938



1954



1985



2008

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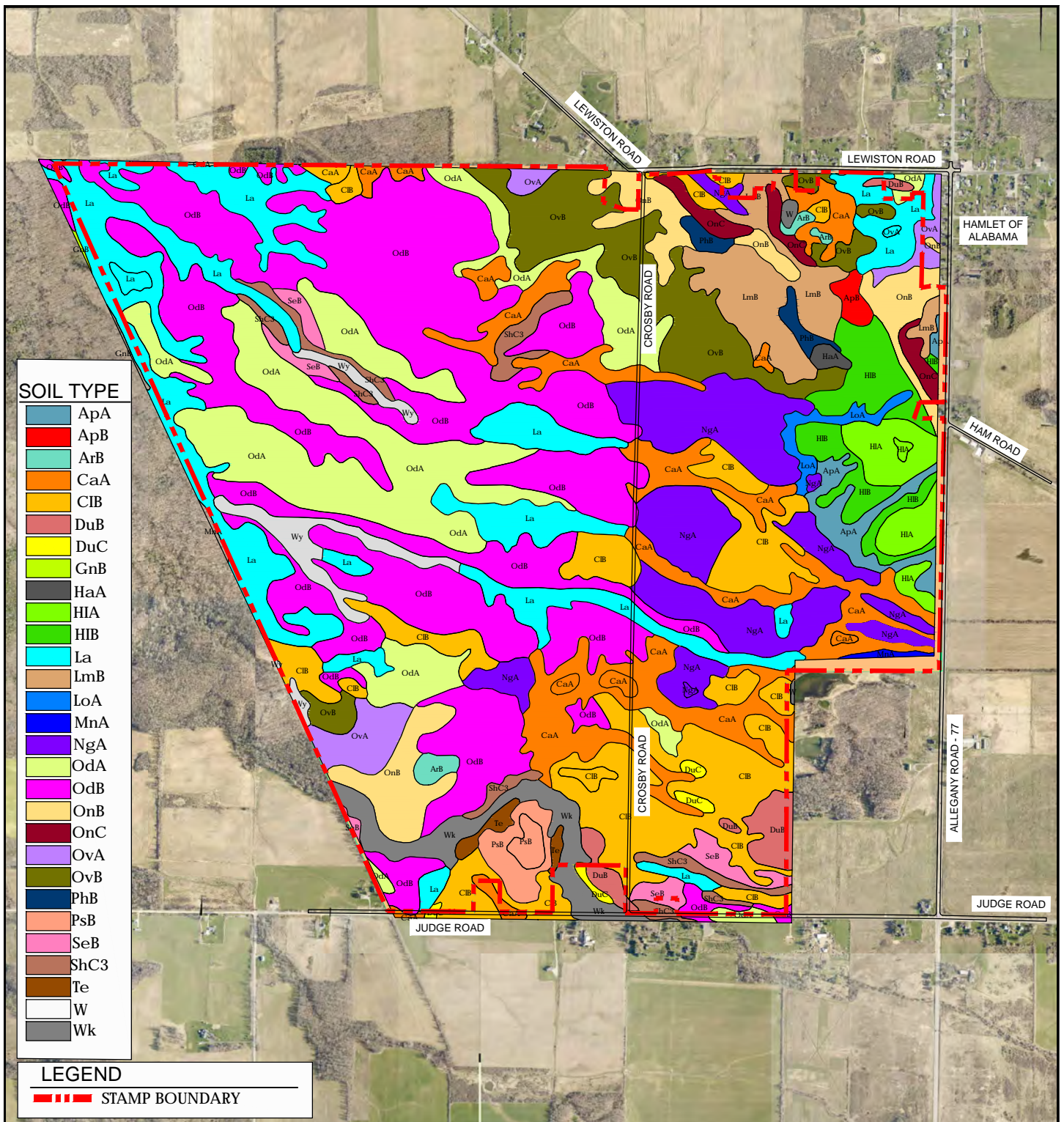


NORTH

HISTORICAL AERIAL PHOTOGRAPHS
 STAMP LAND MANAGEMENT PLAN
 TOWN OF ALABAMA, GENESSEE COUNTY, NY

DATA SOURCE: GENESSEE COUNTY GIS

FIGURE 2



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1,500 0 1,500 3,000
 1 INCH = 1,500 FEET

SOILS
STAMP LAND MANAGEMENT PLAN
TOWN OF ALABAMA, GENESSEE COUNTY, NY

DATA SOURCE: WEB SOIL SURVEY

FIGURE 4



LEGEND
 STAMP BOUNDARY


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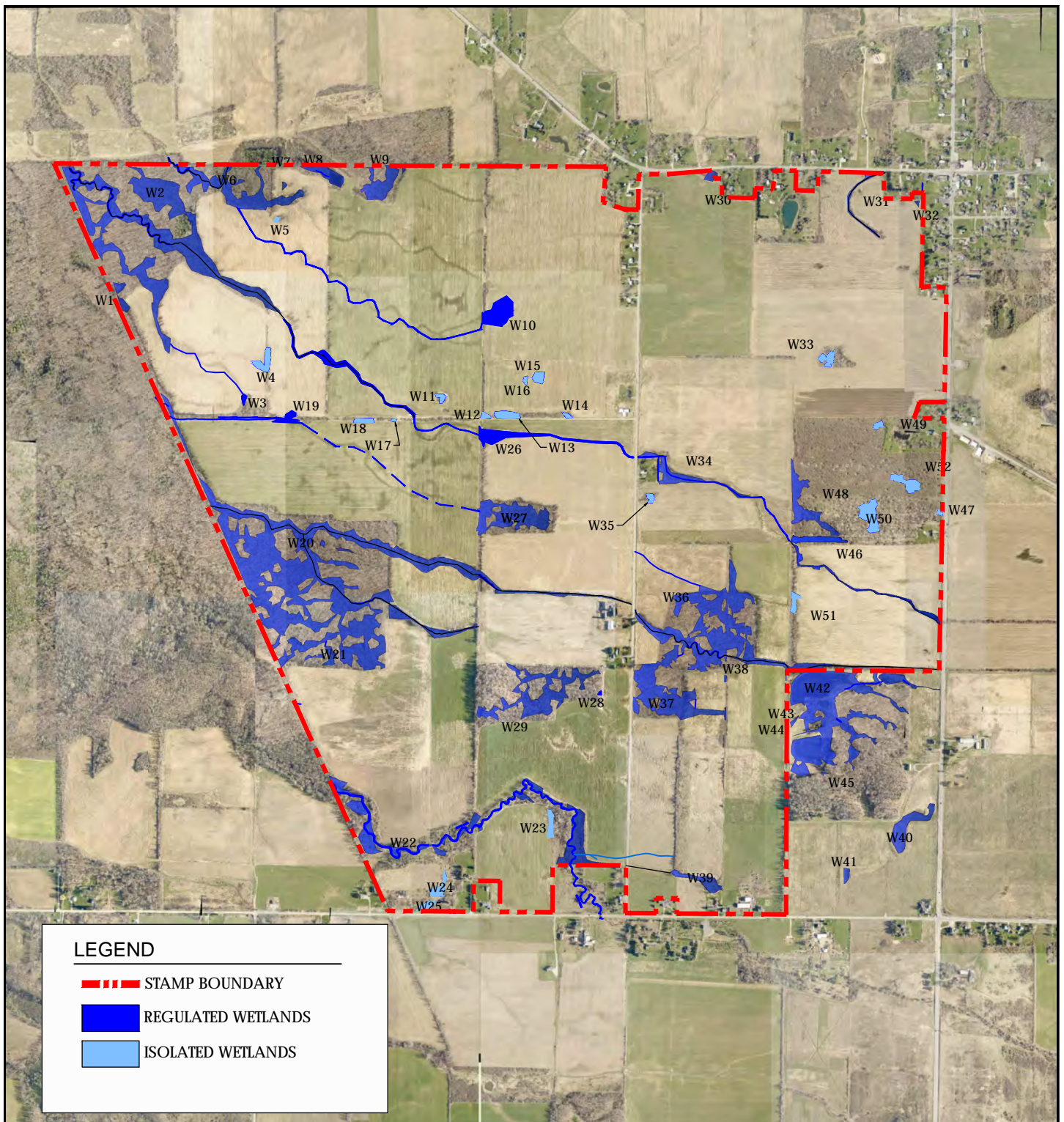


NORTH




1,500 0 1,500 3,000
 1 INCH = 1,500 FEET

**AERIAL PHOTOGRAPH
 STAMP LAND MANAGEMENT PLAN
 TOWN OF ALABAMA, GENESSEE COUNTY, NY**

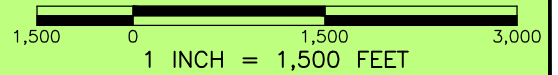
FIGURE 5



LEGEND

-  STAMP BOUNDARY
-  REGULATED WETLANDS
-  ISOLATED WETLANDS


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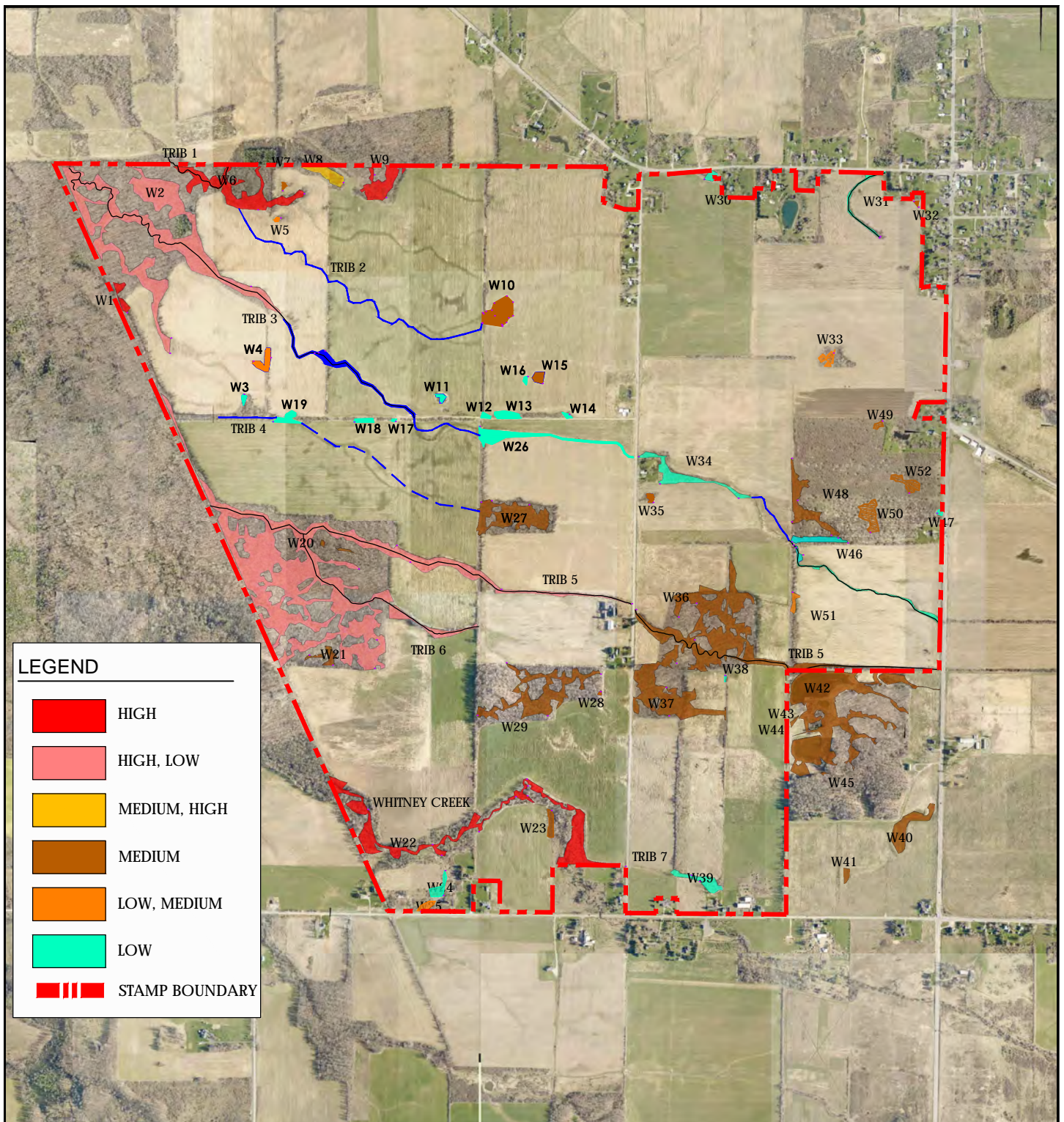


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REGULATED WETLANDS AND STREAMS
STAMP LAND MANAGEMENT PLAN
TOWN OF ALABAMA, GENESSEE COUNTY, NY

DATA SOURCE: EARTH DIMENSIONS

FIGURE 7



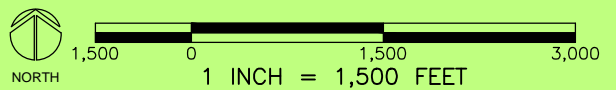
LEGEND

- HIGH
- HIGH, LOW
- MEDIUM, HIGH
- MEDIUM
- LOW, MEDIUM
- LOW
- STAMP BOUNDARY

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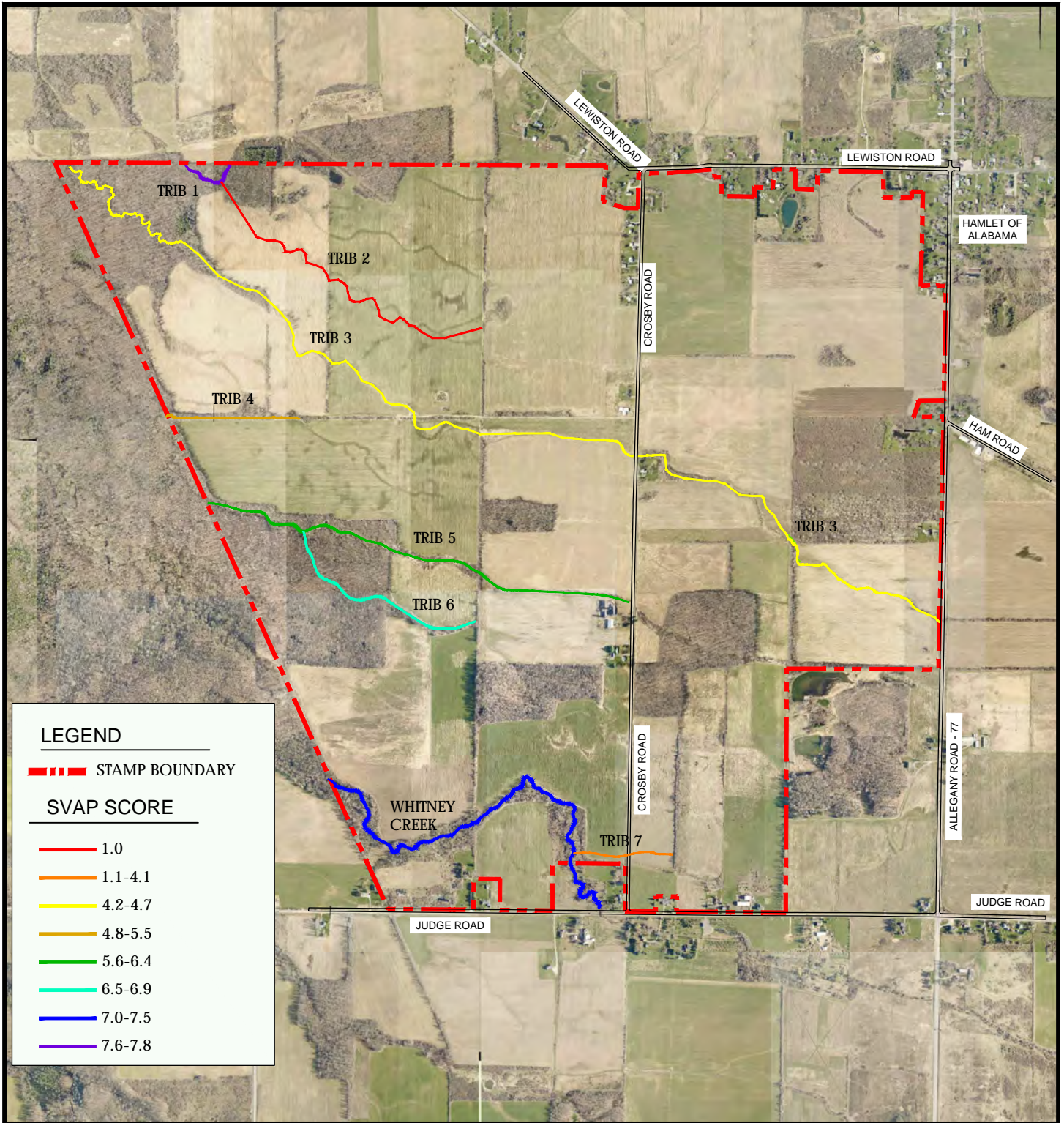


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RANKED WETLANDS
STAMP LAND MANAGEMENT PLAN
TOWN OF ALABAMA, GENESSEE COUNTY, NY
DATA SOURCE: EARTH DIMENSIONS

FIGURE 8



LEGEND

STAMP BOUNDARY

SVAP SCORE

- 1.0
- 1.1-4.1
- 4.2-4.7
- 4.8-5.5
- 5.6-6.4
- 6.5-6.9
- 7.0-7.5
- 7.6-7.8


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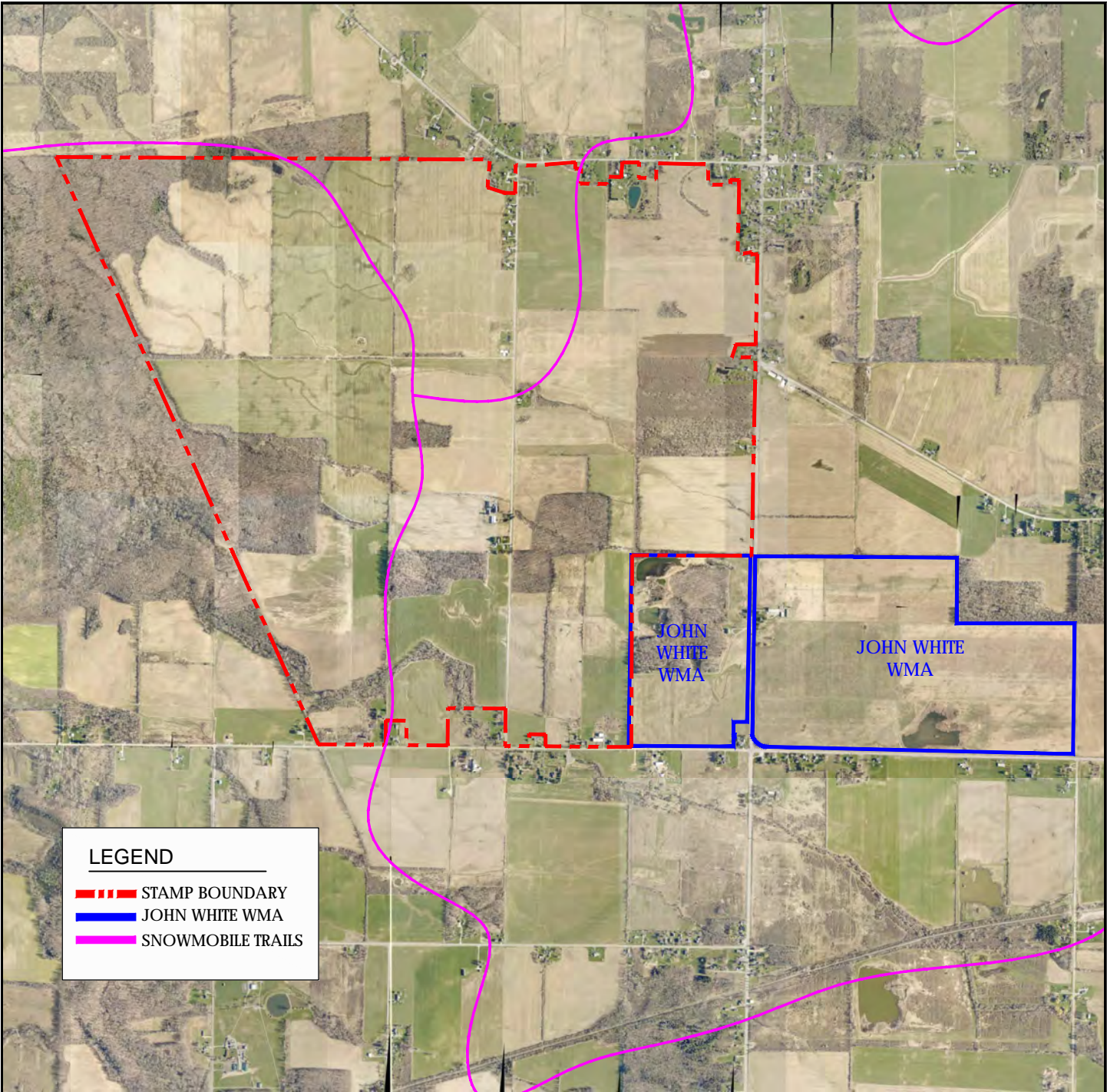
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1,500 0 1,500 3,000
 1 INCH = 1,500 FEET

RANKED STREAMS
STAMP LAND MANAGEMENT PLAN
TOWN OF ALABAMA, GENESEE COUNTY, NY
 DATA SOURCE: EARTH DIMENSIONS

FIGURE 9



LEGEND

-  STAMP BOUNDARY
-  JOHN WHITE WMA
-  SNOWMOBILE TRAILS

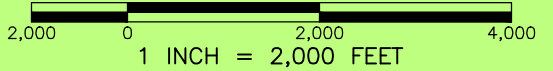


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COMMUNITY RESOURCES
 STAMP LAND MANAGEMENT PLAN
 TOWN OF ALABAMA, GENESEE COUNTY, NY
 DATA SOURCE: NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FIGURE 10



FORESTS
AINS



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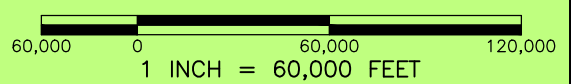
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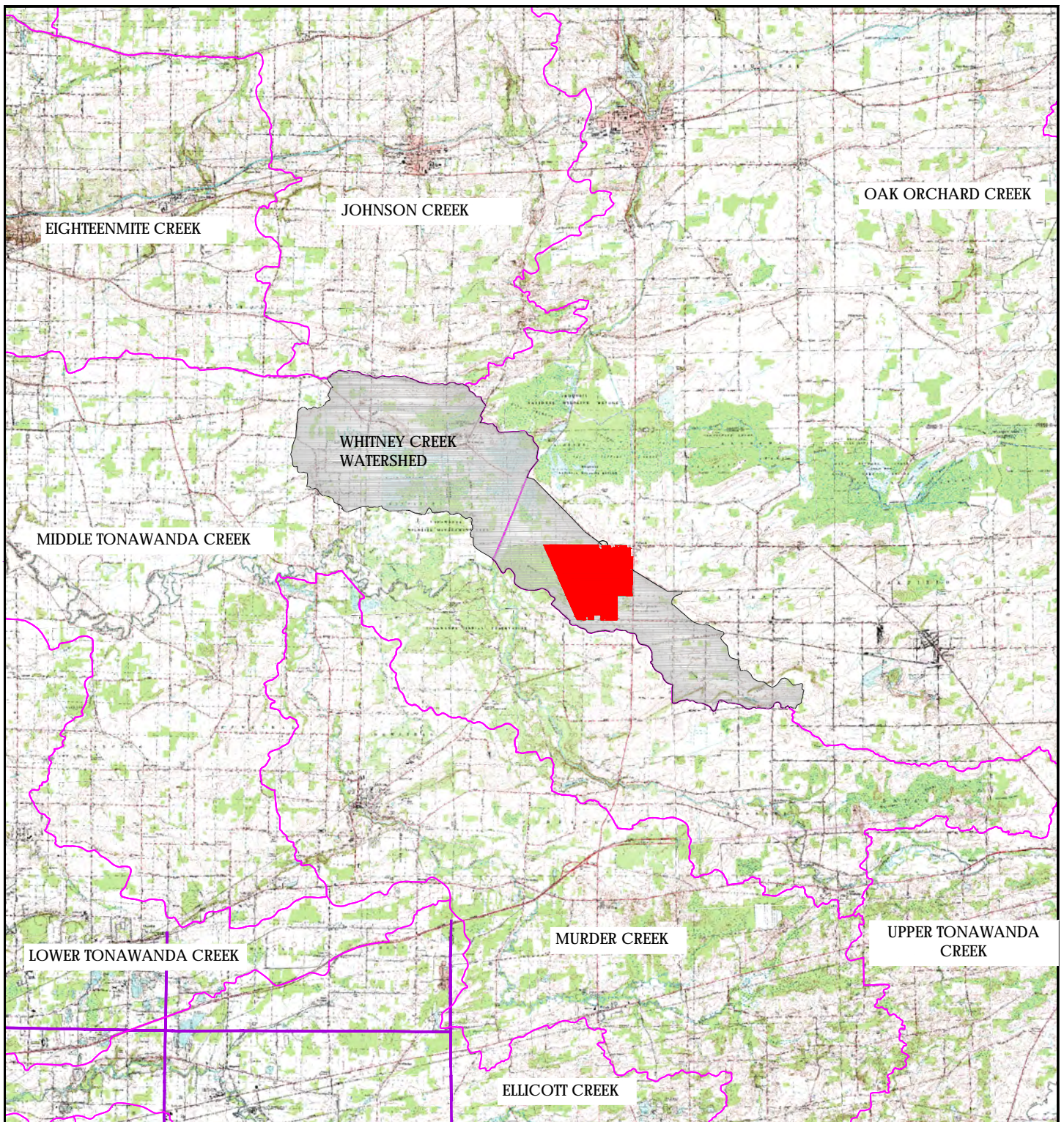


NORTH



ECOREGION
STAMP LAND MANAGEMENT PLAN
TOWN OF ALABAMA, GENESSEE COUNTY, NY
DATA SOURCE: U.S. ENVIRONMENTAL PROTECTION AGENCY

FIGURE 11




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15,000 0 15,000 30,000
 1 INCH = 15,000 FEET



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**REGIONAL WATERSHED
 STAMP LAND MANAGEMENT PLAN
 TOWN OF ALABAMA, GENESSEE COUNTY, NY**

DATA SOURCE: U.S. DEPARTMENT OF AGRICULTURE

FIGURE 12

APPENDIX A

Master Plan Build Out Maps

- Map 1 - Master Build Out Plan
- Map 2 - Technology Districts
- Map 3 – Buildable Area
- Map 4 – Open Space
- Map 5 – Conceptual Mitigation Plan
- Map 6 – Current Land Use
- Map 7 – Future Land Use

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LEGEND

-  STAMP BOUNDARY
-  WESTERN BOUNDARY BUFFER
-  PUBLIC ROADS
-  DRAINAGE WAYS
-  WALKING TRAILS
-  SNOWMOBILE TRAILS
-  DELINEATED WETLANDS
-  FOREST/REFOREST/WETLANDS 390.4 ± ACRES
-  STORMWATER MANGEMENT FACILITIES
-  EXISTING STORMWATER MANAGEMENT
-  STREET TREES
-  SURFACE PARKING / SERVICE YARDS
-  TECHNOLOGY MANUFACTURING SUPPORT / FLEX BUILDINGS
-  TECHNOLOGY MANUFACTURING SUPPORT / FLEX ADDITIONAL BUILDINGS
-  TECHNOLOGY MANUFACTURING ANNEX SUPPORT / FLEX BUILDINGS
-  OFFICE BUILDINGS
-  COMMERCIAL / MIXED USE / RETAIL
-  UTILITY AREA
-  CRAFT ASSEMBLY
-  SITE ENTRANCE POINT
-  WETLAND MITIGATION AREA
-  100' AG RESIDENTIAL BUFFER
-  300' OPEN SPACE BUFFER
-  500' STRUCTURE SETBACK
-  ZONING SETBACK
-  RELOCATED POWER LINE AND SETBACK
-  PROPOSED TRIBUTARY 3 ROUTE



STAMP - MASTER BUILD OUT PLAN

WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)

JULY 2017

APPENDIX A MAP 1

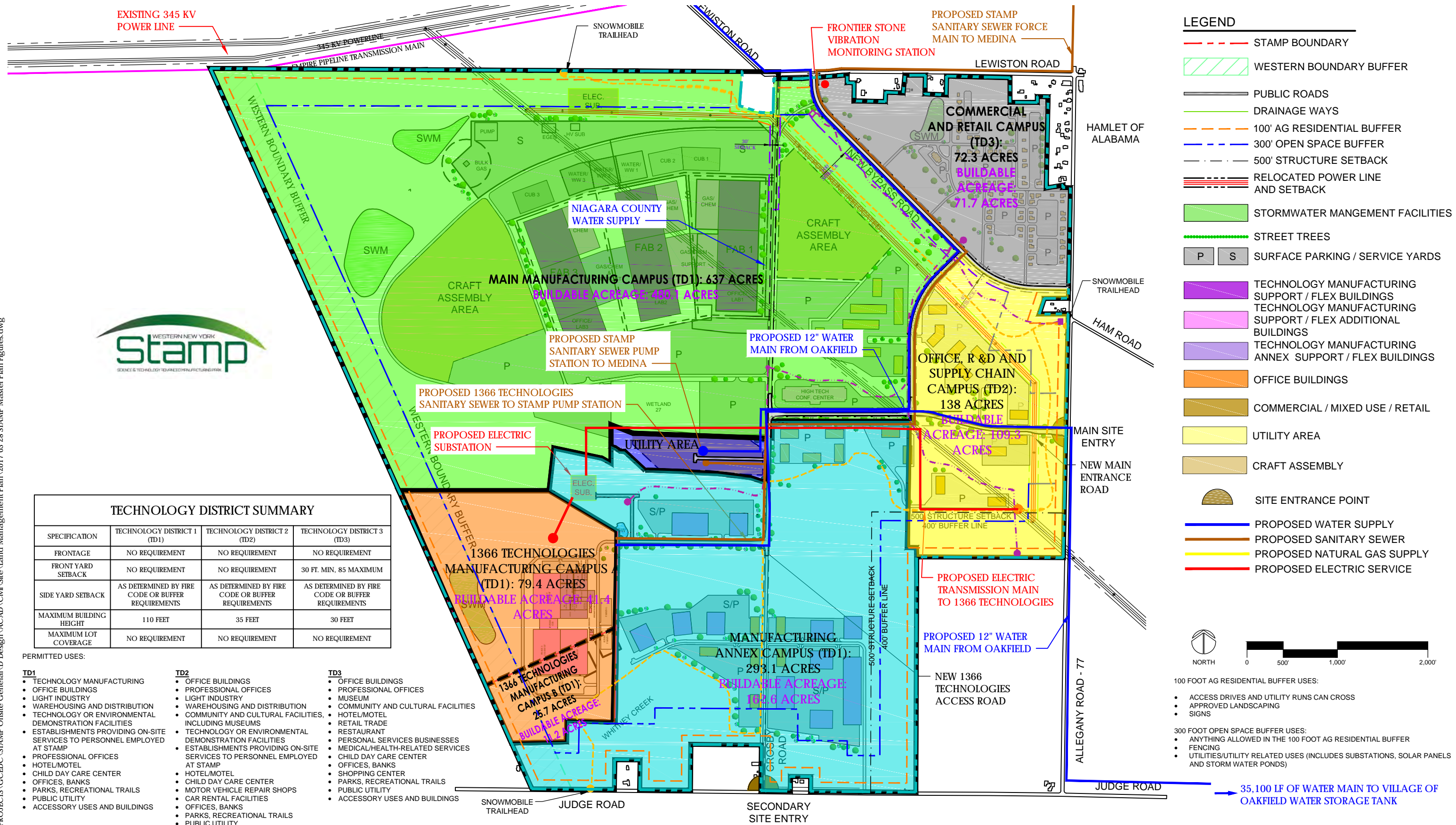
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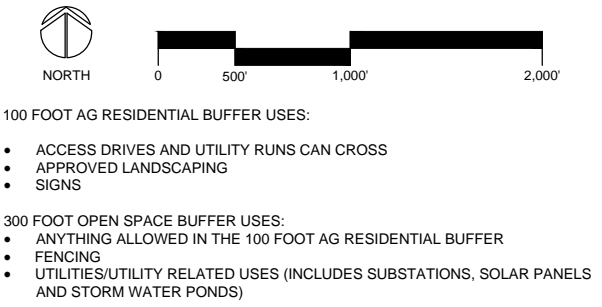
TECHNOLOGY DISTRICT SUMMARY			
SPECIFICATION	TECHNOLOGY DISTRICT 1 (TD1)	TECHNOLOGY DISTRICT 2 (TD2)	TECHNOLOGY DISTRICT 3 (TD3)
FRONTAGE	NO REQUIREMENT	NO REQUIREMENT	NO REQUIREMENT
FRONT YARD SETBACK	NO REQUIREMENT	NO REQUIREMENT	30 FT. MIN. 85 MAXIMUM
SIDE YARD SETBACK	AS DETERMINED BY FIRE CODE OR BUFFER REQUIREMENTS	AS DETERMINED BY FIRE CODE OR BUFFER REQUIREMENTS	AS DETERMINED BY FIRE CODE OR BUFFER REQUIREMENTS
MAXIMUM BUILDING HEIGHT	110 FEET	35 FEET	30 FEET
MAXIMUM LOT COVERAGE	NO REQUIREMENT	NO REQUIREMENT	NO REQUIREMENT

PERMITTED USES:

- | | | |
|--|---|---|
| <p>TD1</p> <ul style="list-style-type: none"> TECHNOLOGY MANUFACTURING OFFICE BUILDINGS LIGHT INDUSTRY WAREHOUSING AND DISTRIBUTION TECHNOLOGY OR ENVIRONMENTAL DEMONSTRATION FACILITIES ESTABLISHMENTS PROVIDING ON-SITE SERVICES TO PERSONNEL EMPLOYED AT STAMP PROFESSIONAL OFFICES HOTEL/MOTEL CHILD DAY CARE CENTER OFFICES, BANKS PARKS, RECREATIONAL TRAILS PUBLIC UTILITY ACCESSORY USES AND BUILDINGS | <p>TD2</p> <ul style="list-style-type: none"> OFFICE BUILDINGS PROFESSIONAL OFFICES LIGHT INDUSTRY WAREHOUSING AND DISTRIBUTION COMMUNITY AND CULTURAL FACILITIES, INCLUDING MUSEUMS TECHNOLOGY OR ENVIRONMENTAL DEMONSTRATION FACILITIES ESTABLISHMENTS PROVIDING ON-SITE SERVICES TO PERSONNEL EMPLOYED AT STAMP HOTEL/MOTEL CHILD DAY CARE CENTER MOTOR VEHICLE REPAIR SHOPS CAR RENTAL FACILITIES OFFICES, BANKS PARKS, RECREATIONAL TRAILS PUBLIC UTILITY ACCESSORY USES AND BUILDINGS | <p>TD3</p> <ul style="list-style-type: none"> OFFICE BUILDINGS PROFESSIONAL OFFICES MUSEUM COMMUNITY AND CULTURAL FACILITIES HOTEL/MOTEL RETAIL TRADE RESTAURANT PERSONAL SERVICES BUSINESSES MEDICAL/HEALTH-RELATED SERVICES CHILD DAY CARE CENTER OFFICES, BANKS SHOPPING CENTER PARKS, RECREATIONAL TRAILS PUBLIC UTILITY ACCESSORY USES AND BUILDINGS |
|--|---|---|



- LEGEND**
- STAMP BOUNDARY
 - WESTERN BOUNDARY BUFFER
 - PUBLIC ROADS
 - DRAINAGE WAYS
 - 100' AG RESIDENTIAL BUFFER
 - 300' OPEN SPACE BUFFER
 - 500' STRUCTURE SETBACK
 - RELOCATED POWER LINE AND SETBACK
 - STORMWATER MANGEMENT FACILITIES
 - STREET TREES
 - P S SURFACE PARKING / SERVICE YARDS
 - TECHNOLOGY MANUFACTURING SUPPORT / FLEX BUILDINGS
 - TECHNOLOGY MANUFACTURING SUPPORT / FLEX ADDITIONAL BUILDINGS
 - TECHNOLOGY MANUFACTURING ANNEX SUPPORT / FLEX BUILDINGS
 - OFFICE BUILDINGS
 - COMMERCIAL / MIXED USE / RETAIL
 - UTILITY AREA
 - CRAFT ASSEMBLY
 - SITE ENTRANCE POINT
 - PROPOSED WATER SUPPLY
 - PROPOSED SANITARY SEWER
 - PROPOSED NATURAL GAS SUPPLY
 - PROPOSED ELECTRIC SERVICE



STAMP - TECHNOLOGY DISTRICTS

WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)

JULY 2017

APPENDIX A MAP 2

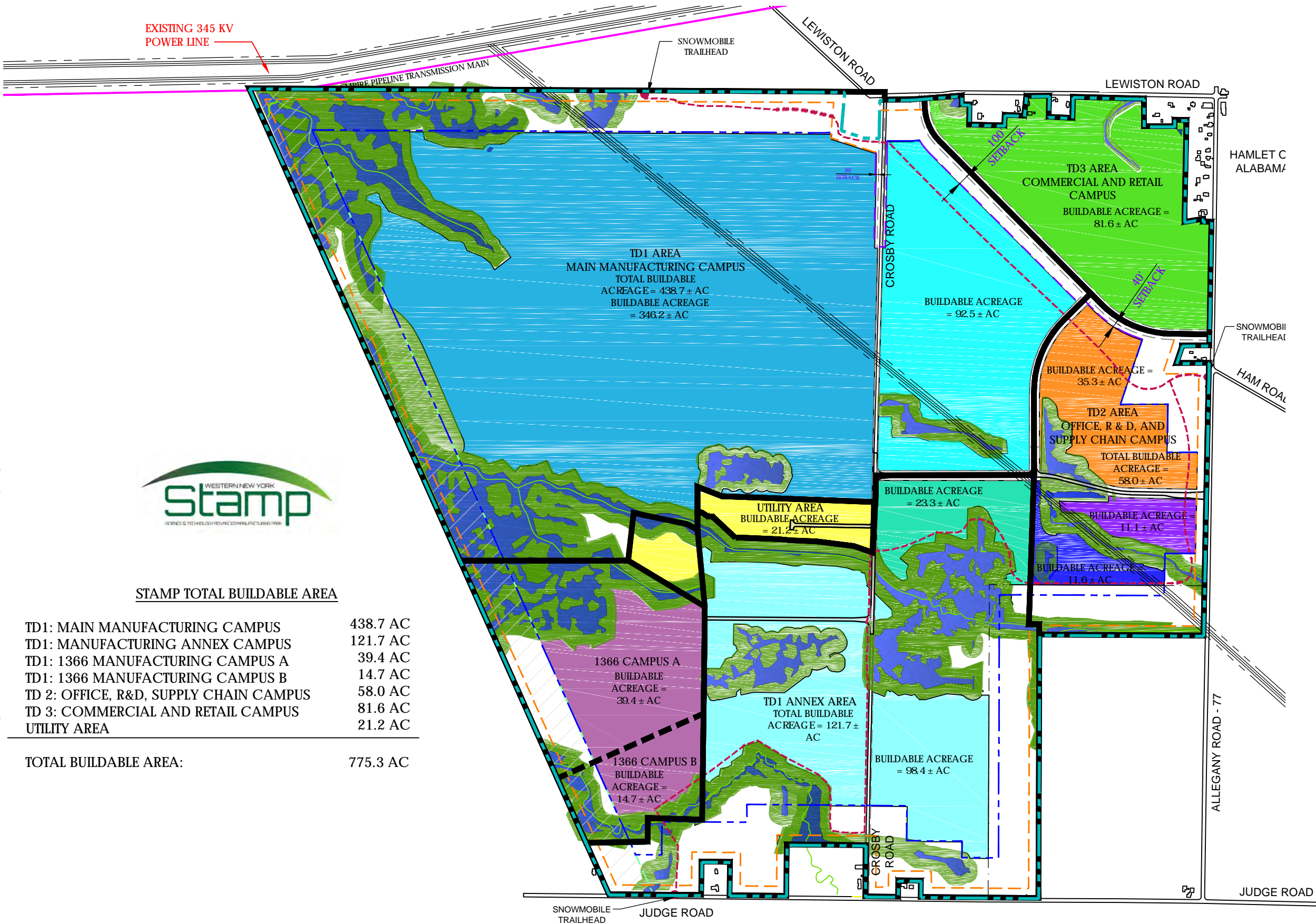
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EXISTING 345 KV
POWER LINE



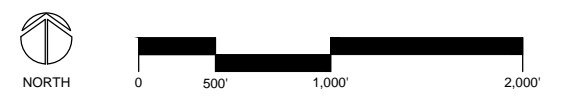
STAMP TOTAL BUILDABLE AREA

TD1: MAIN MANUFACTURING CAMPUS	438.7 AC
TD1: MANUFACTURING ANNEX CAMPUS	121.7 AC
TD1: 1366 MANUFACTURING CAMPUS A	39.4 AC
TD1: 1366 MANUFACTURING CAMPUS B	14.7 AC
TD 2: OFFICE, R&D, SUPPLY CHAIN CAMPUS	58.0 AC
TD 3: COMMERCIAL AND RETAIL CAMPUS	81.6 AC
UTILITY AREA	21.2 AC
TOTAL BUILDABLE AREA:	775.3 AC



LEGEND

- STAMP BOUNDARY
- WESTERN BOUNDARY BUFFER
- PUBLIC ROADS
- DRAINAGE WAYS
- 100' AG RESIDENTIAL BUFFER
- 300' OPEN SPACE BUFFER
- 500' STRUCTURE SETBACK
- ZONING SETBACK
- WALKING TRAILS
- SNOWMOBILE TRAILS
- RELOCATED POWER LINE AND SETBACK
- FOREST/WETLANDS 390.5 ± ACRES



STAMP BUILDABLE AREA

WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)
JULY 2017

**APPENDIX A
MAP 3**

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LEGEND

- STAMP BOUNDARY
- PUBLIC ROADS
- 100' AG RESIDENTIAL BUFFER
- 300' OPEN SPACE BUFFER
- 500' STRUCTURE SETBACK
- ZONING SETBACK
- DEVELOPED 775.3 ± ACRES
- FOREST/REFOREST/WETLANDS 390.5 ± ACRES
- NATURAL COVER/AGRICULTURAL AREA OR OPEN SPACE 85.8 ± ACRES
- AG RESIDENTIAL PLANNED VISUAL BARRIER
- TREES
- PROPOSED TRIBUTARY 3 ROUTE

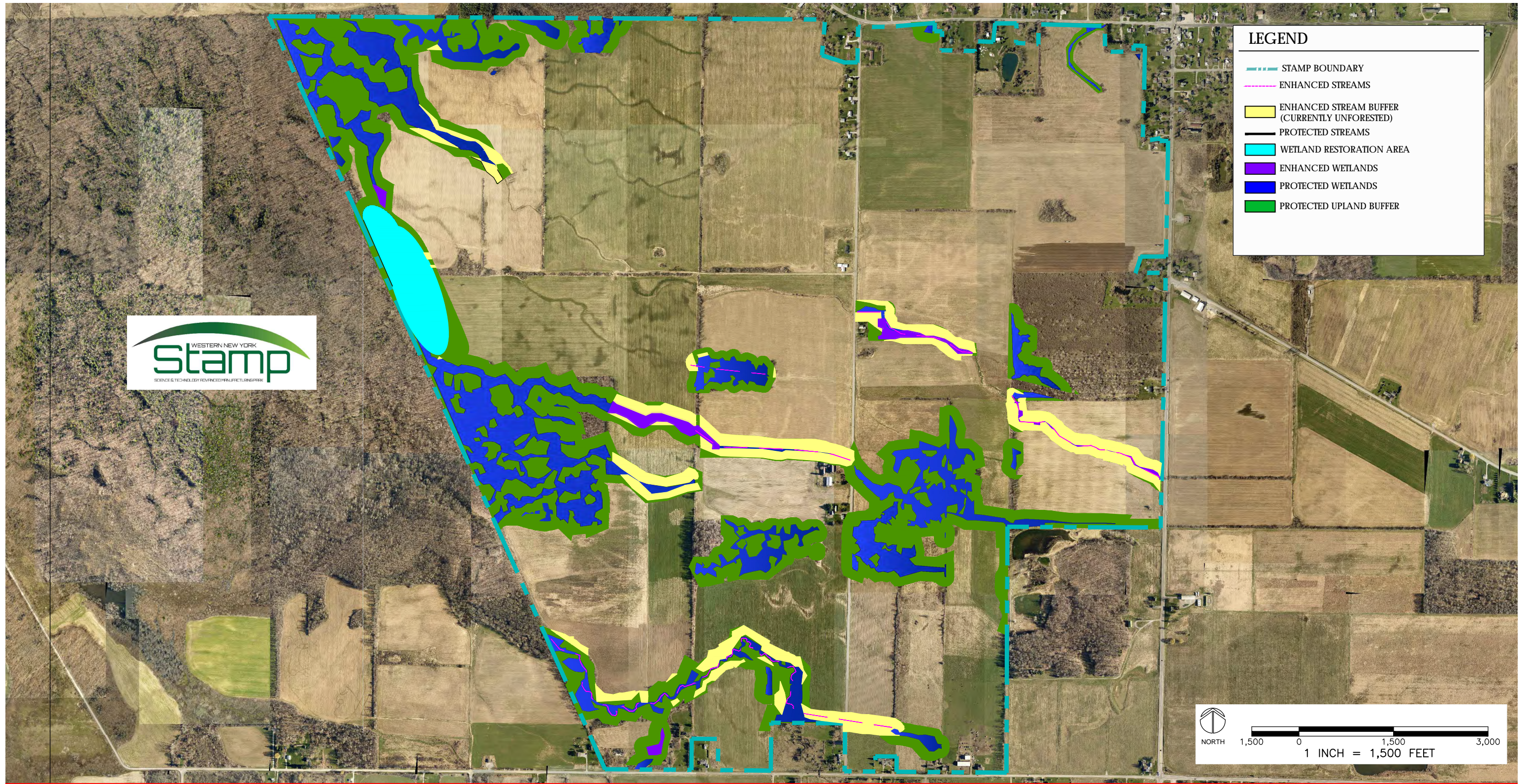
NORTH

0 500' 1,000' 2,000'



STAMP - OPEN SPACE

WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)
JULY 2017





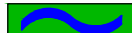
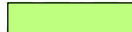


CONCEPTUAL MITIGATION PLAN
 WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)
 JULY 2017

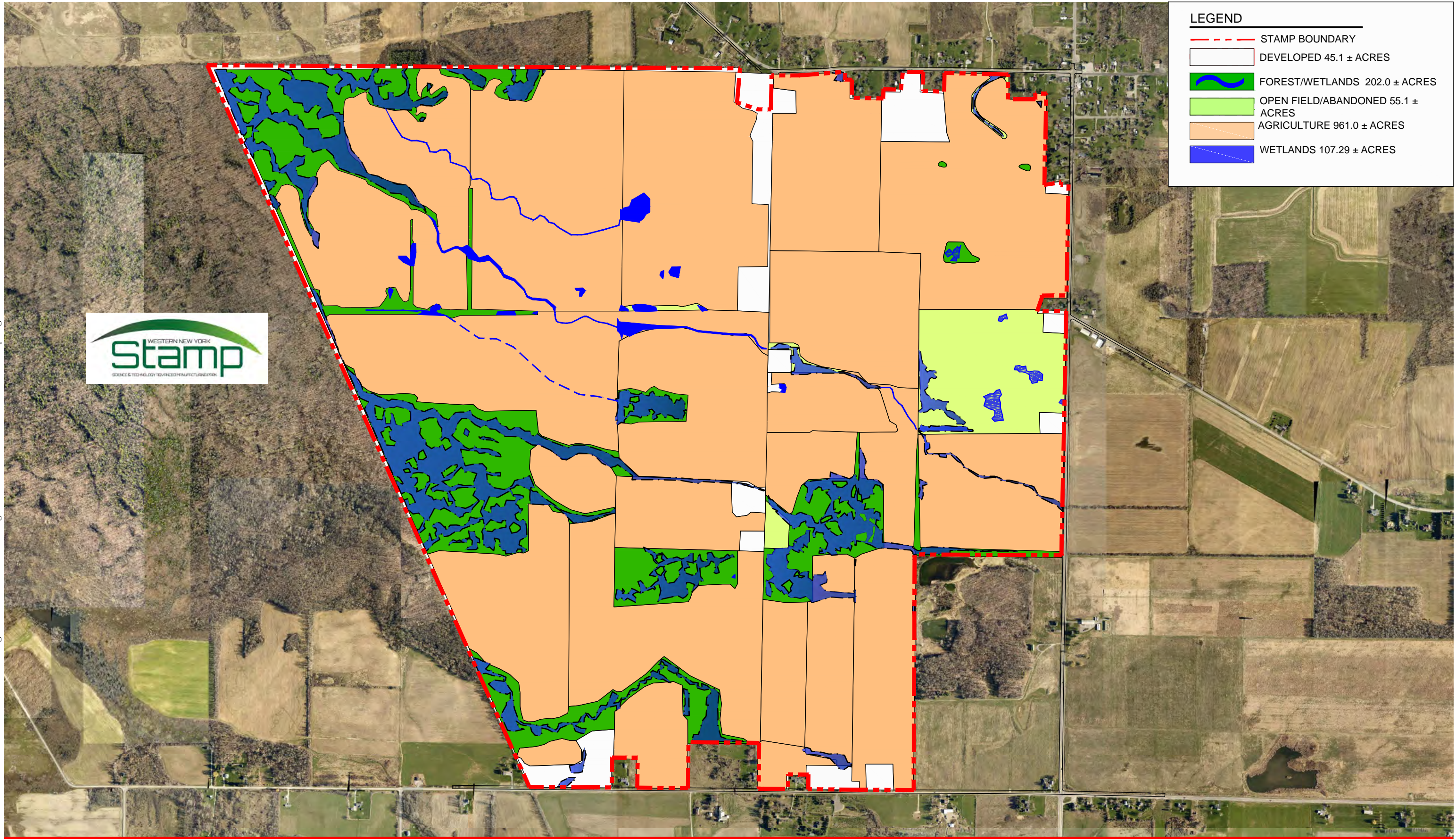
APPENDIX A
MAP 5

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LEGEND

-  STAMP BOUNDARY
-  DEVELOPED 45.1 ± ACRES
-  FOREST/WETLANDS 202.0 ± ACRES
-  OPEN FIELD/ABANDONED 55.1 ± ACRES
-  AGRICULTURE 961.0 ± ACRES
-  WETLANDS 107.29 ± ACRES



CURRENT LAND USE

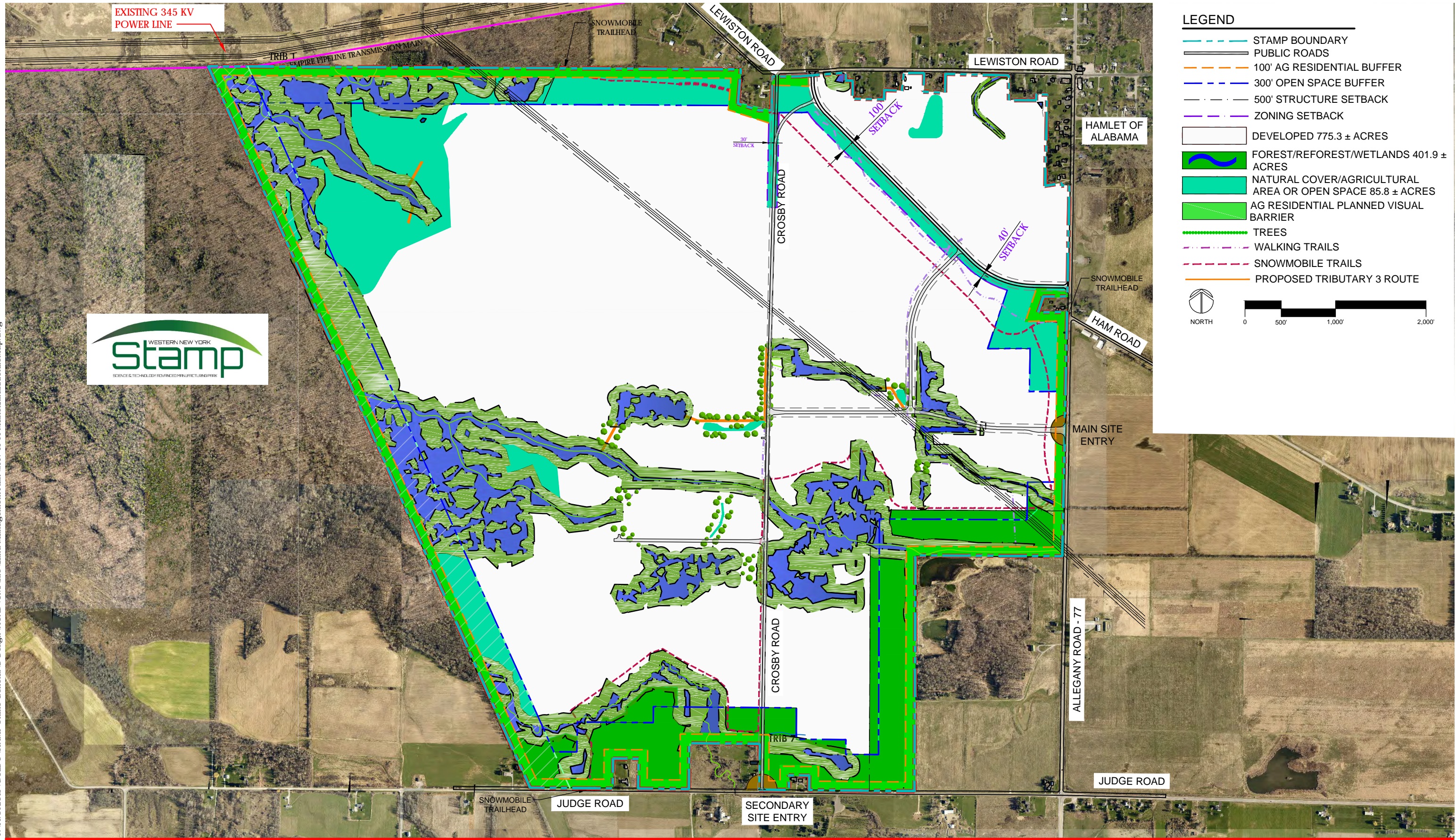
WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)

JULY 2017

DATA SOURCE: CC ENVIRONMENT & PLANNING

APPENDIX A
MAP 6

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FUTURE LAND USE

WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)
JULY 2017

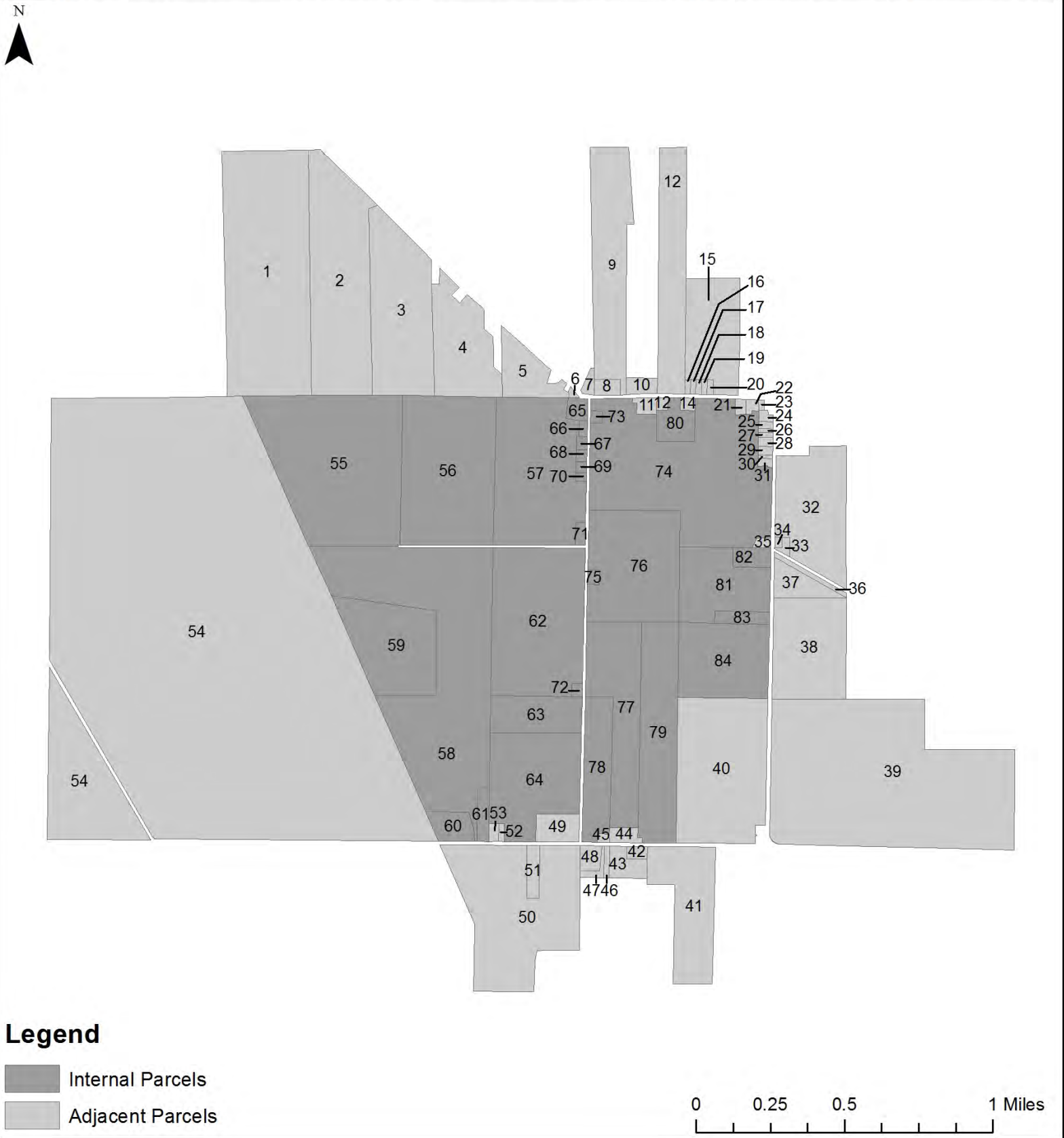
APPENDIX A
MAP 7

APPENDIX B

Property Ownership

Appendix B

Property owner information within and adjacent to Project Site



Western New York STAMP Project Site Property Owners – 7/3/2017			
Map Reference	Status	Current Owner	Current Owner Mailing Address
55	Purchased	Genesee County Economic Development Center (GCEDC)	99 Medtech Dr Ste 106 Batavia, NY 14020
56	Purchased	GCEDC	99 Medtech Dr Ste 106 Batavia, NY 14020
57	Purchased	GCEDC	99 Medtech Dr Ste 106 Batavia, NY 14020
58	Purchased	GCEDC	99 Medtech Dr Ste 106 Batavia, NY 14020
59	Purchased	GCEDC	99 Medtech Dr Ste 106 Batavia, NY 14020
60	Purchased	GCEDC	99 Medtech Dr Ste 106 Batavia, NY 14020
61	Non-critical land purchase	Patti Sharick	1053 Judge Rd Basom, NY 14013
62	Purchased	GCEDC	99 Medtech Dr Ste 106 Batavia, NY 14020
63	Purchase by GCEDC in process	Robert Crossen	1198 Judge Rd Basom, NY 14013
64	Purchase by GCEDC in process	Robert Crossen	1198 Judge Rd Basom, NY 14013
65	Non-critical land purchase	Jonathan Rivers	6548 Crosby Rd Basom, NY 14013
66	Purchased	GCEDC	99 Medtech Dr Ste 106 Batavia, NY 14020
67	Purchased	GCEDC	99 Medtech Dr Ste 106 Batavia, NY 14020
68	Purchase negotiations in process	Dennis Green	6596 Crosby Rd Basom, NY 14013
69	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
70	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
71	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
72	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
73	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
74	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
75	Purchased	GCEDC	99 MedTech Dr Ste 106

Western New York STAMP Project Site Property Owners – 7/3/2017			
Map Reference	Status	Current Owner	Current Owner Mailing Address
			Batavia, NY 14020
76	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
77	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
78	Remaining purchases for 100% site control	Anita Goras	1239 Judge Rd Basom, NY 14013
79	Remaining purchases for 100% site control	Anita Goras	1239 Judge Rd Basom, NY 14013
80	Non-critical land purchase	Kerry Bischoff	1246 Lewiston Rd Basom, NY 14013
81	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
82	Non-critical land purchase	Colleen Nelson	6700 Alleghany Rd Alabama, NY 14013
83	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020
84	Purchased	GCEDC	99 MedTech Dr Ste 106 Batavia, NY 14020

WNY STAMP Adjacent Property Owners – 12/3/2014

Map Reference	Name	Mailing Address
1, 39, 40	New York State	Albany, NY
2	Louise Ann Cieszynski	916 Louiston Rd. Basom, NY 14013
3	Larry Horine	7863 Lewiston Rd. Batavia, NY 14020
4	Del Mar Farms, Inc.	2684 Pratt Rd. Batavia, NY 14020
5	Joyce E. Anderson	1096 Lewiston Rd. Alabama, NY 14103
6	Casey A. McKenzie	1138 Lewiston Rd. Alabama, NY 14013
7	Crystal Luxon	1147 Lewiston Rd. Basom, NY 14013
8	Anne Bacon	1183 Lewiston Rd. Basom, NY 14013
10	Justin R. Blew	1219 Lewiston Rd. Basom, NY 14013
9	Calvin J. Winkstern	2684 Pratt Rd. Batavia, NY 14020
11	Michael J. Dulkevich	1216 Lewiston Rd. Alabama, NY 14013
12	Lawrence W. Gilbert	1406 5 th St. West Palmetto, FL 34221
13	Charles Lauer	1255 Lewiston Rd. Basom, NY 14013
14	Charles Rice	3995 Batavia Elba Townline Rd. Oakfield, NY 14123
15	Norman David Weaver Jr.	1297 Lewiston Rd. Basom, NY 14013
16	Craig Cramer	1261 Lewiston Rd. Basom, NY 14013
17	Christina Adamski	1267 Lewiston Rd. Basom, NY 14013
18	Diane M. Wyder	1271 Lewiston Rd. Basom, NY 14013
19	Melody S. Kotarski	1277 Lewiston Rd. Alabama, NY 14013
20	Joseph J. Mrowczynski	1283 Lewiston Rd. Basom, NY 14013
21	Home Buyer Funding, LLC	1318 Lewiston Rd. Basom, NY 14103
22	Jeffrey D. Kessler	1324 Lewiston Rd Basom, NY 14013

WNY STAMP Adjacent Property Owners – 12/3/2014

Map Reference	Name	Mailing Address
23	Richard L. Robinson	1338 Lewiston Rd. Alabama, NY 14013
24	Magnus Living Trust	6560 Alleghany Rd. Alabama, NY 14013
25	Aaron J. Mest	6568 Alleghany Rd. Basom, NY 14013
26	Kenneth M. Knaus	6576 Alleghany Rd. Basom, NY 14013
27	Lee Ann Marchese	6578 Alleghany Rd. Basom, NY 14013
28	Darwin L. Townsend	6584 Alleghany Rd. Alabama, NY 14013
29, 30	Robert W. Eick	PO Box 466 Alabama, NY 14013
31	Jean M. Baker	4618 East Shelby Rd. Medina, NY 14103
32	Daniel Haas	2185 Ham Rd. Oakfield, NY 14125
33	Patricia M. Pelton	1364 Church St. Alabama, NY 14013
34	Charles P. O'Conner	6685 Alleghany Rd. Basom, NY 14013
35	Dolores L. Brunea	6686 Alleghany Rd. Basom, NY 14013
36, 37	Town of Alabama	1358 Ham Rd. Alabama, NY 14013
38	Call Farms Inc.	8127 Lewiston Rd. Batavia, NY 14020
41	Edward Roggen	PO Box 713 Basom, NY 14013
42, 43, 46, 47	Robert M. Crossen	1198 Judge Rd. Basom, NY 14013
44	Erik F. Aquina	1223 Judge Rd. Basom, NY 14013
45	Shirley Wyder	1181 Judge Rd. Basom, NY 14013
48	Walter E. Foster	1170 Judge Rd. Basom, NY 14013
49	Douglas E. Baubie	6986 Crosby Rd. Basom, NY 14013
50, 51	Terry R. Thompson	1106 Judge Rd. Basom, NY 14013
52	Danielle C. Wyder	4975 Barryville Rd. Elba, NY 14058

WNY STAMP Adjacent Property Owners – 12/3/2014

Map Reference	Name	Mailing Address
53	Jacqueline J. Lindke	1069 Judge Rd. Basom, NY 14013
54	Tonawanda Indian Reservation	Attn: Tonawanda Indian Reservation Council of Chiefs 6978 Council House Rd. Akron, NY 14001

APPENDIX C

Project History and Background Summary Table

STAMP Project History Timeline		
Year	Month	Event
2005	Jan/Dec	Applicant initiates exploration of WNY STAMP
2006/2007	Jan/Dec	Development of site selection criteria, site evaluations and alternatives analysis
2008	Nov	Completion of WNY STAMP Feasibility Study for selected site
2009	Dec	Applicant commences State Environmental Quality Review Act (SEQRA) process with Lead Agency notification Tonawanda Seneca Nation consultation meeting
2010	Jan	Applicant accepts Lead Agency status and begins coordinated SEQRA review NYSDEC meeting regarding STAMP and John White WMA NYSDEC correspondence regarding SEQR process and consent for lead agency
	Feb	Applicant commences consultation with Tonawanda Seneca Nation holding an introductory meeting NYSDEC meeting to discuss SEQR and scoping doc, Public meetings for SEQR Generic Environmental Impact Statement (GEIS) scoping
	Mar	Traffic study complete Phase IA cultural resource investigation complete NYSDEC comments received on GEIS scoping doc
	July	Wetland delineation report and wetland functions and values assessment completed
	Aug	NYSDEC correspondence received regarding John White WMA transfer process
	Sep	Threatened and endangered species report completed
	Nov	Wetland delineation report – final revision Phase IB cultural resource investigation begins
	Dec	USACE/NYSDEC meeting to discuss site design and natural resources
2011	Feb	Evaluation of existing sound level completed Revised threatened and endangered species report issued USACE meeting to discuss permit application, alternatives, avoidance and minimization Public meeting Town of Alabama NYSDEC correspondence regarding site design alternatives, natural resources and additional information needs
	Mar	Stormwater management preliminary report completed Preliminary water/wastewater reports Visual impact analysis USACE conference call to discuss permitting process, alternatives analysis
	Apr	SEQR Draft GEIS notice of completion/public comment period Farmland protection strategies identified Economic impact analysis complete
	May	SEQR Public Hearing held on Draft GEIS in the Town of Alabama
	Jun	Public comments on Draft GEIS received including NYSDEC
	Jul	USACE/NYSDEC/USEPA/USFWS meeting to discuss project, design and natural resources
	Aug	Tonawanda Seneca Nation consultation meeting
2012	Jan	SEQR Final GEIS issued by Applicant and notice of completion sent to the ENB for publication, SEQR Public Meeting in the Town of Alabama

STAMP Project History Timeline		
Year	Month	Event
	Feb	Jurisdictional determination from USACE received for Project Site wetlands and streams
	Mar	Applicant issues Final GEIS and Findings Statement NYSDEC meeting to discuss Final GEIS and Findings Statement USACE Call to discuss off-site alternatives analysis
	May	Tonawanda Seneca Nation consultation meeting
	Jul	Response provided to USACE (pre-application submittal) addressing comments on off-site alternatives analysis
	Aug	USACE meeting to discuss pre-application submittal of off-site alternatives analysis, agreed to begin on-site alternatives analysis
	Sep	Project Update Memo provided to agencies and Tonawanda Seneca Nation
	Oct-Nov	Public meeting, Town of Alabama,
	Dec	Updated pre-app submittal of off-site alternatives analysis provided to USACE, NYSDEC, USFWS, USEPA Town of Alabama rezoned STAMP site to three technology districts
2013	Feb	USACE, NYSDEC, USEPA, USFWS meeting to discuss design criteria, site constraints and on-site alternatives Tonawanda Seneca Nation consultation meeting
	Mar	Comments from USACE received on on-site alternatives analysis presentation Draft water/wastewater feasibility study provided to USACE and NYSDEC
	Apr	NYSDEC meeting to review draft water/wastewater alternatives
	Jun	Phase IB cultural resource investigation report summarizing work completed to date sent to agencies
	Aug	Conceptual water/wastewater alternatives analysis and recommendations report completed
	Sep	Stream Assessment Report Completed
	Oct	Phase II cultural resource investigation proposal reviewed and approved by NYSOPRHP
	Nov	Joint Permit Application submitted for unavoidable wetland/stream impacts to NYSDEC/USACE
	Dec	Uniform Procedures Act Extension Request issued to NYSDEC
2014	Feb	USACE provides letter requesting additional information to evaluate JPA
	Mar	NYSDEC issued Notice of Incomplete Application requesting additional information to evaluate JPA
	Jun	Updated threatened and endangered species review and correspondence completed
	Oct	USFWS provides Acknowledgement of Receipt of Determination form for updated ESA review
	Dec	USACE/NYSDEC/USFWS meeting to review response to requests for additional information Response to Request for Additional Information - Phase I Report submitted
2015	Feb	Proposal for Phase II cultural resource investigation
	Jun	Phase II cultural resource investigation for Sites 3,4,6,7, 23 field work
	Aug	Project Eagle permits and approvals coordination and implementation planning
	Nov	Forest Inventory and Analysis site visit by Northern Research Station (USDA Forest Service)

STAMP Project History Timeline		
Year	Month	Event
	Dec	Phase IB cultural resource report addendum to 2013 Phase IB Report to add Parcel 15 Phase IA cultural resource report complete for offsite water project Tonawanda Seneca Nation Consultation Meeting (12-15-15)
2016	Feb	Phase II cultural resource investigation and report complete for Phase II Sites 3, 4, 6, 7, 23 SHPO concurrence with "no effect" at Parcel 15 SHPO concurrence with Phase IA cultural resource report recommendation for Phase IB testing for offsite water and sewer recommendations.
	Mar	Draft Programmatic Agreement reviewed by agencies for continuing cultural resource investigation
	Apr	SHPO concurrence with results of Phase II cultural resource results recommending Phase III for Sites 3 and 6 and approval of Sites 3 and 6 Data Recovery Plan
	Jun	Joint Permit Application submitted to USACE/NYSDEC for Phase I Infrastructure development of main access road and utilities ROW Permit Application submitted to USFWS for offsite sanitary sewer SEQR Analysis of Environment Impacts Updated
	Aug	Phase IB cultural resource investigation and report complete for first phase of offsite water
	Sep	Phase IB cultural resource report addendum to 2013 Phase IB Report to include Parcels 4, portions of 8 and 9, 10, portion of 12, 14, 25-26, 28-30. Site 27 identified on Parcel 8 for Phase II investigation.
	Oct	Phase II cultural resource investigation and report complete for Phase II Site 5. Tonawanda Seneca Nation Consultation Conference Call (10-30-16)
	Dec	Phase III cultural resource data recovery and report complete for Sites 3 and 6.
2017	Jan	Aquatic resource delineation update and report complete for JD renewal
	May	ROW Archaeological Investigation and Special Use Permits received from USFWS to begin Phase I A/B review of the proposed USFWS ROW for sanitary sewer and process wastewater force main USACE/NYSDEC permits issued for Phase 1 Infrastructure development of main road and utilities
	June	ROW NEPA Environmental Assessment Draft Report provided to USFWS Field work complete for all remaining Phase II Sites
	July	Phase II cultural resource investigation and report complete for Phase II Sites 1, 2, 24, 27

APPENDIX D

Cultural Resource Investigation Report



Memorandum

To: Genesee County Economic Development Center
Date: March 3, 2017
From: Sheila S. Hess – Principal Ecologist/CEO
Subject: **STAMP Cultural Resource Investigation Update**

BACKGROUND

The Genesee County Economic Development Center (GCEDC) and its affiliate, the Genesee Gateway Local Development Corporation (GGLDC) have been working for the last ten years on the development of the Western New York Science & Technology Advanced Manufacturing Park (STAMP), an advanced manufacturing campus to be developed on approximately 1,261.7 acres of land (Project) in the Town of Alabama, New York located along the west side of New York State Highway 77/63 (north of Judge Road) approximately five miles north of the I-90/New York State Thruway (STAMP Site).

A joint permit application was made in November 2013 pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), to the United States Army Corps of Engineers (USACE), Buffalo District (Department of the Army Application No. 2010-00964), and the New York State Department of Environmental Conservation (NYSDEC), Region 8 (NYSDEC No. 8-1820-00020/00002) for activities within wetlands and waters of the United States in association with the development of the Project, thereby making the Project an undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA).

Recently, GCEDC has completed design for Track 1 Infrastructure at the Site including a Main Access Road and offsite water and sanitary sewer to service the Site. Construction of Track 1 Infrastructure will begin in 2017 once all necessary reviews are complete and all necessary permits have been issued.

The purpose of this memo is to provide the GCEDC and GGLDC with an overview and update on cultural resource investigations at the STAMP Site including:

1. A brief summary of cultural resource investigations completed to date at the STAMP Site.
2. A summary of known remaining cultural resource investigations required for development of the STAMP Site through Track 1 Infrastructure to full build out.

ATTACHMENTS

A summary table and two maps of the STAMP Site have been attached to facilitate this update.

1. Attachment 1 provides a status table to summarize complete and ongoing investigations.
2. Attachment 2 shows an aerial photograph of the 1,261.7-acre STAMP Site broken up into acquisition parcels numbered 1 through 30 (Parcels 1-30).
3. Attachment 3 shows a plan view map with Parcels 1-22, 24-30 and the location and status of Phase II Sites, numbers 1-24 and 26-27 and Phase III Sites. Phase II Sites are areas identified during Phase IB investigations as those that appear to be National Register eligible under Criterion D (potential to yield important information). Phase III Sites confirm National Register eligibility and require avoidance or artifact removal.

SUMMARY OF CULTURAL RESOURCE INVESTIGATIONS COMPLETED TO DATE

Four investigations have been completed to date in association with archeological resources at the STAMP Site and two investigations have been completed to date for off-site water and sewer associated with the development of STAMP. These are summarized below.

STAMP Site Investigations:

1. A Phase IA study and report were completed by Deuel Archaeology & CRM in 2010 on Parcels 1 through 23¹.
2. A Phase IB study and report were completed for a majority of the STAMP Site by the Archaeological Survey, Department of Anthropology at the State University of New York at Buffalo in 2013. Representatives of the Tonawanda Seneca Nation monitored all investigatory work as it was conducted in the field.
 - The Phase IB investigation was completed for all areas requiring examination² on the following Parcels:
 - 1, 2, 3, 6, 8, 11, 12, 16, 17, 18, 22
 - Phase IB investigation was completed for the majority of Parcel 9 requiring examination except for approximately three acres surrounding an existing structure.
 - The following Parcels were not part of the 2013 Phase IB study and report:
 - 4, 5, 7³, 10, 13, 14, 15, 19, 20, 21, 23⁴, 24, 25, 26, 27, 28, 29, 30

¹ Parcel 23 consists of the John White State Wildlife Management Area and is no longer part of the STAMP Site. Parcels 24 through 30 were added to the STAMP Site after completion of this Phase IA study.

² Delineated wetlands identified for avoidance and protection were not surveyed. Upland areas not identified for development activities were not surveyed. Development plans have evolved for the STAMP Site including on Parcels 1 (wetland mitigation site along west edge of property), 8 (electric substation), and potentially Parcels 16 and 17. Some areas that were not surveyed initially now require survey (see Attachment 2).

³ Parcel 7 will not be investigated as it is within an area identified for wetland protection.

⁴ Parcel 23 consists of the John White State Wildlife Management Area and is no longer part of the STAMP Site.

3. A Phase IB study and report for Parcel 15 were completed as an addendum to the 2013 Phase IB Investigation Report by the Archaeological Survey, Department of Anthropology at the State University of New York at Buffalo in December 2015. Representatives of the Tonawanda Seneca Nation monitored all investigatory work as it was conducted in the field. No further archeological investigation at this site is recommended. This addendum was uploaded to the Cultural Resource Information System database (“CRIS”) managed by the New York State Office of Parks Recreation and Historic Preservation (SHPO), for review by SHPO, USACE, USDOE and the Tonawanda Seneca Nation. A copy of the report was also emailed directly to the Nation’s representative. A SHPO concurrence letter was received dated February 26, 2016.
4. A Phase II study and report were completed by the Archaeological Survey, Department of Anthropology at the State University of New York at Buffalo in February 2016 for the following Phase II Sites:
 - Sites 3 and 4 (Parcel 9)
 - Sites 6 and 7 (Parcel 8)
 - Site 23 (Parcel 18)

Representatives of the Tonawanda Seneca Nation monitored all investigatory work as it was conducted in the field. This report was uploaded to CRIS for review by SHPO, USACE, USDOE and the Tonawanda Seneca Nation. A copy of the report was also emailed directly to the Nation’s representative. The report recommends Sites 3 and 6 for Phase III investigation or avoidance. No further investigation is recommended for Sites 4, 7, and 23. A SHPO concurrence letter was received dated April 22, 2016.

5. A Phase IB study and report for Parcels 4, 8 (proposed electric substation), 9 (remainder of parcel), 10, 12 (location of access road), 14, 25, 26, 28, 29, and 30 were completed as an addendum to the 2013 Phase IB Investigation Report in September 2016 by the Archaeological Survey, Department of Anthropology at the State University of New York at Buffalo. Representatives of the Tonawanda Seneca Nation monitored all investigatory work as it was conducted in the field. This addendum was uploaded to CRIS for review by SHPO, USACE, USDOE and the Tonawanda Seneca Nation. A copy of the report was also emailed directly to the Nation’s representative. A recommendation for Phase II (Site 27) was identified on Parcel 8. A SHPO concurrence letter was received dated October 10, 2016. *See details in Priority section below.*
6. A Phase II study and report were completed for Site 5 on Parcel 8 by the Archaeological Survey, Department of Anthropology at the State University of New York at Buffalo in October 2016. Representatives of the Tonawanda Seneca Nation monitored all investigatory work as it was conducted in the field. This report was uploaded to CRIS for review by SHPO, USACE, USDOE and the Tonawanda Seneca Nation. A copy of the report was also emailed directly to the Nation’s representative. The report recommends Phase III data recovery or avoidance at 3 loci within Site 5 (See Attachment 2 for locations). These loci total approximately 9.2 acres (Loci 1 = 4.2 acres, Loci 2 = 1.5 acres, Loci 3 = 3.5 acres). A SHPO concurrence letter was received dated December 6, 2016.

7. A Phase III data recovery of the National Register Eligible Sites 3 and 6 was completed in 2016 including fieldwork and recovery of artifacts and final reports. Representatives of the Tonawanda Seneca Nation monitored all investigatory work as it was conducted in the field. These reports will be uploaded to CRIS for review by SHPO, USACE, USDOE and the Tonawanda Seneca Nation. A copy of the reports will also be emailed directly to the Nation's representative. No additional work is required at Sites 3 and 6.

Consultation for cultural resource investigations at the STAMP Site was undertaken with the Seneca Nation of Indians. No concerns were expressed.

Off-Site Investigations:

8. A Phase IA study and report were completed by Deuel Archaeology & CRM in December 2015 for the STAMP off-site water project (Phases 1 and 2). The Phase I report was uploaded to CRIS for agency review. A response from SHPO was received dated February 25, 2016 concurring with recommendations that a Phase IB be completed in sensitive areas, that there are no building/structure concerns, and that the Tonawanda Seneca Nation and Seneca Nation of Indians be consulted for this off-Site aspect of STAMP. A copy of this report has been emailed to the Tonawanda Seneca Nation for review.
9. A Phase IB study has been completed as recommended for the Phase 1 water project. The Phase IB report was uploaded to CRIS for agency review. The Phase IB study did not identify any historic properties or potential impacts to historic resources. A SHPO concurrence letter was received dated August 27, 2016 confirming that no historic properties will be affected by the off-site water project (Phase 1). No additional cultural resource investigation is required for Phase 1 water. A copy of this report and concurrence letter has been emailed to the Tonawanda Seneca Nation for review.
10. A Phase IB study is underway by Deuel Archaeology & CRM for Phase 2 STAMP water project. Phase IB field work is complete on portions of the Phase 2 water project outside of the federal-owned Iroquois NWR along Route 77. An application has been submitted to U.S. Fish & Wildlife Service requesting a permit to conduct Phase IB sampling along approximately 0.10 mile within the federally-owned section of the proposed water line. Once this permit is received, Phase IA and B, conducted to federal standards, will be completed for the portion of the water line adjacent to Iroquois NWR. It is anticipated this work will be complete by the end of April 2017. Once complete, a Phase IB report will be uploaded to CRIS for agency review and a copy will be emailed to the Tonawanda Seneca Nation.
11. A Phase IA study and report were completed by Deuel Archaeology & CRM in December 2015 for the STAMP off-site sanitary sewer project. The Phase IA report has been uploaded to CRIS for agency review. A response from SHPO was received on February 25, 2016 concurring with recommendations that a Phase IB be completed in sensitive areas, that there are no

building/structure concerns, and that the Tonawanda Seneca Nation and Seneca Nation of Indians be consulted. A copy of this report has been emailed to the Tonawanda Seneca Nation.

12. Phase IB field work is complete on portions of the off-site sanitary sewer project outside of the federal-owned Iroquois National Wildlife Refuge (NWR) along Route 63. An application has been submitted to U.S. Fish & Wildlife Service requesting a permit to conduct Phase IB sampling along approximately 2.5 miles within the federally-owned section of the proposed sewer line. Once this permit is received, Phase IA and B, conducted to federal standards, will be completed for the portion of the sewer line adjacent to Iroquois NWR. It is anticipated this work will be complete by the end of April 2017. Once complete, a Phase IB report will be uploaded to CRIS for agency review and a copy will be emailed to the Tonawanda Seneca Nation.

Consultation for cultural resource investigations for STAMP off-site water and sewer was undertaken with the Seneca Nation of Indians. No concerns were expressed.

PRIORITY CULTURAL RESOURCE INVESTIGATIONS

Highest priority cultural resource investigations are listed below. These investigations are necessary to facilitate construction of Track 1 Infrastructure and to market. Status and projected timeline for completion of these investigations are indicated below.

- Priorities for Phase I:
 - IB on off-site sewer project area
 - IB on off-site water (Phase 2) project area

STATUS: Phase IB fieldwork will progress for off-site sewer and water (Phase 2) upon receipt of a federal permit to conduct Phase IB field work within federal-owned Iroquois NWR. See numbers 9 and 10 in previous section for additional details.

- Phase II:
 - Sites 1-2, 8-15, 17-21, 24, 26-27 (Note: Sites 16 and 22 are outside of buildable areas and are not scheduled for Phase II investigation at this time)

STATUS: Fieldwork is complete for Sites 2, 8-11, 13-14, 20, 26-27. Remaining fieldwork for Sites 1, 12, 15, 17-19, 21, and 24 will be complete in March 2017 and final reports are anticipated to be complete in May 2017. Representatives of the Tonawanda Seneca Nation are monitoring all investigatory work as it is being conducted in the field.

- Phase III:
 - Site 5 and any Phase III requirements resulting from Phase II investigations listed above. It is anticipated that several Phase II sites will require Phase III activity.

REMAINING CULTURAL RESOURCE INVESTIGATIONS REQUIRED

The following cultural resource investigations will be necessary for full site development. The projected timeline of completion of these investigations is dependent upon acquisition of these Parcels by GCEDC.

- Phase I:
 - IB on Parcels 5, 13, 19, 20, 21, 24, 27
 - Phase II:
 - Any Phase II requirements resulting from Phase I investigations listed above
 - Phase III:
 - Any Phase III requirements identified from Phase II investigations. It is anticipated that several Phase II sites will require Phase III activity.
-

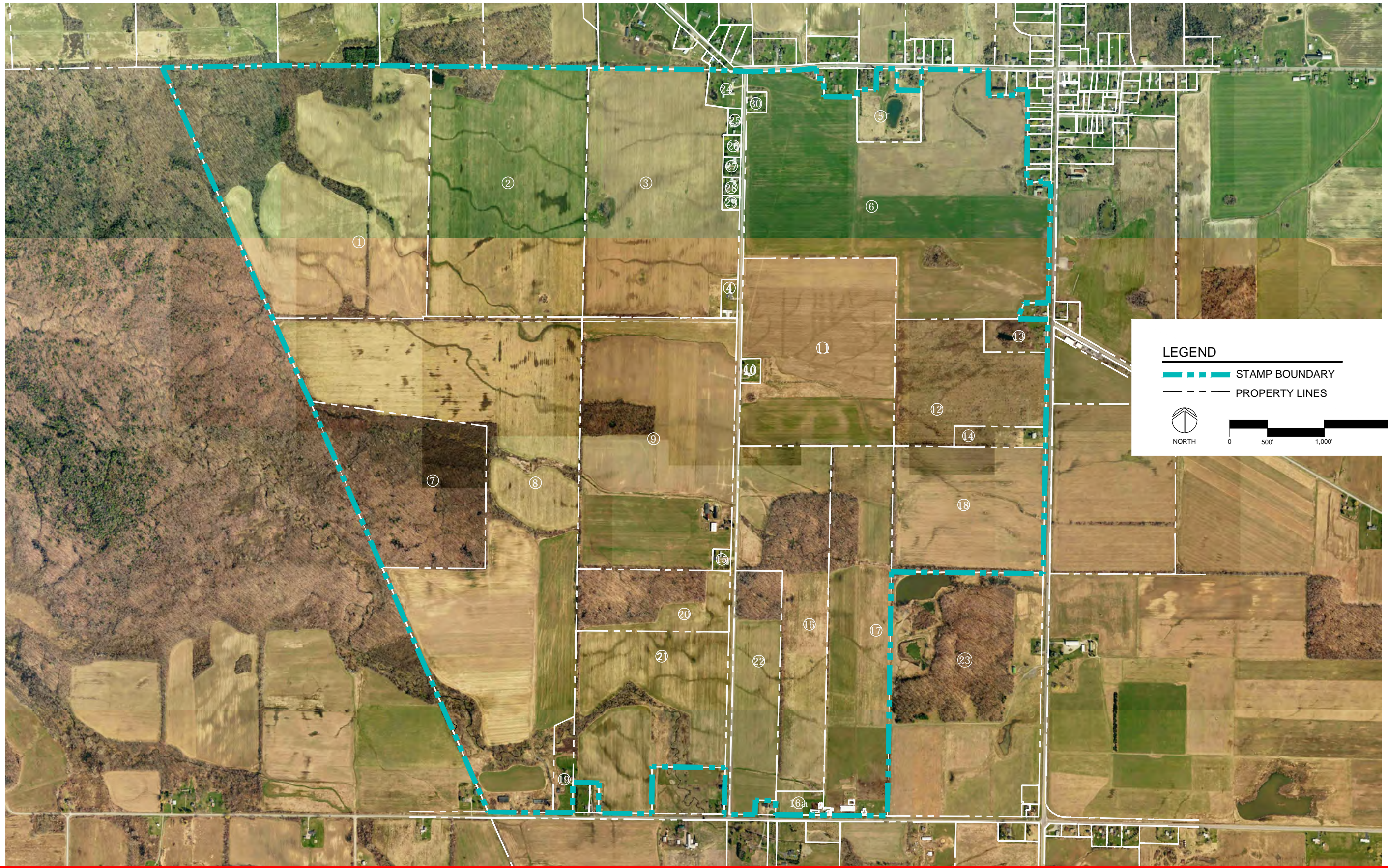
Attachment 1

STAMP Cultural Resource Investigation Status Table

2/23/2017

ON-SITE	COMPLETE	UNDERWAY	REQUIRED - PRIORITY	LOW PRIORITY	NOT REQUIRED	CLEARED	NOTES
Phase IA	Parcels 1-4, 6, 8-12, 14-18, 22-23, 25-26, 28-30	None	Parcels 5, 13, 20-21, 24, 27	Parcel 19	Parcel 7, 23	See Below	Remaining parcels are not currently owned by EDC. Parcel 7 is all wetland, no disturbance. Parcel 23 is no longer part of STAMP Site (John White WMA).
Phase IB	Parcels 1-4, 6, 8-12, 14-18, 22-23, 25-26, 28-30	None	Parcels 5, 13, 20-21, 24, 27	Parcel 19	Parcel 7, 23	Parcels 4, 9-10, 12, 14-15, 18, 22, 25-26, 28-30	27 Phase II Sites were identified during on-site Phase IB Investigation. Parcel 9 fully cleared when Phase III on Site 3 approved by SHPO
Phase II	Sites 3-7, 23	Sites 1-2, 8-15, 17-21, 24, 27	Underway	Underway	Sites 16, 22, 25	Sites 4, 7, 23	Fieldwork to be completed on all Phase II Sites currently underway in March 2017, reports by May 2017, Phase III Sites will be identified
Phase III	Sites 3 and 6	None	Site 5 and any resulting from Phase II Sites currently underway	None	None	None	Reports for Sites 3 and 6 currently being reviewed. A programmatic agreement may be required for final review and approval of data recovery at complete and future Phase III sites
OFF-SITE	COMPLETE	UNDERWAY	REQUIRED - PRIORITY	LOW PRIORITY	NOT REQUIRED	CLEARED	NOTES
Phase IA	Water Phase 1 and 2, Sanitary Sewer	None	None	None	None	See Below	
Phase IB	Water Phase 1	Water Phase 2 and Sanitary Sewer	None	None	None	Water Phase 1	Portions of Water Phase 2 and Sanitary Sewer require work on federal property, permitting ongoing, projected fieldwork in March 2017
Phase II			UNKNOWN	UNKNOWN	UNKNOWN		
Phase III			UNKNOWN	UNKNOWN	UNKNOWN		

See STAMP Cultural Resource Inventory Update Memo and Maps for details.

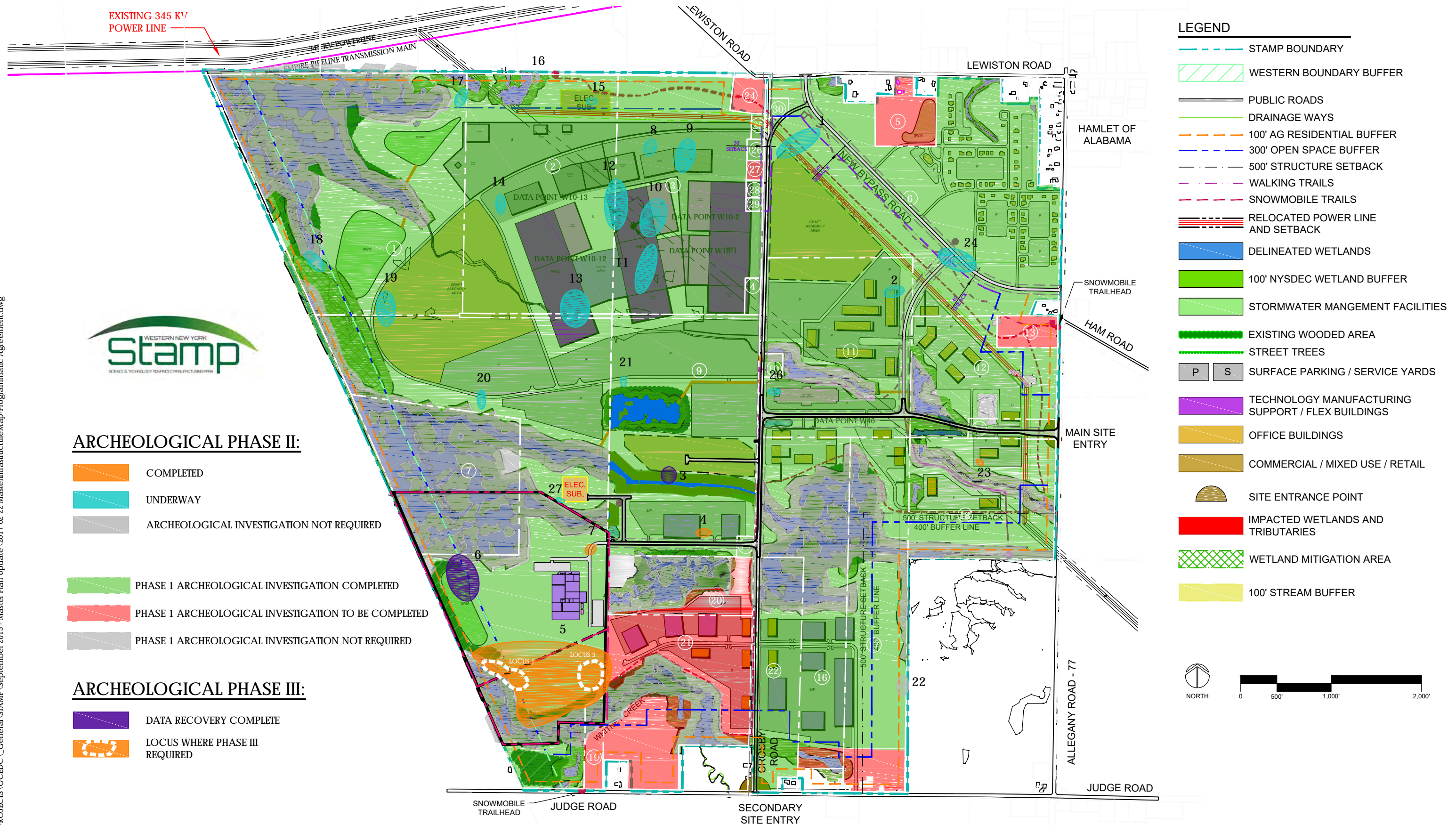


ATTACHMENT 2 - STAMP SITE PARCELS

WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)

FEBRUARY 2016

J:\PROJECTS\GCEDC\General\STAMP\September 2015 - Master Plan Update\2017 02 22 MasterInfrastructureMap-Programmatic Agreement.dwg



ARCHEOLOGICAL PHASE II:

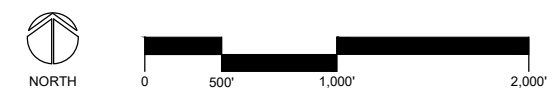
- COMPLETED
- UNDERWAY
- ARCHEOLOGICAL INVESTIGATION NOT REQUIRED

- PHASE 1 ARCHEOLOGICAL INVESTIGATION COMPLETED
- PHASE 1 ARCHEOLOGICAL INVESTIGATION TO BE COMPLETED
- PHASE 1 ARCHEOLOGICAL INVESTIGATION NOT REQUIRED

ARCHEOLOGICAL PHASE III:

- DATA RECOVERY COMPLETE
- LOCUS WHERE PHASE III REQUIRED

- LEGEND**
- STAMP BOUNDARY
 - WESTERN BOUNDARY BUFFER
 - PUBLIC ROADS
 - DRAINAGE WAYS
 - 100' AG RESIDENTIAL BUFFER
 - 300' OPEN SPACE BUFFER
 - 500' STRUCTURE SETBACK
 - WALKING TRAILS
 - SNOWMOBILE TRAILS
 - RELOCATED POWER LINE AND SETBACK
 - DELINEATED WETLANDS
 - 100' NYSDEC WETLAND BUFFER
 - STORMWATER MANGEMENT FACILITIES
 - EXISTING WOODED AREA
 - STREET TREES
 - P S SURFACE PARKING / SERVICE YARDS
 - TECHNOLOGY MANUFACTURING SUPPORT / FLEX BUILDINGS
 - OFFICE BUILDINGS
 - COMMERCIAL / MIXED USE / RETAIL
 - SITE ENTRANCE POINT
 - IMPACTED WETLANDS AND TRIBUTARIES
 - WETLAND MITIGATION AREA
 - 100' STREAM BUFFER



ATTACHMENT 3 - ARCHEOLOGY PROGRESS AND SITES

WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)

FEBRUARY 22, 2017

APPENDIX E

Town of Alabama Technology District Design Guidelines

FINAL

TOWN OF ALABAMA TECHNOLOGY DISTRICTS DESIGN GUIDELINES

Introduction

The Town of Alabama Technology District Design Guidelines are intended to provide guidance regarding the nature of development the Town desires to encourage within the designated Western New York Science & Technology Advanced Manufacturing Park (STAMP) area. These **guidelines are referenced in the code regulating the Town's Technology Districts (TD-1, TD-2 and TD-3)**. They serve to assist Town representatives, local officials, businesses, developers and builders in planning and executing a successful design, and provide predictability to the development review process. The Planning Board of the Town of Alabama will use these design standards in reviewing site plan proposals for properties within the STAMP area.

These guidelines are intended as a reference, and they do not require a specific design. Either the Town Board or Planning Board may modify these guidelines with respect to individual applications, as long as the general intent of these guidelines is met.

Intent and Vision

The purpose and intent of these guidelines is to establish and maintain high quality development within the STAMP area, built in a manner consistent with the conclusions in the Environmental Impact Statement (EIS) prepared and approved for the site. The following general vision should be considered in development of site plans for individual buildings within STAMP:

- Lands within the STAMP area project will be designed in a campus setting, meaning that development is respectful of and compliments its natural landscape.
- The project will be designed at an overall low density, with landscape buffers between development and adjacent properties.
- Development will seek to respect existing viewsheds as well as the rural area surrounding the STAMP site.
- Wetlands and open space will be preserved and enhanced as part of the open space system throughout STAMP.
- STAMP will visually integrate into the existing rural setting in a comfortable, compatible manner.
- Larger technology manufacturing structures will be located on the lower western portion of the STAMP property, while smaller-scale supporting structures will be located on the eastern portion of the property to provide a transition in scale to surrounding uses, which are rural in nature.
- Building materials will be high-quality and chosen to reflect the rural agricultural vernacular of the area.
- Maintenance of existing trees, hedge rows and natural features is encouraged to the maximum extent feasible.
- All buildings shall be landscaped with indigenous plants adapted to conditions found in the surrounding area.

FINAL

- All exterior lighting shall be minimized and focused downward to the maximum extent practicable to avoid excessive night time lighting glow (dark sky compliant).
- The design of specific buildings, structures, signs and general streetscape, in addition to building materials, shall be high-quality and chosen to reflect the rural-agricultural vernacular of the surrounding area.

Applicability

These guidelines shall apply to projects proposed within the footprint identified as the "STAMP" site. This property is approximately 1,243 acres of land located along either side of Crosby Road and bound by New York State Highway 77/63 to the east, Judge Road to the south, Tonawanda Seneca Nation to the west and Lewiston Road (State Route 77) to the north, in the Town of Alabama. Lands within the site are zoned TD-1, TD-2 or TD-3. All projects within the designated STAMP site submitted for approval by the Town of Alabama shall be subject to these guidelines.

Design guidelines

The following design guidelines are established for STAMP. They will be applied in conjunction with site plan, subdivision or special use permit review in accordance with all applicable municipal codes. They may be interpreted with flexibility to allow for creativity or to account for variations in specific projects; however, development shall support the purposes and vision stated above, with the goal of encouraging high quality design.

A. Access circulation and parking.

1. All new roadways constructed to serve development on the site shall be built to the technical specifications for roadways established by Genesee County.
2. Primary arterial boulevards through the STAMP campus shall be landscaped and provide accommodations for pedestrian and bicycle circulation.
3. Buffers planted with shrubs and trees shall be located along the edge of parking lots to protect existing vegetation and provide screening.
4. Parking, stacking and loading areas shall be arranged to accommodate orderly and safe parking, loading and storage of vehicles.
5. For parking lots accommodating more than twenty vehicles, a minimum of 5% of the parking area shall consist of landscape features including interior landscaped islands and/or medians to break up large expanses of pavement. For parking lots exceeding one acre in size, the minimum interior landscape area shall be increased to 10%. The landscaped areas shall be in conformance with landscaping standards set forth below.
6. Clearly defined pedestrian connections should be provided through large parking areas and between parking lots and building entrances.
7. Site design shall take into consideration the proposed pedestrian trail system that is proposed through the open space and linking STAMP site to the hamlet of Alabama, and avoid creating barriers to the future implementation of that system.
8. Shared and interconnected parking lots are encouraged. Whenever possible, design should incorporate common driveways that serve more than one site or development.
9. In the TD-3 district, parking lots are encouraged to be shared between adjacent buildings and located in the rear or side lots, with screening from adjacent residential properties.

B. Green Space, buffers and setbacks.

1. Development shall comply with zoning standards regarding buffers.

FINAL

2. Development shall be consistent with the Long Term Land Management Plan (LTMP) prepared for the site, which specifies habitat management goals and objectives, forestry management, appropriate levels of maintenance for different landscape types, and proposed restoration and enhancement activities.
3. Approximately 640 acres of the Project Site shall be maintained as open space and/or landscaped areas to provide greenspace and recreational areas as noted in the EIS for the project. These areas will be appropriately maintained as specified in the LTMP to foster public safety and an aesthetic environment. Site plan applications should clearly illustrate these areas and the connection of the site to those 640 acres of open space/greenspace/ recreational areas.
4. Wildlife plantings shall occur as needed and include such things as pollinator gardens, fruit producing shrubs, trees that produce mast (seeds, nuts) suitable for wildlife food and similar microhabitats.
5. Approximately 174 acres will be set aside as conservation lands, including forested wetlands, emergent wetlands, streams in riparian areas, shrub wetlands, upland forests, shrub lands and small grass lands. Where feasible, individual patches of conservation land shall be connected by conservation or open-space corridors.
6. A minimum of buffer of 100 feet will be maintained on either side of Whitney Creek to avoid impacts and allow for stream buffer enhancement opportunities. Conservation buffers shall be provided along other drainageways on the property.
7. Wetlands on the site will be preserved to the greatest extent practicable.
8. Trails are proposed throughout the STAMP site. These trails shall be open and available to the public.

C. General Landscaping Standards.

1. A complete landscape plan, including the types of trees and shrubs to be planted, shall be submitted as part of the site plan application for any development.
2. Landscaping shall incorporate a combination of trees, shrubs, ground cover and other vegetation.
3. To the maximum extent feasible, existing trees should be preserved and incorporated into the overall landscaping plan for each development property.
4. All plantings shall be maintained in a healthy condition; diseased, unhealthy or dead plantings shall be replaced as necessary in a timely manner.
5. Plantings shall be indigenous species suitable to the soil type and the hardiness zone classification for the Town of Alabama.
6. Landscaped islands or medians shall be a minimum 150 square feet in area and at least 10 feet in width to ensure adequate room for the proper growth of vegetation.
7. Plantings within the landscaped islands shall include at least one large deciduous tree, along with understory planting of shrubs and/or perennials. The Planning Board, at their discretion, may approve the substitution of two ornamental trees for each deciduous tree.
8. All new deciduous trees, other than ornamentals, shall have a minimum caliper of two and one-half inches, measured six inches above the ground. All new ornamental trees shall have a minimum caliper of one and three-quarters inches measured six inches above the ground.
9. Areas that are natural gathering spots, such as linkages to trails, walks, and drop-off points shall be landscaped in a manner that promotes attractive areas for gathering and provides shade for pedestrians.

D. Lighting.

1. Site and exterior lighting shall be integrated into the design of the development.

FINAL

2. Outdoor lighting shall be installed so as to minimize, to the greatest extent possible, the lighting of the sky above the campus. No outdoor light shall be installed, modified or permitted to be used which casts a beam of light above a plane horizontal with the earth, other than temporary construction lighting. All outdoor lighting, excluding temporary lighting, shall be consistent with the following criteria:
 - a. The light levels in parking and pedestrian areas shall be in accordance with Illuminating Engineering Society of North America standards.
 - b. Fixtures and design will be selected to optimize energy efficiency consistent with the Energy Conservation Construction Code of New York State.
 - c. All lighting fixtures will be focused with Dark Sky Ordinance compliant installation in a horizontal position to prevent upward reflection or glow to night skies, and reduce the amount of light pollution beyond the edges of illuminated areas.
 - d. Lighting fixtures will be set at a height which will limit the amount of light trespass. Lighting fixtures shall be set back from the development site boundaries to mitigate glare to surrounding properties.
 - e. Low-level lighting shall be used at each roadway and along boulevards for safety and security. Light fixtures shall be selected to prevent upward reflection or glow and prevent light trespass outside of road rights-of-way.
 - f. Security lighting at or near buildings will be lit down and inward toward the building to mitigate outward glare and reflection. Flood lighting shall be permitted only when no adequate substitute is available.
 - g. Signs may be externally or internally lit. Externally lit signs will have shielded fixtures to prevent glare and/or light trespass.
 - h. Adjacent to residential properties, no direct-light source will be visible at the edge of the development area.
 - i. All nonessential lighting must be extinguished after business hours. Security lighting can be maintained.
 - j. Up-lighting of facades is prohibited.

E. Signage.

1. All development must comply with the Town of Alabama signage regulations.
2. Signs that dominate the building or the landscape are not permitted.
3. A monument entrance sign may be erected at the entrance of STAMP to direct visitors to businesses within the District.
4. Individual facility owners within the District may use monument signs or building signs to identify their premises, however in no instance shall the signs exceed 200 square feet. Signage for each individual facility must be located on the parcel for that building.
5. Signs may be illuminated, providing that such signs are consistent with the lighting standards in Subsection D, above.
6. Building-mounted signs shall not be located higher than 35 feet above finished grade, to the top of the sign.
7. Pole signs are prohibited.

F. Utilities.

1. The preference is for utility lines to be located underground.

G. Architectural Guidelines.

1. Architectural Guidelines for properties within the TD-1 district are as follows:
 - a. Building Facades fronting primary roads.

FINAL

- i. Buildings or facades of buildings that are visible to the public within TD1 are subject to a higher level of design review in order to better promote the intended character of a world-class high technology manufacturing center.
 - ii. Architectural design shall be of high quality, using high quality materials. Concrete, masonry, steel, stone or glass are acceptable materials. Use of exterior insulation foam systems (EIFs) at pedestrian level is discouraged. Crude siding materials such as unfinished concrete, unpainted cinder block or corrugated metal siding materials are not permitted in areas visible to the public from primary roadways.
 - iii. Rooflines shall not consist of long flat planes; roof colors and materials shall be compatible with the façade.
 - iv. Large expanses of undivided reflective glass are discouraged.
 - v. Long unbroken horizontal facades are discouraged. Use of features such as columns, arcades, divided glazed surfaces or other details to break up the façade are encouraged.
 - vi. Service entries, loading docks, dumpsters and other service equipment shall be located away from public entrances and screened from public view.
 - vii. All visible building facades shall be designed so that all sides of the building shall have a unified appearance. Buildings within each development site should maintain a consistent style.
 - viii. Creativity in design is encouraged, and modern industrial style buildings are acceptable. However, in key focal point areas highly visible to the public, architectural styles that blend the modern industrial style with regional historic and/or agricultural vernacular are encouraged where appropriate and functional.
 - b. Manufacturing and functional areas of the buildings:
 - i. Guidelines for non-public areas are not intended to interfere with the functional needs of the business. Design will be compatible with functional need and industrial standards in areas not visible to the public.
 - ii. Facilities for utilities, deliveries, mechanical systems and similar support systems should be located in areas not generally visible to the public or screened whenever possible.
 - iii. Roof materials shall be selected so as to not create glare.
 - iv. Buildings should be constructed of high-quality, durable materials. Concrete, masonry, steel, stone or glass are acceptable materials.
 - v. Utility service structures, sheds and accessory buildings should be in a building style compatible with the primary structure.
2. Architectural Guidelines for properties within the TD2 District.
 - a. Architectural design shall be of high quality, using high quality materials. Concrete, masonry, steel, stone, glass, brick, architectural pre-cast materials, wood clapboard, cement board, or other similar high quality traditional siding materials are acceptable. Use of large expanses of concrete block, highly reflective wall treatments, wood panel type products such as T-111, or exterior insulation foam systems (EIFs) are discouraged. Single-color walls without breaks in mass or relief are discouraged.
 - b. Crude siding materials such as unfinished concrete, unpainted cinder block or corrugated metal siding materials are not permitted. Buildings in the TD2 District should be designed with visual interest through a variation of materials, texture, relief, color or other features.

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- c. Use of architectural features such as windows, doorways, columns, arcades, cornices, ornamental brick work or other details to break up the façade are encouraged. Side and rear facades visible to the public should also incorporate features and avoid long, unbroken horizontal facades with no architectural detail.
 - d. All building facades visible from the roadway should be designed so that all sides of the building shall have a unified appearance. Buildings within each development site should maintain a consistent style.
 - e. Roofs should be an integral part of the building design. Rooflines shall be designed to promote interest and avoid long, unbroken lines. Roof colors and materials shall be compatible with the façade.
 - f. Rooftop mechanical equipment should be screened so it is not visible when viewed from the ground level.
 - g. Service entries, loading docks, dumpsters and other service equipment shall be located away from public entrances and screened from public view.
3. Architectural Guidelines for properties within the TD-3 district.
- a. New buildings within the TD-3 district should be designed to fit into the character of a small hamlet downtown. Designs that incorporate interpretations of the local architectural styles are encouraged. Examples of local vernacular for the Town of Alabama include Greek Revival, Italianate, Colonial Revival, and Craftsman Bungalow.
 - b. Building materials shall be high-quality. Concrete, masonry, stone, brick, wood clapboard, cement board, architectural pre-cast materials or other similar high quality traditional siding materials are acceptable. Use of large expanses of concrete block, highly reflective wall treatments, wood panel type products such as T-111, or exterior insulation foam systems (EIFs) are discouraged. Single-color walls without breaks in mass or relief are discouraged.
 - c. Public entrances and primary facades should be oriented toward the public street, with clear pedestrian walkways from the street to the building.
 - d. The use of traditional building elements, such as windows, doorways, columns, arcades, cornices, ornamental brickwork and pedestrian-scale details are encouraged. New buildings should be in scale with the neighborhood.
 - e. Long, blank walls with no architectural detailing are prohibited. Facades of larger buildings should be broken up into the appearance of multiple storefronts consistent with traditional streetscapes of small towns. This may be accomplished through means such as changes of materials, depth or architectural detailing.
 - f. Reflective glass at the pedestrian level is discouraged. Preferred designs incorporate lines of transparent windows along the first floor street frontage.
 - g. Architectural details should be designed to promote pedestrian activity through appropriate scale, massing and placement of windows and architectural features such as cornices, awnings and porticos.
 - h. Building facades shall be designed so that all sides of the building have a unified appearance.
 - i. Franchise architecture, where the design of the building is trademarked, generic in nature or strongly identified with a particular corporation is discouraged.
 - j. Building colors shall be in harmony with the natural environment. High intensity colors or fluorescent colors should be avoided.
 - k. Traditional sloped rooflines are highly encouraged. Where sloped roofs are not feasible, a combination of sloped and flat roof elements should be utilized to create a pleasing design compatible with the character of the hamlet. Cornices,

FINAL

overhangs, bracketed eaves, parapet walls and other articulation at the roofing edge is encouraged.

- l. Rooftop mechanical equipment should be screened so it is not visible when viewed from the ground level.
 - m. Service entries, loading docks, dumpsters and other service equipment shall be located away from public entrances and screened from public view.
- H. Additional site considerations for the TD-3 District.
- a. Siting of buildings should reflect setbacks of adjacent properties. Two-story buildings are preferred. Wherever possible, parking should be at the side or rear of the property and screened from Lewiston Road or Alleghany Road.
 - b. Site design should promote and encourage pedestrian activity through use of features such as attractive pedestrian walkways, clearly defined entrances, human-scale detailing and enhanced landscaping.
 - c. Site design that provides for sidewalks is strongly encouraged. At a minimum, design should not preclude future installation of public sidewalks.
 - d. Landscaping should incorporate street trees along roadway frontages.

Waiver or Modification

As stated in the Introduction, the Planning Board or Town Board may waive or modify any requirement of these guidelines, but in doing so, must not diminish the intent and vision of the guidelines. It must also be noted that any waiver or modification must not be contrary to the SEQR Findings for the STAMP project. Any action not in accordance with the Findings must be evaluated by the Town Board in accordance with the SEQR Law to determine any potential environmental impacts.

APPENDIX F

Incentive Zoning Agreement

FIRST AMENDMENT TO INCENTIVE ZONING AGREEMENT
FOR STAMP

This First Amendment to Incentive Zoning Agreement (“First Amendment”), dated as of this ____ day of March, 2017, is made by and among the **TOWN OF ALABAMA** (“Town”) acting through its Town Board (“Town Board”), having an address of 2218 Judge Road, Oakfield, NY 14125 and the **GENESEE GATEWAY LOCAL DEVELOPMENT CORPORATION**, its successors and assigns (“GGLDC”) and the **GENESEE COUNTY ECONOMIC DEVELOPMENT CENTER**, its successors and assigns (“GCEDC”), both having an address of Dr. Bruce A. Holm Upstate MedTech Centre, 99 MedTech Drive, Suite 106, Batavia, NY 14020.

WHEREAS, the Town is empowered pursuant to New York State Town Law § 261-b and §§ 1100-1105 of the Town Zoning Law to grant zoning incentives, including decreases in required minimum lot sizes, changes of use or zoning classifications, changes in setbacks or height or any other changes in the provisions of the Zoning Law, in exchange for the provision of certain public amenities which inure to the benefit of the community as a whole including parks, public utilities, cultural facilities or other facilities or benefits to the residents of the community;

WHEREAS, on December 10, 2012, the Town, GGLDC and GCEDC entered into the Incentive Zoning Agreement (“Agreement”), whereby the parties made certain covenants regarding the Water Project, the STAMP Zoning Incentives, and the STAMP Zoning Amenities as those terms are defined in the Agreement;

WHEREAS, the conceptual plan for STAMP has evolved since the execution of the Agreement and the Parties have agreed to accelerate the construction, and expand the scope, of the Water Project necessitating an amendment to the Agreement;

WHEREAS, in addition, the Parties desire to clarify certain ambiguities in the Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Town, GGLDC and GCEDC agree to amend the Agreement as follows:

1. The Exhibits attached hereto shall replace or supplement the Exhibits attached to the Agreement as follows:

Exhibit 1 - STAMP Site - Replaces Exhibit 1 of Agreement

Exhibit 2 - Water Infrastructure - Replaces Exhibit 2 of Agreement

Exhibit 3 - UNCHANGED - Remains the same as Exhibit 3 of Agreement

Exhibit 4 - Zoning Map - Replaces Exhibit 4 of Agreement

Exhibit 5 - Zoning Code Regulations - Replaces Exhibit 5 of Agreement

Exhibit 6 - STAMP Developable Land - Added as Exhibit 6 of Agreement

Exhibit 7 - Water Project Phasing Plan & Schedule - Added as Exhibit 7 of Agreement

Exhibit 8 - Main Entrance Developable Area - Added as Exhibit 8 of Agreement

Exhibit 9 - 1366 Tenant Lease Area - Added as Exhibit 9 of Agreement

2. Section 1 is amended as follows:

The following definitions are revised:

- J. **STAMP Developable Land** shall mean the land within the STAMP Site to be developed as determined by GGLDC and GCEDC, currently consisting of approximately 750 acres, but subject to adjustment (upwards or downwards) as various regulatory processes for STAMP, and/or land acquisitions, proceed. A map showing current STAMP Developable Land is attached hereto as *Exhibit 6* and shall constitute *Exhibit 6* of the Agreement.
- K. **STAMP Site** shall mean the land along New York State Highway 77/63 near the Hamlet of Alabama where STAMP will be developed as shown on the map attached hereto as *Exhibit 1* which replaces *Exhibit 1* of the Agreement.
- V. **Water Infrastructure** shall mean the public water infrastructure which is necessary for the Water Project as amended, which infrastructure is more particularly specified in detail in *Exhibit 2* attached hereto which replaces *Exhibit 2* of the Agreement.
- W. **Water Project** shall mean a public water service project pursuant to and consistent with the Public Water Feasibility Study dated March 8, 2010, and revised July 27, 2011, completed for the Town Board to protect public health and safety by providing municipally supplied water to approximately 70% of the households in the Town as further amended by

mutual agreement of the Parties and as shown in *Exhibit 7* attached hereto and shall constitute *Exhibit 7* of the Agreement.

The following definitions are added:

- Y. **Ag/Res Buffer** shall mean a 100 foot buffer of land around the perimeter of the STAMP Site that is not zoned Technology District but remains zoned Agricultural-Residential or Residential as shown on *Exhibit 4* hereto which replaces *Exhibit 4* of the Agreement.
- Z. **TD Buffer** shall mean the 300 foot buffer of open space along any Technology District line abutting a Residential or Agricultural-Residential District with the exception of the property zoned TD3 in the northeast corner of the STAMP Site as shown on *Exhibit 4* hereto which replaces *Exhibit 4* of the Agreement. The 300 feet will be measured from the edge of the portion of the STAMP Site that has been zoned to Technology District, inwards.
- AA. **Main Entrance Developable Area** shall mean the 500 feet on either side of the main entrance of the STAMP Site as shown on *Exhibit 8* hereto and shall constitute *Exhibit 8* of the Agreement.
- BB. **1366 Tenant** shall mean 1366 Technologies Inc.
- CC. **1366 Tenant Lease Area** shall mean 79.4 acres of land within the STAMP Site as shown on *Exhibit 9* hereto and shall constitute *Exhibit 9* of the Agreement.
- DD. **STAMP Undevelopable Land** shall mean any land on the STAMP Site which is not STAMP Developable Land.

3. Section 2 is replaced in its entirety as follows:

Section 2. STAMP Zoning Amenities. In exchange for the STAMP Zoning Incentives, GGLDC and GCEDC shall provide the following to the Town:

- A. GGLDC and/or GCEDC shall be responsible for undertaking all necessary planning, design and installation work for the Water Infrastructure at its own cost and expense subject to the following:

1. Section 2.A.1 of the Agreement remains unchanged and in full force and effect.
2. The Parties have mutually agreed that GGLDC and GCEDC will retain Clark Patterson Lee to provide the necessary engineering services associated with the Water Infrastructure design work for the Water Project.
3. Section 2.A.3 of the Agreement remains unchanged and in full force and effect.
4. GGLDC and/or GCEDC shall install the Water Infrastructure in conformity with all material and construction specifications required by the Monroe County Water Authority as one continuous construction project according to the Phasing Plan and Schedule included as part of *Exhibit 7* hereto and shall constitute *Exhibit 7* of the Agreement.
5. The GGLDC and/or GCEDC shall be responsible for funding the entire Water Project at its own expense. To date, the GGLDC/GCEDC has secured \$8.6 million from State and County funding sources and has secured an Regional Council Award reimbursable grant to the Town for another \$1.5 million. These funding sources are anticipated to fully fund the Water Project. Based on the timing of payments from these funding sources, it may be necessary for the Town to secure advance funding in the form of a water infrastructure loan or loans. In the event that the Town is required to obtain advance funding, the GGLDC and/or GCEDC shall pay to the Town the costs of procuring the loan as well as the balance of the loan including interest as promptly as reasonably practicable, but in any event, no later than ten (10) years from the date of the Town's procurement of the loan.
6. Once installation of the Water Infrastructure is complete, ownership of the Water Infrastructure shall be transferred by GGLDC and/or GCEDC to the Town at no cost to the Town.
7. Within six (6) months of the commencement of installation of Phase 1 of the Water Infrastructure by GGLDC and/or GCEDC, the Town Board shall create appropriate water districts for the Water Project and obtain all necessary approvals including all remaining required governmental agency approvals related to the Water Project at Town expense.

8. The GGLDC and GCEDC shall not be required to install any distribution system beyond Phase 1 and the Pembroke Line, as shown in *Exhibit 7*, of the Water Infrastructure in any area in which there does not exist an established water district.
-
- B. Within THIRTY (30) days after the receipt of the net sale proceeds from each sale of portions of the STAMP Developable Land and STAMP Undevelopable Land by GGLDC and GCEDC, the GCEDC and GGLDC shall pay to the Town an amount equivalent to (i) FIVE PERCENT (5%) of the gross sale proceeds received by GGLDC and GCEDC from the sale of the first TWO HUNDRED AND SIXTY NINE (269) acres of STAMP Developable Land sold by GGLDC and GCEDC (or their successors or assigns), in conjunction with the development of STAMP; (ii) THREE PERCENT (3%) of the gross sale proceeds received by GGLDC and GCEDC from the sale of the remainder of STAMP Developable Land sold by GGLDC and GCEDC (or their successors or assigns), in conjunction with the development of STAMP; and (iii) THREE PERCENT (3%) of the gross sale proceeds received by GGLDC and GCEDC from the sale of the remainder of STAMP Undevelopable Land sold by GGLDC and GCEDC (or their successors or assigns), in conjunction with the development of STAMP, which funds shall be used by the Town for Town Capital Projects at such time and in such manner as the Town Board deems appropriate. As used herein, the term “gross sale proceeds” shall mean the sale proceeds received by GGLDC and GCEDC without deduction of any and all sale related expenses and closing costs incurred by GGLDC and GCEDC associated with the sale of STAMP Developable Land and STAMP Undevelopable Land.
 - C. The Town shall no longer have any rights to the Town Hall Land and upon STAMP’s completion of the build out of 2,000,000 square feet (inclusive of the 1,000,000 square feet referenced in Section E.3 below), GGLDC and GCEDC will pay the Town TWO HUNDRED THOUSAND DOLLARS (\$200,000.00) which funds shall be used by the Town for Town Capital Projects at such time and in such manner as the Town Board deems appropriate.
 - D. Section 2.D of the Agreement remains unchanged and in full force and effect.
 - E. GGLDC and GCEDC will pay the Town the sum of EIGHT HUNDRED THOUSAND DOLLARS (\$800,000.00), which funds shall be used by the Town for Town Capital Projects at such time and in such manner as the

Town deems appropriate. The EIGHT HUNDRED THOUSAND DOLLARS (\$800,000.00) shall be disbursed to the Town pursuant to the following schedule of payments and the occurrence of THREE (3) milestones:

1. Upon the 1366 Tenant's completion of the full build out for one (1) GW of production, GGLDC and GCEDC will pay the Town EIGHTY CENTS (\$0.80) per square foot constructed by the 1366 Tenant. If another tenant of STAMP completes a development at STAMP prior to 1366 Tenant's completion of the full build out, the Parties will negotiate, in good faith, an acceptable modification to this milestone schedule.
 2. Upon STAMP's completion of the build out of 750,000 square feet, GGLDC and GCEDC will pay the Town SIX HUNDRED THOUSAND DOLLARS (\$600,000.00) less any payments disbursed to Town pursuant to Section E.1. above.
 3. Upon STAMP's completion of the build out of 1,000,000 square feet (inclusive of the 750,000 square feet referenced in Section E.2 above, GGLDC and GCEDC will pay the Town TWO HUNDRED THOUSAND DOLLARS (\$200,000.00).
- F. GGLDC and GCEDC will pay the Town the sum of ONE HUNDRED SIXTY-FIVE THOUSAND SEVEN HUNDRED SIXTY DOLLARS (\$165,760.00), which amount is the total of the sale proceeds payable to the Town under Section 2.B above at the time of the sale of the 1366 Lease Area, upon the execution of the 1366 Tenant lease. In addition, with the exception of rents collected from the leasing of an electrical substation to the 1366 Tenant or the leasing of other utility infrastructure lands within STAMP, the GCEDC and GGLDC will pay to the Town the same percentages of any rents collected from the leasing of property (STAMP Developable Land or STAMP Undevelopable Land) within STAMP as would otherwise be payable to the Town upon the sale of STAMP lands pursuant to Section 2.B above. GCEDC and GGLDC shall make such payments within THIRTY (30) days after GCEDC's and GGLDC's receipt of each lease payment, or, on a lease by lease basis, after good faith evaluation of the GCEDC's and GGLDC's ability to do so, make a one-time mutually agreeable payment to the Town.
- G. GCEDC and GGLDC shall work with the Genesee County Sign Department in an effort to have the same create mutually agreed upon

pylon signs, no larger than 4' x 8', which will be displayed at the entrances to the Town of Alabama. The Town shall be responsible for the installation and maintenance of such signs and any associated permits required for installation and maintenance.

4. Section 3.B and Section 3.C. are replaced in their entirety as follows:

- B. Amend the Zoning Law to rezone the STAMP Site to "Technology District" as set forth on the zoning map attached hereto as *Exhibit 4* which replaces *Exhibit 4* of the Agreement and the zoning laws applicable to the STAMP Site Zoning Regulations attached hereto as *Exhibit 5* which replaces *Exhibit 5* of the Agreement.
- C. Acknowledge and agree that all land use development at the STAMP Site shall be governed by *Exhibits 3, 4 and 5* of the Agreement, of which *Exhibits 4 and 5* have been replaced by *Exhibits 4 and 5* attached hereto respectively, and the Town shall not enact any changes to the Comprehensive Plan or Zoning Law relative to the STAMP Site until Full Build Out.

5. Section 3.E and Section 3.F are added to the Agreement as follows:

- E. The Town and the GCEDC and GGLDC, through the STAMP Architectural Review Committee, shall work together in good faith to develop mutually agreeable design guidelines with respect to TD-1, TD-2, TD-3 and the Main Entrance Developable Area.
- F. Should portions of Crosby Road be abandoned, or otherwise disposed of, to further development of STAMP, the 30 foot setback back along the north end of Crosby Road shall be removed altogether upon such abandonment or disposal.

6. Section 5.B. is replaced in its entirety as follows:

- B. To the extent that GGLDC and GCEDC has not sold all of the STAMP Developable Land and the STAMP Undevelopable Land, remaining cash payments associated with the sale of STAMP Developable Land and STAMP Undevelopable Land owed to the Town as STAMP Zoning Amenities shall be calculated as follows:
 - 1. FIVE THOUSAND DOLLARS (\$5,000.00) per acre of acquired but unsold STAMP Developable Land from the first TWO HUNDRED SIXTY NINE (269) acres of STAMP Developable Land; and

2. THREE THOUSAND DOLLARS (\$3,000.00) per acre of acquired but unsold STAMP Developable Land from the remainder of STAMP Developable Land.
3. THREE HUNDRED DOLLARS (\$300.00) per acre of acquired but unsold STAMP Undevelopable Land.

6. *Exhibit 4 of the Agreement is amended as reflected on the map attached hereto as Exhibit 4 and is generally described as follows:*

1. The TD2 Triangle shall be zoned TD1.
2. Any property which is not owned by, or under contract with GCEDC shall be zoned Agricultural/Residential until acquired by or under contract with GCEDC.
3. The north end of Crosby Road shall be zoned TD-1.
4. 30 foot setback from Crosby Road shall be zoned TD-1.
5. The TD Buffer shall be eliminated from the Main Entrance Developable Area as shown on *Exhibit 8* attached hereto and which shall constitute *Exhibit 8* of the Agreement.

7. *Exhibit 5 is replaced in its entirety, as reflected on the revised Zoning Code regulations attached hereto as Exhibit 5 which shall constitute an amendment to the Town of Alabama, NY Zoning Code.*

8. *Miscellaneous Terms:*

- A. This Amendment may be signed in counterparts, and by facsimile and/or e-mail signatures, which originals, facsimile and/or e-mail counterparts shall be deemed originals for all purposes, and which together shall be deemed one agreement.
- B. Capitalized terms or words in this Amendment that are not defined herein shall have the same meaning as those set forth in the Agreement.
- C. This Amendment supplements and modifies, but does not replace, the Agreement, which remains in full force and effect.

(Remainder of page intentionally left blank)

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the day and year first above written.

TOWN OF ALABAMA

By: _____

Name: Janet Sage

Title: Supervisor

GENESEE GATEWAY LOCAL DEVELOPMENT CORPORATION

By: _____

Name: Thomas Felton

Title: Chairman of the Board of Directors

GENESEE COUNTY ECONOMIC DEVELOPMENT CENTER

By: _____

Name: Paul Battaglia

Title: Chairman of the Board of Directors

APPENDIX G

Invasive Species Monitoring Protocol

Invasive Species Monitoring Protocol

STAMP, Town of Alabama, New York



**GENESEE COUNTY ECONOMIC
DEVELOPMENT CENTER**

July 2017

Prepared by:
CC Environment & Planning

INTRODUCTION

Early Detection / Rapid Response

Invasive plants and animals have the potential to dramatically change natural environments and negatively affect wildlife habitat and recreational opportunities. Invasive species are typically non-native species that were intentionally or unintentionally released to an area. They create problems by becoming extremely abundant and dominant, spreading to new areas, out-competing native species, and overall altering ecosystem functions. Once established, invasive species can be very difficult to control and even harder to eliminate. Early detection and rapid response are key components to an effective invasive species management plan.

Early detection can most easily be accomplished through routine surveys on a 1 to 2-year basis which identify areas with invasive species before they spread and become large dominant stands. Rapid response refers to quickly addressing these areas through management aimed at controlling and eradicating their presence. Management techniques are dependent on the individual species, as described below.

The Western New York Partnership for Regional Invasive Species Management (WNY PRISM) identifies eight priority invasive terrestrial plant species in the region. They include; black and pale swallow-wort (*Cynanchum louiseae* and *C. rossicum*), common buckthorn (*Rhamnus cathartica*), reed canary grass (*Phalaris arundinacea*), common reed (*Phragmites australis*), bush honeysuckles (*Lonicera spp.*), Canada thistle (*Cirsium arvense*), and knotweeds (*Reynoutria spp.*). Of these, common buckthorn, reed canary grass, common reed, and bush honeysuckle have been detected on SWMF property. Early detection and rapid response will greatly help with controlling other priority species if they begin to colonize the STAMP Site. Other invasive species of management concern that have been identified on the STAMP Site and that should be monitored and managed when necessary include purple loosestrife (*Lythrum salicaria*), giant hogweed (*Heracleum mantegazzianum*), and autumn olive (*Elaeagnus umbellata*).

The early detection/rapid response survey for the STAMP Site should adhere to the following protocol:

1. Surveys consist of actively searching for stands or populations of invasive plant species.
 - a. Areas with high potential for invasive species, such as stream corridors, roads, ditches, parking areas, hiking trails, and any other frequently or recently disturbed sites should receive highest priority for surveying. Areas adjacent to active agriculture should also be included in surveys.
 - b. Areas with low potential for invasive species, include any areas that are removed from human disturbance or otherwise experience minimal natural disturbance, should receive lower priority for surveying.
2. Surveys can be done either on foot, by ATV, or other vehicle where appropriate.

3. Surveys should be conducted every 1-2 years during the growing season (June through end of July) when species are more easily identifiable.
4. Where invasive species are found; the species name, general extent of the stand (i.e. few individuals or dense stand, etc), site photos, and location should be recorded.
 - a. Location and general area of the stand should be recorded using a GPS to allow for return visits to the site for both management and site monitoring.
 - b. GIS based maps should be produced to compare locations and areas of stands among years.
5. Once an invasive species is located, a response plan should quickly be prepared to address the problem and determine the most effective and efficient treatment program.
 - a. Management action should be taken as soon as conditions allow (i.e. weather, time of year, plant life stage, etc.).
 - b. Areas that are under management should be routinely visited throughout the treatment period, as well as in subsequent years to examine the effectiveness of the treatment. This is important to not only monitor the treatment of the targeted invasive species, but also to identify if treatment is negatively affecting non-target species.
6. Invasive survey reports, GPS data, management actions, and any other associated materials should be saved in a secure digital location which can be accessed year to year by GCEDC staff and environmental service providers.

Rapid Response Treatment Plans

Each of the eight WNY PRISM priority invasive species, as well as the two other non-priority invasive species found at STAMP, are addressed below including a discussion of ecology and control measures. For control measures requiring herbicide application, a licensed, certified applicator should be engaged to discuss control measures, timing, and cost. Additionally, any herbicide sprayed within the wetland areas of the site must be approved for such applications. Many herbicides are nonspecific and the foliage of any plant sprayed will be killed. Therefore, spraying should be conducted in a manner in which overspray of non-target species is minimized.

Black and Pale Swallow-wort



Black (*Cynanchum louiseae*) and pale (*Cynanchum rossicum*) swallow-worts, also known as “dog-strangling vines”, are perennial, herbaceous, twining vines that grow from 2 to 6 ½ foot in length. Native to Eurasia, they are adapted to a variety of habitats. They can be found anywhere from mixed hardwood forests, heavily shaded woods, disturbed sunny areas, prairies, savannahs, open fields, to along roadsides in moist to dry soils. As of July 2017, this species has not been observed at STAMP.

Monitoring for these species should occur in the late summer when the plants turn golden yellow and seed pods are present. Initial control should focus on plants in sunny areas because they will produce the most seeds. Stay out of the affected areas during seed dispersal to prevent the

spread to unaffected areas. Likewise, clean boots, clothing, and any other equipment that has been in an affected area. Small patches of the plant must be dug out by hand. The entire crown must be removed and destroyed. To prevent seed dispersal, pods should be removed before they open and then burned. Large stands can be managed to prevent new seed crops by consistent mowing when pods are very small (early July). Triclopyr and glyphosate can be applied to foliage around mid-September. Use of a surfactant also helps herbicides penetrate the waxy leaf coating. Round Up can also be effective in removing swallow-wort.

Common Buckthorn



Glossy buckthorn (*Rhamnus cathartica*) is a small tree or shrub native to Eurasia and introduced to North America as an ornamental in the 1880s. It has oval shaped leaves with toothed margins and 3-5 pairs of prominent leaf veins which curve as they approach the tip. The shrub produces abundant small, round fruits that ripen from green to purple/black. The fruit is dispersed by birds and the plant spreads rapidly, replacing native vegetation. Common buckthorn has been observed at STAMP.

The most effective control is manual removal of the plants before they go to fruit. Small plants can be pulled by hand. Large plants can be cut at the ground, with black plastic or some other cover placed over the stump to prevent re-sprouting. When a large number of buckthorn seedlings are present, controlled burns can be used. Late fall is the ideal time for chemical treatment because most native plants are dormant and the chemicals are easily drawn into the roots with the natural sap flow. Cut stump treatment with a 20-25% A.I. glyphosate or 12.5% A.I. triclopyr has been effective.

Reed Canary Grass



Reed canary grass (*Phalaris arundinacea*) is an aggressive wetland species that forms dense monotypic stands to the exclusion of other wetland species. It spreads by rhizomous growth and seeds. Once established it can be difficult to adequately control due to resprouting from the soil seed bank. This species can be found throughout the STAMP Site.

Where it is documented to be detrimental to biodiversity or habitat restoration efforts, several methods of control are available, each with moderate

effectiveness. No one methodology will be fully effective if the reed canary grass is well established. Control methods include, herbicides, burning, mowing or mechanical removal. Use of glyphosate has shown to have some success, being effective for up to two years. After two years, regrowth from the seed bank may reestablish the stand. Spraying large stands and or wicking small stands or individual plants will provide the best options. Repeated application will likely be needed. Burning and twice yearly mowing have also shown some success, but again resprouting from the seed bank will require management over multiple years. Removal using heavy construction equipment has not shown to be effective due to rapid regrowth from rhizomes and seeds left in the soil.

Common Reed



Common reed is an aggressive grass with an extensive rhizome root system that favors wetland areas. Once established, common reed can be extremely difficult to eliminate. Common reed is shade intolerant. Restored forested species provide a canopy that shades restoration areas and eventually, common reed should not be a concern. If common reed becomes established in the emergent marsh or wet meadow areas, it will remain indefinitely since no shading will be likely. Regardless of its location,

common reed should be aggressively controlled in newly appearing stands and within habitat restoration areas. Hand pulling or digging may be effective on small or very young plants. This technique is very labor intensive particularly if the plant becomes well established. However, once a stand becomes established, the extensive root system will make hand pulling or digging very difficult and essentially ineffective. At this point the most effective means of control of common reed will be application of herbicides, usually glyphosate as discussed below. Common reed has been detected at STAMP.

While many control measures have been tried in the past, including mowing, flooding, burning, and covering with black plastic, the most effective control method has been herbicide application. Glyphosate has been shown to be an effective control measure but may take two or three seasons of applications to eliminate dense stands. Other herbicides, such as Imazapyr, have recently shown promise in controlling common reed and may be an effective alternative to Glyphosate. Herbicide can be sprayed or applied by wick application. Control of dense stands of common reed may require multiple applications over several years. Application of herbicide should be conducted using a concentration and during a time period that has been shown to be effective in western New York (e.g., 6 pints/acre of Glyphosate sprayed in early September).

Bush Honeysuckle



Non-native bush honeysuckles include tartarian honeysuckle (*Lonicera tatarica*), Morrow's honeysuckle (*Lonicera morrowii*), Amur honeysuckle (*Lonicera maackii*), and Japanese honeysuckle (*Lonicera japonica*). These four species all appear similar to native honeysuckles. The easiest way to distinguish between native and invasive species is that native species have a solid stem while invasive species have a hollow stem. All four species can be found along field edges, in pastures, early succession forests or shrublands, and any disturbed areas. They all grow best in full sun. As with most invasive plant species, this group out competes native species by creating dense stands which suppress the

growth of other plants. This group of species has been found extensively throughout the STAMP Site.

Where necessary, control of these species is most effective in late summer or early fall before seeds are ready to be dispersed. In small stands, hand pulling of small plants or seedlings is effective when repeated annually. For large plants, cut stem herbicide treatments are the most effective. This follows the same methods as autumn olive, with a 20% glyphosate solution applied to freshly cut stumps. For patches in open areas, controlled burns can also be an effective control method.

Canada thistle



Canada thistle (*Cirsium arvense*) is a widespread perennial, herbaceous plant that grows up to 5' tall. Flowers are small and light purple, leaves are spiny. Canada thistle has an extensive lateral root system and grows in dense colonies favoring wet to moist open habitats including pastures and wet meadows. Thistle colonies displace native vegetation and threaten crop field yields and pasture productivity. Canada thistle has been observed at STAMP.

Control of Canada thistle requires multiple management techniques with monitoring to determine the best techniques to continue. Mowing paired with chemical treatment is the most effective control where colonies threaten biodiversity or habitat restoration efforts.

Knotweed



Japanese knotweed is a non-native invasive species introduced from Asia. It is a very aggressive weed that often crowds out native vegetation forming dense monotypic stands. It is difficult to eradicate due to its extremely dynamic rhizomes, which form a deep, dense mat. As of the July 2017, this species has not been observed at STAMP.

Effective treatment of Japanese knotweed requires a multi-faceted approach. Cutting and herbicide treatment, in combination, have been found to be the best treatment method. Cutting alone, only removes the above ground portion of the plant and stimulates the below ground rhizome. The best treatment method consists of several cuttings of the above ground stems in the late spring/summer followed by an herbicide treatment in the early fall. Several years of treatments are needed for well-established stands. Treatments along the Buffalo River in Buffalo, NY have shown that cuttings of the plant, as close to the ground as possible, in June and again in August, followed by a chemical foliar spray using a product that uses glyphosate as its active ingredient (such as Round Up) in September or October works best.

Purple Loosestrife



Purple loosestrife (*Lythrum salicaria*) is an herbaceous perennial plant native to Eurasia. It grows from 3-7' tall with purple/pink flowers clustered along the stem. They bloom from July through early September. A single mature plant may produce up to one million seeds in a season. It can be found in wetlands, drainage canals, and roadside ditches. Purple loosestrife has been observed at STAMP associated with existing wetland areas.

There are several effective control methods for purple loosestrife, including biological, chemical, and manual methods. Biological control is considered the best method for large stands. Four insects have been approved by the USDA as biological control agents for purple loosestrife. Of these, WNY PRISM recommends the use of *Galerucella* beetles which feed almost exclusively on purple loosestrife. Chemical methods include spot treatment of glyphosate on older plants when they are preparing for dormancy, however mid to late summer treatments may be need to reduce seed production. Cut stem treatments also can be used by applying a solution of 30% glyphosate to the freshly cut stems after removal of the flowering portion. Manual methods include cutting and pulling. Stands of less than 100 plants can be controlled by pulling or cutting just before plants begin flowering to avoid spreading the seed. When pulling, all root fragments should be removed and plants should be properly disposed of. Mowing is not recommended because it will spread plant segments and seeds.

Giant Hogweed



Giant hogweed (*Heracleum mantegazzianum*) is a tall (15-20 foot) herbaceous, biennial plant that invades disturbed areas. It is often found in open fields and roadsides, however recently it has also been found along streams in natural areas. It has large palmately compound leaves with 50-150 white flowers arranged in umbels at the top of the stem. It blooms in late June through August. Giant hogweed has impacts on both native plants and humans. It suppresses the growth of native plants. Direct skin contact with the plant induces extreme photosensitivity in humans. It can

also cause blindness upon contact with the eyes. As of July 2017, it has not been detected at STAMP.

Hogweed is difficult to control due to its toxic effects on the skin. A small number of plants can be hand dug, however care should be taken to remove most of the root and to protect skin and eyes. Repeated mowing does not kill the plant and can stimulate re-sprouting. Foliar treatments with glyphosate or triclopyr have been effective. Glyphosate has been the most effective and should be used in spring and early summer when the plants are less than three feet tall. A follow-up application may be needed in midsummer.

Autumn Olive



Autumn olive (*Elaeagnus umbellata*) is a medium to large sized deciduous shrub. It has elliptical-shaped leaves that are dark green to grayish-green above with silvery scales below. It outcompetes and displaces native plant species by creating a dense shade that hinders species which require full sun. A single plant can produce 200,000 seeds in a year and its nitrogen fixing root nodules allow it to grow in poor soils. It is typically found in disturbed areas, pastures, fields, sparse woodlands, and along roadsides. This species has been detected at STAMP.

Where this species is documented to be a detriment to biodiversity or habitat restoration efforts, there are several different control methods. Hand pulling of seedlings can be effective. Mowing or cutting of plants can cause vigorous resprouting. Even repeated cuttings can be ineffective without treating stumps or resprouts with an herbicide. Thus, the most effective control for large plants is a cut stump treatment of herbicide. This involves cutting the plant close to the ground followed by a treatment of 20% glyphosate solution to the stump. Foliar applications of triclopyr (1-2%) or glyphosate (1-2%) are effective on resprouts following cutting during the growing season.

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APPENDIX H

Sample Annual Work Plan

STAMP LAND MANAGEMENT PLAN – 2019 ANNUAL WORK PLAN [SAMPLE]

TECH COMMITTEE: M. Masse, S. Hess, A. Kosa, M. Schultz, A. Walters

COMMITTEE CHAIR SIGNATURE: _____

DATE: _____

Number	Goal/Objective	Previous Year's Action (2018)	Previous Year's Results (2018)	Current Year Action (2019)	Timeline	Lead/Resources	Notes/Results/Next Year
1	Agriculture / Maintain, BMPs	Review ag lease agreements and interview operators regarding current farming practices and BMPs.	BMPs identified for inclusion into ag lease agreements including haying after August 1 and maintain existing hedgerows.	Update ag lease agreements with desired BMPs and review with operators.	January/February 2019	GCEDC	Concerns regarding maintaining drainages, review function of existing culverts.
2	Agriculture / Establish Buffers	Develop map showing location of proposed buffers and notify operators of intention to establish buffers by 2020.	Met with operators, noted areas of concern and adjusted buffers where necessary	Plow, disc, seed and flag 100' buffer line in the field, add signage, and request avoidance from row crop and haying activities.	April - May 2019	GCEDC/CCEP/Ag operators	Check signage and results of seeding and avoidance in buffers
3	Forest / Protect	Refine protection area which includes forested habitat with final mitigation strategy	Final mitigation strategy approved by regulatory	Update plan/maps in accordance with final mitigation plan	December 2019	GCEDC/CCEP	None
4	Forest / Reforest	Refine protection area which includes reforestation areas with final mitigation strategy. Seek funds for active reforestation	Final mitigation strategy approved by regulatory. Grant application submitted for reforestation areas in high priority areas.	Allow natural regeneration from field to shrub to forest within flagged buffer area – DO NOT MOW. Reforest 50 acres with grant funding received via NYG. Monitor for invasives (see item 10)	Spring/Fall 2019	GCEDC/NYG	Monitor reforestation area, grant administration, apply for additional restoration funds
5	Wetlands & Streams / Delineate and Mark	See item 2 above	See item 2 above	See item 2 above	See item 2 above	See item 2 above	Monitor setbacks
6	Wetlands & Streams / Protect	See item 4 above	See item 4 above	Develop documentation and language for required deed restriction(s)	December 2019	GCEDC/Legal	None
7	Wetlands & Streams / Restore, Enhance	Refine restoration and enhancement areas/design with final mitigation strategy.	Final mitigation strategy approved by regulatory.	Design replacement culvert for Whitney Creek. Seek funding for culvert replacement.	December 2019	GCEDC/Engineering	Restoration and enhancement activities to commence with impacts.
8	Connectivity / Forest	See items 1, 2, and 4 above	See items 1, 2, and 4 above	See items 1, 2, and 4 above	See items 1, 2, and 4	See items 1, 2, 4	Monitor reforestation, seeding and setbacks
9	Connectivity / Stream Buffer	See item 2 above	See item 2 above	See item 2 above	See item 2 above	See item 2 above	Monitor setbacks
10	Connectivity / Invasive Species	Develop invasive species protocol	Protocol complete	Monitor invasive species as per protocol, create map and recommendations.	June-July 2019	GCEDC/CCEP	Two new invasive species identified and targeted for early treatment.
11	Open Space	None	None	None	None	N/A	Commence with tenant design
12	Public Use / Snowmobile	Allow snowmobile club to mark and maintain existing trail	Trails marked and maintained	Establish new trail layout, club to mark and maintain new routes	Spring/Summer 2019	GCEDC	None
13	Public Use / Trails	None	None	None	None	N/A	Commence with tenant design
14	Public Use / Hunting, Research, Education	Evaluate hunting/research/education opportunities	Allowed 3 people access for deer and turkey hunting. Identified local university to assist with invasive species monitoring	Evaluate hunting/research/education opportunities	January/February 2019	GCEDC	Local youth group requested hunting opportunity for turkey in Spring 2020.
15	Monitoring	Review work plan results, create next year's work plan	2019 Work Plan drafted	Review work plan results, create next year's work plan	December 2019	GCEDC	See 2020 work plan
16	Adaptive Management	None	None	None	None	None	Review goals/objectives in 2022