Environmental Assessment
TLC Health Network
Tri-County Hospital Facility Replacement Project

Town of Perrysburg, Cattaraugus County, New York
FEMA-1857-DR-NY

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U.S. Department of Homeland Security
Federal Emergency Management Agency
Region II, 26 Federal Plaza, NY, NY 10278

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

LIST OF ACRONYMS

amsl	Above Mean Sea Level
ACHP	Advisory Council on Historic Preservation
ASTM	American Society for Testing and Materials
bgs	below ground surface
CFR	Code of Federal Regulation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
EO	Executive Order
FPPA	Farmland Protection Policy Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
NAAS	National Agricultural Statistics Service
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRE	National Register Eligible
NRL	National Register Listed
NRHP	National Register of Historic Places
NHP	Natural Heritage Program
NRCS	Natural Resources Conservation Services
NYSBC	New York State Building Code
NYSDEC	New York State Department of Environmental Conservation
NYSOEM	New York State Office of Emergency Management
OPRHP	Office of Parks, Recreation, and Historic Preservation
SHPO	State Historic Preservation Office
SPDES	State Pollutant Discharge Elimination System
SWPPP	Storm Water Pollution Prevention Plan
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Services
USGS	U.S. Geological Survey

1.0 INTRODUCTION

TLC Health Network (TLC) is proposing to construct a new 41,000 square foot hospital facility to replace the original Tri-County Memorial Hospital, located in the Village of Gowanda, Cattaraugus County, New York (Appendix A, Figures 1 and 2). The original facility, located at 100 Memorial Drive in Gowanda, was devastated by storm damages from heavy rains that occurred during severe storms and flooding from August 8 - 10, 2009. The storm incident period was declared a major disaster by President Obama on September 1, 2009 (FEMA 1857-DR-NY); and federal public assistance was made available to affected communities and non-profit organizations, such as TLC, in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. 5121 et seq., as amended. TLC has requested federal financial assistance from the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) to construct the relocated Facility.

The TLC Tri-County Memorial Hospital experienced flooding of the lower floors as a result of the declared incident. The damages rendered the facility unsafe. The structure was determined substantially damaged per definition of the National Flood Insurance Program (44CFR§59.1). Hospital services were established at an interim facility: the Urgent Care Clinic at 34 Commercial Street in Gowanda. TLC leased the building and purchased an office-trailer modular unit as an emergency measure after the original building was damaged and abandoned. Demolition of the original hospital facility began in January 2012 and is anticipated to be completed in June 2012. FEMA has provided federal public assistance for the demolition activities and towards the cost of the interim hospital facility.

The new permanent facility is proposed to be constructed outside the floodplain, on an approximately 11.3 acre portion of a 42.5-acre property at 5 Jolls Road, the southeast intersection of Jolls Road and Stafford Road in the Town of Perrysburg, Cattaraugus County, New York (Appendix A, Figure 3). In addition to the 41,000 square foot structure, the Project would include construction of vehicular entrances from both Stafford and Jolls Roads, parking lots totaling 108 parking spaces, a helipad, storm water management basins and site landscaping and amenities (hereafter referred to as the "Facility" or the "Project") (see Appendix A, Figure 4). Hospital services are anticipated to include emergency care, inpatient and observation nursing, imaging, stat lab and outpatient services.

This Environmental Assessment has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality regulations to implement NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and FEMA's regulations implementing NEPA (44 CFR Part 10). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of this Environmental Assessment (EA) is to analyze the potential environmental impacts of the construction of the replacement hospital. FEMA will use the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

2.0 PURPOSE AND NEED

The purpose of the Project is to construct a hospital facility that would restore the essential hospital services for the affected community. Hospital services are anticipated to include emergency care, inpatient and observation nursing, imaging, stat lab, and outpatient services. The need to fully restore hospital service functions is due the loss of the original hospital facility and due to the lack of full functional capability of the interim facility at the Urgent Care Clinic.

3.0 ALTERNATIVES

A discussion panel was formed to evaluate alternative real estate properties to permanently relocate, and fully restore, hospital services. Project criteria was identified and used as a comparison evaluation tool for final site selection. Project criteria include such parameters as site size including size for potential future expansion, site and community accessibility, floodplain risk, utility connectivity, zoning, environmental and cultural resources, construction feasibility, and factors of cost. The discussion panel identified three (3) sites that met the minimum criteria of 12 to 20 acres located within three miles of Gowanda, New York (see Appendix A, Figure 7). These included:

- Site #1: Aldridge Street Ext., Village of Gowanda, Erie County; two parcels totaling approximately 11 acres;

- Site #2: 10376 Jolls Road, Jolls/Stafford Intersection North, Town of Perrysburg, Cattaraugus County; one parcel totaling approximately 14 acres; and

- Site #3: 138 Palmer Street, Village of Gowanda, Cattaraugus County; one parcel totaling approximately 23.4 acres.

Subsequent to the evaluation of the discussion panel, an additional parcel was identified as a potential alternative, which ultimately became the preferred alternative and site of proposed action:

- Site #4; 5 Jolls Road, Jolls/Stafford Intersection South, Perrysburg, one parcel totaling approximately 42.5 acres.

The positive and negative attributes of each site and the potential impacts were evaluated and are discussed below (Simmons Recovery Consulting, 2010).

3.1 Site Alternatives Screened from Further Analysis

Sites #1, #2, and #3 were screened from further analysis after review by the discussion panel. The below summarizes both positive and negative aspects of each site alternative screened from further analysis in this EA.

Site #1: There are many potentially favorable attributes of the site, including its location outside of a floodplain, accessibility from New York State Routes 438, 62, and 39, and municipal potable water and sewer availability at the street, as well as natural gas, electrical power, and fiber optic cable. There are also many site constraints associated with this location, including limited expansion potential due to the lot configuration and lack of street frontage. The site does not have a favorable curb appeal, because most of the street frontage is comprised of rental units. There are additional concerns of potential traffic conflicts with the existing elementary school located across the street from this alternative. Finally, the adjacent residential area may be adversely impacted by hospital activity, particularly noise disturbance associated with helicopter access (Simmons Recovery Consulting, 2010). For these reasons, this site was not selected as the preferred alternative.

Site #2: This site, which is located north of the currently proposed site, is concentrated at the northeast intersection of Jolls and Stafford Roads. There are many favorable attributes of this site including its location out of a floodplain, accessibility, and availability of utilities at the site. Initially, the site selection

committee identified this site as the preferred alternative; however due to an unsuccessful real estate transaction, the site was no longer selected as the preferred alternative.

Site #3: This site is the former Peter Cooper Glue Factory and is a Superfund site. This site alternative was quickly excluded from extensive analysis, because it is located in a 100-Year floodplain and due to the Superfund status (Simmons Recovery Consulting, 2010).

3.2 Site Alternatives Considered in this EA

The No Action Alternative and Proposed Action Alternative are considered further in this EA and are summarized below. The original damaged hospital facility would be demolished with both alternatives. Demolition activities began in January 2012 and are anticipated to be completed in June 2012. TLC is responsible to secure the site and for all demolition activity related disposal. TLC will comply with all local, state and federal laws, regulations and Executive Order's related to demolition and treatment or disposal of debris or other site waste a the former hospital location. The original facility site will potentially be developed as a park or other passive recreational use area, due to its location within a 100-Year floodplain.

3.2.1 No Action Alternative

If no federally funded project were implemented, it is anticipated that TLC would continue to lease and operate the Urgent Care Clinic out of the interim facility site at 34 Commercial Street in Gowanda. TLC leased the building and purchased an office-trailer modular unit as an emergency measure after the original building at 100 Memorial Drive in Gowanda was abandoned. It is anticipated that with the no action alternative that TLC may be limited in its ability to provide the same level of health care as was provided at its original facility. It is also anticipated that under the no action alternative, TLC may not have the financial capability to construct a permanent facility without federal disaster recovery funding.

3.2.2 Proposed Action

The Proposed Action Alternative is to construct a 41,000 square foot hospital building at 5 Jolls Road, Jolls/Stafford Intersection South, Perrysburg, Cattaraugus County, NY. The Project would include construction of entrances from both Stafford and Jolls Roads, parking lots totaling 108 parking spaces, a helipad, storm water basins and landscaping (see Appendix A, Figure 4). Hospital services are anticipated to include emergency care, inpatient and observation nursing, imaging, stat lab and outpatient services. Ancillary services will include food and beverage provisions, offices, and meeting rooms. The proposed new building would consist primarily of a single-story, steel frame type structure, with a two story foyer and lobby. The main entrance would consist of timber post and truss construction. The exterior cladding will consist of a combination of block, metal panels, and glass. The building is planned to be supported on a shallow spread foundation system. No basement or depressed crawl space areas are planned; however, a portion of the building may be cut into the existing side slope, and therefore may require potions of the foundation walls to be earth retaining type walls. The ground floor is planned to be constructed as slab-on-grade.

The development footprint would occur within an approximately 11.3 acre area of the 42.5 acres site, located at 5 Jolls Road, at the southeast intersection of Jolls and Stafford Roads (hereafter referred to as the "site"). Within this development footprint, there is an approximately 45-foot elevation change from the southwest to the northeast. The site would require cut and fill grading techniques to level the site for the building. There is already a natural drainage pattern on-site. The site contains an ephemeral drainage (swale) that leads to an unnamed tributary to Cattaraugus Creek. All utilities are available at this site. A municipal potable water source is within 100 feet of the property. In addition, the sanitary sewer main is

located across the street at the north corner of Stafford and Jolls Roads. Natural gas, electrical, and fiber optic cable are available at the street.

4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Potential environmental impacts and proposed mitigation measures associated with the Proposed Action and the No Action Alternative are presented in the following sections and are summarized in Table 1 below.

Table 1. Summary of Potential Environmental Impacts and Mitigation

Resource	Potential Impacts		Agency Coordination/ Permits	Mitigation
	No Action Alternative	Proposed Action		
Topography, Geology and Soils	No impact.	No significant impact. Adverse impact to 11.3 acres of soil for Project construction.	NYSDEC SPDES General Permit	Balance earthwork on site. Implement erosion and sediment control practices.
Land Use and Zoning	No impact.	No significant impact Adverse impact on Approximately 6.3 acres of prime farmland will be disturbed and 5 acres of farmland of statewide importance will be disturbed.	Town of Perrysburg: Special Use Permit NRCS Farmland Conversion Impact Rating form	
Water Resources and Water Quality	No impact.	No significant impact.	NYSDEC SPDES General Permit	Compliance with SWPPP and SPDES.
Wetlands	No impact.	No significant impact.	N/A	
Floodplains	No impact.	Beneficial impact due to relocation of facility outside 500-Year Floodplain.		
Climate Change	No impact.	No impact.		
Coastal Resources	No impact.	No impact.		
Vegetation	No impact.	No significant impact; adverse impact on 0.5 acres of forested area will be removed and converted to lawn. Approximately 4.6 acres of active agricultural field will be converted to built facilities or stormwater basins. Additional 6.2 acres of active agricultural field will be converted to lawn.		Native plant species will be selected for site landscape plantings to the extent practicable in accordance with EO13112 Invasive Species.

Resource	Potential Impacts		Agency Coordination/ Permits	Mitigation
	No Action Alternative	Proposed Action		
Wildlife and Fisheries Habitat	No impact.	No significant impact; conversion of 10.8 acres of agricultural land and 0.5 acre of forestland to built facility, stormwater basin, and lawn.		
Threatened and Endangered Species	No Effect.	No Effect.	NHP	
Cultural Resources	No impact.	No Historic Properties Affected.	SHPO	
Visual Resources	No impact.	No significant impact.		
Socioeconomic Resources	Negative impact due to loss of local hospital.	Positive impact in restoring local hospital for the affected community.		
Environmental Justice	Negative impact due to loss of local hospital.	Positive impact in restoring local hospital for the affected community.		
Air Quality	No impact.	No significant impact.		Best management practices.
Contaminated Materials	No impact.	No significant impact.	NYSDEC	Best management practices.
Noise	No impact.	No significant impact. Minimal temporary construction noise.		Compliance with local ordinances.
Infrastructure	No impact.	No significant impact.		
Public Health and Safety	Negative impact due to loss of local hospital.	Positive impact in restoring local hospital for the affected community.	NYS Dept. of Health	Compliance with approvals
Cumulative Impacts	No cumulative impacts.	No cumulative impacts.		

4.1 Topography, Geology and Soils

4.1.1 Existing Conditions

Information regarding topography, geology, and soils was obtained from on-site investigations conducted by Empire Geo-Services, Inc. (Empire Geo-Services; see Appendix B) and from existing published sources, including the Cattaraugus County Soil Survey (U.S. Department of Agriculture Natural Resources Conservation Services [USDA NRCS], 2007), U.S. Geological Survey (USGS) topographic mapping, statewide bedrock geology mapping (NYS Museum/NYS Geological Survey, 1999a), and New York State surficial geology mapping (NYS Museum/NYS Geological Survey, 1999b). Geotechnical investigations conducted by Empire Geo-Services included a subsurface exploration and geotechnical engineering evaluation.

Topography

The Project site is located on the eastern edge of the Erie Lake Plain and the northern edge of the Allegheny Plateau, which is in the glaciated region of rounded steep hills and broad, flat-bottomed stream valleys (USDA, 2007). Within the area of proposed development, there is an approximately 45-foot elevation change from the southwest to the northeast. Ground surface elevations range from about 1040

feet above mean sea level (amsl) in the southwest portion of the site to about 1010 feet amsl near the northeast corner (see Appendix A, Figure 3; Empire Geo-Services, Inc., 2011).

Geology

Bedrock within the Project site consists of shale and siltstone from the Machias Formation of the Upper Devonian age. According to the Surficial Geologic Map of New York, the soils within the Project site consist of till. According to mapping and soil descriptions provided in the Cattaraugus County Soil Survey (USDA NRCS, 2007), depth to bedrock is generally greater than six feet in Fremont series soils, which are formed in glacial till deposits and found on broad hilltops of upland till plains. However, depth to bedrock typically ranges from 20 to 40 inches in Hornell series soils, which are found on bedrock-controlled till plains in uplands within the Project site. Weathered shale bedrock was encountered within one to eight feet below ground surface (bgs) at each of the eight test boring locations investigated by Empire Geo-Services. The weathered shale is typically of a friable and soil like matrix as it is first encountered and then grades to a more rock like matrix, with depth (Empire Geo-Services, Inc., 2011).

Executive Order 12699 requires Federal agencies assisting in the financing, through Federal grants or loans, or guaranteeing the financing, through loan or mortgage insurance programs, of newly constructed building to initiate measures to assure appropriate consideration of seismic safety. The USGS Percent Peak Ground Acceleration Seismic Hazard Maps (USGS, 2009) adopted by the New York State Building Code (NYSBC) indicate that the Project site is in a moderate hazard area, as is most of New York State.

Soils

The Cattaraugus County Soil Survey has mapped general soil associations and soil types within the county (see Tables 2 and 3, in Appendix B). The soil survey indicates that three soil associations and two soil series are present within the Project site. Of these, Hornell occurs within the eastern half of the Project site and Fremont occurs within the western half.

Soils in the Project site are primarily silt loams. Nearly 60 percent of soils within the Project site are classified as either highly erodible or potentially highly erodible. The entire Project site contains soils classified as somewhat poorly drained. There are no soils within the Project site listed as hydric by the NRCS (USDA NRCS, 2011). The entire Project site contains soils classified as either prime farmland soils or farmland of statewide importance (see Appendix C).

4.1.2 Potential Impacts and Proposed Mitigation

Proposed Action

The primary impact to the physical features of the Project site will be the disturbance of soils during construction. Disturbance to soils from all anticipated construction activities will total approximately 11.3 acres. Of this total, approximately 0.5 acres of forested area will be removed and converted to maintained lawn/landscaping. In addition, approximately 4.6 acres of active agricultural field will be converted to built facilities or stormwater basins. An additional 6.2 acres of active agricultural field will be converted to maintained lawn/landscaping (see Figure 5).

Based on the results of the subsurface exploration and the proposed site development, a conventional spread foundation system will be suitable to support the currently proposed building structure. In addition, the floor construction can proceed as slab-on grade construction following proper subgrade preparation and site filling. Appropriate design measures as dictated in the NYS Building Code will be implemented to reduce the seismic hazards during the planning and construction of the Facility (Empire Geo-Services, Inc., 2011).

Based on the sloping terrain towards the building, a drainage swale will be placed adjacent to the building to intercept potential surface water flow and divert it away from the building and parking areas. In addition, an exterior foundation drain is recommended to be placed at the top of the wall footings, along the south and west foundation walls, to intercept any potential groundwater seepage, which could also flow towards the building area (Empire Geo-Services, Inc., 2011).

Project construction is expected to last 14 to 16 months. During this time, erosion and sedimentation impacts will be minimized through the implementation of an approved erosion and sediment control plan. This plan will be developed as part of the State Pollutant Discharge Elimination System (SPDES) General Permit for the Project, and submitted to the NYS Department of Environmental Conservation prior to Project construction. Best management practices for soil erosion and sediment control will be established, such as the installation of perimeter silt fences to control the migration of silt from the site. All construction activities are subject to the requirements of the SPDES General Permit.

No Action Alternative
The No Action alternative would not impact topography, geology, or soils.

4.2 Land Use and Zoning

4.2.1 Existing Conditions

Much of Cattaraugus County is wooded, providing for commercial timber and maple syrup production. There are approximately 1,122 working farms in Cattaraugus County, occupying 183,439 acres, or 22% of the County (USDA National Agricultural Statistics Service [NASS], 2008). Dairy farming is the primary agricultural activity in the county and corn and hay are the main crops grown (USDA NASS, 2008). NYSDEC reforestation and wildlife management areas are scattered throughout the county totaling approximately 33,000 acres, and Allegany State Park (managed by the NYS Office of Parks, Recreation, and Historic Preservation [OPRHP]) occupies nearly 65,000 acres in the southern portion of the county. Natural gas is another resource for the county, with gas wells common in the northwest and densely concentrated in the southern portion of the county.

Specifically within the overall Project site, the western half is an active agricultural field (hay), while the eastern half is forest land (see Figure 5). The Facility is proposed to occur on prime farmland and farmland of statewide importance. The Farmland Protection Policy Act (FPPA) requires federal agencies to minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural use and to assess potential conversion of farmland to developed property.

The Project site is zoned as SR-30 Suburban Residence District.

4.2.2 Potential Impacts and Proposed Mitigation

Proposed Action
The land use for the Project site would change as a result of the Project. The site will be converted from an active agricultural field and forested land to a hospital with a parking lot and landscaped lawn. Approximately 6.3 acres of land classified as prime farmland will be disturbed and 5.0 acres of land classified as farmland of statewide importance will be disturbed. Based upon the completed Farmland Conversion Impact rating Form, the NRCS determined that the site is exempt from the FFPA (see Appendix C). The total points for the impact rating conversion form were calculated at 113 points. Sites with a combined score of 160 points or less from the land evaluation and site assessment criteria are not subject to FPPA in accordance with 7 CFR Part 658.2. No municipal zoning changes are proposed. The

proposed Project will require site Plan Approval by the Town of Perrysburg Planning Board, because hospitals are considered a special exception use within SR-30 Suburban Residence zoning district.

No Action Alternative
The No Action alternative would not impact land use.

4.3 Water Resources and Water Quality

4.3.1 Existing Conditions

The Project site is located within the Cattaraugus Creek watershed. The Project site is situated between two branches of a tributary of Cattaraugus Creek, with one branch located about 600 feet to the west and the other located about 900 feet to the east. Three unnamed intermittent headwater streams and one small (0.08 acre) forested seep/wetland were identified within the eastern half of the Project site. The three streams originate within the forested portion of the site and flow east into an unnamed class C(ts) stream east of the Project site, which flows north into Cattaraugus Creek (class C[t]). See Appendix D for a map of water resources on-site and within the vicinity of the Project.

4.3.2 Potential Impacts and Proposed Mitigation

Proposed Action
No impacts to streams or wetlands are anticipated, as they occur within the eastern half of the Project site, outside of the 11.3 acre footprint of disturbance, and Project construction will occur almost entirely within the western portion of the property.

According to the test boring exploration conducted by Empire, it does not appear that a generalized permanent groundwater condition will be encountered in the relatively shallow excavations. However, some localized perched groundwater zones may be present within the shale bedrock at various locations and depths, particularly during seasonally wet periods and following heavy precipitation events. Therefore, it should be anticipated that some dewatering of excavations, using conventional sump and pump methods, may be necessary during construction.

Based on the sloping terrain towards the building from the southeast, Empire Geo-Services recommends that a drainage swale be placed up slope on the south and west sides of the building to intercept potential surface water flow and divert it away from the building and parking areas. In addition, an exterior foundation drain is recommended to be placed at the top of the wall footings, along the south and west foundation walls, to intercept any potential groundwater seepage, which could also flow towards the building area (Empire Geo-Services, Inc., 2011).

Overall, no significant impacts to water resources or water quality are anticipated, as the on-site water will continue to follow the natural drainage on-site. There are ephemeral drainages on the north side of the site that continue to follow the natural drainage pattern to a stream occurring to the east of the site. With the increase in impervious surfaces, stormwater quantities feeding into the streams will increase. However, the drainage patterns will not be changed as a result of the Project.

To avoid, minimize and mitigate impacts to off-site aquatic resources (e.g., Cattaraugus Creek) resulting from construction-related siltation and sedimentation, an approved sediment and erosion control plan and Storm Water Pollution Prevention Plan (SWPPP) will be prepared and approved prior to construction, in accordance with the SPDES General Permit.

No Action Alternative

The No Action alternative would not impact water resources and water quality.

4.4 Wetlands

Executive Order (EO) 11990 Wetlands Protection requires that federal agencies take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural beneficial effects of wetlands. Compliance with this EO is insured through the application of the Eight Step Planning Process for Wetland Protection. The first step of the process involves identifying whether the action will be located within or potentially affect wetlands (see Appendix I).

4.4.1 Existing Conditions

Wetlands within the Project site have been examined through review of existing state freshwater wetland mapping and aerial photography interpretation. Wetlands that occur within the Project site have been further examined through field reconnaissance and a wetland boundary survey conducted by qualified biologists (edr Companies) during the 2011 growing season. Review of state freshwater wetland mapping indicates that there are no wetlands or adjacent areas (wetland buffers) within the Project site. No digital federal wetland mapping (National Wetland Inventory) is available for the Project site. Biologists identified one small (0.08 acre) forested seep/wetland within the eastern half of the Project site during on-site surveys (see Appendix D).

4.4.2 Potential Impacts and Proposed Mitigation

Proposed Action
One wetland was identified by wetland biologists within the eastern half of the Project site, outside of the 11.3 acre anticipated footprint of disturbance. Therefore, no impact to wetlands are anticipated. The action will not be located within or potentially affect wetlands.

No Action Alternative
The No Action alternative would not impact wetlands.

4.5 Floodplains

EO 11988 Floodplain Management requires federal agencies to take actions to avoid long-term and short-term impacts associated with occupancy and modification of floodplains. In accordance with 44 CFR 9.6, compliance with EO 11988 is insured through applying the Eight Step Process for Floodplain Protection. The first step of the process involves identifying whether the action will be located within a floodplain (see Appendix I).

4.5.1 Existing Conditions

Floodplains within the Project site were examined through review of online sources, including Cattaraugus County Parcel Viewer 1.0 (Cattaraugus County, 2008) and FEMA National Flood Hazard mapping (FEMA, 2012), as well as FEMA GIS data. These online sources and GIS data indicated that the Project site is located outside of the 100-year and 500-year floodplains (see Appendix E; note that Zone C is outside of the 100-year and 500-year floodplains). In addition, the site appears to be on a topographic high point, compared to surrounding land, therefore surface waters will drain away from the site and a drainage swale is located along the northern and western property border along Stafford and Jolls Road, respectively (see Appendix A, Figure 3).

4.5.2 Potential Impacts and Proposed Mitigation

Proposed Action

The Project site does not occur within a 100-year or 500-year floodplain; therefore no impacts to floodplains are anticipated as a result of the proposed critical facility.

No Action Alternative
The No Action alternative would not impact floodplains.

4.6 Climate Change

4.6.1 Existing Conditions

Climate change could potentially increase temperatures in the northeast, cause more severe weather incidents to occur, and cause sea level to rise. Consideration of climate change does not change the decision-making to implement the proposed Project. As stated previously, the Facility would be designed to current codes and standards to ensure the structures would be sound and able to withstand storms and seismic events. In addition, the new Facility will be located outside of a flood-prone area.

4.6.2 Potential Impacts and Proposed Mitigation

Proposed Action
The Proposed Action will not be impacted by climate change. Energy efficiencies and facility environmental quality will be taken into consideration for final site and facility design to avoid and/or minimize impacts of new facility on local and global climate and natural resources, and to ensure public health for construction workers, hospital service employees and customers of the hospital.

No Action Alternative
The No Action alternative will not be impacted by climate change.

4.7 Coastal Resources

4.7.1 Existing Conditions

The proposed Project is located inland and not near any coastal resources.

4.7.2 Potential Impacts and Proposed Mitigation

Proposed Action
The Proposed Action will not impact coastal resources.

No Action Alternative
The No Action alternative will not impact coastal resources.

4.8 Vegetation

4.8.1 Existing Conditions

The western half of the Project site is an active agricultural field planted for hay cultivation (clover, wild grasses, etc.). The eastern half of the Project site is a mixed coniferous/deciduous successional forest, consisting of trees and saplings of white pine, red and sugar maples, red and white oaks, and white ash.

4.8.2 Potential Impacts and Proposed Mitigation

Proposed Action
Disturbance to vegetation from all anticipated construction activities will total approximately 11.3 acres. Of this total, approximately 0.5 acres of forested area will be removed and converted to lawn. In addition,

approximately 4.6 acres of active agricultural field will be converted to built facilities or stormwater basins. An additional 6.2 acres of active agricultural field will be converted to lawn. The remaining 18 acres of forestland will be undisturbed. The remaining 13.2 acres of agricultural land in the southwest corner of the Project site will either be periodically maintained fallow field (e.g. brushhogging to prevent shrub growth), or will be maintained as hayfield (see Figure 5). Native plant species will be selected for site landscape plantings to the extent practicable in accordance with EO13112 Invasive Species.

No Action Alternative
The No Action alternative will not impact vegetation.

4.9 Wildlife and Fisheries Habitat

4.9.1 Existing Conditions

The Project site is dominated by agricultural land to the west and forested land to the east. It is anticipated that the agricultural land supports small mammals, such as mice and voles, large mammals, such as deer, and grassland birds, such as bobolink, red-winged blackbird, and savannah sparrow. The forested portion of the site likely supports small mammals, such as mice, voles and squirrels, large mammals, such as deer, and forest-dependent bird species, such as ovenbird, red-eyed vireo, and dark-eyed junco. There are three unnamed intermittent headwater streams and one small (0.08 acre) forested seep/wetland occur within the eastern half of the Project site, which likely support aquatic species, such as frogs, turtles, and salamanders.

4.9.2 Potential Impacts and Proposed Mitigation

Proposed Action
The proposed Project will not significantly impact forest land, as only 0.5 acre will be converted to lawn. In addition, the agricultural land provides habitat for only a limited number of wildlife species. No aquatic species will be impacted, as there are no water resources being impacted.

No Action Alternative
The No Action alternative will not impact wildlife and fisheries habitat.

4.10 Threatened and Endangered Species and Critical Habitat

4.10.1 Existing Conditions

Threatened and endangered species and critical habitat within the Project site were reviewed through analysis of existing data sources, on-site field observations, and correspondence received from the New York Natural Heritage Program (NHP). According to the U.S, Fish and Wildlife Service website, the only federally listed endangered or threatened species known to occur in Cattaraugus County are clubshell (*Pleurobema* clava) and rayed bean (*Villosa fabalis*) (USFWS; USFWS, 2012). Federal agencies must evaluate potential impacts to bald eagle and its habitat per the Bald Eagle Protection Act. The bald eagle (*Haliaeetus leucocephalus*) may be found in the Project vicinity; however there is no habitat, specifically large bodies of water with high fish populations for feeding or tall, sturdy trees for nesting, for the bald eagle at the proposed Project site. In addition, federal agencies must evaluate potential impacts to migratory bird habitat per the Migratory Bird Treaty Act. There is no sensitive migratory bird habitat at the proposed Project site.

Response received from the NHP on September 19, 2011 indicated there were no records of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of the site (see Agency Correspondence in Appendix F). In addition, no state-listed species were identified during a field visit by an edr biologist.

4.10.2 Potential Impacts and Proposed Mitigation

Proposed Action
FEMA has determined that the proposed action would have No Effect on state or federally-listed threatened or endangered wildlife or plant species, or impact critical habitat. According to NHP there are no state-listed species documented in the Project site. The two federally-listed species, clubshell and rayed bean, documented in the county are associated with freshwater, which does not occur within the limit of disturbance and therefore the Project will not impact these species.

No Action Alternative
The No Action alternative will not impact threatened and endangered species and critical habitat.

4.11 Cultural Resources

The National Historic Preservation Act (NHPA) directs federal agencies to take into account the effect of any undertaking on historic properties. "Historic property" is any district, building, structure, site, or object that is eligible for listing in the National Register of Historic Places (NRHP) because the property is significant at the national, state, or local level in American history, architecture, archaeology, engineering, or culture. Typically, a historic property must be at least 50 years old and with retained integrity (Advisory Council on Historic Preservation, 2009).

4.11.1 Existing Conditions

Commonwealth Cultural Resources Group, Inc. conducted a Phase I Cultural Resource Investigation for the Tri-County Hospital Project site (Appendix G). The purpose of the Phase I investigation was to document national register of historic places, prehistoric archaeological sites, and historic archaeological sites within the Project site and vicinity. During the Phase IA portion of the investigation, Commonwealth Cultural Resources Group reviewed several existing databases and maps, including New York State Inventory and Register, the NRHP, and the NRHP-eligible and State/NRHP-proposed lists. In addition, a Phase IB field investigation was conducted to identify historic and prehistoric artifacts. No historic or prehistoric artifacts were recovered during the Phase 1B. No cultural resources listed on or eligible for the State or NRHP of the State/NRHP-proposed lists were recorded within, or immediately adjacent to, the Project site.

4.11.2 Potential Impacts and Proposed Mitigation

Proposed Action
There are no archaeological or any other cultural resources within the Project site or immediate vicinity. In addition, the Project site is not visible from any resources identified within 1.5 miles. Commonwealth Cultural Resources Group submitted a written request for information on cultural resources to the State Historic Preservation Office (SHPO). The agency provided a response letter dated February 16, 2011 (see Appendix G), in which they indicated that the proposed Project will have no effect upon cultural resources listed or eligible for inclusion the National Register of Historic Places. No further cultural resources investigations are recommended for the Facility. FEMA has found that the proposed action will result in No Historic Properties Affected.

No Action Alternative
The No Action alternative will not impact cultural resources.

4.12 Aesthetics and Visual Resources

4.12.1 Existing Conditions

The proposed Project site occurs on a high spot, providing views of the Village of Gowanda. However, the Project site is not visible from any cultural resources. The site is currently an agricultural field. However the built Facility will have a landscaped lawn. In addition, the forested area to the east of the Project will only have 0.5 acre of disturbance.

4.12.2 Potential Impacts and Proposed Mitigation

Proposed Action
Any visual impacts caused by the construction of the Facility should not be an issue, considering there are no properties listed on or eligible for the NRHP adjacent to or located within the immediate vicinity of the Project site. In addition, the site will be landscaped and only 0.7 acre of the forested portion of the site will be disturbed. The balance of the site 13.2 acres of agricultural/meadow land and 18 acres of forest land for a total of 31.2 acres will remain undisturbed.

No Action Alternative
The No Action alternative will have no impact on visual resources.

4.13 Socioeconomic Resources

4.13.1 Existing Conditions

According to the U.S. Census Bureau (2011) website, the current population for the Village of Gowanda, New York is 2,709 persons and Town of Perrysburg is 1,626 persons (2010 data). Approximately 80,317 people live in Cattaraugus County (2010 data). The total number of households for the County is 32,666 (2010 data). The median income for a household in the County was $42,466 (2010 data), and in the Town was $37,212 (2000 data), as compared to the State average of $55,603 (2006-2010 data). About 16% of persons in the County are below the poverty line (2010 data).

4.13.2 Potential Impacts and Proposed Mitigation

Proposed Action
The Proposed Action would have a positive impact on socioeconomics. The proposed Facility would create jobs for locals that lost their jobs with the closure of the original hospital. It is anticipated that approximately 50 permanent jobs will be created as a result of this Project. The Project would also create approximately 200 temporary jobs during the construction phase of the Project. In addition, the community would have a local hospital again, and therefore improved medical services.

No Action Alternative
The No Action Alternative would adversely impact the town and residents socioeconomically. The Applicant would not receive the federal public assistance that it is eligible to receive from FEMA for construction of a new permanent Facility. It is anticipated that the Applicant would not be able to fully re-establish its medical clinic, impacting jobs that support local economic productivity and the health of the community. With the closure of the original hospital, staff that were able to be relocated to other hospitals now commute up to 20 miles further, and many staff members were not able to find jobs.

4.14 Environmental Justice

EO 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”, directs Federal agencies to “make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or

environmental effects of its programs, policies, and activities on minority populations and low-income populations." (Environmental Protection Agency [EPA], 1994).

4.14.1 Existing Conditions

According to census data, the population of the Town of Perrysburg is predominantly white (93%). About 16% of persons in the County are below the poverty level. Approximately, 7.1% of the Town's families are at or below the poverty level (2000 data). The nearest senior housing or low-income housing complexes are in the Village of Gowanda, at least one mile from the proposed Facility site.

4.14.2 Potential Impacts and Proposed Mitigation

Proposed Action
The Proposed Action would have no disproportionately high or adverse impacts on the human health and human environment of minority or low-income populations. In fact, the proposed Project would benefit the entire community with the construction of the new hospital.

No Action Alternative
The No Action Alternative would have no disproportionately high or adverse impacts on the human health and human environment of minority or low-income populations.

4.15 Air Quality

4.15.1 Existing Conditions

Cattaraugus County is designated as being in attainment of National Ambient Air Quality Standards (NAAQS) for criteria pollutants sulfur dioxide (SO_s), carbon monoxide (CO), nitrogen dioxide (NO_s), lead (Pb), PM_{10}, and $PM_{2.5}$. The State of New York is treated as a moderate nonattainment area for ozone (O_3) because it is included in the Ozone Transport Region (New York, New Jersey, Pennsylvania, Delaware, the six New England states, Washington D.C., and portions of Virginia) (NYSDEC, 2012).

4.15.2 Potential Impacts and Proposed Mitigation

Proposed Action
During Project construction, minor, temporary adverse impacts to air quality will result from the operation of construction equipment and vehicles. Impacts will occur as a result of both emissions from engine exhaust and from the generation of fugitive dust during earth moving activities. Best management practices including dust control, could be used during construction to minimize air quality impacts. The increased dust and emissions will not be of a magnitude or duration that would significantly impact local air quality In addition, construction equipment emissions would be negligible and accounted for in the State's Implementation Plan for air quality.

No Action Alternative
The No Action alternative will not impact air quality.

4.16 Contaminated Materials

4.16.1 Existing Conditions

A Phase I Environmental Site Assessment (ESA) was conducted by Panamerican Environmental, Inc. (PEI) for the Project site in conformance with the scope and limitations of ASTM Standard Practice E 1527-05 (See Appendix B). PEI reviewed existing databases, as well as conducted on-site surveys to determine if the presence or likely presence of hazardous substances or petroleum occurred on the site.

Specifically, PEI was investigating whether an existing release, a past release, or a material threat of a release into structures on the Property or into the ground, ground water, or surface water of the Property were evident.

PEI did not identify any potential recognized environmental conditions. PEI did not observe any indication of uncontrolled dumping or any indication of storage or use of large quantities of petroleum or hazardous waste or material on the property and there is no history to suggest any storage or use. However, the Phase I ESA identified several potential hazard substances within the vicinity of the Project site. An adjacent property contains small petroleum above ground storage tanks. As noted in the PEI executive summary "A vacant former gasoline station and a former restaurant are located adjacent to the northwest across from Stafford Jolls Road intersection. The former gasoline station is identified in New York State Spill files, three underground tanks and contaminated soil was removed and disposed of offsite in 1995. The spill was closed in October 1995. Based on topography and location, it is unlikely that this spill had any impacts on the subject property".

PEI also conducted a Tier 1 vapor intrusion screen to determine if there is a potential for contaminated groundwater/soil vapors to occur below proposed structures. PEI concluded that due to topography, groundwater flow, closure status of adjacent spill sites, and distance to adjacent sites, the vapor concerns are very low or non-existent. Therefore, no further action steps are required or proposed.

4.16.2 Potential Impacts and Proposed Mitigation

Proposed Action
The Project site does not contain any hazardous materials either presently or in the past. In addition, the hazardous materials identified on adjacent properties during the Phase I ESA should not impact the Property due to the location and the fact that the Project site is the high point in the area.

During construction of the Project hazardous materials will be present on-site. Best management practices will be used in the event of a petroleum or other hazardous material leak. These practices include requiring all contractors to keep materials on hand to control and contain a petroleum spill. Any spills will be reported in accordance with NYSDEC regulations. Contractors will be responsible for ensuring responsible action on the part of construction personnel. Based upon the lack of hazardous materials on site, and the implementation of best management practices and spill control during project construction, the project will not have an adverse impact associated with hazardous or otherwise contaminated materials.

No Action Alternative
Contaminated materials will not impact the No Action Alternative.

4.17 Noise

4.17.1 Existing Conditions

The ambient noise level in the vicinity of the proposed site is typical for a rural area. The proposed site is adjacent to several residential houses and at the corner of New York State Route 39 and Jolls Road. NYS Route 39 is an active roadway that supports vehicle, truck, and agricultural traffic and resulting noises. Thus the Project Area has existing transportation noise.

4.17.2 Potential Impacts and Proposed Mitigation

Proposed Action

The Proposed Action would cause temporary noise increases due to operation of heavy equipment during construction. Some temporary annoyance may occur during the construction phase of the building at the closest residences, along Jolls. The Applicant will be responsible to conduct construction in accordance with any local noise ordinances, which could include work hour restrictions. While the Proposed Action will likely result in an increase in traffic, primarily automobiles and delivery trucks, significant increases in noise levels are not anticipated. The most notable noise increases during operation will be the ambulance sirens and helicopters landing or taking off.

No Action Alternative
The No Action alternative will not impact noise levels.

4.18 Traffic

4.18.1 Existing Condition

The Project site is located at the corner of Jolls Road and where NYS Route 39 turns north and the straightaway becomes Stafford Road to the east. NYS Route 39 is an active roadway that supports vehicle, truck, and agricultural traffic.

4.18.2 Potential Environmental Impacts

Proposed Action
During Project construction traffic volumes will increase due to construction employees, delivery of supplies, and construction equipment. Once the Project is operational an increase in traffic, primarily automobiles and delivery trucks, is expected for ingress and egress to the site.

No Action Alternative
The No Action Alternative will not impact traffic.

4.19 Infrastructure

4.19.1 Existing Conditions

All utilities are available to this site. A municipal potable water source is within 100 feet of the property. In addition, the sewer main is located either on-site or across the street. Natural gas, electrical, and cable TV/Road Runner are available at the street.

4.19.2 Potential Impacts and Proposed Mitigation

Proposed Action
Utilities at the site would be expanded to accommodate the hospital. Safety codes and standards would be adhered to for safe installation and future use. No adverse impacts are anticipated as a result of trenching for utility installation. The Applicant would develop plans to manage stormwater runoff on-site.

No Action Alternative
The No Action alternative will not impact infrastructure.

4.20 Public Health and Safety

4.20.1 Existing Conditions

The entire Town's public health and safety was impacted by the 2009 flooding disaster. The original hospital was determined to be substantially damaged due to the flooding event. An interim urgent care

facility has been opened in Gowanda; however the urgent care facility is intended to be temporary and does not provide the full services that the hospital originally had.

4.20.2 Potential Impacts and Proposed Mitigation

Proposed Action
The Proposed Action would fully re-establish the Applicant's capability to provide health services to the public, benefiting overall public health and safety. The proposed site is located one mile from Gowanda, New York, along a main corridor into the Village, so response times and community accessibility would be reasonable. The facility would be constructed in compliance with local, state, and Federal safety standards and codes.

No Action Alternative
The No Action alternative would have a negative impact on public health and safety, because there is no local hospital and the temporary urgent care clinic does not provide the full services of the original hospital.

4.21 Cumulative Impacts

Table 1 summarized the potential environmental impacts of the No Action and Proposed Action alternatives. Neither alternative would significantly adversely impact the environment due to the cumulative assessment of potential impacts. There are no known past or reasonably foreseeable future actions in the Project vicinity that would change the cumulative impact determination for the Proposed Action.

5.0 COORDINATION AND PERMITS

The Applicant is responsible to obtain all applicable permits for Project implementation prior to construction, and to adhere to permit conditions. The proposed site would require a Town Building Permit, approval by the Town Planning Board, and a NYSDEC General Permit for Stormwater Discharges from Construction Activity. It is expected that the Applicant and its construction contractors will conduct construction utilizing best management practices to limit noise, dust, and sedimentation and erosion during construction. In addition, the permanent hospital will be permitted under the authority of the New York State Department of Health.

Any substantive change to the approved scope of work will require re-evaluation by FEMA for compliance with NEPA and other laws and executive orders. If ground disturbing activities during construction reveal any potential archaeological resource discoveries, the Applicant shall immediately cease construction in that area and notify the SHPO, New York State Office of Emergency Management (NYSOEM), and FEMA.

It is recommended that the proposed Project site be landscaped with native plant material to avoid the spread of non-native or invasive plants, which is a recommendation consistent with EO 13112 Invasive Species and in support of sustainable site development (NEPA, 1999).

6.0 PUBLIC INVOLVEMENT

TLC Health Network public involvement at the local level, as required per the Town of Perrysburg Special Use Permit Process. As stated in Section 3, the Applicant has conducted alternatives analysis and project formulation at a local level to evaluate and screen a number of reasonable alternatives for site selection to arrive at the Proposed Action. In accordance with NEPA, this EA Report will be released for

a 30-day public review and comment period. Availability of the document for comment will be advertised via public notices in the Dunkirk Observer and Olean Times Herald newspapers. A hard copy of the EA will be made available for review at the Village of Gowanda, 27 E. Main St., Gowanda, NY 14070 and the Town of Perrysburg, 10460 Peck Hill Road Perrysburg, NY 14129. An electronic copy of the EA will be available for download from the FEMA website at www.fema.gov/plan/ehp/envdocuments/ea-region2.shtm.

This EA reflects the evaluation and assessment of the Federal government, the decision-maker for the federal action; however, FEMA will take into consideration any substantive comments received during the public review period to inform the final decision regarding grant approval and project implementation. The public is invited to submit written comments by mail to FEMA Region 2, Mitigation Division, Office of Environmental Planning & Historic Preservation, Floor 13, 26 Federal Plaza, NY, NY 10278 or via fax to 212.680.3602 (Attention: Office of Environmental Planning & Historic Preservation – Public Comments).

If no substantive comments are received from the public and/or agency reviewers, the EA will be adopted as final and a FONSI will be issued by FEMA. If substantive comments are received, FEMA will evaluate and address comments as part of Final Environmental Assessment documentation. The federal government will post the FONSI to the FEMA website.

Copies of the EA will be sent to:

Town of Perrysburg
10640 Peck Hill Road
Perrysburg, NY 14129

NYSOEM
1220 Washington Avenue, Suite 101, Building 22
Albany, NY 12226-2251

NYSDEC Region 9
270 Michigan Avenue
Buffalo, NY 14203

USDA-NRCS
441 S. Salina Street, Suite 354
Syracuse, NY 13202

The following agencies will receive notice of the Environmental Assessment's availability:

Mr. John Bonafide
New York State Office of Parks, Recreation, and Historic Preservation
Peebles Island, PO Box 189
Waterford, NY 12188-0189

Mr. David Stilwell
U.S. Fish and Wildlife Services, New York Field Office
3817 Luker Road
Cortland, NY 13045

7.0 CONCLUSION

During Project construction, short-term impacts to soils, surface water, transportation, air quality, and noise are anticipated. Short-term impacts will be mitigated utilizing best management practices, such as silt fences, proper equipment maintenance, and appropriate signage, as well as abiding by all Town of Perrysburg ordinances. Environmental impacts of construction will also be minimized per adherence to any required SWPPP and conditions of issued permits.

During Project operation, long-term impacts to soils will occur with the conversion of 4.6 acres of active agricultural field to built facilities or stormwater basins. However, the positive impacts of the relocated local hospital facility for the Village of Gowanda will outweigh the negative environmental impacts.

At this time, it is anticipated that the Proposed Action will not have significant impact upon the environment. FEMA anticipates that a FONSI will be issued upon closure of the public review period. The FONSI will be made available on the FEMA website.

8.0 LIST OF PREPARERS

edr Companies
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Syracuse, NY 13202

9.0 REFERENCES

Advisory Council on Historic Preservation (ACHP). 2009. *The National Historic Preservation Act of 1966, As Amended.* Available at: http://www.achp.gov/nhpa.html (Accessed February 15, 2012).

Cattaraugus County, New York. 2008. *Cattaraugus County Parcel Viewer 1.0*. Available at: http://maps2.cattco.org/parcel/ (Accessed February 15, 2012).

Empire Geo-Services, Inc. 2011. *Geotechnical Engineering Report for Proposed New Tri-County Memorial Hospital Facility*. Prepared for TLC Health Network. August 29, 2011.

Environmental Protection Agency (EPA). 1994. *Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.* Available at: http://www.epa.gov/fedreg/eo/eo12898.htm (Accessed February 15, 2012).

Federal Emergency Management Agency (FEMA). 2010. *Executive Order 11988: Floodplain Management*. Available at: http://www.fema.gov/plan/ehp/ehplaws/eo11988.shtm (Accessed February 10, 2012).

FEMA. 2012. *Flood Map Viewer*. Available at: https://hazards.fema.gov/wps/portal/mapviewer (Accessed February 15, 2012).

National Environmental Policy Act (NEPA). 1999. *Executive Order 13112: Invasive Species*. Available at: http://ceq.hss.doe.gov/nepa/regs/eos/eo13112.html.

New York State Department of Environmental Conservation (NYSDEC). 2012. *Air*. Available at: http://www.dec.ny.gov/chemical/281.html (Accessed February 15, 2012).

New York State Museum/New York State Geological Survey. 1999a. *Surficial Geology* [GIS data]. Release date: February 22, 1999. New York State Museum Technology Center. Available at: www.nysm.nysed.gov/gis/#state (Downloaded February 9, 2012).

New York State Museum/New York State Geological Survey. 1999b. *Statewide Bedrock Geology* [GIS data]. Release date: July 14, 1999. New York State Museum Technology Center. Available at: www.nysm.nysed.gov/gis/#state (Downloaded February 9, 2012).

Panamerican Environmental, Inc. 2010. *Phase I Environmental Site Assessment 42-43 Acre Parcel Southeast Corner of Stafford and Jolls Roads Perrysburg, Cattaraugus County, New York.* Prepared by Panamerican Environmental, Inc. October 2010 for TLC Health Network.

Peltier, R.J. and D. D'Orazio. 2011. *Phase I Cultural Resource Investigation for the Tri-County Hospital, Town of Perrysburg, Cattaraugus County, New York.* Prepared by Commonwealth Cultural Resources Group, Inc. January 10, 2011 for TLC Health Care Network.

Simmons Recovery Consulting. 2010. *TLC Tri-County Relocation Project: Site Selection Recommendation*. Prepared by Simmons Recovery Consulting June 28, 2010 for TLC Health Network.

United States Department of Agriculture National Agricultural Statistics Service (USDA NASS). 2008. *2007 Census Publications: State and County Profiles*. Available at: http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/County_Profiles/New_York/index.asp (Accessed February 15, 2012).

USDA Natural Resources Conservation Services (NRCS). 2007. *Soil Survey of Cattaraugus County, New York.* Available at: http://soildatamart.nrcs.usda.gov/Manuscripts/NY009/0/CattaraugusNY.pdf (Accessed February 9, 2012).

USDA NRCS. 2011. *Hydric Soils*. Available at: http://soils.usda.gov/use/hydric/ (Accessed February 15, 2012).

United States Fish and Wildlife Service (USFWS). 2012. *Federally Listed Endangered and Threatened Species and Candidate Species for Cattaraugus County, New York.* Available at: http://www.fws.gov/northeast/nyfo/es/CountyLists/CattaraugusDec2006.htm (Accessed February 15, 2012).

United States Geological Survey (USGS). 2009. *New York Seismic Hazard Map.* Available at: http://earthquake.usgs.gov/earthquakes/states/new_york/hazards.php

United States Census Bureau. 2011. *2010 Population Finder.* Available at: http://www.census.gov/popfinder (Accessed February 15, 2012).