A Description of GIS Database Development for County Tax Parcel Mapping and Property Classification Codes

A.1 County Tax Parcel/Property Classification Information

Tax parcel information in electronic format was received from each county in the study area (Rensselaer, Washington, Saratoga, and Albany). The electronic format consisted of ArcGIS files (shapefiles) or computer-assisted drafting and design (CADD) files converted to ArcGIS format. The shapefiles were projected to UTM Zone 18, NAD 83 (units in meters) to maintain consistency with all other datasets. The parcel information was from 2001 or 2002, depending upon which year it was last updated. Rensselaer County and Saratoga County data were last updated in 2002; Washington County and Albany County data were last updated in 2001.

The tax parcel data provided a number of different characteristics (attributes) of various parcels (i.e., area, perimeter, owner). Because the counties maintained different types of data in their parcel databases and used different naming conventions for their database fields, it was determined that key attribute data would be included in a merged parcel dataset. The individual municipal shapefiles for each county were merged together, and attribute table field names were changed (see Table A-1).

Table A-1 The *Parcel_ene* Database Field Names and Associated Field Names for Each County

Parcel_ene Field Name	Rensselaer County Field Name	Washington County Field Name	Saratoga County Field Name	Albany County Field Name
Area	Area	Area	-	-
Perimeter	Perimeter	Perimeter	-	-
Swiscode	-	Swiscode	(calculated)	Swis
Sbl	(concatenation)	Sbl	(calculated)	Pin_Sbl
Swis_sbl	-	Swis_sbl	Parcel_key	(concatenation)
Owner_1	Owner_1	(concatenation)	Own_name_1	Owner1
Owner_2	Owner_2	Ownersecon	Own_name_2	Owner2
Street	Street	(concatenation)	Street	Address1
Citystate	Citystate	(concatenation)	City_state	City_state
Zip	(concatenation)	Ownerzipco	(concatenation)	(concatenation)
Printkey	Taxmapid	Parprintke	Print_key	Print_key
Parcelno	Parcelnu	Parlocstno	Addrss_num	Loc_num
Parcelloc	Parcelloc	Parlocstna	Addrss_nam	Loc_name
Propclass	Crpropclas	Asspropcla	New_prop	Prop_class
Landav	Cryrland	Asslandav	Cu_land_av	-
Totav	Cryrtotal	Astute	Cu_total_a	-
Desc1	Descline1	Assdesc1	Narrat_1	-
Desc2	Descline2	Assdesc2	Narrat_2	-
Desc3	Descline3	Assdesc3	Narrat_3	-
Gis_acres	(calculated)	(calculated)	(calculated)	(calculated)

* (concatenation) indicates that several fields are being combined to attribute the data field

Parcels within the counties are assigned specific property classification codes. These property classification codes are based on the New York State Office of Real Property Services (NYSORPS) system, which developed the uniform classification system for use in assessment administration in New York State. The property classification codes indicate the land use classification for a given parcel. There are approximately 296 property code classifications provided by NYSORPS.

In order to satisfy the intention of EPA to site a sediment processing/transfer facility within areas that are currently coded as industrial or commercial, specific property classification codes were selected as being suitable for the sediment processing/transfer facility (see Table A-2). These codes were selected in order to focus the siting efforts in industrial, commercial, and vacant land areas and to therefore minimize the potential for impacts to residential and community-oriented land uses.

Table A-2 NYSORPS Classification Codes Selected for Use in the Preliminary Candidate Site Selection Process

Description
Vacant Land (NYSORPS Class 300)
Rural (Subclass 320)
Other Rural Vacant Lands (Subclass 323)
Vacant Land Located in Commercial Areas (Subclass 330)
Commercial Vacant Land with Minor Improvements (Subclass 331)
Vacant Land Located in Industrial Areas (Subclass 340)
Industrial Vacant Land with Minor Improvements (Subclass 341)
Urban Renewal or Slum Clearance (Subclass 350)
Public Utility Vacant Land (Subclass 380)
Commercial (NYSORPS Class 400)
Storage, Warehouse, and Distribution Facilities (Subclass 440)
Gasoline, Fuel, Oil, Liquid Petroleum Storage and/or Distribution (Subclass 441)
Bottled Gas, Natural Gas Facilities (Subclass 442)
Grain and Feed Elevators, Mixers, Sales Outlets (Subclass 443)
Lumber Yards, Sawmills (Subclass 444)
Coal Yards, Bins (Subclass 445)
Cold Storage Facilities (Subclass 446)
Trucking Terminals (Subclass 447)
Piers, Wharves, Docks and Related Facilities (Subclass 448)
Other Storage, Warehouse, and Distribution Facilities (Subclass 449)
Junkyards (Subclass 475)
Industrial (NYSORPS 700)
Manufacturing and Processing (Subclass 710)
Mining and Quarrying (Subclass 720)
Sand and Gravel (Subclass 721)

Table A-2 NYSORPS Classification Codes Selected for Use in the Preliminary Candidate Site Selection Process

Description
Limestone (Subclass 722)
Trap Rock (Subclass 723)
Salt (Subclass 724)
Iron and Titanium (Subclass 725)
Talc (Subclass 726)
Lead and Zinc (Subclass 727)
Gypsum (Subclass 728)
Other (Subclass 729)
Wells (Subclass 730)
Oil - Natural Flow (for production) (Subclass 731)
Oil - Forced Flow (for production) (Subclass 732)
Gas (for production) (Subclass 733)
Junk (Subclass 734)
Water used for Oil Production (Subclass 735)
Gas or Oil Storage Wells (Subclass 736)
Industrial Product Pipelines (Subclass 740)
Gas (Subclass 741)
Brine (Subclass 743)
Petroleum Products (Subclass 744)
Other Industrial Product Pipelines (Subclass 749)
Public Services (NYSORPS 800)
Electric Power Generation – Hydro (Old Property Class) (Subclass 811)
Electric Power Generation – Coal Burning Plant (Old Property Class) (Subclass 812)
Electric Power Generation – Oil Burning Plant (Old Property Class) (Subclass 813)
Electric Power Generation – Nuclear Plant (Old Property Class) (Subclass 814)
Electric Power Generation – Gas Burning Plant (Old Property Class) (Subclass 815)
Electric Transmission and Distribution (Old Property Class) (Subclass 817)
Gas Transmission and Distribution (Old Property Class) (Subclass 818)
Flood Control (Subclass 821)
Water Treatment Facilities (Subclass 823)
Waste Disposal (Subclass 850)
Solid Wastes (Subclass 851)
Landfills and Dumps (Subclass 852)
Sewage Treatment and Water Pollution Control (Subclass 853)
Special Franchise Property (Subclass 860)
Electric and Gas (Subclass 861)
Water (Subclass 862)
Pipelines (Subclass 868)
Electric and Gas (Subclass 870)
Electric and Gas Facilities (Subclass 871)

Table A-2 NYSORPS Classification Codes Selected for Use in the Preliminary Candidate Site Selection Process

Description
Electric Substation (Subclass 872)
Electric Power Generation Facility - Hydro (Subclass 874)
Electric Power Generation Facility - Fossil Fuel (Subclass 875)
Electric Power Generation Facility - Nuclear (Subclass 876)
Electric Power Generation Facility - Other Fuel (Subclass 877)
Electric and Gas Transmission Facilities (Subclass 880)
Electric Transmission Improvement (Subclass 882)
Gas Transmission Improvement (Subclass 883)
Electric Distribution - Outside Plant Property (Subclass 884)
Gas Distribution - Outside Plant Property (Subclass 885)
Wild, Forested, Conservation Lands, and Public Parks (NYSORPS Class 900)
Hudson River and Black River Regulating District Land (Subclass 950)

As presented in Table A-2, the primary property codes selected for use in the analysis included vacant; industrial; commercial; public services; and wild, forested, conservation lands, and public parks. A total of 77 sub-property codes were selected for use in identifying potential locations for PCSs.

A.1.1 Rensselaer County

Rensselaer County provided ArcView shapefiles for the towns of Schodack, East Greenbush, North Greenbush, and Schaghticoke, the cities of Rensselaer and Troy, and the village of Castleton-on-Hudson. The projection of these shapefiles was New York State Plane Coordinates – Eastern Zone, NAD 83 (units in feet). It should be noted that a small portion of the Town of Brunswick (approximately 350 feet in width) falls within 1 mile of the Hudson River but data were not received from Rensselaer County. The shapefiles that were received were already joined to NYSORPS data. The shapefiles were projected to UTM Zone 18, NAD 83 (units in meters) to maintain consistency with all other datasets. The individual municipal shapefiles were then merged together, and attribute table field names were changed, as indicated in Table A-1.

A.1.2 Washington County

Washington County provided ArcView shapefiles for all municipalities within the county. The projection of these shapefiles was New York State Plane Coordinates – Eastern Zone, NAD 27 (units in feet). The shapefiles were not joined to NYSORPS data. The real property data for all the municipalities were provided in a Microsoft Access database. The Access database contained a separate table for each municipality. Although shapefiles for all municipalities in Washington County were provided, for the purposes of developing the database for facility siting, the towns of Easton, Greenwich, Fort Edward, Argyle, and Kingsbury (i.e., municipalities within 2 miles of the Hudson River in the project area) were included in the merged parcel dataset. The shapefiles provided by Washington

County were joined to their respective real property data tables using the common data field *Swis_sbl*. The joined files were then exported to create a single shapefile that contained all the attribute data. The shapefiles were projected to UTM Zone 18, NAD 83 (units in meters) to maintain consistency with all other datasets. The individual municipal shapefiles were then merged together and attribute table field names were changed as indicated in Table A-1.

A.1.3 Saratoga County

Saratoga County ArcView provided shapefiles for all municipalities within the county. The projection of these shapefiles was New York State Plane Coordinates – Eastern Zone, NAD 27 (units in feet). The shapefiles were not joined to NYSORPS data. The real property data for all the municipalities was provided in a separate .dbf file with each shapefile. Although shapefiles for all municipalities in Saratoga County were provided, for the purposes of developing the database for facility siting, the towns of Halfmoon, Moreau, Northumberland, Saratoga, Stillwater, Waterford, and the city of Mechanicville (i.e., municipalities within 2 miles of the Hudson River in the project area) were included in the merged parcel dataset. The shapefiles provided by Saratoga County were joined to their respective real property data tables using the common data field *Parcel_key*. The joined files were then exported to create a single shapefile that contained all the attribute data. The shapefiles were projected to UTM Zone 18, NAD 83 (units in meters) to maintain consistency with all other datasets. The individual municipal shapefiles were then merged together and attribute table field names were changed as indicated in Table A-1.

A.1.4 Albany County

Albany County ArcView provided shapefiles for all municipalities within the county. The projection of these shapefiles was New York State Plane Coordinates – Eastern Zone, NAD 27 (units in feet). The shapefiles were not joined to NYSORPS data, and that data was not included in the initial delivery. A shapefile containing point features with real property attributes was received on February 4, 2003. In order to migrate attribute data from the point file to the parcel file, a spatial join was performed. Parcel polygons that contained only a single point feature were considered a match and the attribute data was copied to the parcel. A second join was conducted on the remaining unmatched parcels using the *Pin_sbl* field. Although shapefiles for all municipalities in Albany County were provided for the purposes of developing the database for facility siting, the towns of Colonie, Green Island, Bethlehem, the village of Menands, and the cities of Cohoes, Watervliet, and Albany (i.e., municipalities within 2 miles of the Hudson River in the project area) were included in the merged parcel dataset. The individual municipal shapefiles were then merged together and attribute table field names were changed as indicated in Table A-1.