Appendix A

Characteristics of Covertypes in the Onondaga Lake Area

APPENDIX A. CHARACTERISTICS OF COVERTYPES IN THE ONONDAGA LAKE AREA

This appendix describes the various covertypes in the Onondaga Lake area. In parentheses following each habitat type is a general classification of where it is found: in terrestrial (T), wetland (W), aquatic (A), or urban (U) systems. Table A-1 of this appendix lists characteristic flora of the ecological communities, and Tables 3-9, 3-11, and 3-14 list characteristic fauna.

A.1 Open Uplands Systems

Successional Habitat (T) – Comprised of successional old field and successional shrubland.

Successional Old Field

A meadow occurring where land cleared for agriculture, industry, or development has been abandoned and is undergoing natural succession. Typically, this habitat is dominated by forbs and grasses, with shrubs forming less than 50 percent of the cover.

Successional Shrubland

A shrub community occurring where land has at one time been logged or cleared for agriculture, industry, or development. Shrubs form at least 50 percent of the cover.

A.2 Forested Uplands Systems

Successional Northern Hardwood Forest (T) – A hardwood or mixed forest dominated by wind-dispersed species requiring light. This community generally occurs on sites that have at one time been cleared or otherwise disturbed. Unlike the dominant trees in a stand of this type, most of the seedlings are likely to be shade-tolerant species.

A.3 Open Palustrine Peatlands System

Inland Salt Marsh (W) – A community occurring on saline mudflats associated with inland salt springs where the substrate is permanently saturated and seasonally flooded. Typically, this habitat has less than 50 percent vegetative cover, and species diversity is low.

A.4 Open Palustrine Mineral-Soil Systems

Emergent Marsh (W) – Comprised of shallow emergent marsh, deep emergent marsh, and reedgrass/purple loosestrife emergent marsh.

Shallow Emergent Marsh

A marsh meadow community with less than 50 percent cover of sedges (*Carex* spp.). This habitat occurs on mineral or muck soils that are permanently saturated and seasonally flooded. Water depths may range from 6 in to 3.3 ft during flood stages, but the substrate is usually exposed by late summer.

Deep Emergent Marsh

A marsh community occurring on mineral soils or fine-grained organic soils where waters are not subject to violent wave action. Water depths fluctuate seasonally, ranging from approximately 6 in to 6.6 ft and rarely leaving the substrate dry. Standing water is common in the fall.

Reedgrass/Purple Loosestrife Marsh

A marsh dominated by reedgrass (*Phragmites australis*) or purple loosestrife (*Lythrum salicaria*). Such marshes occur where the wetland has been disturbed by draining, filling, contamination, or road salts.

A.5 Forested Palustrine Mineral-Soil Systems

Floodplain Forest (W) – A hardwood forest occurring on mineral soils of low-lying areas such as river floodplains and deltas. The lowest areas are flooded annually, and higher zones may be flooded on an irregular basis. Species composition of floodplain forests may vary and can be quite diverse.

A.6 Natural Lacustrine System

Inland Salt Pond (A) – A small, spring-fed pond community containing water that is salty from flowing through salt beds in the aquifer. Inland salt ponds have mucky shores and bottoms, are permanently flooded, and have seasonal fluctuations in water level.

A.7 Aquatic System

Open Water/Lagoon (A) – Bodies of water other than creeks and rivers that cannot be described by any of the designations listed above. These areas may be ponds, lakes, drainage ditches, segments of old canals, or patches of standing water. Several water bodies of this type occur among the wetlands of the northwest lakeshore.

Streams (A) – Streams and rivers, including the surrounding banks.

A.8 Cultural Terrestrial Systems

Agriculture (T) – Agricultural fields planted in rows (e.g., corn, potatoes, soybeans, and vegetable gardens).

Mowed Lawn (U) – Comprised of mowed lawn with and without trees, as well as mowed roadside.

Mowed Lawn with Trees

Residential, recreational, or commercial land maintained by mowing. This covertype is dominated by clipped grasses and forbs and is shaded by at least 30 percent canopy cover. Parkland maintained by mowing is included in this description, as are residential homes (both houses and lawns).

Mowed Lawn

Residential, recreational, or commercial land or unpaved airport runways maintained by mowing. This covertype is dominated by clipped grasses and less than 30 percent canopy cover. Parkland maintained by mowing is included in this description, as are residential homes (both houses and lawns).

Mowed Roadside/Pathway

Mowed vegetation along roadsides, through meadows or woodlands, or along utility right-of-way corridors. Vegetation in this habitat is dominated by grasses, sedges, and rushes. Forbs, vines, or low shrubs tolerant to occasional mowing may also be dominant.

Unpaved Road/Vacant Lot (U) – A road or path composed of gravel, bare soil, or bedrock outcrop with little vegetation. Such paths are maintained by trampling or scraping. Unpaved parking areas and vacant lots are also included in this community. These are open sites created in a developed, urban area either for construction or following the demolition of a building. Cover may include sparse vegetation, bare soil, rubble, or other debris.

Paved Road/Structures (U) – Comprised of all paved roads, urban structures, and artificial shoreline.

Paved Road

A road or path paved with asphalt, concrete, brick, or stone. Vegetation may occur in cracks and crevices in the paved surface. Included in this covertype are paved parking areas (e.g., shopping-center parking lots), major roadways, and industrial sites.

Urban Structure

Any structures (e.g., commercial or apartment buildings) in an urban or densely populated suburban area. These surfaces may be bare inorganic material, or may support such vegetation as lichens, mosses, or terrestrial algae, with occasional vascular plants growing in cracks. Railroad transfer stations having several tracks are included in this covertype.

Riprap/Artificial Lakeshore

Coarse stones, cobbles, or concrete slabs covering a lakeshore to provide erosion control. Vegetation tends to be sparse.

Junkyard

A cleared site used for disposal or storage of inorganic refuse such as automobiles and large appliances.

Semet Residue Ponds (U) – Waste basins derived from the distillation process of benzene production. The residue ponds tend to be open, although older ponds may have sparse vegetation. A temporary fly-ash and cement cover was placed on top of these residue ponds; however, this cover has undergone some cracking.

Wastebed Undeveloped (U) – Beds of waste derived from the production of soda ash. These wastebeds have been left exposed and some vegetation has grown in the waste. The vegetation is comprised of early succession species, but it is unclear if any additional succession will occur. The plant community is made up of a few, hardy species such as cottonwood (*Populus deltoides*), buckthorn (*Rhamnus cathartica*), and reedgrass . Vegetation has not been able to become established in areas where the slope is steep, such as along the southwest shoreline of the lake.

References

Reschke, C. 1990. Ecological communities of New York State. New York State Department of Environmental Conservation, New York Natural Heritage Program, Albany, NY.

Richards, N. 1982. Section 4.06: Biological community. In: Draft Environmental Impact Statement to Accompany Application for a Permit to Continue Operation of an Existing Solid Waste Management Facility for Industrial Non-hazardous Solid Wastes. Vol. 4. Calacerinos and Spina, Consulting Engineers. Liverpool, NY.

Van Druff, L.W., and M.A. Pike. 1992. Wildlife and habitats of the Onondaga Lake area: A review. A report prepared for the Wildlife Habitat Working Group of the Onondaga Lake Management Conference. State University of New York, College of Environmental Science and Forestry, Syracuse, NY.

Table A-1. Characteristic Flora of Ecological Communities Found in the Onondaga Lake Area

Community	Common Name	Scientific Name
Successional Old Field	Goldenrods	*Solidago altissima*
		Solidago nemoralis
		Solidago rugosa
		Solidago juncea
		Solidago canadensis
		Euthamia graminifolia
	Bluegrasses	*Poa pratensis*
		Poa compressa
	Timothy	*Phleum pratense*
	Quackgrass	*Agropyron repens*
	Smooth brome	*Bromus inermis*
	Sweet vernal grass	*Anthoxanthum odoratum*
	Orchard grass	*Dactylis glomerata*
	Common chickweed	*Cerastium arvense*
	Common evening primrose	*Oenothera biennis*
	Old-field cinquefoil	*Potentialla simplex*
	Calico aster	*Aster lateriflorus*
	New England aster	*Aster novae-angliae*
	Wild strawberry	*Fragaria virginiana*
	Queen-Anne's lace	*Daucus corota*
	Ragweed	*Ambrosia artemisiifolia*
	Hawkweeds	*Hieracium* spp.
	Dandelion	*Taraxacum officinale*
	Ox-tongue	*Picris hieracioides*
	Gray dogwood	*Cornus foemina* ssp. *racemosa*
	Silky dogwood	*Cornus amomum*
	Arrowwood	*Viburnum recognitum*
	Raspberries	*Rubus* spp.
	Sumacs	*Rhus typhina*
		Rhus glabra
	Eastern red cedar	*Juniperus virginiana*
Successional Shrubland	Gray dogwood	*Cornus foemina* ssp. *racemosa*
	Eastern red cedar	*Juniperus virginiana*
	Raspberries	*Rubus* spp.
	Hawthorne	*Crataegus* spp.
	Serviceberries	*Amelanchier* spp.
	Chokecherry	*Prunus virginiana*
	Wild plum	*Prunus americana*
	Sumacs	*Rhus glabra*
		Rhus typhina
	Nanny-berry	*Viburnum lentago*
	Arrowwood	*Viburnum recognitum*
	Multiflora rose	*Rosa multiflora*
Successional Northern Hardwood Forest	Quaking aspen	*Populus tremuloides*
	Big-tooth aspen	*Populus grandidentata*
	Balsam poplar	*Populus balsamifera*
	Pin cherry	*Prunus pensylvanica*

Table A-1. (cont.)

Community	Common Name	Scientific Name
	Black cherry	*Prunus serotina*
	Red maple	*Acer rubrum*
	White pine	*Pinus strobus*
	Paper birch	*Betula papyrifera*
	Gray birch	*Betula populifolia*
	White ash	*Fraxinus americana*
	Green ash	*Fraxinus pennsylvanica*
	American elm	*Ulmus americana*
Inland Salt Marsh	Salt marsh bulrush	*Scirpus maritimus*
	Seaside atriplex	*Atriplex patula*
	Salt marsh sandspurry	*Spergularia marina*
	Creeping bent grass	*Agrostis stolonifera* var. *palustris*
	Salt-meadow grass	*Diplachne maritima*
	Dwarf spikerush	*Elecharis parvula*
	Narrow-leaf cattail	*Typha angustifolia*
	Goosefoots[a]	*Chenopodium rubrum*
		Chenopodium glaucum
	Sea blites[a]	*Suaeda americana*
		Suaeda maritima
	Common saltwort[a]	*Salsoda kali*
Deep Emergent Marsh	Yellow pond-lily	*Nuphar luteum*
	White water-lily	*Nymphaea odorata*
	Cattails	*Typha latifolia*
		Typha angustifolia
	Soft-stem bulrush	*Scirpus tabernaemontanii*
	Hard-stem bulrush	*Scirpus acutus*
	Bur-reed	*Sparganium eurycarpum*
	Arrowleaf	*Peltandra virginica*
	Wild rice	*Zizania aquatica*
	Purple loosestrife	*Lythrum salicaria*
	Reedgrass	*Phragmites australis*
Shallow Emergent Marsh	Bluejoint grass	*Calamagrostis canadensis*
	Reed canary grass	*Phalaris arundinacea*
	Rice cutgrass	*Leersia oryzoides*
	Mannagrass	*Glyceria canadensis*
	Sedges	*Carex stricta*
		Carex lacustris
	Three-way sedge	*Dulichium arundinaceum*
	Bulrushes	*Scirpus cyperinus*
		Sccirpus atrovirens
	Sweetflag	*Acorus americanus*
	Wild iris	*Iris versicolor*
	Water smartweed	*Polygonum amphibium*
	Marsh bellflower	*Campanula aparinoides*
	Tufted loosestrife	*Lythrum thrysiflora*

Table A-1. (cont.)

Community	Common Name	Scientific Name
Reedgrass/Purple-Loosestrife Marsh	Reedgrass	*Phragmites australis*
	Purple loosestrife	*Lythrum salicaria*
Floodplain Forest	Silver maple	*Acer saccharinum*
	Red maple	*Acer rubrum*
	Sycamore	*Platanus occidentalis*
	Cottonwood	*Populus deltoides*
	Butternut	*Juglans cinerea*
	Black willow	*Salix nigra*
	Bitternut hickory	*Carya cordiformis*
	Swamp white oak	*Quercus bicolor*
	White ash	*Fraxinus americana*
	Black ash	*Fraxinus nigra*
	Basswood	*Tilia americana*
	White willow	*Salix alba*
	Virginia creeper	*Parthenocissus quinquefolia*
	Virgin's bower	*Clematis verginiana*
	Poison ivy	*Toxicodendron radicans*
	Sensitive fern	*Onoclea sensibilis*
	White snakeroot	*Eupatorim rugosum*
	Canada goldenrod	*Solidaga canadensis*
	Jewelweed	*Impatiens capensis*
	Jumpseed	*Polygonum virginianum*
	Spicebush	*Lindera benzoin*
	Green ash	*Fraxinus pennsylvanica*
	Black ash	*Fraxinus nigra*
	American elm	*Ulmus americana*
	Spicebush	*Lindera benzoin*
	Gooseberries	*Ribes* spp.
	Skunk cabbage	*Symplocarpus foetidus*
	Wood-nettle	*Laportea canadensis*
Inland Salt Pond	Ditch grass	*Ruppia maritima*
Unpaved Road/Path/Parking Area	Path rush	*Juncus tenuis*

Sources: Reschke (1990).

[a] Van Druff and Pike (1992).