

Open Space and Natural Resources Network and Approach – June 8, 2015

The Open Space and Natural Resources Network Maps identify valuable resources within the 53/120 Land Use Planning Corridor, and are intended to assist corridor stakeholders in identification, planning, and preservation of resources and open space opportunities. To further define and plan for these resources, they have been placed into two categories: Core Landscapes and Opportunity Landscapes.

CORE LANDSCAPES

Core Landscapes are considered high value resources based on analysis of numerous datasets as well as local expertise regarding the quality and location of important resources. These landscapes should be protected from direct and/or indirect impacts to the greatest extent possible, or highly mitigated if impacts are unavoidable.

1. Protected Landscapes

- Open space and natural resources that are protected through means of regulation and through public or private ownership with protective designation such as conservation easements, development or deed restrictions, or dedicated open space. This includes:
 - Illinois Natural Area Inventory sites
 - Illinois Nature Preserve Commission sites
 - Lake County Forest Preserve District properties
 - Municipal parks
 - Wetland mitigation banks
 - Waste Management wetland mitigation area
 - Threatened and Endangered Species habitat boundaries (IDNR-defined). (Some of these habitat areas are already protected. In locations where these species are found to exist on unprotected land, the species' status as Threatened or Endangered itself results in habitat protection requirements; however, they are not depicted as protected on the map.)
 - Floodways
 - SMC Flood Buyout Properties
- Size: 14,299 acres of protected open space/natural resources.
- Preservation and Enforcement Strategy
 - These landscapes and open spaces are currently protected through various regulations and/or ownership status.
- Mitigation Strategy
 - Since these landscapes are protected, they should not be disturbed and thus should not need mitigation requirements.

2. Pre-settlement Forests

- Existing forest, regardless of size, within the extents of the pre-settlement forests identified by McBride, J. & Bowles, M., 2007, should be preserved due to the potential for having pre-settlement vegetation and/or oak woodland ecosystem structure. Areas were confirmed and adjusted based on review of 2012 aerial photography.
- The map will be adjusted based on information provided by LCFPD that may identify additional woodlands that existed according to 1939 aerial photographs.
- Size: 8,097 acres of pre-settlement forests.
- Preservation and Enforcement Strategy
 - Municipal Tree Preservation Ordinance
 - Grayslake's Tree Preservation Ordinance is a strong model from the region.
 - Tree surveys that identify Heritage Trees by size, species, and health.
 - Trees that are non-native shall be removed and not counted against the Tree Preservation Ordinance.

- Strict adherence to tree protection guidelines.
- Forests could be preserved through acquisition, easements, deed restrictions or other binding protective action either by a conservation organization or through funds from the Environmental Restoration and Stewardship Fund (ERSF)
- Mitigation Strategy
 - To be discussed with the OSNR Working Group.

3. Forests Not Within Pre-settlement Boundaries

- Existing forests that are outside of pre-settlement forest extents should be reviewed for inclusion in the Core Tier, as they may exhibit pre-settlement forest qualities and characteristics. To better understand their existing conditions, it is recommended that qualitative information, such as a tree/vegetation survey or Floristic Quality Index assessment, be completed prior to any type of development or disturbance. Forest areas were confirmed and adjusted based on review of 2012 aerial photography.
- Size: Based on comments from the OSNR Working Group, Remaining Forests were reviewed by size class to determine how many acres are not captured in the Pre-settlement Forest category:
 - 25 acres or larger – 821 acres
 - 20 to 25 acre tracts – 981 acres
 - 10 to 20 acre tracts – 1,347 acres
 - 1 to 10 acre tracts – 1,887 acres
 - All sizes – 5,036 acres
- Preservation and Enforcement Strategy
 - Municipal Tree Preservation Ordinance
 - Grayslake’s Tree Preservation Ordinance is a strong model from the region.
 - Tree surveys that identify Heritage Trees by size, species, and health.
 - Trees that are non-native shall be removed and not counted against the Tree Preservation Ordinance.
 - Strict adherence to tree protection guidelines.
 - Forests could be preserved through acquisition, easements, deed restrictions or other binding protective action either by a conservation organization or through funds from the Environmental Restoration and Stewardship Fund (ERSF)
- Mitigation Strategy
 - Replacement of trees could be at a ratio based on the area of trees removed on the property. For example:

▪ 0% to 20% area removal	1:1 replacement ratio
▪ 20% to 30% area removal	1.5:1 replacement ratio
▪ Clearing violation (over 30% removal)	3:1 replacement ratio

4. ADID Wetlands

- In the late nineteen-eighties the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (COE) determined certain wetlands in Lake County to possess special biological and hydrological functions - Advanced Identification (ADID) wetlands. ADID wetlands are now a subset of the Lake County Stormwater Management Commission Watershed Development Ordinance (WDO) defined as “High Quality Aquatic Resources (HQARs.) An HQAR/ADID Wetland is either a Waters of the United States or an Isolated Waters of Lake County that are critical due to their uniqueness, scarcity, function, and/or value.
- ADID Wetlands are defined as Aquatic sites that have been determined to provide Biological Values by the U.S. Army Corps of Engineers, Chicago District and U.S. Environmental Protection Agency (U.S. Environmental Protection Agency. 1992. Advanced Identification (ADID) Study, Lake County, Illinois. Chicago, Illinois) or latest ADID study.
- Due to their function and value, all ADID wetlands, regardless of their size, have been included as a Core Landscape.
- Size: 3,318 acres of ADID wetlands.

- Preservation and Enforcement Strategy
 - To determine jurisdiction of the wetland, a written jurisdictional determination from the U.S. Army Corps of Engineers (USACE) or a Corps approved agency will be provided to determine if the subject wetland is a Waters of the United States or Isolated Waters of Lake County.
 - Requirements for impact to ADID Wetlands - Waters of the United States.
 - A U.S. Army Corps permit for the proposed development or a letter from the Corps stating that the proposed development does not require Corps authorization.
 - Requirements for impacts to ADID Wetlands - Isolated Waters of Lake County.
 - A cover letter signed by a Certified Wetland Specialist that provides a clear project purpose and need statement, a description of the proposed activity, and area (in acres) of wetland impact.
 - A completed Watershed Development Permit Application form signed by a Certified Wetland Specialist.
 - Mitigation Strategy
 - The functions and values of many high-quality areas may be considered un-mitigatable under Section 404 (b) (1) Guidelines; therefore, impacts to these areas will not typically be permitted. Examples of these areas include but are not limited to: endangered and threatened species habitat, lands with high-quality or rare plant communities, streams with natural channels and stream segments of high biological value, areas providing habitat for uncommon animals or breeding habitat, or a site identified as unsuitable for fill in an Advanced Identification (ADID) area.
 - All mitigation must take place within Lake County to achieve no net wetland loss in the county.
 - For ADID wetland mitigation, a minimum of 3:1 for wetland impacts that are high-quality aquatic resources.
 - A minimum of 6:1 is required for wetland impacts that are high quality forested wetlands.

5. ADID Wetland Buffers

- High-quality aquatic resources (ADID wetlands) are required to have a minimum 100' buffer per LCSMC WDO. This dimension was determined from a variety of natural resource protection published research that was collected and reviewed by SMC.
- Size: 1,888 acres of ADID wetland buffers.
- Preservation and Enforcement Strategy
 - SMC enforces WDO-required buffers through fines and legal actions.
 - Preservation of buffer areas shall be provided by deed or plat restrictions.
 - In areas where state or federal threatened and endangered species are present or for an Illinois Natural Area Inventory Site, buffer widths may be modified upon approval of the Enforcement Officer. Any modification requires approval by the Enforcement Officer following consultation with the Illinois Department of Natural Resources or United States Fish and Wildlife Service.
 - Access through buffer areas may be provided, when necessary, for maintenance purposes.
- Mitigation Strategy
 - Buffer areas hydrologically disturbed by allowing construction or as part of a re-vegetation plan shall be re-vegetated using the Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois, NRCS, et al., (as amended) as a minimum standard.
 - Mitigation shall be under the jurisdiction of the Community Enforcement Officer.
 - Per the WDO, certain passive recreational uses, utility maintenance facilities, boat docks, and piers may be allowed in the buffer.

6. Non-ADID Wetlands

- Non-ADID wetlands, all of which are either Waters of the United States or Isolated Waters of Lake County are considered Core Landscapes. If impacted, they will fall under Federal, State, or SMC jurisdiction for mitigation.
- Size: 10,011 acres of non-ADID wetlands.

- Preservation and Enforcement Strategy
 - To determine jurisdiction of the wetland, a written jurisdictional determination from the USACE or a Corp-approved agency will be provided to determine if the subject wetland is a Waters of the United States or Isolated Waters of Lake County.
 - Requirements for Wetland impacts to Waters of the United States.
 - A USACE permit for the proposed development or a letter from the Corps stating that the proposed development does not require Corps authorization.
 - Requirements for Wetland impacts to Isolated Waters of Lake County.
 - A cover letter signed by a Certified Wetland Specialist that provides a clear project purpose and need statement, a description of the proposed activity, and area (in acres) of wetland impact.
 - A completed Watershed Development Permit Application form signed by a Certified Wetland Specialist.
- Mitigation Strategy
 - All mitigation must take place within Lake County to achieve no net wetland loss in the county.
 - Mitigation may be achieved in several ways: (1) creating new wetlands or enhancing degraded wetlands on the project site or on an off-site property within the same watershed as the wetland impacts, (2) purchasing credits from a mitigation bank; or (3) using the SMC Wetland Restoration Fund (WRF)¹ which provides for fee-in-lieu of mitigation. The WRF can only be used for IWLC impacts when no mitigation bank credits are available in the watershed.
 - The typical non-HQAR (non-ADID) mitigation ratio is 1.5:1 or a minimum 1:1 mitigation ratio for fully certified wetland mitigation bank credits.
 - For wetland impacts to open waters that are not high-quality aquatic resources, a minimum of 1:1 mitigation ratio shall be required.
 - Wetland impacts occurring prior to issuance of a WDO permit shall presume the wetland disturbed was a high-quality aquatic resource requiring mitigation at a minimum rate of 3:1.
 - SMC enforces impacts to non-ADID wetlands through fines and legal actions.

7. Non-ADID Wetland Buffers

- Non-ADID wetlands are required to have 50' buffers per LCSMC WDO, based on published research. This dimension was determined from a variety of natural resource protection published research that was collected and reviewed by SMC.
- Size: 6,506 acres of non-ADID wetland buffers.
- Preservation and Enforcement Strategy
 - SMC enforces WDO-required buffers through fines and legal actions.
 - Preservation of buffer areas shall be provided by deed or plat restrictions.
 - In areas where state or federal threatened and endangered species are present or for an Illinois Natural Area Inventory Site, buffer widths may be modified upon approval of the Enforcement Officer. Any modification requires approval by the Enforcement Officer following consultation with the Illinois Department of Natural Resources or United States Fish and Wildlife Service.
 - Access through buffer areas may be provided, when necessary, for maintenance purposes.
 - Per the WDO, certain passive recreational uses, utility maintenance facilities, boat docks, and piers may be allowed in the buffer.
- Mitigation Strategy
 - Buffer areas hydrologically disturbed by allowing construction or as part of a re-vegetation plan shall be re-vegetated using the Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois, NRCS, et al., (as amended) as a minimum standard.
 - Mitigation shall be under the jurisdiction of the Community Enforcement Officer.

¹ <http://www.lakecountyil.gov/Stormwater/FloodplainStormwaterRegulations/Wetlands/Pages/WetlandRestorationFund.aspx>

8. Water Body and Stream Buffers – Undeveloped Areas

- In currently undeveloped areas, 300' naturalized water body and stream buffers adjacent to each side of a waterway should be required for all Waters of the United States or Isolated Waters of Lake County, which is consistent with Green Infrastructure Vision 2.2 guidelines. This is to be discussed with the OSNR working group.
- These buffer areas may include a portion of the Floodplain/Floodway buffers recognized by the WDO. Currently, buffers occurring outside the Floodplain/Floodway buffers are not required or regulated by any agency.
- Size: 910 acres of stream buffers in undeveloped areas.
- Preservation and Enforcement Strategy
 - Could be under the jurisdiction of local municipal ordinance or within SMC's WDO.
 - Preservation of buffer areas could be provided by deed or plat restrictions.
 - Review by WDO Certified Enforcement Officer and/or local conservation organization could be required.
- Mitigation Strategy
 - Consider allowing buffer averaging as with other buffers in the WDO.
 - Consider provisions for hardship, with mitigation requirements.
 - Pending Working Group support, mitigation in the form of buffer averaging could be 1:1 for disturbance.

9. Water Body and Stream Buffers – In Development Areas

- Naturalized stream buffers adjacent to each side of a waterway are required for all Waters of the United States or Isolated Waters of Lake County, per the WDO. Buffers are divided into two types: linear buffers and water body buffers.
- Size: 754 acres of stream buffers in remaining areas.
- Preservation and Enforcement Strategy
 - SMC enforces WDO based buffers.
 - Preservation of buffer areas shall be provided by deed or plat restrictions, as stated in the WDO.
 - Linear Buffer
 - When the channel has a watershed greater than 20 acres but less than one square mile, the minimum buffer shall be 50 feet on each side of the channel.
 - When the channel has a watershed greater than one square mile, the minimum buffer shall be 30 feet on each side of the channel.
 - Water Body Buffer
 - For all water bodies or wetlands with a total surface area greater than one-third (1/3) acre but less than one (1) acre, a minimum buffer width of thirty (30) feet shall be established.
 - For all water bodies or wetlands with a total surface area greater than or equal to one (1) acre but less than two and one-half (2 ½) acres, a minimum buffer width of forty (40) feet shall be established.
 - For all water bodies or wetlands with a total surface area greater than or equal to two and one-half (2 ½) acres, a minimum buffer width of fifty (50) feet shall be established.
 - In areas where state or federal threatened and endangered species are present or for an Illinois Natural Area Inventory Site, buffer widths may be modified upon approval of the Enforcement Officer. Any modification requires approval by the Enforcement Officer following consultation with the Illinois Department of Natural Resources or United States Fish and Wildlife Service.
- Mitigation Strategy
 - Buffer areas hydrologically disturbed by allowing construction or as part of a re-vegetation plan shall be re-vegetated using the Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois, NRCS, et al., (as amended) as a minimum standard.

10. Core Prairies and Grasslands

- All Core Prairies and Grasslands, regardless of size, are included as Core Landscapes. These areas have been identified through the Green Infrastructure Vision and a roadside remnant prairie analysis completed by IDOT in 2003, and subsequently confirmed or adjusted based on review of 2012 aerial photography, which did not substantiate their current condition. There are very few remaining prairies of any size in the Corridor so they should be recognized as important and receive a high level of protection.
- To determine their quality, a biodiversity rating should be conducted by a local conservation organization.
- It is recommended that identified Core Prairie and Grasslands have a 100' buffer similar to that required for ADID wetlands.
- Size: 582 acres of prairies and grasslands in remaining areas.
- Preservation and Enforcement Strategy
 - Currently, these resources are not protected.
 - Local ordinances should be implemented to protect and preserve these resources.
 - Buffer areas could be provided by deed or plat restrictions, as stated in the WDO for stream buffers.
 - Core prairies and grasslands could be preserved through acquisition, easements, deed restrictions or other binding protective action either by a conservation organization or through funds from the Environmental Restoration and Stewardship Fund (ERSF)
- Mitigation Strategy
 - To be discussed with the OSNR Working Group. Due to their limited acreage, it is recommended that a floristic inventory be completed to understand their ecological value, which in turn may inform the level of mitigation required.

11. Floodplains

- All Regulatory Floodplains in the Corridor are Core Landscapes. They are delineated by projecting the base flood elevation (BFE) onto the site topography using the 100-year flood profiles, as indicated on the floodplain studies adopted by SMC. Approved SMC floodplain studies, maps, and profiles are posted on the SMC website.
- The FEMA Flood Insurance Study and profiles are used if no SMC approved Regulatory Floodplain profile exists for the site.
- To protect the existing hydrologic and environmental functions of a Regulatory Floodplain, modification and disturbance shall be avoided.
- No development shall be allowed that creates a damaging or potentially damaging increase in flood heights or velocity.
- Special consideration will be given for the construction of new bridges or culvert crossings and roadway approaches or the reconstruction or modification of existing bridges, culvert crossings, or roadway approaches.
- Size: 10,257 acres of floodplain.
- Preservation and Enforcement Strategy
 - Development in the Floodplain is regulated at the federal level by FEMA, at the state level by IDNR/Office of Water Resources, and locally by SMC and Certified Communities.
 - If an entity, such as a municipality, disregards floodplain regulations, they will be removed from the National Flood Insurance Program (NFIP) and they lose the opportunity to purchase flood insurance.
- Mitigation Strategy
 - If disturbance or filling occurs, compensatory storage is required at 1.2:1, but varies in some circumstances. For additional information, refer to Article IV, Section C, of the WDO.

OPPORTUNITY LANDSCAPES

These open spaces and resource areas offer opportunities to strengthen and expand open space holdings, protect valuable natural resources that are currently unprotected, increase connectivity non-motorized transportation corridors between existing open space parcels, identify landscapes for mitigation and/or restoration, support visions for large acreages of contiguous habitat, and support local food production.

1. Wetland Mitigation Opportunities

- These opportunity areas include attributes such as:
 - Hydric soils/inclusions/low permeability soils.
 - Land cover classification that prioritizes undeveloped land or land that can be manipulated without losing a recognized natural resource.
 - Non pre-settlement forest.
 - Scrub/shrub/grassland.
 - Cultivated land.
 - Wetlands, non-open water.
 - Adjacency to streams and rivers, prioritizing areas within 500’.
 - Site topography, prioritizing areas less than 8% slope.
 - Open space that is adjacent to a natural corridor or public-owned land.
- Size: Approximately 3,010 acres of land could be converted for wetland mitigation.
- Preservation Strategy
 - All mitigation wetlands, as well as other preserved wetlands or waters and wetland buffers on the mitigation site, shall be protected in perpetuity by a deed or plat restriction. The permittee shall provide the SMC or IWCC with a draft copy of the proposed deed or plat restriction document and associated exhibit(s) showing the restricted areas for approval.
 - Mitigation areas will help meet needs for the Tollway and other future developments.

2. Restoration Opportunities

- The land identified for this opportunity includes both protected and unprotected landscapes. To help understand the various types of restoration, the Opportunity has been divided into two categories – Terrestrial and Aquatic. Within these categories, it is understood that many land areas within the Corridor are actively being restored. These landscapes could provide examples to others as well as become seed sources for other restoration projects.
 - Terrestrial Restoration – the land identified for this opportunity includes:
 - Protected and unprotected lands.
 - Terrestrial land identified as Threatened and Endangered Species habitat.
 - Core Forest and Prairie/Grassland Habitats.
 - Prioritize land areas 50 acres and greater in order to support higher biodiversity and various ecotypes.
 - Lands that contain forests which contain a semblance of species worth restoring based on recommendations from a local conservation organization.
 - Land that is degraded or has a low biodiversity rating but is seen as an opportunity to restore a healthy ecosystem based on recommendations from a local conservation organization.
 - Aquatic Restoration – the areas identified for this opportunity includes:
 - Protected and unprotected landscapes. Unprotected land with unregulated natural resources could be targeted for acquisition and placed into protection.
 - Aquatic landscapes identified as Threatened and Endangered Species habitat.
 - Landscapes that contain wetland indicator species.
 - Sites farther away from impermeable surfaces and thus urban runoff impacts.
 - Aquatic landscapes 20 acres and greater in order to support higher biodiversity and various ecotypes.

- Wetlands that are degraded or have a low biodiversity rating but is seen as an opportunity to restore a healthy ecosystem based on recommendations from a local conservation organization.
 - Size: Approximately 10,000 acres of land that could be restored and/or stewarded.
 - Preservation Strategy
 - The Environmental Restoration and Stewardship Fund (ERSF) could be used to purchase and restore terrestrial and aquatic resources.
 - Municipal Open Space Ordinances could support the protection and preservation of identified OSNR's.
 - Action by local conservation organizations could support the protection, preservation and restoration of identified OSNR's.
3. Connectivity and Trail Opportunities
- The landscapes identified for this opportunity includes areas on undeveloped property that could support connections for bike and pedestrian trails, wildlife corridors between large natural resources, and other greenway connections.
 - Size: Approximately 480 acres of land are identified as opportunities for connectivity and trails.
 - Preservation Strategy
 - The acquisition of land through the ERSF could support connectivity and associated buffers.
 - Municipal Development Ordinances and comprehensive trail planning could support the implementation of trails and buffers through identified OSNR's and new development.
 - Action by local conservation organizations could support the need for connectivity and associated buffers.
 - Deed restrictions or easements on private land could support connectivity.
 - Recreation and multi-modal transportation grants could be pursued to help fund acquisition and implementation activities.
4. Large Preserve Opportunities
- The landscapes identified for this opportunity includes large acreages of primarily agricultural land that could be restored to a natural state.
 - Unprotected agricultural and open space parcels that are 50 acres and greater and unprotected agricultural parcels that are contiguous to one another, creating 50 acre or larger parcels.
 - Size: Approximately 2,980 acres of land that could be transformed into large preserves, though not all opportunities to achieve large preserves have been identified on the map, and others may exist.
 - Preservation Strategy
 - The acquisition of land through the ERSF could support large preserves.
 - The acquisition of land through local conservation organizations could support large preserves.
 - Deed restrictions or easements on private land could support large preserves.
 - Municipal development ordinances could support the preservation of land for large preserves.
5. Backyard Conservation & Stewardship Opportunities
- Land presenting opportunities to re-create natural environments or implement best management practices and stewardship activities on residential, commercial, and industrial property, including:
 - Natural resources such as waterways, wetlands, or forest within 200' of a building.
 - Vegetation consistent with pre-settlement patterns that fall within existing residential areas.
 - Size:
 - Wetlands/Buffers: 7,489 acres
 - Streams: 283 acres (does not include waterways)
 - Ponds/Lakes: 1,030 acres (does not include waterways)
 - Prairie/Grasslands: 184 acres
 - Forests: 5,215 acres

- reservation Strategy
 - Programs such as Conservation @ Home and Conservation @ Work could be conduits to helping those interested in Backyard Conservation get started.
 - Municipal Ordinances that encourage native landscaping could support Backyard Conservation.

6. Working Landscape Opportunities

- Opportunities for local food production include agriculture parcels or collection of parcels that are 25 acres or greater in size and contain a building.
- Size: 3,790 acres of land that could be transformed into working landscapes.
- Preservation Strategy
 - Municipal Ordinances that reward working landscapes and local food production could support Working Landscapes.
 - Local agricultural conservation organizations could be used to educate others about local food production and work toward the preservation of food producing landscapes

7. Water Quality Improvement Opportunities

- A number of water bodies and streams in the Corridor are considered impaired by the USEPA. To help improve water quality, this opportunity identifies possible contributions to water quality impairments such as:
 - Impermeable surfaces within 200' of a water course and/or lake.
 - Point discharge locations into waterways.
- Preservation Strategy
 - Municipal Ordinances that encourage and reward green infrastructure could support Water Quality Improvement. These may include:
 - 100' buffers along all water courses, wetlands, and lakes/ponds.
 - Impervious surface reduction.
 - Green infrastructure techniques.
 - Bioswales.
 - Rain gardens.
 - Green roofs.
 - Infiltration trenches and dry wells.
 - Permeable pavements.
 - Turf to natural area conversion.
 - Conservation tillage.
 - Conservation and/or Low Impact Development (LID)

8. Community/Neighborhood Park Opportunities

- This opportunity identifies small parcels of land that are isolated, not connected to a larger resource, or within existing residential neighborhoods, which could be good candidates for community parks and open space.
- Size:
 - 0-5 acres - 1059 acres
 - 5-10 acres - 819 acres
 - 10-25 acres - 1665 acres
- Preservation Strategy
 - Municipal Development Ordinances could support the preservation of small land parcels for parks and/or open space.
 - The ERSF, local conservation organizations, and/or park districts could help purchase the small parcels for parks and open space.

9. SMC Flood Hazard Mitigation Areas

- SMC maintains a list of properties that are candidates for buyouts when funds become available. SMC's buyout program is heavily reliant on the availability of federal funds, which are then leveraged with local

cost-share funds. FEMA, working through the Illinois Emergency Management Agency, has provided over \$5 million towards SMC's buyout program since 1997.

- Size: 1,400 Acres
- Preservation Strategy
 - Municipalities could support the buyout of land and associated buildings that are frequently flooded and may cause harm to the public.
 - The ERSF could provide matching funds to help purchase flood problem areas identified by SMC.

10. Headwaters Protection

- Headwaters are the most upstream areas of a watershed, which are particularly sensitive to impacts. Within the Corridor, there are 14 Watersheds that touch or cross into the area. One headwater location was identified in the Mill Creek Watershed, which is in the north portion of the Corridor. SMC is currently working on GIS data sets that could help identify other headwaters.
- Preservation Strategy
 - Municipal Development Ordinances could support the preservation and protection of land around an identified headwater.
 - Where headwaters are identified, protection should be considered using appropriate buffer as noted above or similar to the WDO recommendations for HQAR water body buffers.

11. Unprotected Open Spaces

- There are several unprotected green spaces throughout the Corridor that could be preserved in perpetuity. These are mostly private golf courses. However, they are home to natural resources and offer opportunities for restoration activities and best management practices if they were to stop being used as they are today.
- Size:
 - Cemeteries: 253 acres
 - Golf Courses: 3,702 acres
- Preservation Strategies
 - The acquisition of land through the ERSF could preserve them from development.
 - The acquisition of land through local conservation organizations could also be used.
 - Deed restrictions on private land could create protections.
 - Municipal Development Ordinances and master planning could support or encourage their protection.