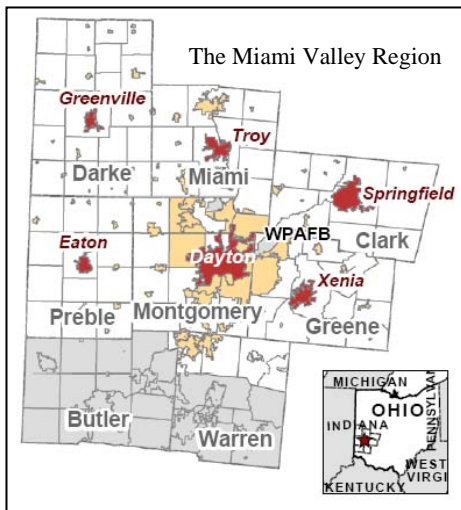


INTRODUCTION

The Miami Valley Regional Planning Commission (MVRPC) conducted the Miami Valley Open Space Assessment study in order to develop a 2005 Open Space GIS database and examine the status of open space in the Region. The study is an update to the 1993 Miami Valley Open Space Inventory database prepared for the Miami Valley Open Space Council and to the State of the Region 2005 report that examined broad social, political, economic, and environmental issues of the Region, and recounted the progress the Region has made over the years.



While the State of the Region 2005 report defined the Region to include eight (8) counties in the Dayton Metropolitan area as illustrated in the map, the 2005 Miami Valley Open Space Assessment study is based on the six (6) counties surveyed in the 1993 Open Space Inventory (Clark, Darke, Greene, Miami, Montgomery, Preble), as well as the addition of the northern part of Warren County.

This report provides information on how the data was collected, the limitations that exist within the study, and summarizes the findings from the study, providing information on regional as well as county level statistics. Further, the 2005 statistics are compared to the 1993 statistics in order to assess how the Region has changed over the last 12 years.

OPEN SPACE DEFINITION

The definition of open space used in this study was adapted from the 1993 Open Space Inventory. The main categories of land uses in the 2005 Open Space database, as seen in the table below, include: General Outdoor Recreation Area, Outstanding Regional Amenity, Natural Environment Protection Area, Utilities, Open Space Link, Natural Environment Recreation Area, School, Landfill/Mineral Extraction, Cemeteries, Historical Site/Museum, and Airfields. It is important to note that the definition of open space in the study is very broad and ranges from areas that are active in nature, such as parks and ball fields, to areas that are passive in nature such as wetlands preserves and flood control properties. Also, it should be noted that the Open Space classification in this study does not include agricultural land use, which is prevalent in some part of the Region.

Open Space Classification

General Outdoor Recreation Areas		Utility		Landfills / Mineral Extraction	
Swimming Pool	Picnic Grounds	Well Field	Wastewater Plant	Landfill	Quarry
Active Recreation	Stadium	Open Space Link		Sand & Gravel Extraction Site	
Plaza/Commons	Horse Racing	Hiking Trail	Large Institution	Cemeteries	
Fairground	Auto Racing	Bikeway	Flood Control	Cemetery	
Ball Field	Golf Course	Pedestrian Walkway		Historical Sites / Museums	
Outstanding Regional Amenity		Natural Environment Recreation Area		Historic Site	Museum
Scenic River	Waterfall	Campground	Fishing Lake	Covered Bridge	
Natural Environment Protection Area		Fish & Game Club	Scout Camp	Airfield	
Wildlife Preserve	Natural Area	School		Airport	Sky Diving
Park Preserve	Wetland Preserve	Public School	College		
Storm Basin	Hunting Area	Private School	University		

Source: MVRPC 2005 Open Space Database

For the purposes of this study, General Outdoor Recreation Area, Outstanding Regional Amenity, Natural Environment Protection Area, Natural Environment Recreation Area, and Historical Sites/Museums have been grouped together as “Open Space/Recreational Facilities.”

STUDY METHOD

MVRPC staff has been updating the 1993 Open Space Inventory since its original development. However, the updates were made on an as-needed basis. In 2005, MVRPC initiated a comprehensive update of its Open Space database, at which time the database was expanded to include northern Warren County.

Early in 2006, MVRPC hosted a one day workshop at its Center for Regional Cooperation with representatives from local governments, state agencies, and non-profit special interest groups in the Region. The purpose of the workshop was to present the results of the 2005 database update efforts and to seek further information to finalize it. At the workshop, paper maps and open space attribute information were made available at each work station. A total of 62 people, representing 36 organizations, participated in the workshop. Participants were asked not only to make corrections on the maps but also to provide missing attribute information. The data collected at the workshop were then incorporated into the MVRPC 2005 Open Space Inventory GIS database.



Although the 2005 Open Space Inventory database is the most comprehensive in the Region, it is important to note that the database is not completely accurate. This is due to the fact that the data was collected mainly from secondary sources, supplemented by input from the participating organizations.

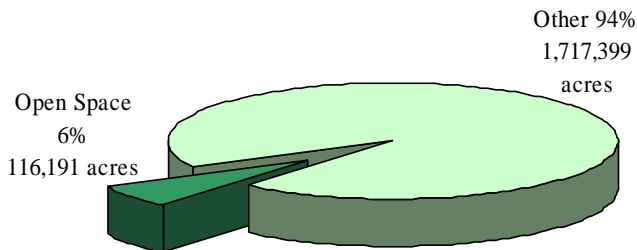
FINDINGS

The Miami Valley Region overall possesses 2,268 open space facilities with a total of 116,191.38 acres of open spaces, covering 6% of the total regional land area, averaging 92.7 acres of open space per 1,000 residents in the Region. The Region is also the home of four State Parks (Buck Creek, John Bryan, Sycamore, and Caesar Creek) which encompass 16,410 acres.

Open Space/Recreational Facility areas account for 64% of all Regional open space acreage with 1,218 sites, followed by landfills and mineral extraction (10% of acreage with 46 sites). The remaining 26% is divided among the other six open space types, each comprising less than 10% of all Regional open space acreage.

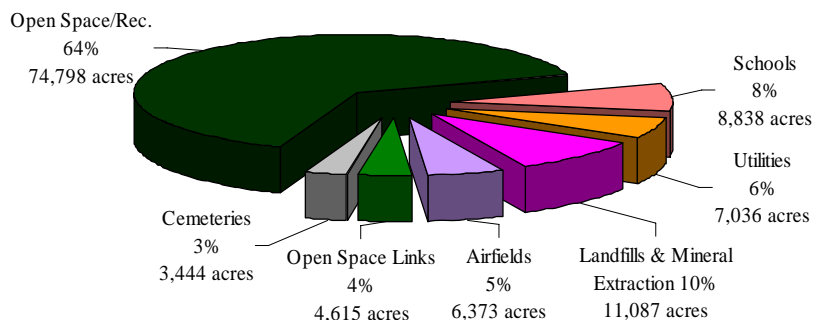
The Regional map attached provides a spatial distribution of open spaces in the Region by types of open space sites. One of the Region's most valuable open space resources is the waterway network, as 28% of the Region's total open space acreage is within one quarter mile of a major river and 20% of all natural open space and recreational facilities are within one quarter mile of a river. There are nearly 400 sites which create open space corridors along the rivers, and are an asset that the Region can build upon in future open space planning.

Open Space as Percentage of Total Land Area in the Region



Source: MVRPC 2005 Open Space Database

Open Space by Type in the Region



Source: MVRPC 2005 Open Space Database



A comparison of the data collected in 1993 and 2005 revealed that there was an increase of over 15,000 acres of open space, an 18.7% increase in the Region over the 12-year span. As illustrated in the table below, there was nearly a 50% increase in Open Space links (49.2%) and over a 40% increase in areas dedicated to Utilities (41.3%).

Open Space Comparison: 1993 - 2005

	Open Space/Rec	Schools	Utilities	Landfills & Mining	Airfields	Open Space Links	Regional Total
1993	53,726.4	7,412.1	4,540.1	7,791.4	5,542.3	2,690.8	81,703.1
2005*	61,825.5	7,876.0	6,415.2	10,757.6	6,074.0	4,014.6	96,962.9
Change	15.1%	6.3%	41.3%	38.1%	9.6%	49.2%	18.7%

Note: *Cemeteries and Warren County data are excluded since they were not part of the 1993 Open Space Inventory database.
Source: MVRPC 1993 and 2005 Open Space Database

The next two tables present open space acreage and number of sites by facility type at the County level. Montgomery County leads the region in both total open space facilities (851) and acreage (37,924.08), followed by Greene and Miami counties. Also, the additional maps attached illustrate open space locations by facility types at the County level.

Open Space by County: Acreage by Type of Facilities

County	Open Space/Rec	Schools	Utilities	Landfills & Mining	Airfields	Open Space Links	Cemeteries	Total
Clark	8,651.1	1,264.3	1,211.7	740.9	1,501.0	505.2	468.6	14,342.7
Darke	2,801.9	291.8	455.2	805.1	133.3	482.5	302.8	5,272.5
Greene	11,518.4	2,116.6	1,465.1	6,770.2	138.4	338.2	281.7	22,628.6
Miami	7,357.0	823.5	423.1	0	53.6	535.2	665.1	9,857.4
Montgomery	22,895.4	3,136.6	2,496.9	2,051.0	4,247.8	1,997.1	1,099.3	37,924.1
Preble	8,601.7	243.2	363.3	390.4	0	156.5	330.7	10,085.8
Warren*	12,972.8	961.6	621.0	329.5	298.8	600.5	296.4	16,080.4
REGION	74,798.2	8,837.5	7,036.2	11,087.2	6,372.8	4,615.1	3,444.5	116,191.4

Source: MVRPC 2005 Open Space Database

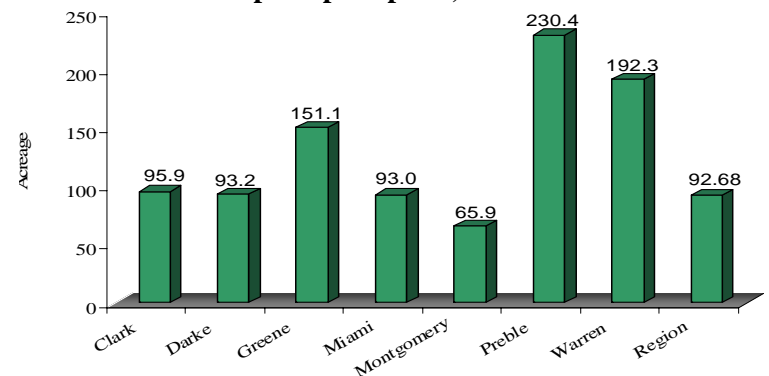
Open Space by County: Number of Sites by Type of Facilities

County	Open Space/Rec	Schools	Utilities	Landfills & Mining	Airfields	Open Space Links	Cemeteries	Total
Clark	75	52	8	3	3	6	8	153
Darke	71	24	13	4	1	3	98	214
Greene	228	48	25	21	2	15	41	375
Miami	171	49	15	0	1	9	65	307
Montgomery	509	181	27	13	6	50	70	851
Preble	78	13	14	1	0	16	59	181
Warren*	86	24	8	4	3	24	23	171
REGION	1,218	391	110	46	16	123	364	2,268

Source: MVRPC 2005 Open Space Database

The chart on the right illustrates the 2005 open space acreage per 1,000 persons by county. Despite the fact that Montgomery County has significant open space acreage in comparison to other counties, it was found to have the least amount of open space acreage per 1,000 persons (65.9). Preble County, on the other hand, was found to have the highest amount of open space acreage per 1,000 persons (230.4), followed by Warren County (192.3), which owes its high acreage per 1,000 persons to the fact that Caesar Creek State Park lies within the portion surveyed.

Open Space per 1,000 Persons



*Note: Data findings for Warren County are only from the northern part of the county
Source: MVRPC 2005 Open Space Database



The table below shows the change in open space acreage and number of facilities over the 12 year period. Miami County had the largest percent change in acreage (42%), while Montgomery County had the highest percent change in number of sites (36.8%). Despite the fact that Clark County had a decrease in number of sites, it also had a 4.6% increase in acreage, due to growth of existing sites.

Open Space Comparison: 1993 - 2005 by County

County	Open Space Acreage			Open Space Sites		
	1993	2005	% Change	1993	2005	% Change
Clark	13,260.9	13,874.2	4.6	169	145	-14.2
Darke	4,036.0	4,969.7	23.1	113	116	2.7
Greene	20,862.4	22,346.8	7.1	280	334	19.3
Miami	6,474.3	9,192.3	42.0	207	242	16.9
Montgomery	29,411.9	36,824.8	25.2	644	881	36.8
Preble	7,657.6	9,755.1	27.4	96	122	27.1
REGION	81,703.1	96,962.9	18.7	1,509	1,888	25.1

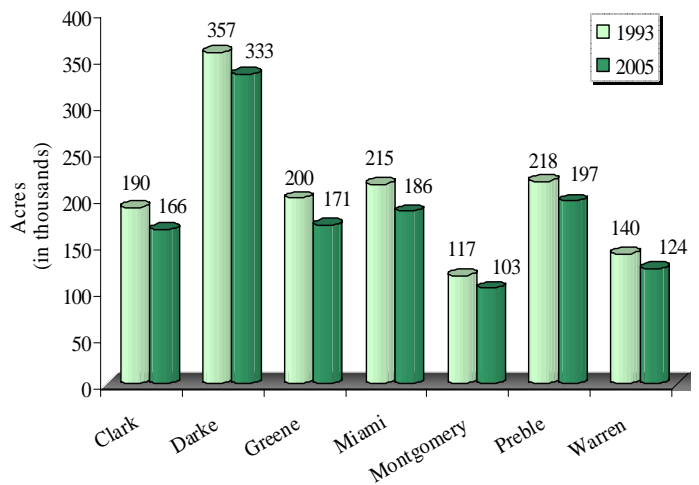
Note: *Cemeteries and Warren County data are excluded since they were not part of the 1993 Open Space Inventory database.

Source: MVRPC 1993 and 2005 Open Space Databases.

The change in open space over the last 12 years need to be reviewed in comparison to the agricultural land change since recent development has been occurring outside the existing urban areas in rural areas.

Between 1993 and 2005, as shown on the chart, each county lost significant amounts of agricultural land. The findings of net gain in open space seem to be closely related to the urbanization of agricultural land as certain portions of development become designated as new open spaces. Since agricultural land use was not included in the open space definition, the findings from this study require careful attention from the perspective of the larger land use context, considering prevalent land use types for each county.

Change in Agricultural Acreage: 1993-2005



Source: U.S. Department of Agriculture

SUMMARY AND CONCLUSION

The Miami Valley Open Space Assessment study revealed that there has been an overall growing network of open spaces throughout the Region for all open space categories over the last 12 years. Not only does total acreage appear to have increased, but acreage per capita also appears to have increased significantly as well. Continuous efforts should be made to preserve existing open spaces in the Region so that these valuable community assets are maintained as the Region progresses into the future.

FOR MORE INFORMATION

Please visit www.mvrpc.org for a copy of this report. Questions or comments should be directed to Matthew Martin at mmartin@mvrpc.org.

Miami Valley Regional Planning Commission (MVRPC) is a voluntary association of governmental and non-governmental organizations serving as a forum and resource where regional partners identify priorities, develop public policy, and implement strategies to improve the quality of life and economic vitality throughout the Miami Valley Region.

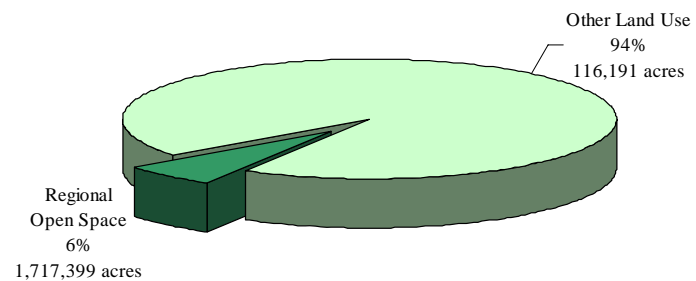


Open Space Classification

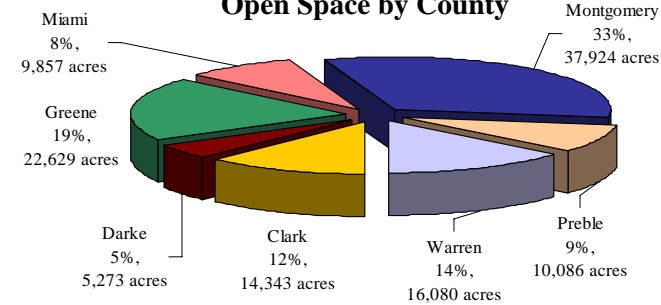
- Open Space/Rec (1,218 sites)
- Utilities (110 sites)
- Open Space Links (123 sites)
- Schools (391 sites)
- Landfills/Mineral Extraction (46 sites)
- Cemeteries (364 sites)
- Airfields (16 sites)

Source: MVRPC 2005 Open Space Inventory
Date: November 2006

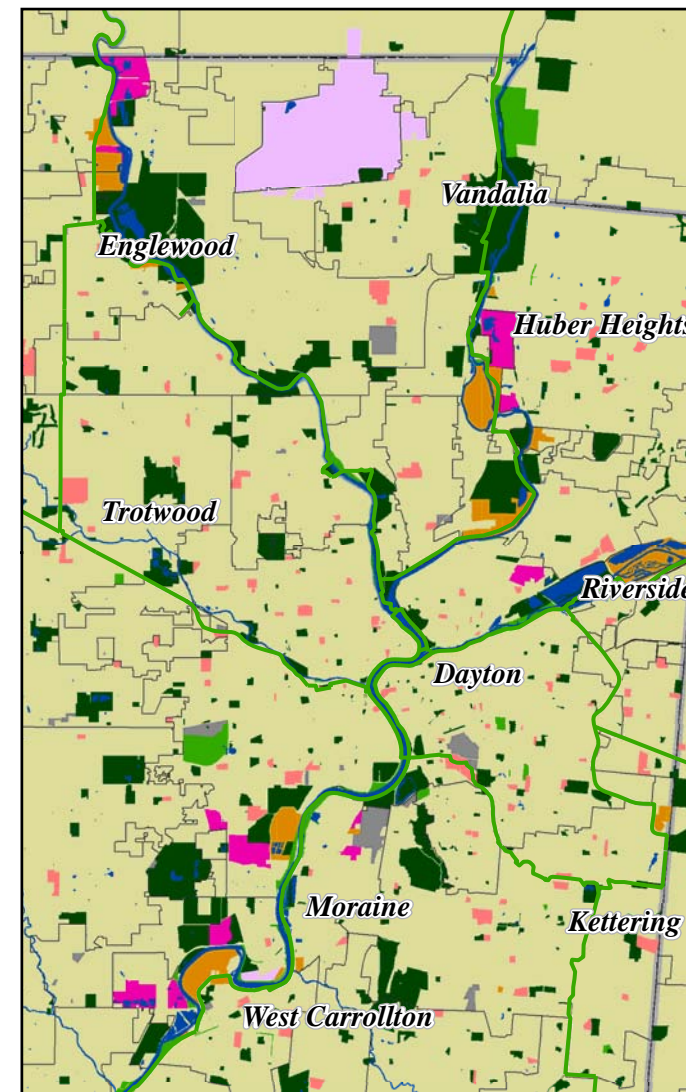
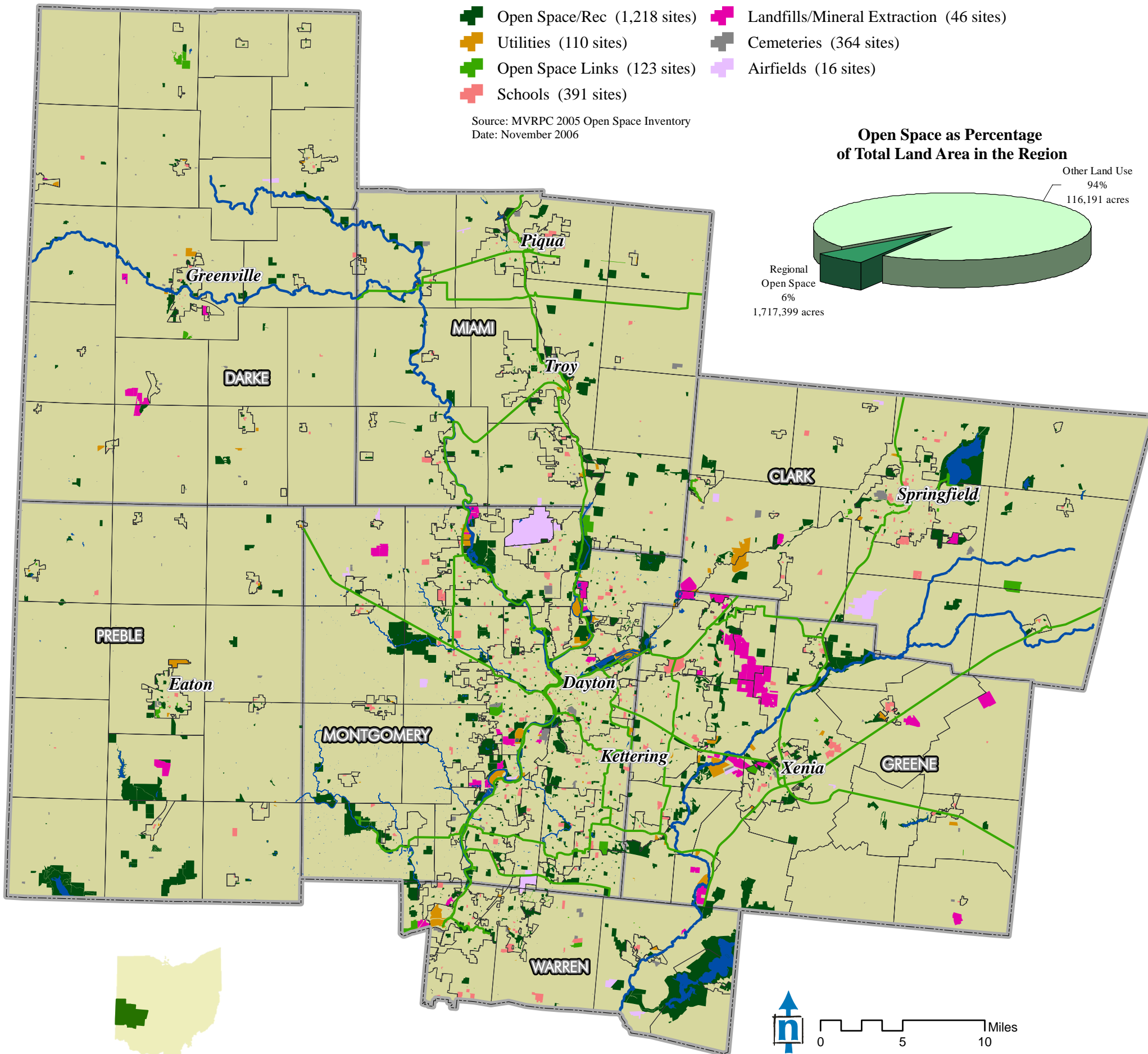
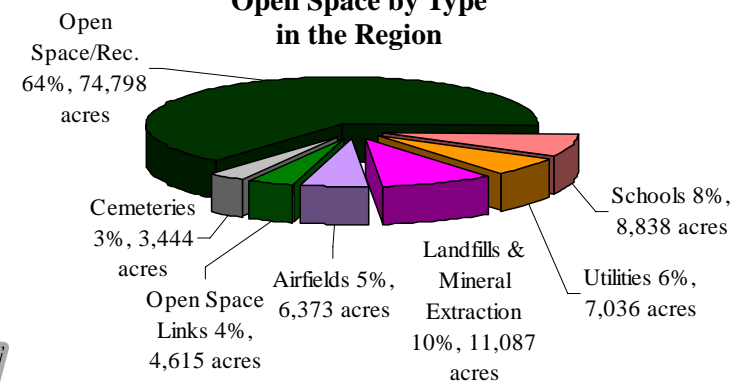
Open Space as Percentage of Total Land Area in the Region



Distribution of Open Space by County

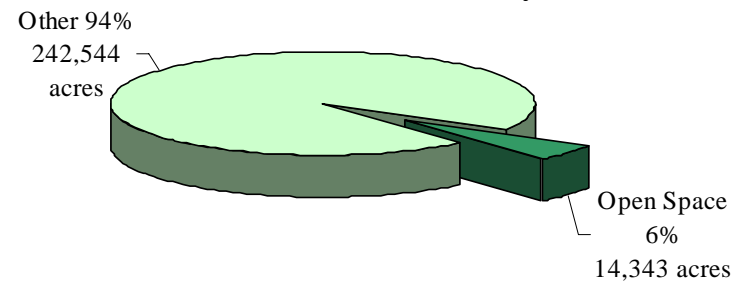


Open Space by Type in the Region

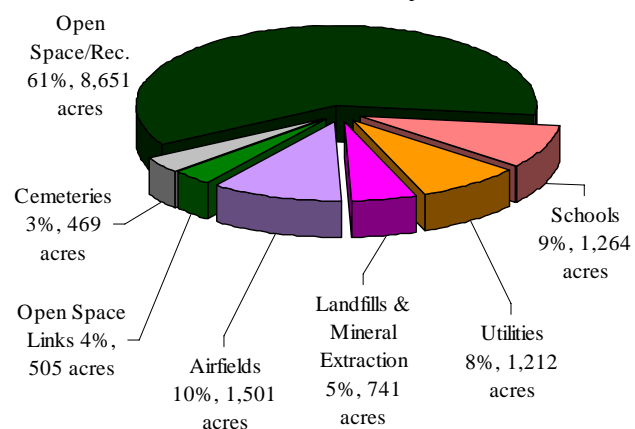


Map 1 - 2005 Miami Valley Open Spaces

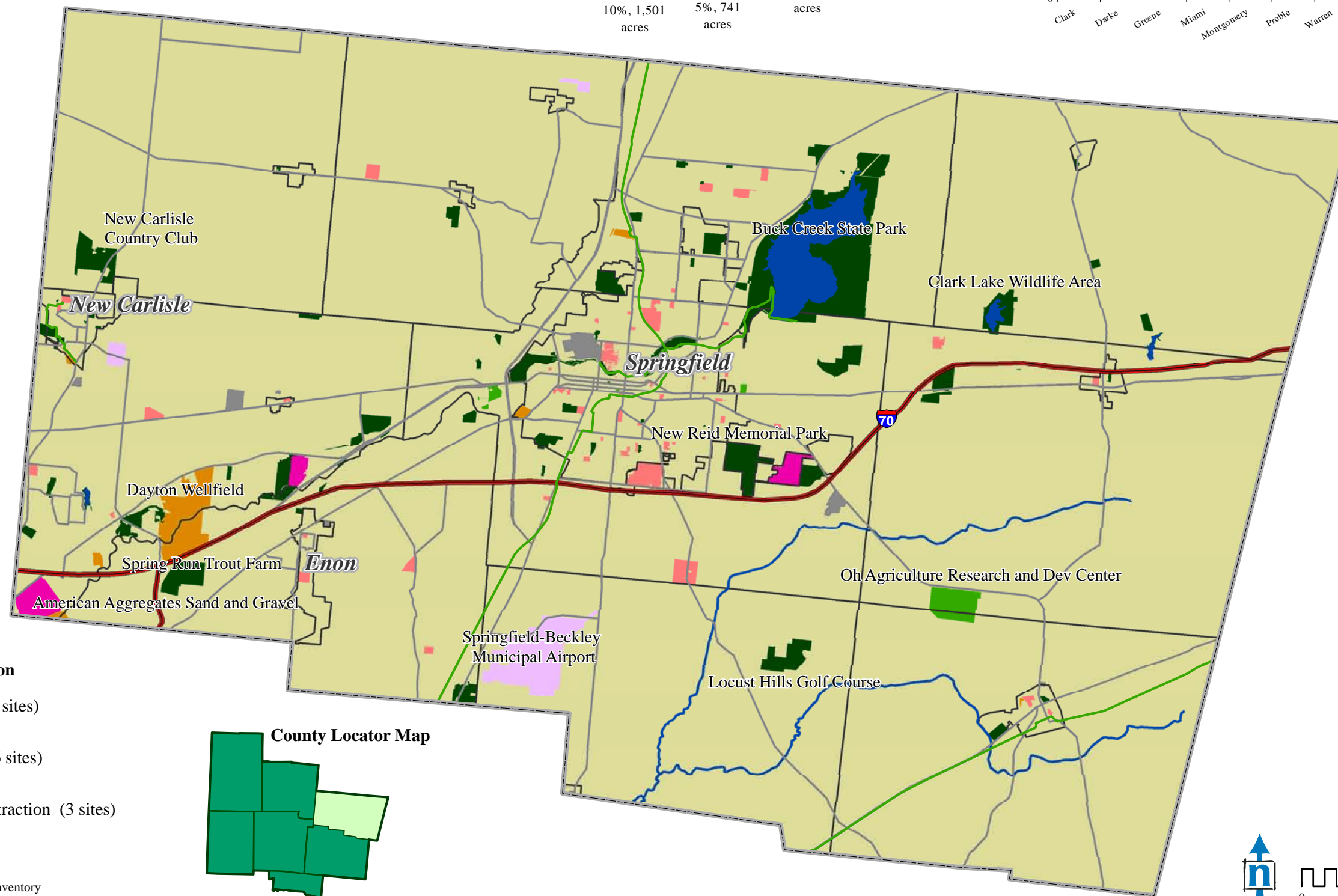
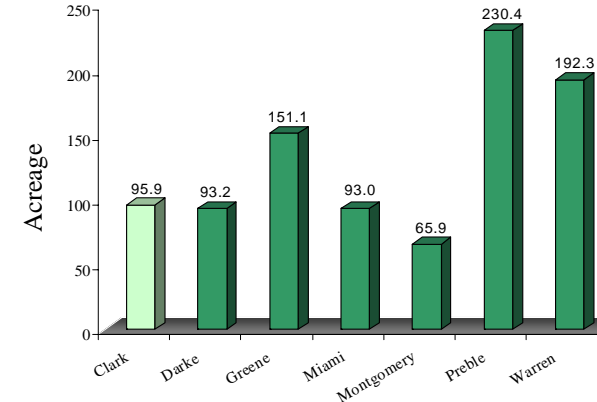
Open Space as Percentage of Total Land Area in the County








Open Space by Type in the County



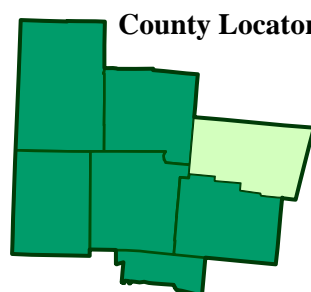
Open Space Acres per 1,000 Persons



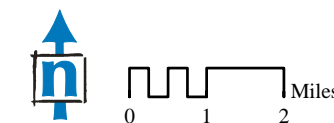
Open Space Classification

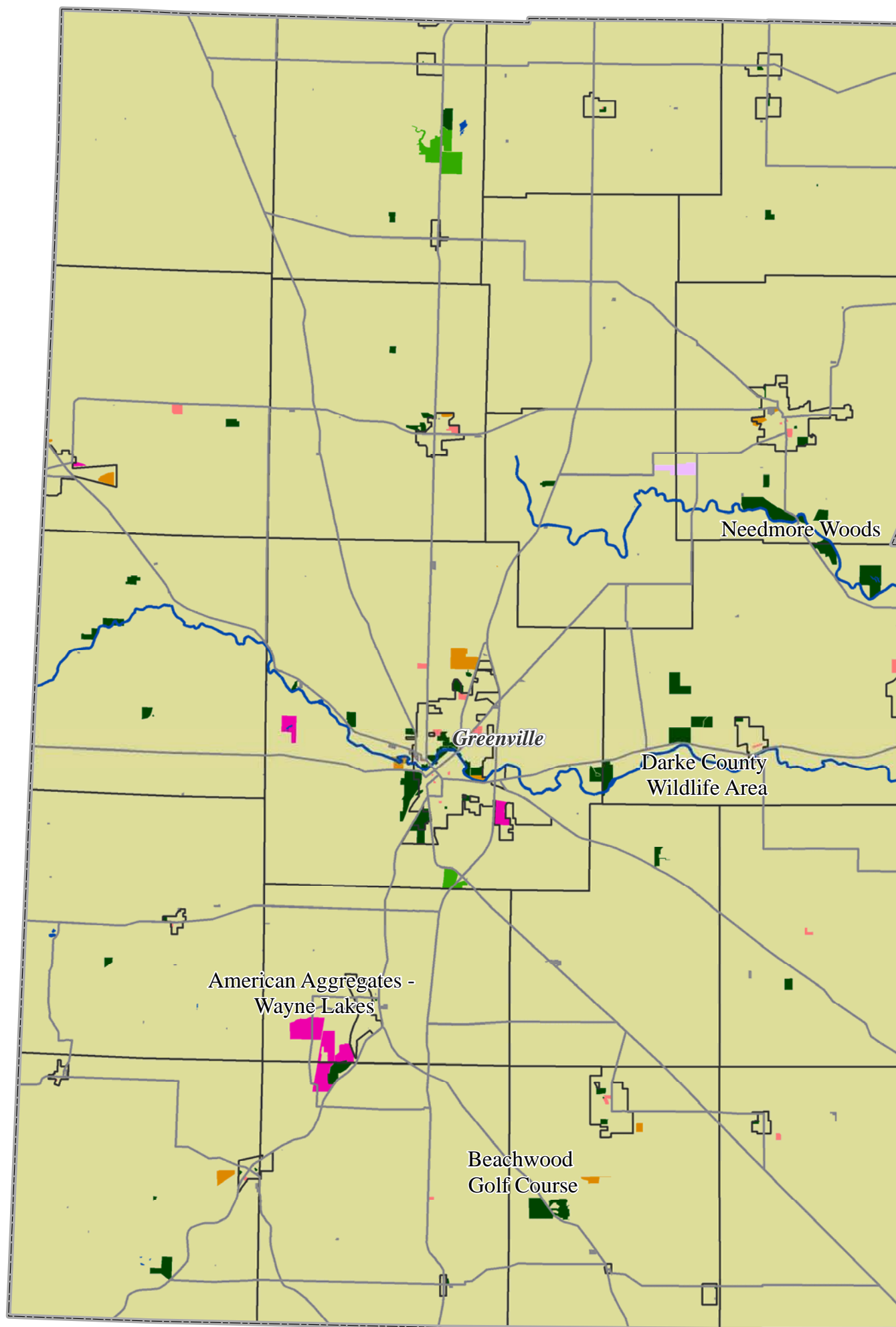
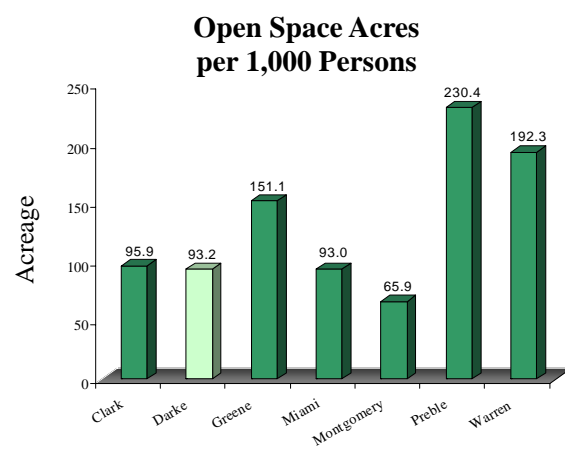
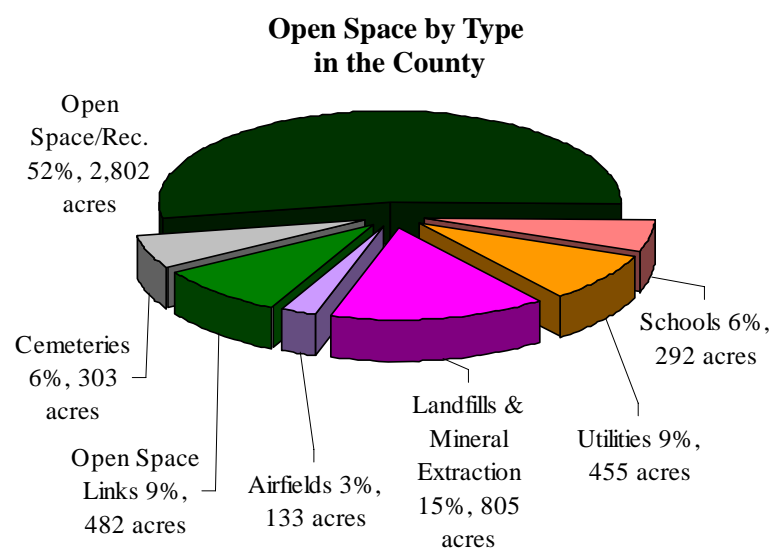
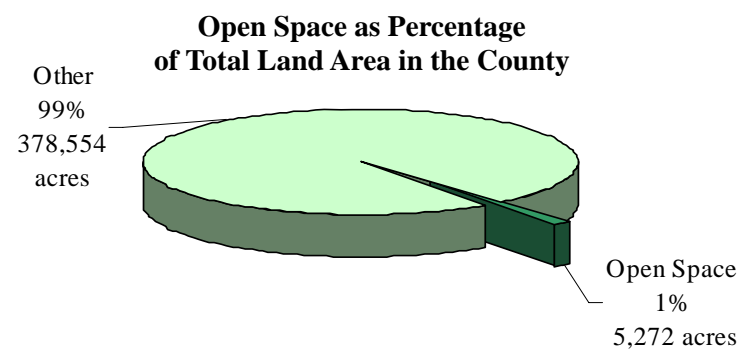
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-  Utilities (8 sites)
-  Open Space Links (6 sites)
-  Schools (52 sites)
-  Landfills/Mineral Extraction (3 sites)
-  Cemeteries (8 sites)
-  Airfields (3 sites)

County Locator Map










Source: MVRPC 2005 Open Space Inventory
Date: November 2006

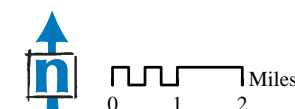
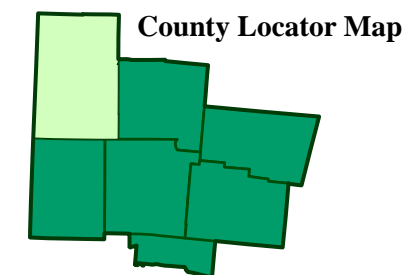











Open Space Classification

-  Open Space/Rec (71 sites)
-  Utilities (13 sites)
-  Open Space Links (3 sites)
-  Schools (24 sites)
-  Landfills/Mineral Extraction (4 sites)
-  Cemeteries (98 sites)
-  Airfields (1 site)

Source: MVRPC 2005 Open Space Inventory
Date: November 2006

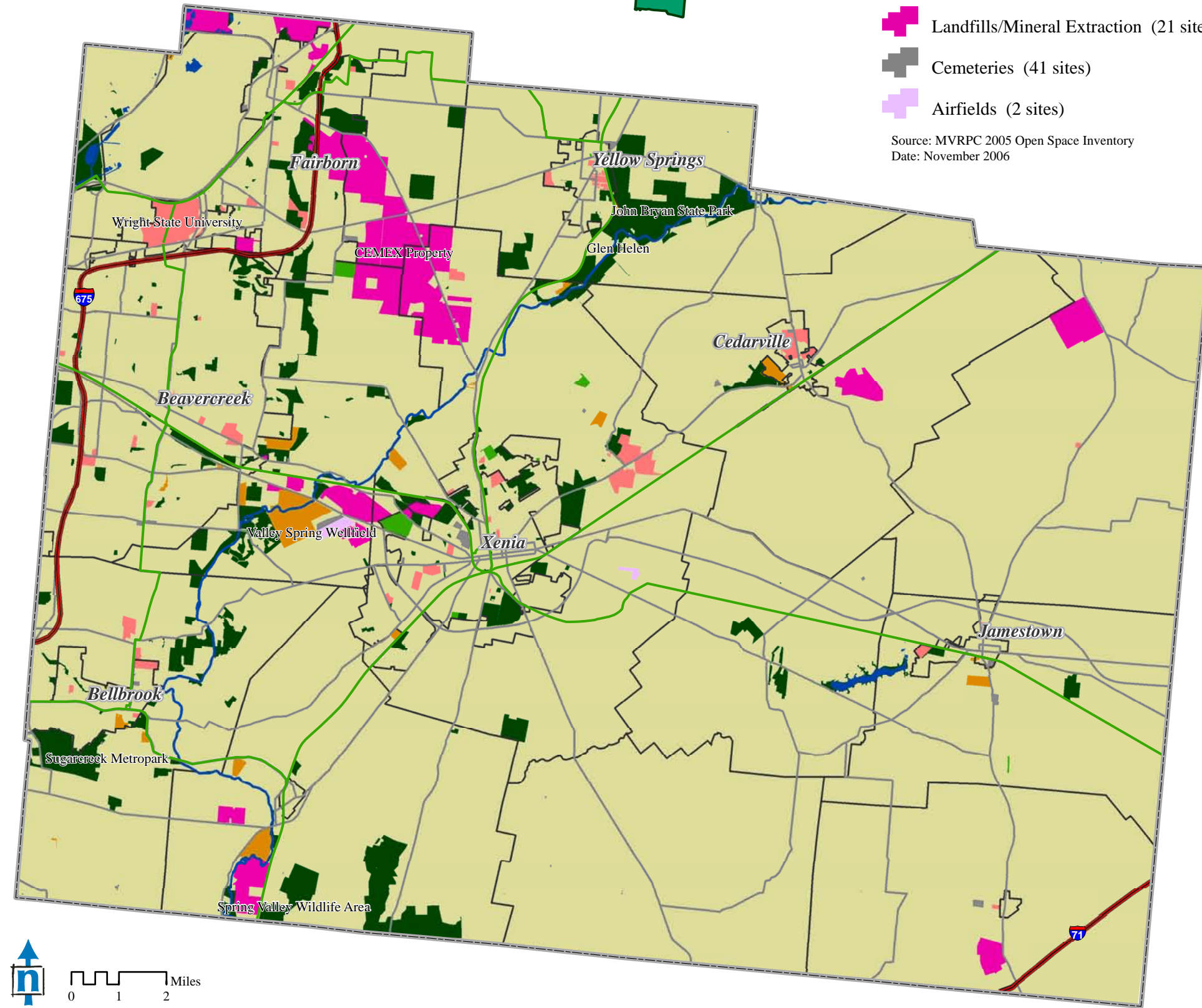
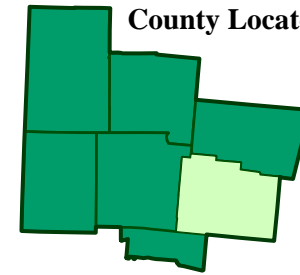


Open Space Classification

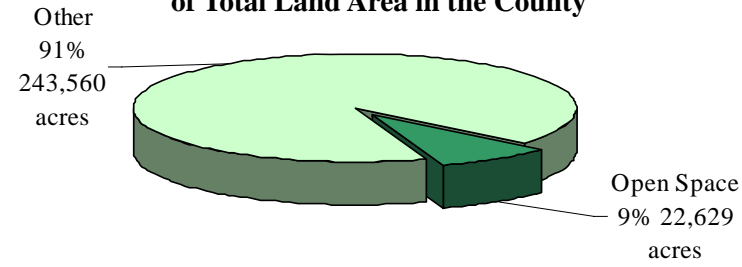
-  Open Space/Rec (228 sites)
-  Utilities (25 sites)
-  Open Space Links (15 sites)
-  Schools (48 sites)
-  Landfills/Mineral Extraction (21 sites)
-  Cemeteries (41 sites)
-  Airfields (2 sites)

Source: MVRPC 2005 Open Space Inventory
Date: November 2006

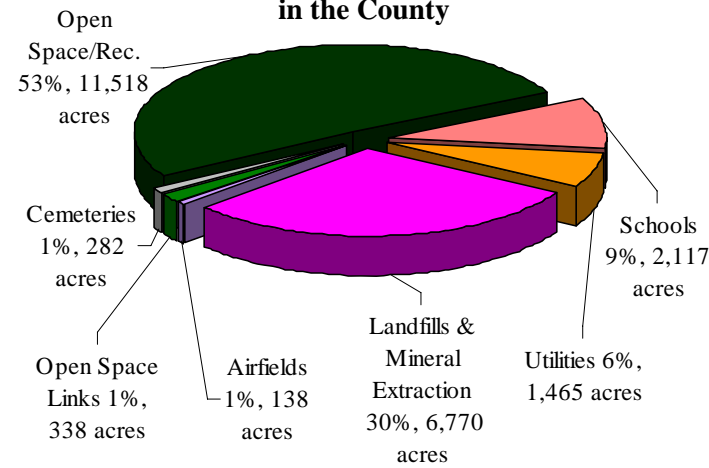
County Locator Map



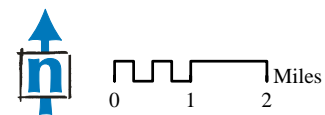
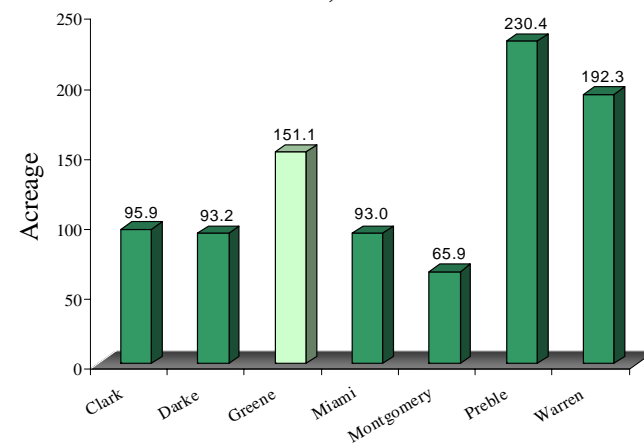
Open Space as Percentage of Total Land Area in the County



Open Space by Type in the County

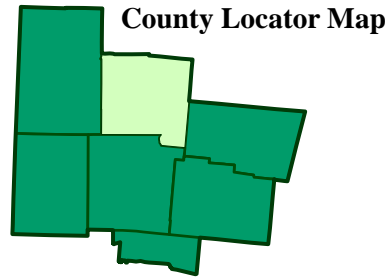


Open Space Acres Per 1,000 Persons

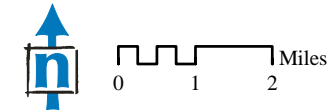
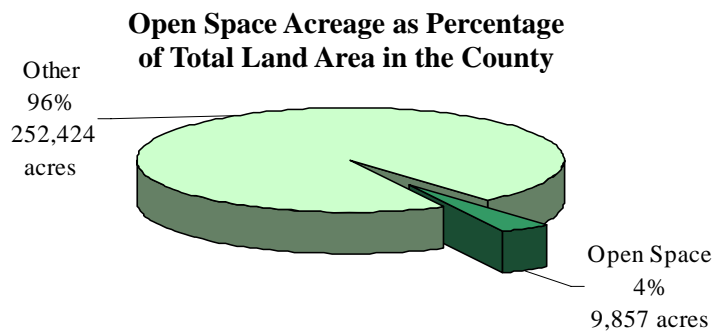
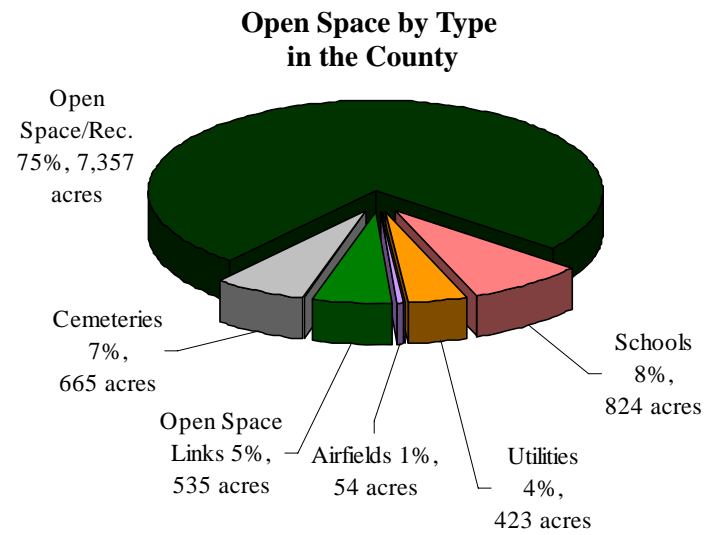
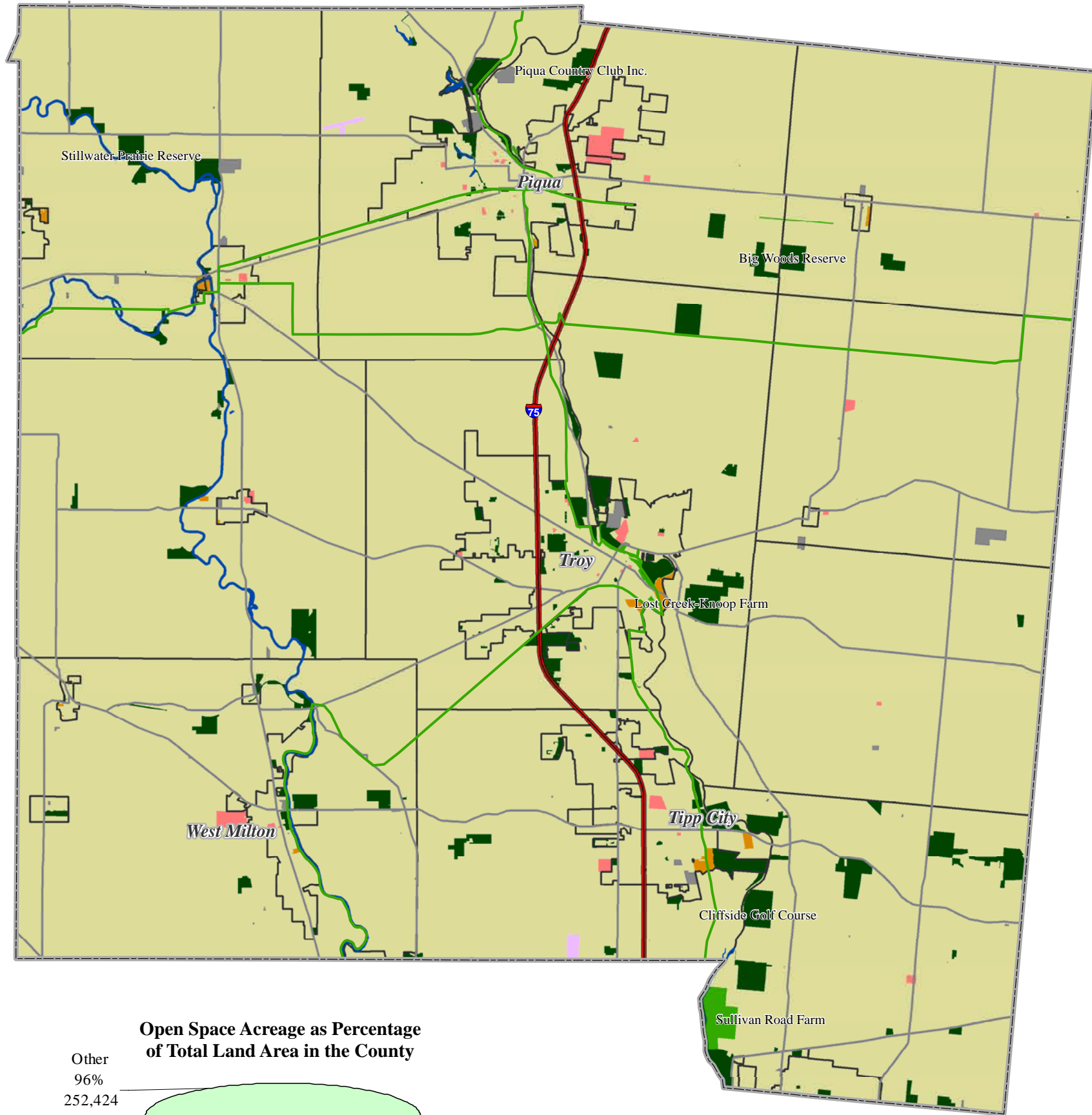
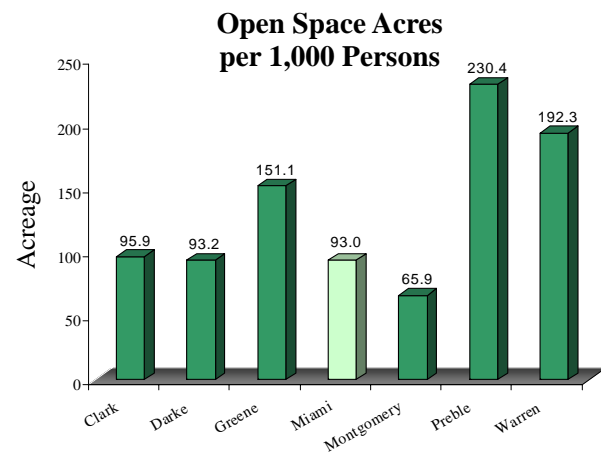


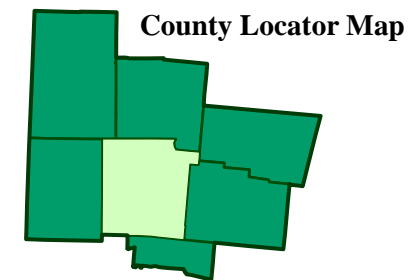
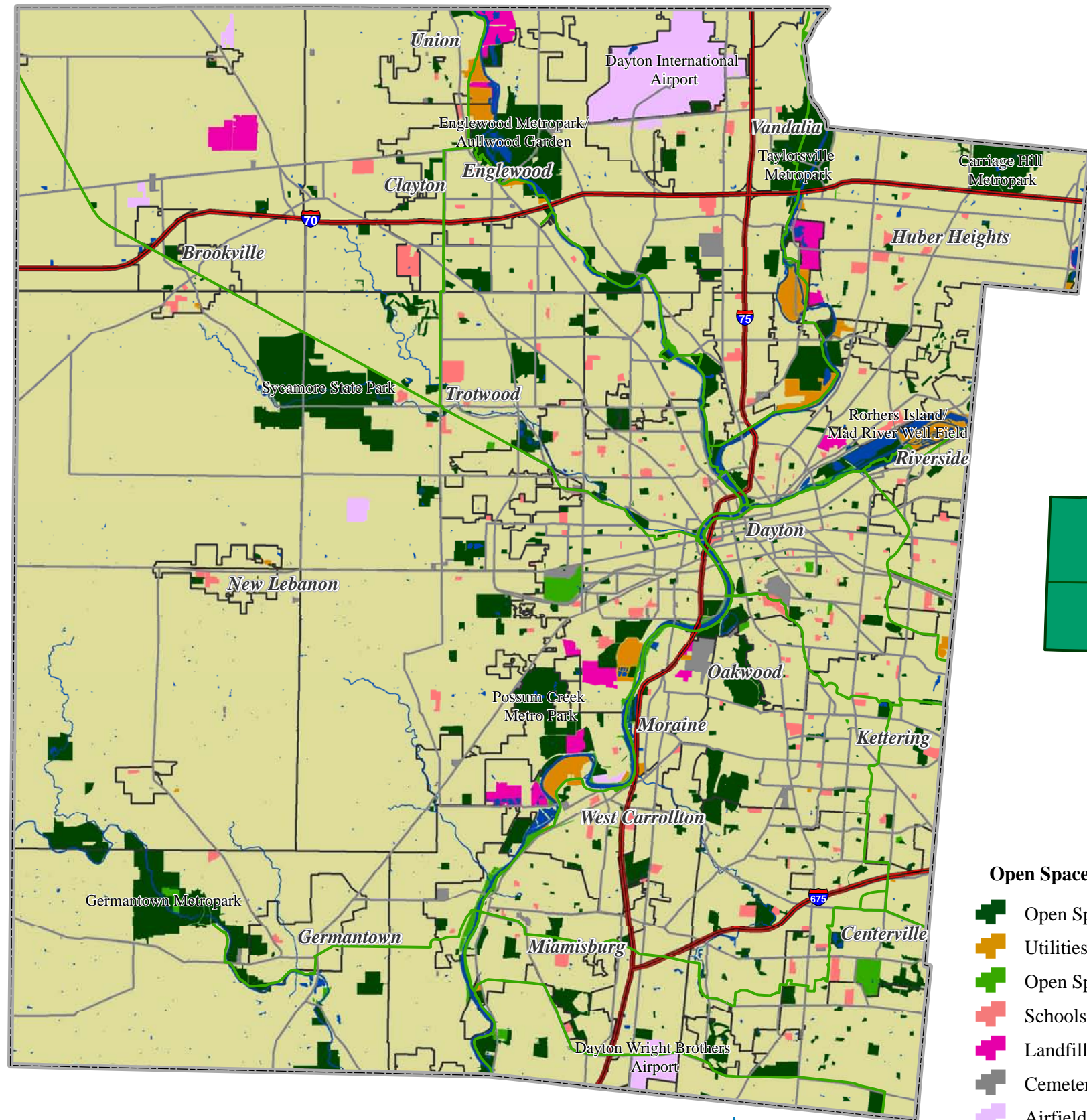
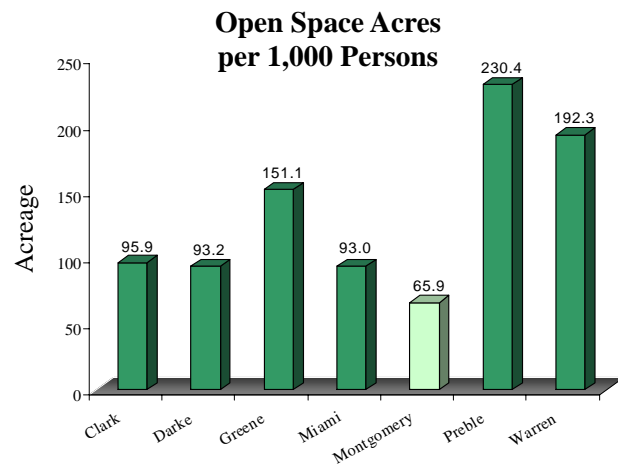
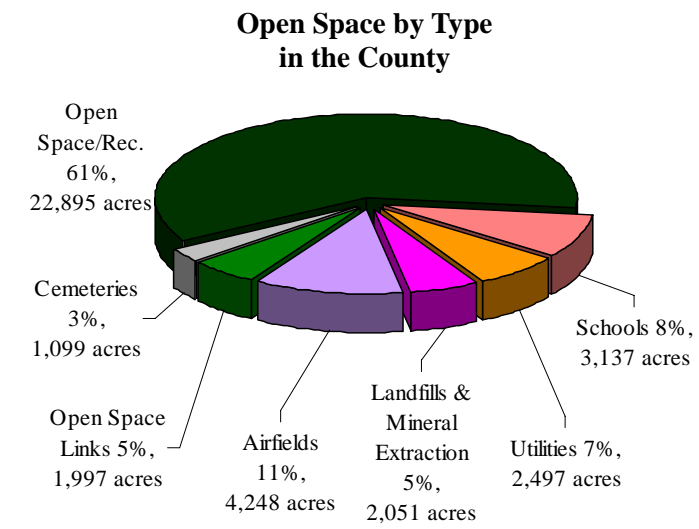
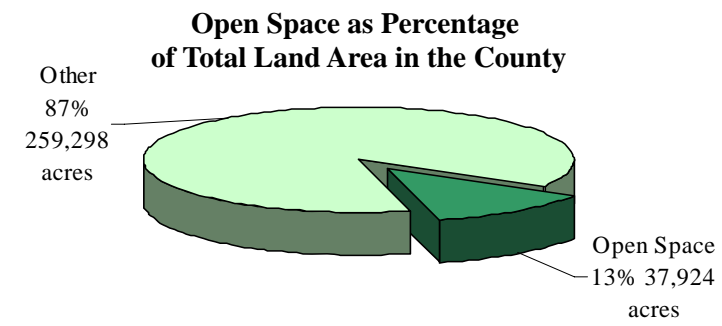
Open Space Classification

- Open Space/Rec (171 sites)
- Utilities (15 sites)
- Open Space Links (9 sites)
- Schools (49 sites)
- Landfills/Mineral Extraction (0 sites)
- Cemeteries (65 sites)
- Airfields (1 site)



Source: MVRPC 2005 Open Space Inventory
Date: November 2006

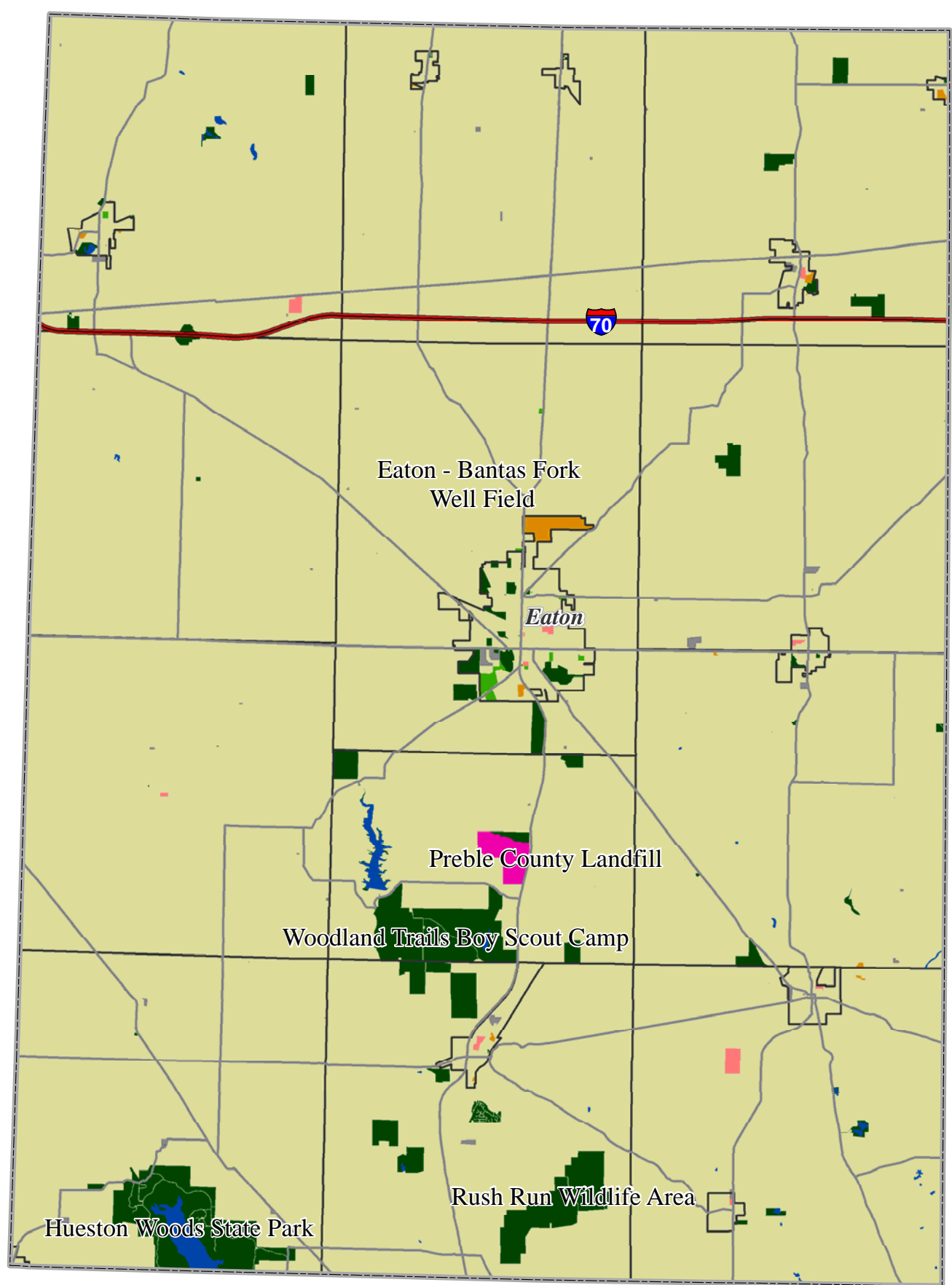
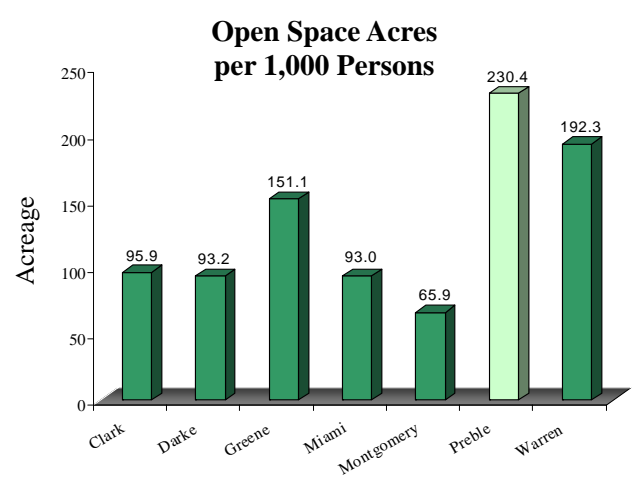
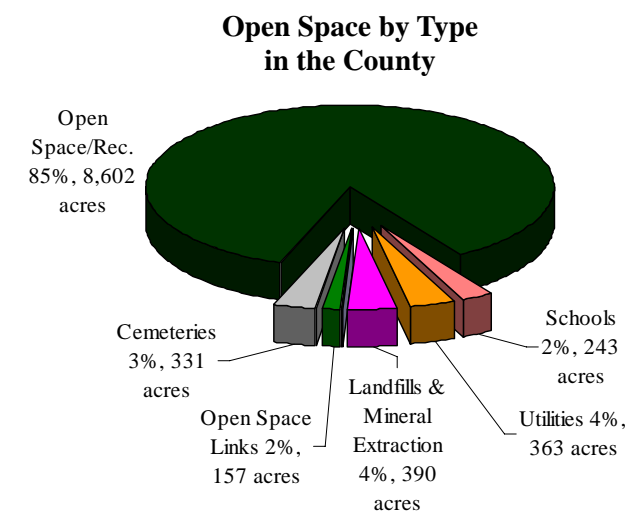
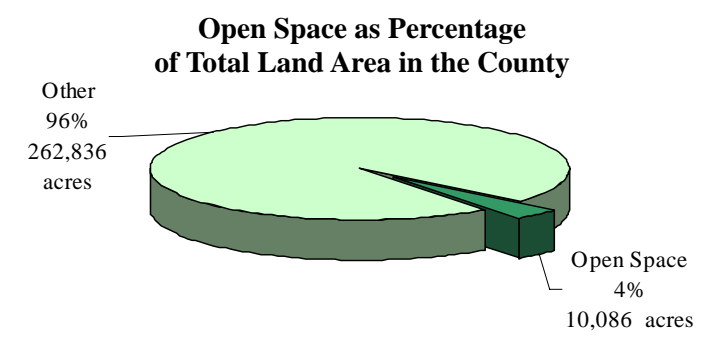











- #### Open Space Classification
- Open Space/Rec (509 sites)
 - Utilities (27 sites)
 - Open Space Links (50 sites)
 - Schools (181 sites)
 - Landfills/Mineral Extraction (13 sites)
 - Cemeteries (70 sites)
 - Airfields (6 sites)

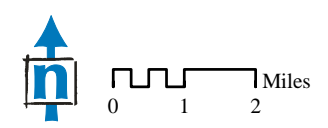
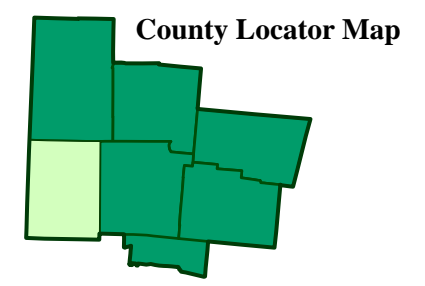


Source: MVRPC 2005 Open Space Inventory
Date: November 2006

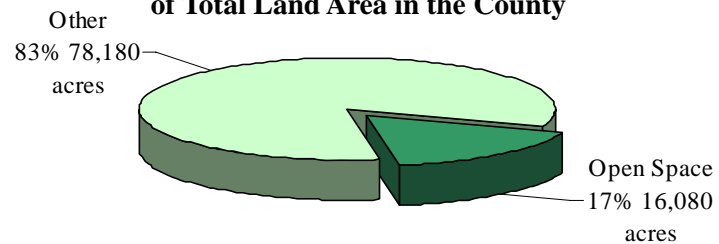


- #### Open Space Classification
-  Open Space/Rec (78 sites)
 -  Utilities (14 sites)
 -  Open Space Links (16 sites)
 -  Schools (13 sites)
 -  Landfills/Mineral Extraction (1 site)
 -  Cemeteries (59 sites)
 -  Airfields (0 sites)

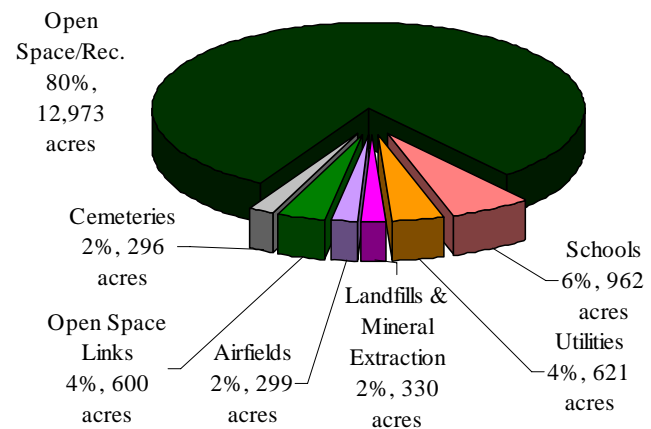
Source: MVRPC 2005 Open Space Inventory
Date: November 2006



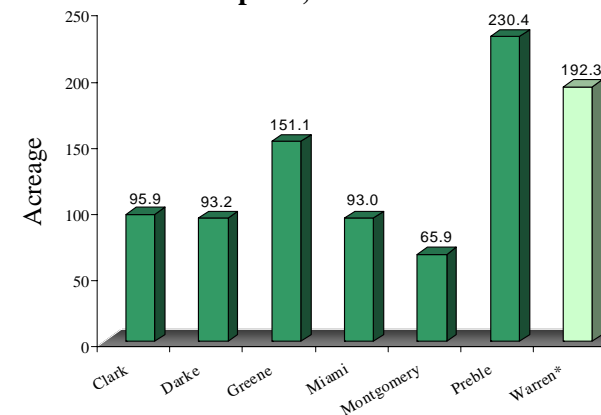
Open Space as Percentage of Total Land Area in the County



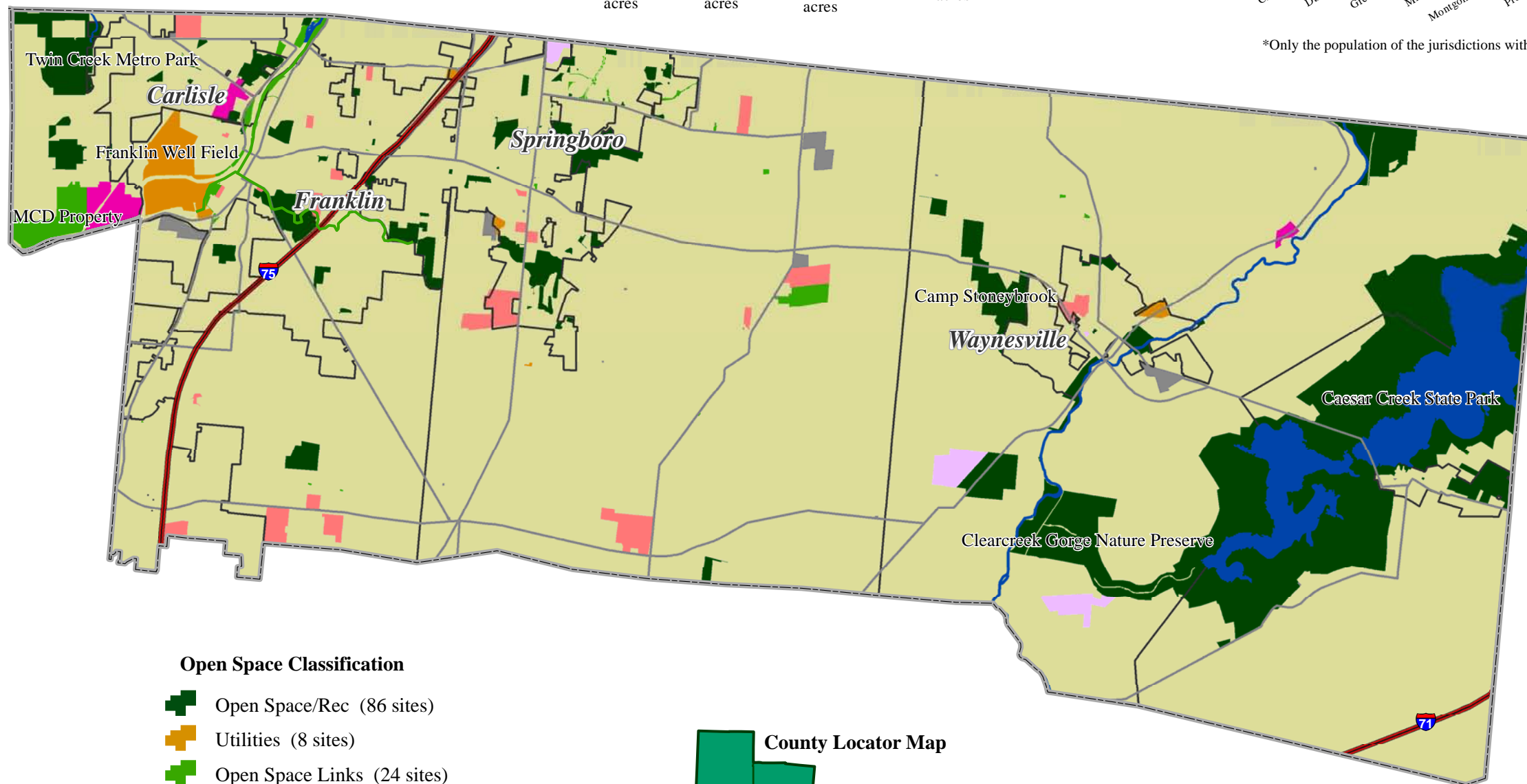
Open Space by Type in the County










Open Space Acres per 1,000 Persons



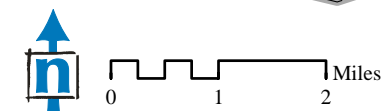
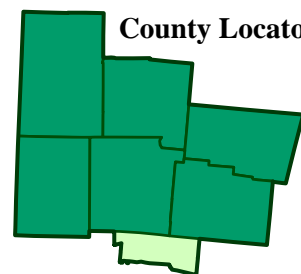
*Only the population of the jurisdictions within the region



Open Space Classification

-  Open Space/Rec (86 sites)
-  Utilities (8 sites)
-  Open Space Links (24 sites)
-  Schools (24 sites)
-  Landfills/Mineral Extraction (4 sites)
-  Cemeteries (23 sites)
-  Airfields (3 sites)

County Locator Map



Source: MVRPC 2005 Open Space Inventory
Date: November 2006