

APPENDICES



APPENDIX A

Municipal Meetings Public Input Results



JUNE 7, 2001 MEETING NOTES

Lower Sub-Region

Problems/Negatives

- Inadequate wetlands identification
- Added road run off
- Trash/Debris; Better trash collections
- DEP obstacles to clean up
- Old landfills
- Chemical, fecal, tidal pollutants
- Inadequate state inspections
- Upstream development
- Flooding
- Darby Creek Joint Sewage Treatment Plant - overflow
- Bridges
- Split legislative representative
- Lack of caring
- Folcroft house
- Bumting house (see Bill Fransch); Penn trel?
- Invasive species/impacts on wetlands
- Lack of money on lower and smaller boroughs

Solutions/Positives

- Walking trails
- Foster cooperation/interconnecting trail system
- Norwood - Morton Mortonsen House
- Ecological restoration/revegetation strategies
- Reduced sewage related problems - inflow and infiltration-
- Street trees
- Team to target private sector on waste/other water quality issues
- Education - signs, etc.
- School programs
- Tax/ fiscal impacts – “What’s in it for me?”
- Community connections
- Responsive regulations agencies (Small community groups, liaisons)
- Improved municipal code enforcement
- Passive parks
- Property purchases in critical zones



Middle Sub-Region

Problems/Negatives

- DREDGING (UPPER DARBYTWP) CREEK, TREE REMOVAL “ROUTINE MAIN” NAYLOR’S RUN
- BARTRAM PARK – EROSION AND EXOTIC/INVASIVE AND STREAMBANK
- HOFFMAN PARK. – Bank erosion (Lansdowne) No trails/access
- New Construction (after Floyd hit it and flooded) Property owner removed trees UPPER DARBY (Hilldale Road)
- MILLBOURNE DAM – Cobbs Creek – Obstructing Flow
- LLANARCH QUARRY (Neighbors) Landfill for hazardous wastes/wood chips
- MR. KAY DREXEL BROOK (fill and floodplain encroachment and A.C.O. Eng./DEP Issues)
- BRIDGE (a) Marshall Road – Constricts flow prior to underground
- TRASH REMOVAL (?) – From Floyd aftermath
- PENNDOT in general
- KMART – No Riparian Buffer and bad basin
- LOSS OF NESTING – Habitat for Migrating Birds
- POTENTIAL AVAILABLE OPEN SPACE PROPERTY – For sale signs
- DEV (SW 167) – RE – INFIL-DEVELOPMENT (need SW Management)
- (PIXS) STONEY CREEK NEAR MORTON
- ICINERATOR #2 – Ash Pile and Leachate into Darby Creek
- HAVERFORD (ILLEGAL DUMP- Main stem septa trolley Drexel Line Shopping Center) SITE – onto creek bank off of West Chester Pike

Solutions/Positive

- BARTRAM PARK
- SWEDISH CABIN
- MODEL WATERSHED CURRICULUM – 9TH grade/stream Restoration, Tree Planting) Macro-invertebrates. Small grant WILLIAM PENN SCHOOL DISTRICT George Ambrose
- SPRINGFIELD TWP. – Remove Structures from flood planes (5 homes)
- HOUSES WILL BE REMOVED FOR PASSIVE PARK
- KENT PARK – Repairing Sewer lines and stream stabilization.
- WELCH PARK (SPRINGFIELD) – Upgrade to sewer line
- WETLAND MITIGATION (FAIRMOUNT PARK COMMISSION) – near 69th street park, Church Lane/Naylor’s Run/Cobbs confluence
- COLLINGBROOK - Historic site
- STEVEN’S TRACT – Upper Darby Money for passive rec.
- THAYER – Open space now
- TROUT – Stocked below Darby
- NAYLOR’S RUN “GABIONS”
- 5 (NATIONAL) ACRES/RETENTION/INFILTRATION



- INFILTRATION AT HOME DEPOT LOT (MUCK CREEK)
- OUTDOOR CLASS RM (HS) (conservation district \$) – Upper Darby High School
- SYCAMORE (LACROSSE STREET) AND FORMER HOUSE

Upper Sub-Region

Problems/Negatives

- FAILING DAMS
- CHANNELIZATION
- SOUTH OF BRYN MAWR AVENUE – Riparian Restoration
- 2 GROWING GREENER APPS. ON LANFORD
- GOOSE CONTROL
- POND RESTORATION AT WILLIAMS
- CAP ON IMPERVIOUSNESS

Solutions/Positives

- LAWN CARE – Education and ordinances require mowing
- STREAM BUFFERS - trees important to stream system
- INFILL DEVELOPMENT
- NO BUILDING IN FLOOD PLAIN
- BASIN RETROFIT

Upper Darby Township

Meeting #1 Beverly Hills Middle School

Fall 2001, Horner/Ackerman notes

What is a Watershed?

What is your Watershed Address?

Problems:

- Naylor's Run off Garrett Rd. – water quality
- actively address the flooding problem
- Normandy Rd. – Veronica Rd.
- Springton and Grace
- need for upstream management
- question of hold back in Havertown
- Socio – economic (if problem were in Radner something would happen)
- purchase PECO Property at Marshall and long lane (possible flood control)
- flooding problems
- Marshall Rd. overflow
- PENN-DOT Bridge (at Naylor's Run and Marshall Rd. – inadequate for flow of water at entrance of culvert)



- open space enough to alleviate the problem
- Penn-Dot Bridge

Concerns:

- Question of building in a floodplain
- FEMA- technical levels
- Perhaps-
- 2a. Contact for purchase of PECO property
- 2b. Could PECO get a tax deduction for an in perpetuity easement
- Congressman Weldon
- Act 167- new storm water standards (hopefully will help)
- better map (maps for presentation must be more definitive)
- 5a. We can get these or could get them. People have to know we know the area.
- have politicians
- legislative grouping – legislative coalition
- Haverford State Project (need to be aware of project – how it can help downstream communities)
- Naylor's Run Park
- Stormwater potential – can the park area absorb any more storm water in peak time
- Dumping/ Maintenance problems
- Citizens must participate – need to be part of the solution
- Stormwater backup by Cobbs – affects Veronica problem
- Bought Stevens property (Is this in this area? Need to clarify)
- Litter
- Veronica Road Day (Neighborhood Organization)
- School Curriculum Issues – students need to learn about this area
- Then they can
 - educate their parents
 - educate community via projects
- Two (2) clean up days
- Land acquisition (Nothing left)
- Public Education

Upper Darby Township

Meeting #2

Main Stem Western boundary of Upper Darby Township

Issues:

- Township Line Bridge at W. Rolling Road and Route 1 – level of the bridge
- Penn-Dot issue and cause excessive flooding
- Can create a catch basin at Township Line and Drexel Line Shopping Center
- Rosemont Bridge



- “Absolute” but not to local residents
 - County has evaluated the bridge and deemed its safe
- Baltimore Pike Bridge
 - was there a streamside debris built?
- Causes excessive flooding condition at K-mart; buffer to have been part of K-mart development
- Kent Park
 - Adequate for local residents for passive recreation; part of county park system
- Thompson Tract (tract to watch) on Providence Road
- who prefer development to the rear of the site rather than adversely affect their properties
- Problem of roadway access to the tract
- Drexel Brook
 - Were proper permits for development obtained? Building in flood plain?
 - Question of removing riparian buffers
 - Question of altering course the stream
 - Example of visual blight parking lot designated spen. SP & CP; were any of these areas originally designated as open space when property was sold for Drexel Brook (need to check deed)?
 - Pollution
 - Problems of erosion
 - Effect on biological life – (fish, wildlife; concern for natural habitat; evidence of wildlife in spite of development; blue heron)
 - Litter
 - Noise Pollution
 - Access for trucks; with land fill – will cares use their access route – Tom Judge
 - Drexel Brook not to happen
 - Non-point pollution; runoff pesticides and fertilizers
- What is the Conservation District position? Concern for failure to obtain proper permits
- Correnti Property in Clifton Heights
 - with new owner, need to watch

Areas that need to be watched to protect from development, if at all possible

- Mozino Tract on State Road adjacent to Collenbrook; present zoning single family
- Whelan Tract on Creek Road
- Dayle property
- Clifton Heights - west of Boonies
- Positive move: need to identify recently donated land in Clifton Heights

Solutions - One Step at a time

- intermunicipality cooperation – mutual support for projects
- Education – need to educate public of the value to our quality of life; if we preserve our natural and cultural heritage



- Need to educate public as to cost or consequences of paving with impervious surfaces
- Taxpayer
- Education worth it – effect of consequence on property values
- Resources beyond municipal level should be shared equally between area of greater/ lesser wealth
- Why not funding for open space in Upper Darby? Question of representation in Eastern corridor of County; Open space task force planning commission; Need for inter-municipal support in eastern corridor
- Mozino Property – zoning single family
- Tract on Rt. 1

Upper Darby Township

Muckinipates Meeting #3

Fall 2001, Anne Ackerman Notes

- -Still flooding, back yards
- -Curb on development
 - Township is buying Stevens tract
- -Home Depot an example of controlling runoff; problem from Springfield runoff
- -Socioeconomic issues
- -People will work together (positive)
- -Need for education
- -Need for intermunicipal cooperation
- -Need for public input; leaks in sewer line – not line awareness
- -Preserve Morton Morton house in Norwood
- -? Of the Thompson tract on Providence Road, though not on Muck.

Upper Darby Township

Cobbs Creek Meeting #4

Fall 2001, Anne Ackerman Notes

(four people but good dialogue with councilman)

Concerns

- -More access from the park to Stonehurst short cut to Walnut Park Drive (?)
- -Erosion
- -Pollution
- -Public education most important
- -Environmental Center; need better public awareness and education of residents; Center as an asset
- -Especially for wetlands and non-invasive species
- -Concern for West Nile virus/mosquitos
- -Socioeconomic concerns



- -Back up from Cobbs Creek into Upper Darby and Veronica Road; Army Corps dredging a possibility?
- -Maybe when Environmental Center opens, there could be some celebration for Upper Darby neighbors to create greater awareness
- -Cobbs Creek center just got a \$167,000 grant for education

Municipalities (M)

County (C)

State/Federal (S/F)

Citizen Stakeholders (CS)

Businesses (B)

DCVA/other watershed organizations (DCVA)

Other nonprofit public interest groups (ON/PI)

Utilities/Authorities (U/A)

Schools/Educational (S/E)

Other (O)



GOAL-BASED ACTION PLAN FOR DARBY CREEK WATERSHED RIVER CONSERVATION PLAN

Summary: Draft Recommendations can be grouped roughly into several categories of actions:

- Municipal Regulation
 - Riparian
 - Wetlands
 - Floodplain
 - Stormwater
 - Open Space/Recreation
 - Ecological resource Protection
 - Cultural Resource Protection
- Specific Projects
 - Restoration
 - Floodplain, Riparian, Wetlands, Other
 - Stormwater
 - Recreation/Open Space
- Planning Process
 - Specific: Partnership
 - General: Watershed Planning
- Additional Detailed Study
 - See Detailed List.
- Education
 - Public Schools
 - Municipal Officials
 - Landowners
 - Libraries



APPENDIX B

Land use data by Municipality DVRPC, 1995



**Land Use Within the Darby Creek Watershed, by Municipality
(Data from DVRPC, 1995)**

Darby Creek Watershed Municipality	Land Use Category	Area (sq. ft.) in Watershed	Acres in Watershed
Aldan Boro	commercial /services	1,242,070.67	28.51
	community service	260,050.69	5.97
	parking-commercial/services	286,265.28	6.57
	parking-community service	47,878.90	1.10
	recreation	411,377.03	9.44
	residential-row homes	586,369.80	13.46
	residential-single family detached	13,729,800.00	315.19
	water	19,414.60	0.45
	wooded	592,960.00	13.61
Clifton Heights Boro	commercial /services	3,668,085.07	84.21
	manufacturing-light	327,636.70	7.52
	parking-commercial/services	490,505.53	11.26
	parking-manufacturing	41,249.70	0.95
	recreation	872,379.54	20.03
	residential-multi family	416,793.73	9.57
	residential-row homes	5,187,083.40	119.08
	residential-single family detached	5,146,025.90	118.14
	utility	8,256.92	0.19
	water	183,569.80	4.21
	wooded	1,338,523.80	30.73
Collingdale Boro	commercial /services	2,816,760.10	64.66
	community service	4,180,986.07	95.98
	parking-commercial/services	185,161.33	4.25
	parking-community service	41,294.50	0.95
	recreation	1,121,232.30	25.74
	residential-multi family	8,853,086.60	203.24
	residential-row homes	2,170,189.50	49.82
	residential-single family detached	3,832,290.00	87.98
	vacant	130,640.00	3.00
	wooded	1,331,156.00	30.56
Colwyn Boro	commercial /services	661,548.00	15.19
	community service	367,161.30	8.43
	manufacturing-light	423,028.00	9.71
	parking-commercial/services	11,374.20	0.26
	parking-community service	14,835.70	0.34
	recreation	567,369.00	13.02
	residential-row homes	1,968,322.59	45.19
	residential-single family detached	1,244,486.91	28.57
	transportation	323,874.00	7.44
	utility	176,488.00	4.05
	water	473,054.10	10.86
	wooded	931,599.97	21.39



Darby Boro	commercial /services	2,785,149.15	63.94
	community service	4,233,128.00	97.18
	manufacturing-light	70,587.90	1.62
	parking-commercial/services	171,287.00	3.93
	parking-community service	197,468.70	4.53
	parking-multi family housing	23,122.14	0.53
	parking-recreation	26,029.00	0.60
	recreation	712,458.00	16.36
	residential-multi family	2,570,639.14	59.01
	residential-row homes	6,341,284.90	145.58
	residential-single family detached	3,048,620.80	69.99
	transportation	116,460.00	2.67
	water	467,573.57	10.73
	wooded	2,087,812.30	47.93
Darby Twp	commercial /services	2,976,020.50	68.32
	community service	4,904,438.10	112.59
	manufacturing-light	6,348,631.60	145.74
	parking-commercial/services	741,511.25	17.02
	parking-community service	101,163.10	2.32
	parking-manufacturing	108,468.19	2.49
	recreation	1,472,521.80	33.80
	residential-multi family	4,391,974.55	100.83
	residential-row homes	7,232,218.80	166.03
	residential-single family detached	4,652,151.41	106.80
	transportation	569,584.00	13.08
	utility	487,124.00	11.18
	vacant	2,626,616.90	60.30
	water	1,191,439.00	27.35
	wooded	1,842,398.00	42.30
East Lansdowne Boro	community service	244,701.90	5.62
	manufacturing-light	302,108.00	6.94
	recreation	28,427.30	0.65
	residential-row homes	1,713.31	0.04
	residential-single family detached	4,903,920.00	112.58
Easttown Twp	agriculture	11,130,394.60	255.52
	commercial /services	5,252,571.33	120.58
	community service	2,667,973.00	61.25
	parking-commercial/services	889,427.40	20.42
	parking-community service	341,819.00	7.85
	parking-multi family housing	132,288.68	3.04
	parking-recreation	19,159.66	0.44
	parking-transportation	144,238.00	3.31
	recreation	1,909,646.70	43.84
	residential-multi family	772,385.60	17.73
	residential-row homes	4,629,213.00	106.27
	residential-single family detached	105,953,134.90	2,432.35
	utility	121,137.00	2.78
	vacant	1,248,775.00	28.67
	water	330,495.80	7.59
	wooded	23,041,090.00	528.95



Folcroft Boro	commercial /services	1,858,263.00	42.66
	community service	429,363.40	9.86
	manufacturing-light	5,871,714.08	134.80
	parking-commercial/services	466,881.00	10.72
	parking-community service	61,679.10	1.42
	parking-manufacturing	1,000,134.70	22.96
	recreation	10,979,920.60	252.06
	residential-multi family	6,384,811.38	146.58
	residential-row homes	454,515.00	10.43
	residential-single family detached	3,762,746.00	86.38
	transportation	263,790.70	6.06
	vacant	63,091.50	1.45
	water	5,759,113.93	132.21
	wooded	1,485,107.70	34.09
Glenolden Boro	commercial /services	2,580,985.60	59.25
	community service	877,269.40	20.14
	parking-commercial/services	777,167.60	17.84
	parking-community service	107,483.00	2.47
	parking-multi family housing	32,743.10	0.75
	recreation	1,222,009.00	28.05
	residential-multi family	7,939,095.00	182.26
	residential-row homes	52,733.80	1.21
	residential-single family detached	10,409,059.50	238.96
	transportation	418,671.00	9.61
	utility	304,728.00	7.00
	vacant	838,796.00	19.26
	water	50,144.50	1.15
	wooded	1,612,240.70	37.01
Haverford Twp	commercial /services	8,817,694.99	202.43
	community service	14,445,147.80	331.62
	mining	1,259,040.00	28.90
	parking-commercial/services	1,734,980.29	39.83
	parking-community service	777,772.90	17.86
	parking-multi family housing	244,742.10	5.62
	parking-recreation	127,242.10	2.92
	recreation	25,084,163.00	575.85
	residential-multi family	7,078,279.70	162.49
	residential-single family detached	186,927,630.14	4,291.26
	transportation	2,283,362.25	52.42
	utility	374,636.40	8.60
	water	358,725.50	8.24
	wooded	28,729,257.00	659.53



Lansdowne Boro	commercial /services	2,755,722.50	63.26
	community service	593,626.00	13.63
	parking-commercial/services	439,865.80	10.10
	parking-community service	37,682.30	0.87
	parking-recreation	12,237.60	0.28
	recreation	1,088,280.30	24.98
	residential-multi family	346,426.00	7.95
	residential-row homes	3,191,645.40	73.27
	residential-single family detached	21,974,948.60	504.48
	water	269,637.00	6.19
	wooded	2,789,150.00	64.03
Lower Merion Twp	commercial /services	6,866,178.95	157.63
	community service	9,778,481.87	224.48
	parking-commercial/services	2,604,357.73	59.79
	parking-community service	1,049,661.02	24.10
	parking-multi family housing	264,004.95	6.06
	parking-recreation	91,380.80	2.10
	recreation	4,858,837.10	111.54
	residential-multi family	11,502,473.00	264.06
	residential-row homes	301,180.00	6.91
	residential-single family detached	64,474,975.92	1,480.14
	transportation	1,123,138.34	25.78
	vacant	27,937.30	0.64
	water	210,565.30	4.83
	wooded	5,295,476.60	121.57
Marple Twp	commercial /services	8,980,579.22	206.17
	community service	10,997,552.40	252.47
	parking-commercial/services	2,849,928.51	65.43
	parking-community service	686,995.60	15.77
	parking-multi family housing	24,966.10	0.57
	recreation	2,266,696.00	52.04
	residential-multi family	1,452,014.00	33.33
	residential-single family detached	72,909,785.00	1,673.78
	transportation	6,030,060.00	138.43
	utility	75,227.50	1.73
	water	293,570.90	6.74
	wooded	25,222,713.88	579.03
Millbourne Boro	commercial /services	436,751.90	10.03
	parking-commercial/services	385,890.30	8.86
	parking-transportation	23,959.40	0.55
	residential-multi family	617,446.00	14.17
	water	115,759.82	2.66
	wooded	312,922.00	7.18
Morton Boro	commercial /services	1,441,831.00	33.10
	parking-commercial/services	422,885.88	9.71
	parking-multi family housing	31,215.57	0.72
	residential-multi family	289,418.00	6.64
	residential-single family detached	6,996,855.10	160.63
	utility	48,013.60	1.10
	wooded	348,371.70	8.00



Narberth Boro	commercial /services	683,065.50	15.68
	community service	190,555.80	4.37
	parking-commercial/services	129,179.30	2.97
	parking-community service	34,004.30	0.78
	recreation	249,242.00	5.72
	residential-multi family	540,459.39	12.41
	residential-row homes	8,924.34	0.20
	residential-single family detached	9,023,590.00	207.15
	transportation	174,379.00	4.00
Newtown Twp	wooded	273,869.30	6.29
	agriculture	5,687,818.70	130.57
	commercial /services	2,061,839.32	47.33
	community service	2,189,822.04	50.27
	parking-commercial/services	179,110.10	4.11
	parking-community service	120,489.30	2.77
	parking-recreation	146,234.60	3.36
	parking-utility	30,263.30	0.69
	recreation	9,819,665.00	225.43
	residential-multi family	2,412,404.74	55.38
	residential-single family detached	68,732,240.18	1,577.88
	utility	66,133.60	1.52
	vacant	298,050.00	6.84
	water	315,768.80	7.25
	wooded	19,574,841.50	449.38
Norwood Boro	commercial /services	1,594,587.97	36.61
	community service	600,566.21	13.79
	parking-commercial/services	200,852.40	4.61
	parking-community service	42,685.30	0.98
	recreation	1,755,423.00	40.30
	residential-multi family	3,904,384.22	89.63
	residential-single family detached	10,893,024.81	250.07
	water	1,803,590.00	41.40
	wooded	1,867,731.00	42.88
Philadelphia	agriculture	378,129.00	8.68
	commercial /services	9,979,920.60	229.11
	community service	10,091,382.00	231.67
	manufacturing-light	1,004,739.20	23.07
	parking-commercial/services	858,804.40	19.72
	parking-community service	688,911.13	15.82
	parking-multi family housing	152,313.70	3.50
	parking-recreation	74,626.90	1.71
	parking-utility	48,030.30	1.10
	recreation	41,466,249.14	951.93
	residential-multi family	1,466,069.80	33.66
	residential-row homes	98,340,644.30	2,257.59
	residential-single family detached	2,394,551.90	54.97
	transportation	4,808,052.85	110.38
	utility	1,169,971.00	26.86
	vacant	4,195,501.65	96.32
	water	8,467,811.97	194.39
	wooded	222,736.20	5.11



Prospect Park Boro	commercial /services	2,554,142.00	58.64
	community service	1,341,976.20	30.81
	parking-commercial/services	62,762.50	1.44
	parking-community service	148,957.60	3.42
	parking-multi family housing	20,341.20	0.47
	parking-utility	19,428.90	0.45
	recreation	1,190,054.10	27.32
	residential-multi family	3,023,533.00	69.41
	residential-single family detached	11,709,040.00	268.80
	utility	26,143.10	0.60
	water	312,041.75	7.16
	wooded	363,407.90	8.34
Radnor Twp	agriculture	27,449,905.00	630.16
	commercial /services	11,675,382.40	268.03
	community service	14,319,612.80	328.73
	parking-commercial/services	4,549,192.05	104.43
	parking-community service	1,454,092.52	33.38
	parking-multi family housing	292,542.80	6.72
	parking-recreation	207,170.50	4.76
	recreation	20,897,965.28	479.75
	residential-multi family	10,173,397.90	233.55
	residential-single family detached	181,816,745.30	4,173.94
	transportation	5,016,270.00	115.16
	vacant	895,674.00	20.56
	water	472,959.18	10.86
	wooded	35,766,161.00	821.08
Ridley Park Boro	commercial /services	1,217,367.30	27.95
	community service	249,927.50	5.74
	parking-commercial/services	262,139.50	6.02
	parking-community service	76,700.70	1.76
	recreation	335,453.00	7.70
	residential-multi family	33,402.80	0.77
	residential-row homes	210,367.00	4.83
	residential-single family detached	7,903,620.00	181.44
	wooded	1,348,860.00	30.97



Ridley Twp	commercial /services	5,291,154.03	121.47
	community service	1,808,944.40	41.53
	manufacturing-heavy	1,306,500.00	29.99
	manufacturing-light	1,524,010.00	34.99
	military	248,419.00	5.70
	parking-commercial/services	637,806.20	14.64
	parking-community service	92,697.20	2.13
	parking-manufacturing	1,067,393.43	24.50
	parking-military	63,206.40	1.45
	parking-multi family housing	222,152.80	5.10
	recreation	964,952.33	22.15
	residential-multi family	5,755,038.03	132.12
	residential-row homes	381,645.00	8.76
	residential-single family detached	33,688,953.67	773.39
	transportation	764,481.00	17.55
	utility	499,998.30	11.48
	vacant	1,274,600.00	29.26
	water	1,005,652.30	23.09
	wooded	2,818,698.20	64.71
Rutledge Boro	commercial /services	19,100.60	0.44
	community service	50,101.79	1.15
	recreation	22,023.00	0.51
	residential-single family detached	2,660,380.00	61.07
Sharon Hill Boro	commercial /services	1,647,048.50	37.81
	community service	587,636.04	13.49
	manufacturing-light	2,718,350.00	62.40
	parking-commercial/services	385,489.50	8.85
	parking-community service	203,236.50	4.67
	parking-manufacturing	678,720.80	15.58
	parking-multi family housing	58,196.40	1.34
	recreation	947,858.60	21.76
	residential-multi family	3,059,709.68	70.24
	residential-row homes	2,524,448.00	57.95
	residential-single family detached	5,922,473.00	135.96
	transportation	755,286.00	17.34
	utility	185,766.00	4.26
	vacant	56,634.91	1.30
	water	275,664.90	6.33
	wooded	1,567,134.50	35.98



Springfield Twp	commercial /services	4,481,792.13	102.89
	community service	2,956,484.44	67.87
	parking-commercial/services	3,989,887.29	91.60
	parking-community service	85,961.70	1.97
	parking-recreation	223,133.10	5.12
	recreation	9,454,792.90	217.05
	residential-multi family	191,442.90	4.39
	residential-row homes	3,468.04	0.08
	residential-single family detached	71,575,529.66	1,643.15
	transportation	309,430.00	7.10
	utility	389,614.00	8.94
	vacant	808,143.00	18.55
	wooded	11,780,961.55	270.45
Tinicum Twp	commercial /services	1,926,846.01	44.23
	community service	644,809.60	14.80
	manufacturing-light	5,980,945.10	137.30
	parking-commercial/services	3,174,042.00	72.87
	parking-community service	474,310.00	10.89
	parking-manufacturing	1,210,338.00	27.79
	parking-transportation	677,464.00	15.55
	recreation	15,649,220.20	359.26
	residential-multi family	1,563,633.00	35.90
	residential-single family detached	8,619,290.00	197.87
	transportation	17,688,906.00	406.08
	utility	236,722.00	5.43
	vacant	7,543,537.90	173.18
Tredyffrin Twp	water	7,661,791.70	175.89
	wooded	2,340,377.00	53.73
	commercial /services	5,027,542.96	115.42
	community service	544,867.60	12.51
	parking-commercial/services	1,130,486.00	25.95
	parking-community service	35,854.53	0.82
	parking-multi family housing	280,692.20	6.44
	parking-transportation	48,702.60	1.12
	recreation	416,928.45	9.57
	residential-multi family	2,024,473.59	46.48
	residential-single family detached	13,163,673.00	302.20
	wooded	267,019.00	6.13



Upper Darby Twp	commercial /services	18,517,871.60	425.11
	community service	17,358,376.55	398.49
	manufacturing-light	1,758,198.26	40.36
	mining	5,350.49	0.12
	parking-commercial/services	4,373,687.60	100.41
	parking-community service	902,160.45	20.71
	parking-manufacturing	85,058.30	1.95
	parking-multi family housing	285,615.40	6.56
	parking-recreation	117,053.60	2.69
	parking-transportation	283,002.20	6.50
	recreation	9,080,966.23	208.47
	residential-multi family	18,757,005.20	430.60
	residential-row homes	32,783,661.15	752.61
	residential-single family detached	89,326,980.14	2,050.66
	transportation	3,395,441.00	77.95
	utility	1,121,276.10	25.74
	vacant	738,418.00	16.95
	water	807,159.25	18.53
	wooded	17,681,921.00	405.92
Yeadon Boro	commercial /services	517,864.10	11.89
	community service	10,544,039.60	242.06
	manufacturing-light	2,648,115.90	60.79
	parking-commercial/services	170,933.00	3.92
	parking-community service	105,797.10	2.43
	parking-manufacturing	63,428.90	1.46
	parking-multi family housing	629,506.40	14.45
	recreation	1,498,322.20	34.40
	residential-multi family	1,602,584.00	36.79
	residential-row homes	3,966,828.45	91.07
	residential-single family detached	15,043,938.00	345.36
	vacant	223,165.70	5.12
	water	634,220.13	14.56
	wooded	7,216,630.00	165.67



APPENDIX C

Ordinance Review Summary of Municipal Planning in the Darby Creek Watershed



In the sections below, we inventory and quickly evaluate the planning documents for the municipalities within the Darby Creek Watershed, which have been provided to us. All of the 31 municipalities in the four different counties have adopted comprehensive plans, adopted zoning ordinances, and adopted subdivision/land development regulations (although several in Delaware County still rely on a set of subdivision/land development regulations prepared by Delaware County in 19__). As has been pointed out throughout this RCP, a major challenge for at least some Watershed municipalities has been provision of state-of-the-art municipal services, including planning. Many of these municipal plans and ordinances are quite old and reflect outdated technical approaches to stormwater management, for example. Given the extreme fiscal competition for every budget item, major updating of plans and ordinances is going to be a huge challenge, however critical it may be.

These planning and management documents are important to this RCP for a variety of reasons. In terms of more general **comprehensive planning**, obviously it is of great importance how each municipality is planning for (i.e., “visioning”) its respective future. Because comprehensive plans can take different forms and be structured in different ways, however, it is difficult to develop a simple and concise list of essential comprehensive plan ingredients to demonstrate RCP compatibility. Some basic issues—questions—do emerge. To what extent is the conservation and preservation of the stream valley and its tributaries set forth in the comprehensive plan (or any other plan) as a goal and/or objective? Are related environmental features addressed in the comprehensive plan and integrated into plan implementation recommendations? Are related cultural and historical values as discussed in the RCP inventoried and highlighted in the comprehensive plan; are goals and objectives established? Are recreational goals and objectives adequately defined; are recreational facilities inventoried and evaluated for adequacy (this could be dealt with in a separate recreation and open space plan if such exists)? In the implementation sections of the comprehensive plans, are there projects identified in the individual plans which can be related to the recommendations developed here for the RCP?

In terms of the implementing **zoning ordinance and subdivision/land development regulations**, again it is difficult to develop a concise list of minimum zoning ingredients necessary for RCP compatibility. Most importantly, zoning typically dictates how floodplain and riparian zones are regulated, what uses and disturbances are allowed, and so forth. Other environmental values such as wetlands and steep slopes and woodlands may also be addressed and managed in zoning. Also of importance is the entire approach given to growth and development as established in the zoning ordinance and how development and re-development is structured. Approaches in the densely developed “bottom” of the Watershed clearly can be expected to be different than approaches at the “top” of Watershed where development patterns are less dense and where innovative planning techniques such as clustering and conservation design have greater potential. Are municipalities here striving to concentrate development and maximize retention of open space where feasible?



In terms of **subdivision and land development regulations**, a variety of specific provisions are of interest, but certainly the area of greatest concern focuses directly on stormwater management and the extent to which both water quantity and water quality are being comprehensively and effectively managed. Wastewater regulations also are set forth in subdivision, though because of the preponderance of public sewerage coupled with the manner in which this sewage is collected and treated, subdivision requirements are of limited relevance here. A variety of other development provisions are indirectly relevant as well, such as pavement width, curbing requirements, landscaping requirements, grading, and sediment and erosion control.

Not all municipalities have provided planning documentation during this RCP planning process. The summaries below are based on that information which has been provided to the RCP technical staff, after several requests have been made during the last 18 months.

Aldan Borough

- **Comprehensive Plan, 1975-1990, Excerpt.** This brief excerpt highlights the problem of flooding in Aldan.
- **Zoning.** Not provided.
- **Subdivision/Land Development.** Not provided.

Darby Borough

- **Comprehensive Plan, 1991, Excerpt.** The Plan addresses serious flooding problems in the Borough, inventorying flood problems and making recommendations as developed in the 1980 US Army Corps of Engineers report (widening of the stream channel and removal of obstructions).
- **Zoning.** Not provided.
- **Subdivision/Land Development:** Not provided.

Easttown Township

- **Comprehensive Plan, June 2001, Ray Ott and Associates.** This excellent plan first designates the bulk of the Darby Creek portion of the Township as “Low Density Suburban” (with densities less than one unit per acre, though portions of the Darby are also designated in higher density uses (the intent is to guide development in a manner similar to growth boundaries. An array of sophisticated recommendations is established to attempt to concentrate development in the most environmentally sensitive ways possible (vacant developable parcels do remain in the Darby but are not extensive). The Plan address natural resources in detail, as well as recreational and cultural resources. Specific recommendations are set forth for open space and recreation (referring back to the considerable 1993 Recreation, Open Space and Environmental Resources Plan), including the acquisition of easements or fee simple ownership of all unprotected lands adjacent to Darby Creek. Preparation of a Historic Preservation Plan is advanced. Elaborate biking and pedestrian trail recommendations are developed, although not specifically following stream valley



greenways. The Plan calls for significant changes to improve stormwater management, congruent with RCP recommendations, as well as development of riparian buffer and wetlands zones along Township streams, all critical recommendations in this RCP. The Township and the Watershed has benefited substantially from donation of conservation easements (both public and private) in Easttown Township, including the very large Waterloo Mills Preserve now owned by the Brandywine Conservancy (also in Newtown Township); the Plan calls for continued use of this important opens space preservation technique, in addition to Township purchase where feasible.

- **Zoning, 1997 As Amended.** This ordinance includes a floodplain conservation district which is congruent with FEMA recently revised standards; prohibitions could be more rigorous. Other specific environmental regulations are lacking, though are discussed in the new Comprehensive Plan (above). Innovative techniques such as lot averaging are included here.
- **Subdivision and Land Development Ordinance 118, Updated.** This ordinance appears to be relatively standard and lacks important stormwater and other RCP-recommended provisions. These recommendations are included in the Comprehensive Plan, as discussed above. Development-related provisions (i.e., road widths, etc.) need to be scrutinized as well.

Glenolden Borough

- **Comprehensive Plan 1997.** This Plan, though brief, sets forth recommendations for better floodplain management and better steep slope management and better management of stormwater and wetlands which are quite consistent with the RCP recommendations. Cultural resources are also addressed.
- **Zoning.** Not provided.
- **Subdivision/Land Development.** Not provided.

Haverford Township

- **Comprehensive Plan, 1988 Volume I.** In terms of goals and objectives, this Plan relates only indirectly, encouraging enlargement of the Township's existing network of parkland as well as preservation of private open space. Cultural resources are discussed at great length with detailed recommendations made about further cultural resource work in Haverford (see Section VI). There is an excellent discussion of streams and stream valleys in the natural resources section, as well as good discussion of the functions of floodplains, woodland areas, and other natural features. The Plan argues for better management of stream valleys, where floodplain, woodlands, and steep slopes coincide in many cases. Stream valleys should be viewed as important elements in the open space system.
- **Comprehensive Plan, 1988 Volume II.** This Plan recommends the completion of greenways along Darby Creek as well as Ithan and Cobbs Creeks. There is a Darby Creek Valley Park designated along the entire length of the Township's long Darby



Creek boundary; a proposed bikeway is designated throughout this Darby Creek Valley Park. Other additions to the recreation system also are developed. Extensive stormwater management recommendations are developed as well; unfortunately the majority of these recommendations reflect a peak rate focus with the objective being the more rapid disposal/removal of stormwater from the Township. This costly approach, requiring a variety of capital improvements, would only worsen flooding downstream. The Plan includes an implementation section but this section is quite summary in nature and is quite weak.

- **Zoning.** Not provided; includes standard FEMA floodplain requirements.
- **Subdivision/Land Development, As Amended to Current.** This ordinance has special requirements for historic structures (Article IV), compatible with Draft RCP recommendations; see further discussion in Section VI. Provisions for stormwater management are quite conventional and need to be updated to be made compatible with Draft RCP recommendations. Other environmental provisions are quite general and should be made more specific, such as steep slope protection. There is provided protection of large trees as well as masses of trees, with the requirement for replacement. Similarly, floodplains requirements appear to be FEMA program-focused with the primary intent being prevention of damage to property and loss of life, rather than the careful preservation of the soil and vegetation within the floodplain area.

Lower Merion Township

- **Comprehensive Plan 1979 (Volume I and II).** Lower Merion Township has done extensive planning. In addition to the documents provided here, the Township has also produced an Open Space and Environmental Resource Protection Plan, a Scenic Road Corridor and Viewshed Analysis, and a Lower Merion Township Natural Areas Study which have not been provided or reviewed for this report. The existing Comprehensive Plan is dated and is likely to be superseded by these various other official and unofficial documents. The bulk of the Township is located outside of the Darby Creek Watershed, although a critical portion along Lancaster Avenue, including most of Ardmore, and extending to City Line Avenue, is located within the Darby Creek Watershed. This Plan does include a variety of recommendations for the Darby Creek Watershed portion of Lower Merion, although these recommendations are not related to the stream system per se. For example, a hiking/biking route is proposed; however the proposal appears to follow the existing street system and not the stream system.
- **Park and Recreation Plan 1996:** The focus of this Plan is primarily recreational facilities. Furthermore, much of the discussion relates to areas beyond the Darby Creek Watershed portion of the Township. There is a section which addresses trails/hiking/biking though this is not a focus in the plan recommendations.
- **Zoning Ordinance, Chapter 155, 2000.** This new ordinance includes some excellent provisions. There are special sections on wooded lots, steep slopes,



- floodplains, and an historic resource overlay district. The Historic Resource Overlay District, as discussed above in Section VI, creates a management district through a mapped overlay, based on a detailed historic resource inventory. The floodplain district includes basic FEMA program requirements. Steep slope requirements mandate enlargement of lot areas as slope increases. Removal of wooded areas is also regulated, to both limit removal of existing trees and require replanting of trees when trees are removed. A variety of other provisions are included in this code which are generally compatible with the overall recommendations of the Draft RCP to concentrate development and limit development of open space (all undeveloped residential lots greater than five acres must adhere to the open space overlay requirements, requiring 50 to 60 percent open space preservation). Surprisingly, there are no riparian area protection provisions in this ordinance. This is probably the most “RCP-compatible” ordinance in the Watershed.
- **Subdivision/Land Development, Chapter 135, 1998.** This relatively new ordinance keys in other Code Chapters, including Chapter 121 Stormwater and Chapter 101 Natural Features Conservation (mirroring zoning requirements) and Chapter 149 Watercourses. These stormwater requirements are closer to those being recommended in the Draft RCP than any others in the Watershed, given their attention to recharge and infiltration as well as water quality (ironically, the requirements for recharge, assuming they are being implemented, actually exceed requirements for recharge being recommended in the Draft RCP by calling for recharge of storms up to the 100-year storm). It should be noted, however, that requirements vary substantially by district, and because the Darby Watershed portions of the Township happen to fall into the least rigorously managed districts, the positive effects of the ordinance are somewhat lost on the Darby Creek Watershed.

Marple Township

- **Comprehensive Plan, April, 1991, Norman Day.** The Land Use Plan map does show an OS category though it is designated in very limited areas along the Darby Creek system, including small portions though not all of the floodplain area itself, as well as the alluvial soils, hydric soils, high water table soils which also are mapped. Some significant portions of “OS” are designated for the very large Archdiocese parcels at the Sproul Road/Blue Route intersection. The good news is that a Conservation and Recreation Plan is developed with two major areas of park acquisition established (it is not clear what the status of these projects is currently). Unfortunately, neither of these facilities, the Langford and Lawrence Roads facility and the South Sproul Road facility (between Reed Road and the Blue Route) relate to the Darby Creek system. Unfortunately, although the Plan contains some interesting elements and recommendations that can be interpreted as compatible with those in the RCP, there is relatively little discussion of and appreciation for the Darby Creek and its tributaries per se in this Plan. There is little in the way of stream valley awareness, environmentally or recreationally, for either the Darby Creek or the Crum Creek, both of which embrace the Township. Perhaps this can be explained at least on the Darby



- side by the reality of the Darby Creek valley being so impacted by the Blue Route pathway down the stream valley, obliterating so many stream values.
- **Zoning, Amended May 1998**, possibly more recently. Based on excerpts supplied to us, the zoning requirements do encourage some clustering and resource protection (an RCP positive). We have not been able to review the entire ordinance and its requirements for each district, however. Environmentally, the ordinance does have a specific section for environmental protection, adopted in 1998, which paraphrases the Ridley Township ordinance (basically, this includes the new and more elaborated requirements under FEMA for floodplain protection and some protection for two categories of steep slopes, though in neither case are the requirements sufficiently absolute to fully protect floodplain and steep slope areas from any encroachment or disturbance). Additionally, the requirements also add tree protection for trees in excess of 12 and 18 inches in diameter, including tree replacement. There is protection provided for historic resources through demolition permits and other requirements. Buffers also are required to protect incompatible uses; it should be noted that this is not a riparian buffer program but a landscape buffer program designed to maximize screening effects (i.e., aesthetics, noise, etc.) of proper landscaping between adjacent land uses.
 - **Subdivision/Land Development Regulations:** Not provided.

Narberth Borough

- **Comprehensive Plan.** Not provided.
- **Zoning, Chapter 124, Undated (Current Amendments through 2001).** This ordinance is conventional for this highly developed borough. There are no environmental provisions per se, such as a floodplain district.
- **Subdivision/Land Development Regulations, Chapter 113, As Amended 1985. Includes Stormwater Management Ordinance 863.** This ordinance is patterned after Lower Merion's Chapter 121. See the discussion above. The body of the SLDO is otherwise conventional.

Newtown Township

- **Comprehensive Plan.** Draft October 2001. This draft unofficial plan is a sophisticated planning document that is largely consistent with RCP recommendations, even though the Draft Plan does not acknowledge the Darby Creek RCP process and does not address the Darby Creek system (or the Crum Creek for that matter) to any degree in terms of inventory or analysis. Both recreational facilities and cultural facilities are well documented. The detailed Growth Management Plan (p. 3-2-1) sets forth Development Pattern goals to "...Preserve and enhance the physical and environmental characteristics..." and "...minimize degradation of the natural and cultural environments..." and Conserve open areas...." Policies include promoting residential clustering and establishing a permanent open space network and expanding the trail system and parklands in selected locations.



Community Services policies are even more detailed, including promoting development of a network of cycling and pedestrian paths through open spaces and along roadways and utility corridors (unfortunately no mention is made of the stream systems), working to create more open space linkages, using clustering to enhance recreational and open space areas and their interconnection, and other recommendations. Resource Protection goals, objectives, and policies are set forth and at least indirectly address the Darby through focus on wetlands and floodplains and streams. Cultural resources and aesthetics are emphasized and stressed. A Land Use Plan is developed (p. 3-3-1) which underscores the need for "...an extensive system of open space throughout the township..." with "Greenways along major roadway corridors... ..Based as it is on existing natural features such as floodplains associated with Crum Creek, Darby Creek and their tributary stream courses, the system can be said to be at least partly established already....The Land Use Plan incorporates these significant natural resource areas, including woodlands, together with recreational lands, buffers, and greenways, to create the open space framework for the community....The continuous, interconnected, permanent open space network is intended to serve several purposes: 1) to conserve areas of environmentally-sensitive and culturally-valuable resources; 2) to provide appropriate buffers, where possible, between areas of incompatible land use; 3) to provide a structure for the extension of the township's trail system; 4). to permit pedestrian and bicycle access to a variety of destinations, including adjacent and nearby residential developments, schools, special natural features, shopping, and specific sites for recreational facilities; 5). to create sites where public recreational facilities may be developed; 6). to provide for some of the private open space and recreational space needs of the residents of new residential developments; 7). to provide appropriate buffers between high-volume traffic arteries and residential areas; and 8). to maintain and enhance wildlife habitat." (p. 3-3-2)

- **Zoning Ordinance.** Map provided but Zoning Ordinance not provided. There are both floodplain (Chapter 91) and steep slope overlay districts (Chapter 134) in the Township. The floodplain district is consistent with minimum FEMA program requirements and therefore allows more disturbance to the floodplain than is recommended in this Draft RCP. The steep slope district requirements are good and limit disturbance to the two slope districts which are created.
- **Subdivision/Land Development Regulations, 1995.** This ordinance includes provisions for recreation and open space lands (1 acre per 40 lots). These stormwater regulations have been amended to require infiltration. Chapter 104 Natural Features and Landscaping also is provided which reinforces the requirements from the zoning ordinance, with special emphasis on vegetation, buffering, landscaping (the most elaborate landscaping ordinance in the Watershed; much of this ordinance is driven by aesthetics, as well as environmental functions and benefits).

Prospect Park Borough

- **Comprehensive Plan.** Being updated.



- **Zoning, 1993.** Map provided. The zoning appears to be relatively simple for this small borough; there are no special conservation-related designations on the map, such as a floodplain conservation district.
- **Subdivision/Land Development Regulations.** Not provided.

Radnor Township

- **Comprehensive Plan. Norman Day, 1988.** A new comprehensive plan is being prepared. This existing plan stresses open space in a variety of ways, plus recreational needs and cultural resource protection. In fact, both recreation and cultural resources are dealt with extensively. A Park, Public Recreation and Open Space Network Concept is developed (p. 42) and sets forth an elaborate system of Open-Space Pathways/Linkages (Bike or Pedestrian Paths); unfortunately, this system tends to follow existing roadways rather than the stream corridor system. A listing of the most important recommendations focuses on natural resources and open space features (floodplains, woodlands steep slopes, wet soils, and so forth). Nevertheless, the importance of the Darby Creek and its tributaries is not given substantial treatment either in the setting forth of Environmental Goals (p. 17) or Recommendations (p. 21; several of the recommendations do indirectly relate to stream corridor protection). In terms of general growth management, the Plan establishes RCP-compatible goals and identifies RCP compatible recommendations for that point in time.
- **Parks, Recreation and Open Space Plan, Carter Van Dyke, 1991.** Very few other municipalities in the Watershed have developed detailed recreation plans, especially one that is as complex as this Plan. This Plan builds on the 1988 Comprehensive Plan and elaborates in the inventory of existing facilities, need for additional facilities, and specific plans for expanding the recreational system. The few remaining open space parcels are identified and evaluated. An open Space Plan is developed. Stream corridors are delineated schematically rather than representing specific resources in detail. Preservation of opens pace within stream corridors will ensure protection of sensitive natural resources such as floodplains, wetlands and adjacent steep slopes, and provide linked areas of contiguous open space for wildlife habitat. Some stream corridors may provide potential locations for trails as shown on the pedestrian/cyclist plan.”). Additionally, some detailed discussion is given to pedestrian/bicycle trail network. “To help foster support for a township-wide trail system, the township should actively pursue a demonstration project such as the Darby Creek Trail or other multi-purpose trail.” (p. IV.5) The Darby Creek Trail is defined as a trail that would parallel the Little Darby Creek and create a spine to connect the Willows Park, Skunk Hollow Park, and Sawmill Parks; with most of the land already under Township ownership, implementation should be facilitated. The trail would increase usage of Skunk Hollow and Sawmill.
- **Zoning Ordinance, Chapter 280, May 2001.** This zoning ordinance, which has been updated multiple times, includes a variety of requirements which are consistent



with and promote RCP recommendations. Article XX includes lot averaging, slope controls, and wetlands controls. Article XVII focuses exclusively on floodplain protection, although again the requirements are generally consistent with minimum FEMA requirements and still allow for disturbance of floodplain soil mantle and natural vegetation. Article XIX addresses density modification and promotes clustering and open space although these requirements could be more far-reaching. There are no riparian zone requirements. The overall structure of uses and their requirements are relatively conventional.

- **Subdivision Regulations, Chapter 225, September 2000.** Stormwater requirements are quite traditional and surprisingly summary in nature. Major work is needed here. Other requirements are similarly conventional, including street widths and curbing and the like (meaning that these requirements need to be made to be compatible with RCP recommendations which strive to minimize land disturbance at a development site and impervious area and stormwater generation).

Ridley Township

- **Comprehensive Plan, 1974, Buchart-Horn.** The Plan identifies floodplain and steep slopes, as well as soils and their suitability for development. The Future Land Use Map very clearly designates all streams and stream valleys as “Open Space/ Recreation.” Some specific recreation facilities are set forth in the five-year capital program but due to the age of this Plan, this recommendation is of limited value.
- **Zoning, May 2001.** This very new ordinance allows for Planned Residential Developments, which is beneficial. There also are both Floodplain and Steep Slope Districts, with detailed floodplain requirements which reflect the recently revised FEMA requirements for the flood insurance program (floodplain disturbance is still allowed). The Steep Slope requirements are a step in the right direction but should be additionally tightened to further discourage any soil/vegetation disturbance of any type, especially on the greater than or equal to 25 percent slope category.
- **Subdivision and Land Development Regulations, Chapter 268, March 2001.** Stormwater focuses on peak rate control only and is quite summary. Other elements are similarly unsophisticated from an environmental perspective.

Sharon Hill

- **Comprehensive Plan.** Not provided.
- **Zoning, 1995.** Although this ordinance is relatively new, it includes no environmental provisions, such as floodplain protection and riparian zone protection, per se.
- **Subdivision of Land, Chapter 108.** These regulations are minimal. Stormwater is addressed minimally. Floodplain protection is addressed minimally here rather than in the zoning ordinance. No other environmental requirements as recommended in the RCP are included.



Springfield Township

- **Comprehensive Plan, 1983.** This rather dated Plan is relatively weak in its treatment of natural resources, although steep slopes and floodplains are discussed in some detail. The reality of the Darby Creek and its tributaries appears to be very removed from this Plan. On the other hand, the Plan does focus on historic preservation and both inventories and recommends additional management for the resources which exist. Recreationally, the Plan also inventories existing facilities and recommends that additional facilities be developed. There is virtually no mention of open space protection/preservation.
- **Zoning, March 2001.** This new zoning ordinance includes PRD provisions and an open space development option in the A residence District, as well as the updated FEMA floodplain regulations which still allow disturbance. For the good, open space provisions are added in Article 18, which unfortunately are relevant only to very limited situations. There are no special riparian area or wetland or steep slope or other environmental provisions, as recommended in the RCP.
- **Subdivision and Land Development, Chapter 123, 2000.** Although stormwater requirements have been updated and expanded, the focus remains on peak control; these regulations do not adequately address water volumes and water quality. Other elements of land development also need to be scrutinized and modified to minimize impervious areas and disturbance occurring with land development.

Tinicum Township

- **Comprehensive Plan.** Being revised.
- **Zoning, Chapter 61, March 2000.** This ordinance does not include environmental restrictions. Also provided is a proposed project, the Riverfront Zoning Extension, which appears to alter existing zoning with a Long Hook Creek Project, extending the Creek's open flow between the Darby Creek and the Delaware River.
- **Subdivision/Land Development Regulations.** Being Revised.

Tredyffrin Township

- **Comprehensive Plan, 1987.** This plan, which may have been updated, deals in depth with cultural and natural resources. Because only a small portion of Township is located within the Darby Creek Watershed, relatively little is said about the Darby Creek, however. Most of the Watershed area is comprised of relatively low-density residential uses which are projected to remain as low density residential uses in the Plan.
- **Open Space, Recreation, and Environmental Resources Plan, Draft 1992.** This Plan builds on the Comprehensive Plan. This Draft copy did not include maps, which is a significant drawback. Recommendations include a variety of specific zoning and SLDO-linked recommendations with both environmental, recreational, and cultural resource ramifications. Although these specific recommendations do not relate specifically to the Darby Creek Watershed, they are very much consistent with the



RCP recommendations. Unfortunately, although much is said about a walkway/trail network, proposed locations for the system are all outside of the Darby Creek Watershed.

- **Zoning, Amended 1979.** No map provided. This version of Zoning, which may have been updated, includes a floodplain protection district (minimum floodplain requirements) and a rural conservation district (minimum lot size of 5 acres). Additionally, requirements for steep slopes and other sensitive natural features are included, compatible with the SLDO ordinance requirements (below). A variety of clustering and lot averaging provisions are included to promote open space preservation.
- **Subdivision/Land Development Regulations, Chapter 181, July 1998.** These regulations include requirements for a Natural Features Conservation Plan, an Erosion, Sedimentation and Stormwater Control Plan, and a Landscape Plan. Natural Features requires the mapping of steep slopes, a variety of types of vegetative cover in detail, wetlands, geological formations, floodplains, soils with their constraints, and trails (pedestrian and equestrian). Detailed analysis of impacts is required. Exact standards establishing limits of impact are not always developed, though there are also detailed natural features protection standards presented as well. In terms of stormwater management, this ordinance sets forth what is probably the most sophisticated stormwater management program in the Watershed, including total volume control and water quality in its requirements. Recreation and open space requirements are established. Three pages of minimum and general landscaping requirements are included. Some building requirements such as street widths and so forth should be revisited to minimize impervious cover. Although the ordinance does have some shortcomings in terms of the RCP recommendations, nevertheless, this is one of the best SLDO's extant within the Watershed. Other municipalities should review this ordinance carefully.

Upper Darby Township

- **Comprehensive Plan.** Not provided. The Township did provide a detailed listing of all parks and recreation area facilities in the Township.
- **Zoning Ordinance, No. 2906, 2001 (With Map).** A separate Upper Darby Township Floodplain Ordinance exists but was not provided. There is also a Shade Tree Ordinance.
- **Subdivision/Land Development Regulations.** Not provided.



Summary of Planning Documents in the Darby Creek Watershed, Delaware County (as provided with the assistance of the Delaware County Planning Department, Summer 2001)

Municipality	Comp. Plan	Zoning	SLDO
Aldan	1975	1990	1990
Clifton Heights	1975	1993	County
Collingdale	1971(5)	1993	County
Colwyn	1971	1994	
Darby Bor.	1991	1998	County
Darby Twp.			
Folcroft	1982	1990	County
Glenolden	1997	1987-95	County
Haverford	1988	1984-96	1993
Lansdowne			
Marple	1990	1999	1978-85
Newtown	In prep.	1995	1995
Norwood	1982	1975-90	County
Prospect Park	1967	1994(?)	
Radnor	1988; in prep.		
Ridley	1974	1990	1982
Ridley Park	1998	1990	1989
Rutledge	1971	1998	1976
Sharon Hill	1971	1995	1974-81
Springfield	1983	1997	1995
Tinicum	1981	In prep.	1993
Upper Darby	1989	1986	County
Yeadon	In prep.		County

SLDO Subdivision/Land Development Ordinance



APPENDIX D

John Heinz National Wildlife Refuge at Tinicum Bird Species List



U.S. Fish and Wildlife Service

John Heinz National Wildlife Refuge at Tinicum is one of over 500 refuges in the national wildlife refuge system administered by the U.S. Fish and Wildlife Service. The national wildlife refuge system is a network of lands and waters managed specifically for the protection of wildlife and wildlife habitat and represents the most comprehensive wildlife management program in the world. Units of the system stretch across the United States from northern Alaska to the Florida Keys and include small islands in the Caribbean and South Pacific. The character of the refuges is as diverse as the nation itself.

The Service also manages national fish hatcheries, and provides Federal leadership in habitat protection, fish and wildlife research, technical assistance and the conservation and protection of migratory birds, certain marine mammals and threatened and endangered species.

For further information, contact:

Refuge Manager

John Heinz National Wildlife Refuge at Tinicum

Scott Plaza 2, Suite 104

Philadelphia, PA 19113

Telephone: (610) 521-0662

or

Visitor Contact Station

86th Street & Lindbergh Boulevard

Philadelphia, PA 19153

Telephone: (215) 365-3118

Hard of hearing or deaf visitors may call the Pennsylvania Relay Center at 1-800-654-5984 TDD/1-800-654-5988 voice.

This list was compiled with the aid of John C. Miller, Prospect Park, Pennsylvania.



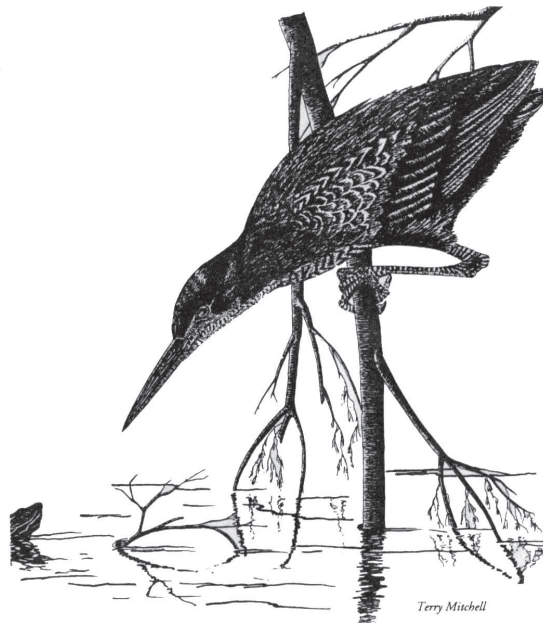
DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

RL-52550

September 1994

Birds

JOHN HEINZ National Wildlife Refuge at Tinicum



Philadelphia, Pennsylvania



John Heinz National Wildlife Refuge at Tinicum is located in Philadelphia and Delaware Counties, Pennsylvania, about one mile from the Philadelphia International Airport. The refuge was established by public law in 1972 to protect the last 205 acres of freshwater tidal marsh in Pennsylvania. When acquisition is completed, the refuge will total nearly 1200 acres.

Diking, dredging and filling over the years have created a wide variety of habitat conditions at the refuge from stream, pond, and tidal marsh to oldfield and lowland woods.

Bird watchers have recorded 288 species of birds on the refuge and its immediate environs. Over 85 species have nested here. Migratory birds such as Canada geese, great blue herons, egrets, killdeer, sandpipers, and a large variety of ducks within the Atlantic Flyway use the refuge as a resting and feeding stop during spring and fall. In addition, approximately 35 species of warblers visit the refuge during their migration.



This brochure lists 288 birds that have been identified on the refuge, and is in accordance with the Sixth American Ornithologists Union Checklist.

Most birds are migratory, therefore, their seasonal occurrence is coded as follows:

SEASON

s	Spring	March – May
S	Summer	June – August
F	Fall	September – November
W	Winter	December – February

RELATIVE ABUNDANCE

a	abundant	a species which is very numerous
c	common	likely to be seen or heard in suitable habitat
u	uncommon	present, but not certain to be seen
o	occasional	seen only a few times during a season
r	rare	may be present but not every year

- *Birds known to nest on or near the refuge*
- Italics indicate threatened/endangered species*

s S F W

LOONS – GREBES

—	Red-throated Loon			r	r
—	Common Loon	o		o	o
—	• Pied-billed Grebe	c	r	c	o
—	Horned Grebe	r		r	r
—	Red-necked Grebe	r			r

GANNETS – PELICANS – CORMORANTS

—	Northern Gannet			r	r
—	Double-crested Cormorant	c	r	c	r

BITTERNS – HERONS – IBISES

—	• American Bittern	c	r	o	r
—	• Least Bittern	o	c	o	
—	Great Blue Heron	a	c	a	c
—	• Great Egret	a	a	a	r
—	• Snowy Egret	a	a	a	
—	Little Blue Heron	o	c	c	
—	Tricolored Heron	o	o	o	
—	Cattle Egret	o	o	r	
—	• Green-backed Heron	c	a	a	r
—	• Black-crowned Night-Heron	a	a	a	o
—	Yellow-crowned Night-Heron	r	r	r	
—	White Ibis	r		r	
—	Glossy Ibis	o	o	o	

SWANS – GEESE – DUCKS

—	Tundra Swan	r		r	r
—	Mute Swan	o	o	o	o
—	Snow Goose	r	r	r	r
—	Brant	r		r	r
—	• Canada Goose	a	a	a	c
—	• Wood Duck	a	c	a	o
—	• Green-winged Teal	c	o	a	c
—	• American Black Duck	a	c	a	c
—	• Mallard	a	a	a	c
—	• Northern Pintail	c	o	c	c
—	• Blue-winged Teal	c	c	c	r
—	• Northern Shoveler	c	r	c	o
—	Gadwall	o	r	o	o
—	Eurasian Wigeon	r		r	r
—	American Wigeon	o		o	o
—	Canvasback	o		o	r
—	Redhead	r	r	r	r
—	Ring-necked Duck	o	r	o	o
—	Greater Scaup	c	r	o	o
—	Lesser Scaup	o		o	o
—	Oldsquaw	r		r	r
—	White-winged Scoter	r		r	r
—	Common Goldeneye	r	r	r	r



	s	S	F	W
___ Bufflehead	o		o	r
___ • Hooded Merganser	o	r	o	r
___ Common Merganser	o		o	o
___ Red-breasted Merganser	o		r	r
___ Ruddy Duck	c	o	c	c

VULTURES – HAWKS – FALCONS

___ Turkey Vulture	o	o	o	o
___ Osprey	o	o	o	
___ Bald Eagle	u	r	u	u
___ • Northern Harrier	c	o	c	c
___ Sharp-shinned Hawk	o	r	o	r
___ Cooper's Hawk	o	r	o	o
___ Northern Goshawk	r		r	r
___ Red-shouldered Hawk	o	r	o	o
___ Broad-winged Hawk	o	o	c	r
___ • Red-tailed Hawk	c	r	c	c
___ Rough-legged Hawk	r		o	o
___ Golden Eagle	r		r	r
___ • American Kestrel	c	c	c	c
___ Merlin	o	r	o	r
___ Peregrine Falcon	r	r	r	r

GROUSE – QUAIL – TURKEY

___ • Ring-necked Pheasant	a	a	a	a
___ • Northern Bobwhite	r	r	r	r

RAILS – CRANES

___ Yellow Rail	r		r	
___ • King Rail	o	o	o	r
___ • Virginia Rail	o	o	o	r
___ • Sora	o	o	o	r
___ • Common Moorhen	u	u	u	r
___ • American Coot	c	o	c	o

PLOVERS – SANDPIPERS

___ Black-bellied Plover	o	r	c	r
___ Lesser Golden-Plover	r		c	
___ Semipalmated Plover	c	r	c	
___ Piping Plover	r		r	
___ • Killdeer	a	a	a	o
___ Greater Yellowlegs	c	o	c	r
___ Lesser Yellowlegs	o	o	o	r
___ Solitary Sandpiper	c	o	c	
___ Willet	r		r	
___ • Spotted Sandpiper	c	c	c	
___ Upland Sandpiper	r	r	r	
___ Whimbrel	r		r	
___ Hudsonian Godwit			o	
___ Marbled Godwit			r	

	s	S	F	W
___ Ruddy Turnstone	r	r	r	
___ Red Knot	r		r	
___ Sanderling	r		r	
___ Semipalmated Sandpiper	c	o	c	r
___ Western Sandpiper		r	o	r
___ Least Sandpiper	o	o	o	r
___ White-rumped Sandpiper	o	o	o	
___ Baird's Sandpiper	r	r	r	
___ Pectoral Sandpiper	c	o	c	r
___ Dunlin	o		o	r
___ Curlew Sandpiper	r	r	r	
___ Stilt Sandpiper	r	r	o	
___ Buff-breasted Sandpiper			r	
___ Ruff	o	r	o	r
___ Short-billed Dowitcher	o	r	o	r
___ Long-billed Dowitcher	o	r	o	r
___ Common Snipe	c	r	c	o
___ • American Woodcock	c	c	c	r
___ Wilson's Phalarope	r	r	r	
___ Red-necked Phalarope	r		r	

JAEGERS – GULLS – TERNS – AUKS

___ Laughing Gull	o	o	c	r
___ Bonaparte's Gull	o	r	o	r
___ Ring-billed Gull	c	o	c	c
___ Herring Gull	c	o	c	c
___ Iceland Gull	r		r	r
___ Glaucous Gull	r		r	r
___ Great Black-backed Gull	c	o	c	c
___ Caspian Tern	o	r	o	
___ Common Tern	r	r	r	
___ Forster's Tern	r	o	c	
___ Least Tern	r	r	r	
___ Royal Tern			r	
___ Black Tern	o	r	o	
___ Gull-billed Tern			r	

DOVES – CUCKOOS – OWLS – SWIFTS – HUMMINGBIRDS

___ Rock Dove	o	o	o	o
___ • Mourning Dove	c	c	c	c
___ • Black-billed Cuckoo	o	o	o	
___ • Yellow-billed Cuckoo	o	o	o	
___ • Barn Owl	c	c	c	c
___ • Eastern Screech-Owl	r	r	r	r
___ • Great Horned Owl	c	c	c	c
___ Snowy Owl	r		r	r
___ Barred Owl	r	r	r	r
___ Long-eared Owl	r		r	r
___ Short-eared Owl	o		o	o
___ Northern Saw-whet Owl	r	r	r	r



	s	S	F	W
___ Common Nighthawk	c	o	c	
___ Whip-poor-will	r	r	r	
___ Chimney Swift	c	c	c	
___ • Ruby-throated Hummingbird	c	o	c	
___ Belted Kingfisher	c	o	c	o

WOODPECKERS – FLYCATCHERS

___ Red-headed Woodpecker	r	r	r	
___ Red-bellied Woodpecker	r	r	r	r
___ Yellow-bellied Sapsucker	u	r	o	r
___ • Downy Woodpecker	c	c	c	c
___ Hairy Woodpecker	o	o	o	o
___ • Northern Flicker	c	c	c	o
___ Olive-sided Flycatcher	r		u	
___ Eastern Wood-Pewee	o	r	o	
___ Yellow-bellied Flycatcher	r	r	u	
___ Acadian Flycatcher	r	r	u	
___ • Alder Flycatcher	o	o	u	
___ • Willow Flycatcher	c	c	u	
___ • Least Flycatcher	r	r	u	
___ • Eastern Phoebe	c	o	o	r
___ • Great Crested Flycatcher	o	r	o	
___ Western Kingbird		r		
___ • Eastern Kingbird	c	c	c	

LARKS – SWALLOWS – JAYS – CROWS

___ Horned Lark	r	r	r	r
___ • Purple Martin	o	r	c	
___ • Tree Swallow	a	a	a	
___ Northern Rough-winged Swallow	c	o	o	
___ Bank Swallow	c	o	c	
___ Cliff Swallow	o	r	o	
___ • Barn Swallow	a	a	a	
___ • Blue Jay	c	c	c	c
___ • American Crow	c	c	c	c
___ • Fish Crow	c	c	c	c

TITMICE – NUTHATCHES – WRENS

___ Black-capped Chickadee	o	r	o	o
___ • Carolina Chickadee	c	c	c	c
___ • Tufted Titmouse	c	c	c	c
___ Red-breasted Nuthatch	o		o	o
___ White-breasted Nuthatch	o	o	o	o
___ Brown Creeper	c		c	c
___ • Carolina Wren	c	c	c	c
___ Bewick's Wren	r	r	r	
___ • House Wren	c	c	c	r
___ Winter Wren	o		c	r
___ • Sedge Wren	r	r	r	
___ • Marsh Wren	c	c	c	r



s S F W

KINGLETS – THRUSHES – THRASHERS

— Golden-crowned Kinglet	o		c	o
— Ruby-crowned Kinglet	c		c	o
— Blue-gray Gnatcatcher	o	r	o	r
— Eastern Bluebird	o		o	r
— Veery	c	o	c	
— Gray-cheeked Thrush	c	o	c	
— Swainson's Thrush	c	o	c	
— Hermit Thrush	o	c	c	r
— • Wood Thrush	c	c	c	r
— • American Robin	a	a	a	o
— • Gray Catbird	c	c	c	o
— • Northern Mockingbird	c	c	c	c
— • Brown Thrasher	c	c	c	o

WAXWINGS – SHRIKES – STARLINGS

— American Pipit	o	r	o	o
— • Cedar Waxwing	o	o	o	o
— Northern Shrike				r
— Loggerhead Shrike	r	r	r	r
— • European Starling	a	a	a	a

VIREOS – WOOD WARBLERS

— • White-eyed Vireo	c	c	c	
— Solitary Vireo	c	r	c	
— Yellow-throated Vireo	o	r	o	
— • Warbling Vireo	c	c	c	
— Philadelphia Vireo	r	r	r	
— • Red-eyed Vireo	c	o	c	
— Blue-winged Warbler	o	o	o	
— Golden-winged Warbler	r	r	r	
— Tennessee Warbler	o	r	o	
— Orange-crowned Warbler	r		o	r
— Nashville Warbler	o	r	o	
— Northern Parula	c	r	c	
— • Yellow Warbler	a	a	a	r
— Chestnut-sided Warbler	c	r	c	
— Magnolia Warbler	c	r	c	
— Cape May Warbler	o	r	c	
— Black-throated Blue Warbler	c	r	c	
— Yellow-rumped Warbler	c	r	c	o
— Black-throated Green Warbler	c	r	c	
— Blackburnian Warbler	c	r	c	
— Pine Warbler	o	r	o	
— Prairie Warbler	c	r	c	
— Palm Warbler	c	r	c	r
— Bay-breasted Warbler	c	r	c	
— Blackpoll Warbler	c	r	c	
— Cerulean Warbler	r	r	r	
— Black-and-white Warbler	c	r	c	r

s S F W

— • American Redstart	c	r	c	
— Prothonotary Warbler	r	r	u	
— Worm-eating Warbler	r	r	u	
— Ovenbird	c	r	c	
— Northern Waterthrush	c	r	c	r
— Louisiana Waterthrush	r	r	u	
— Kentucky Warbler	r	r	u	
— Connecticut Warbler	o	r	u	
— Mourning Warbler	o	r	o	
— • Common Yellowthroat	c	c	c	r
— Hooded Warbler	r	r	u	
— Wilson's Warbler	c	r	u	r
— Canada Warbler	c	r	c	
— • Yellow-breasted Chat	c	c	c	r

TANAGERS – SPARROWS

— Summer Tanager	r	r	r	
— Scarlet Tanager	c	r	c	
— • Northern Cardinal	c	c	c	c
— Rose-breasted Grosbeak	c	r	o	
— • Blue Grosbeak	u	u	u	r
— • Indigo Bunting	c	c	c	
— Dickcissel	r	r	r	r
— • Rufous-sided Towhee	c	c	c	r
— American Tree Sparrow	c			c
— Chipping Sparrow	o	o	o	o
— Clay-colored Sparrow	r		r	
— • Field Sparrow	c	o	c	c
— Vesper Sparrow	c	o	o	o
— • Savannah Sparrow	c	r	c	r
— Grasshopper Sparrow	r		r	
— Henslow's Sparrow	r		r	
— Sharp-tailed Sparrow			r	
— Fox Sparrow	u		u	u
— • Song Sparrow	c	c	c	c
— Lincoln's Sparrow	r		r	r
— • Swamp Sparrow	c	c	c	c
— White-throated Sparrow	c	r	c	c
— White-crowned Sparrow	c		c	c
— Lark Sparrow	r		r	
— Harris' Sparrow	r			
— Dark-eyed Junco	c	r	c	c
— Lapland Longspur	r		r	o
— Snow Bunting	r		r	r

BLACKBIRDS – FINCHES

— Bobolink	o	r	c	
— • Red-winged Blackbird	a	a	a	c
— Eastern Meadowlark	o	r	o	r
— Rusty Blackbird	c	r	c	o



	s	S	F	W
___ Brewer's Blackbird			r	r
___ • Common Grackle	c	c	c	o
___ • Brown-headed Cowbird	c	c	c	o
___ • Orchard Oriole	o	u	r	
___ • Northern Oriole	c	o	c	r
___ Purple Finch	o	r	c	o
___ • House Finch	o	c	c	c
___ Red Crossbill				r
___ White-winged Crossbill				r
___ Common Redpoll	r		r	r
___ Pine Siskin	r	r	o	o
___ • American Goldfinch	c	c	c	c
___ Evening Grosbeak	r		r	r
___ House Sparrow	c	c	c	c



ACCIDENTALS

The following species are outside their normal range:

	Number of Sightings
___ Black Rail	3
___ Purple Gallinule	5
___ Sandhill Crane	2
___ Black-necked Stilt	3
___ American Avocet	6
___ Spotted Redshank	2
___ Black-tailed Godwit	1
___ Spoonbill Sandpiper	1
___ Black Skimmer	3
___ Monk Parakeet	numerous records during late 1960s; now rare
___ Black-backed Woodpecker (Three-toed)	1
___ Scissor-tailed Flycatcher	1
___ Sprague's Pipit	1
___ Golden-crowned Sparrow	1
___ Yellow-headed Blackbird	2
___ Brewer's Blackbird	7
___ Boat-tailed Grackle	3
___ Parasitic Jaeger	1



APPENDIX E

PWD Biological Assessment Technical Memorandum #4 Selected Maps and Tables

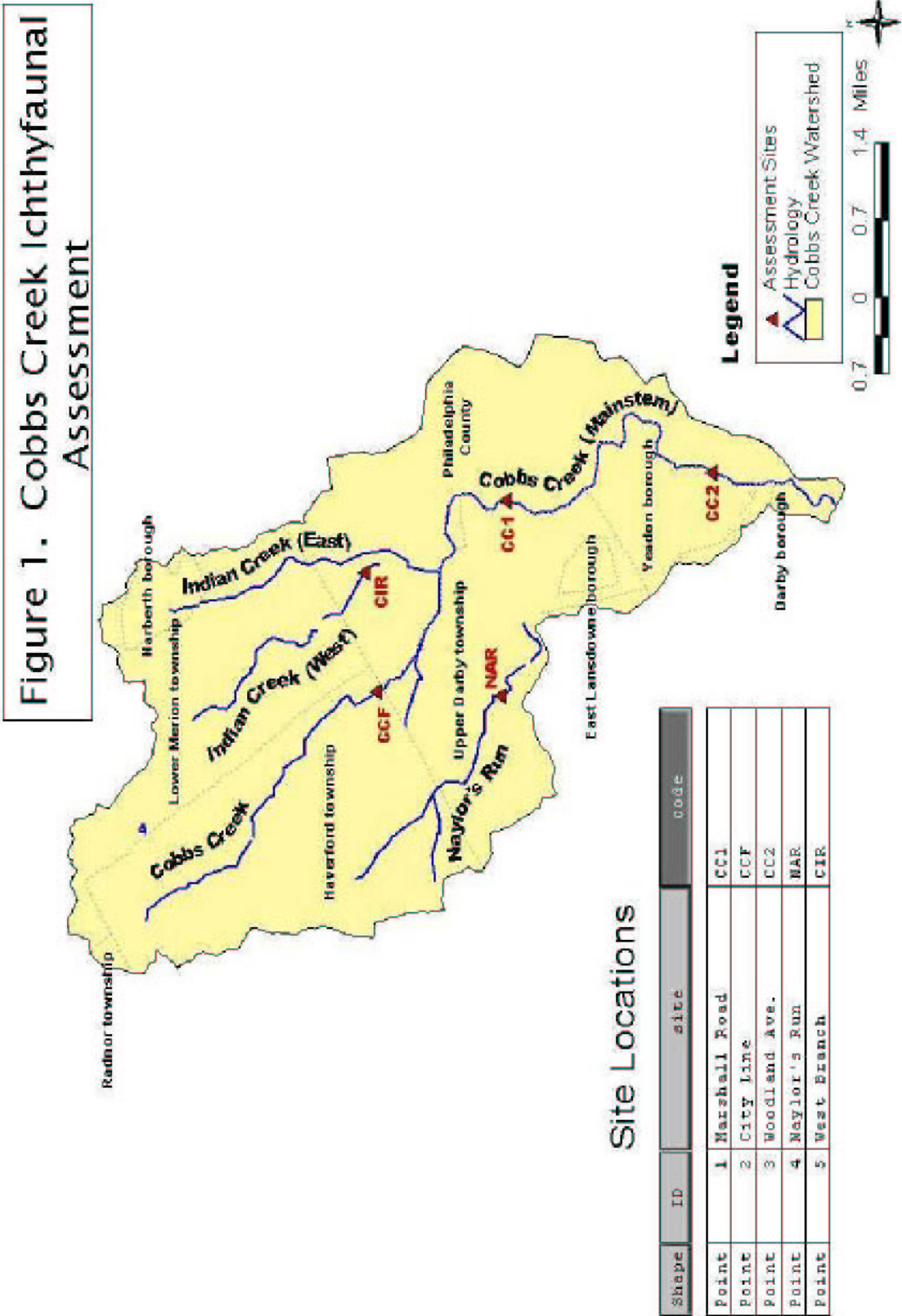




Table 5. Species abundance, richness and diversity (H') at the five sampling locations on Cobbs Creek

Species	CIR	CCF	NAR	CC1	CC2
American Eel	0	15	19	6	8
Brown Bullhead	0	0	0	0	2
White Sucker	10	190	0	19	20
Banded Killifish	0	0	0	0	74
Mummichog	0	0	17	16	171
Redbreast Sunfish	0	0	3	0	31
Pumpkinseed	0	14	6	1	2
Common Shiner	0	415	21	52	1
Spottail Shiner	0	0	0	3	1
Swallowtail Shiner	0	5	549	145	49
Fathead Minnow	0	0	0	0	48
Green Sunfish	0	0	1	0	0
Blacknose Dace	86	651	333	59	48
Creek Chub	7	48	0	0	1
Total Number	103	1338	949	301	456
Total Taxa	3	7	8	8	13
Shannon-Weiner Diversity Index (H')	0.243	0.534	0.424	0.629	0.806

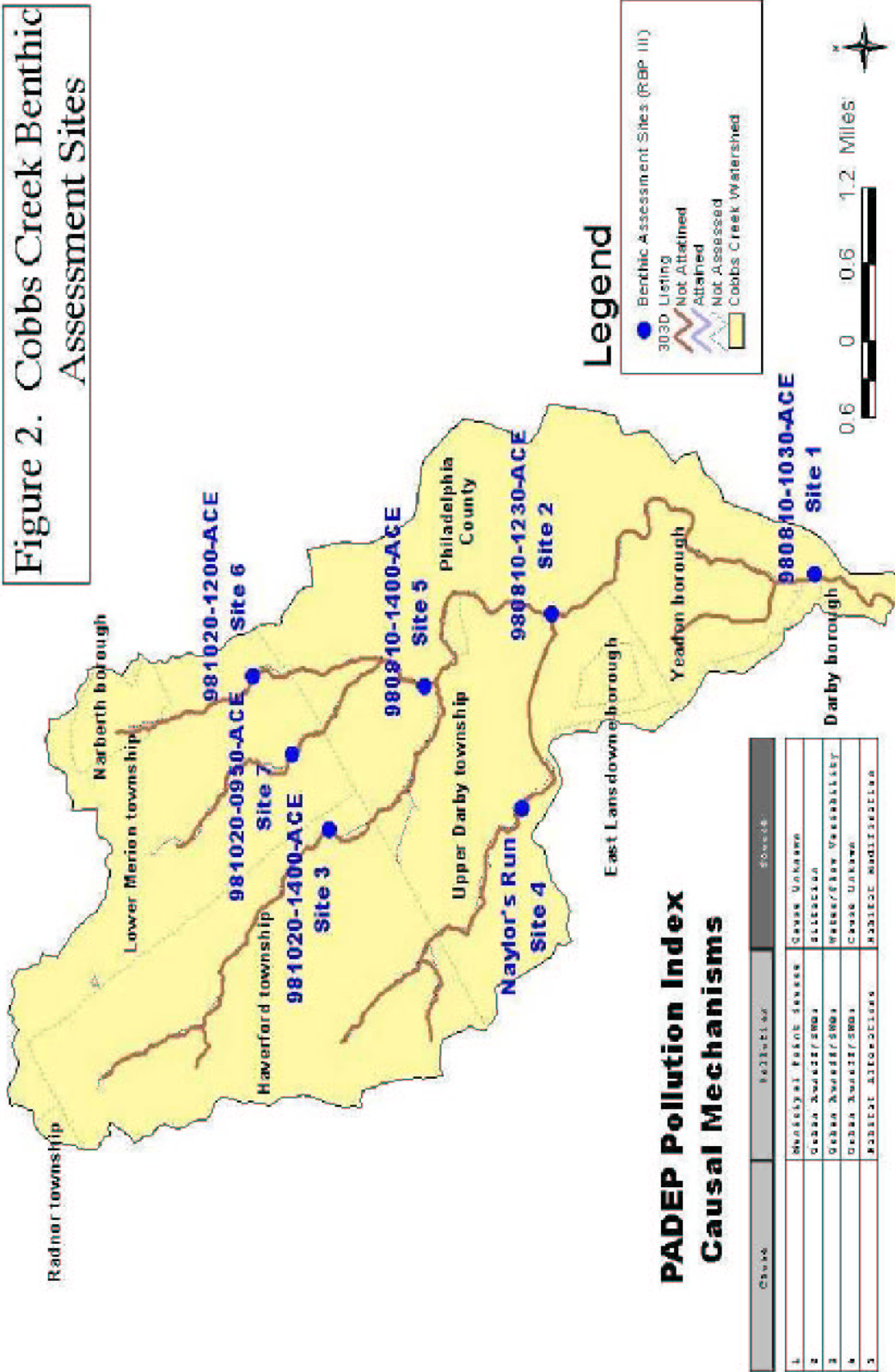




Table 19. Habitat Assessments Of Each Biological Monitoring Station And Percent Of Comparability to the Reference Sites

Habitat Parameter	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7
Instream Cover	10	11	15	11	12	14	11
Epifaunal Substrate	5	11	11	15	16	12	11
Embeddedness	8	9	12	5	10	11	9
Velocity/Depth	13	10	14	11	12	12	9
Channel Alteration	4	8	14	11	13	11	13
Sediment Deposition	5	16	15	11	7	15	13
Frequency Of Rifles	4	16	17	16	11	16	11
Channel Flow Status	14	6	12	10	15	6	14
Condition Of Banks	16	12	13	13	11	12	7
Bank Vegetation Protection	14	9	15	14	11	13	11
Grazing/Disruptive Pressure	12	6	16	8	10	6	7
Riparian Zone Width	4	2	12	5	5	2	2
Total	109	116	166	130	133	130	118
Percent Of Comparability (%)	60.22	64.09	91.71	74.71	76.44	74.71	67.82
Assessment Category	Partially Supporting	Partially Supporting	Comparable To Reference	Partially Supporting	Supporting	Partially Supporting	Partially Supporting





APPENDIX F

Recreation Facility Information by Municipality



MUNICIPALITY	SITE_NAME	SITE_ID	DATA SOURCE
Aldan Borough	Aldan Recreational Area	45005101497	DCNR
Aldan Borough	Providence Road Triangle	45005101496	DCNR
Aldan Borough	Jeffrey Road Field	45005101495	DCNR
Colwyn Borough	John S. Bosacco Park	45055100212	DCNR
Darby Township	Ashland M.S./Darby Twp E.S.	45070100784	DCNR
Darby Township	Beech Ave. Playground	45070100827	DCNR
Darby Township	Conway Park	45065101178	DCNR
Darby Township	Grobes Playground	45070100831	DCNR
Darby Township	Studevan Field	45070100543	DCNR
Darby Township	Orange Avenue Playground	45070000566	DCNR
Darby Township	South Hermesprot Run Playground	45070100832	DCNR
Darby Township	Pine & Spruce Streets Playground	45070100828	DCNR
Darby Township	Park Drive Playground	45070101180	DCNR
Darby Township	Westbridge Playground	45070100829	DCNR
Easttown Township	Bridge Avenue Park	0	Township
Easttown Township	Beaumont Elementary School	29090101429	DCNR
Easttown Township	Devon Elementary School	29090101430	DCNR
Easttown Township	Spring Knoll Estates	0	Township
Easttown Township		0	Twp. OS, Rec, En
Easttown Township	Devon Horse Show Grounds	0	Munc. Comp Plan
Easttown Township	Hilltop Park	0	Munc. Comp Plan
Easttown Township	Beaumont Elementary School	0	Mun. Comp Plan
Folcroft Borough	Delcroft E.S.	45090100781	DCNR
Haverford Township	Bailey Park	45100100207	DCNR
Haverford Township	Brookline Learning Center	45100100985	DCNR
Haverford Township	Chatham Park	45100000571	DCNR
Haverford Township	Chatham Park E.S.	45100100984	DCNR
Haverford Township	Chatham Glen	45100100209	DCNR
Haverford Township	Cadwalader Tract	45100100208	DCNR
Haverford Township	Chesnutwold School	45100100983	DCNR
Haverford Township	Coopertown E.S.	45100100982	DCNR
Haverford Township	Elwell Park	45100100211	DCNR
Haverford Township	Farwood Tot-Lot	45100100212	DCNR
Haverford Township	Foster Tract	45100100213	DCNR
Haverford Township	Gest Tract	45100100214	DCNR
Haverford Township	Glendale Road Park	45100100215	DCNR
Haverford Township	Grange	45100100216	DCNR
Haverford Township	Grange Field	45100100217	DCNR
Haverford Township	Grasslyn Park	45100100218	DCNR
Haverford Township	Haverford Middle School	45100100986	DCNR
Haverford Township	Haverford Senior H.S.	45100100977	DCNR
Haverford Township	Highland Farms Park	45100000570	DCNR
Haverford Township	Hilltop Park	45100100219	DCNR
Haverford Township	Lawrence Road Park	45100100220	DCNR
Haverford Township	Lynnewood E.S.	45100100981	DCNR
Haverford Township	Lynnewood Park	45100100221	DCNR
Haverford Township	Manoa E.S.	45100100979	DCNR
Haverford Township	Williamson Tract	45100100980	DCNR
Haverford Township	Veterans Field	45100100229	DCNR



Haverford Township	Oakmont E.S.	45100100978	DCNR
Haverford Township	Merwood Park	45100100223	DCNR
Haverford Township	Merion Golf Manor	45100100222	DCNR
Haverford Township	Polo Field	45100100225	DCNR
Haverford Township	Preston Field	45100100226	DCNR
Haverford Township	Paddock Farms	45100100224	DCNR
Haverford Township	Richland Farms	45100100227	DCNR
Haverford Township	Thompson Tract	45100100228	DCNR
Haverford Township	Walnut Hill Lane Park	45100100230	DCNR
Haverford Township	Westgate Hills	45100100231	DCNR
Lansdowne Borough	Shrigley Park	45105000564	DCNR
Lower Merion Township	Wynnewood Valley Park	91110100296	DCNR
Lower Merion Township	Wynnewood Station Park	91110100284	DCNR
Lower Merion Township	Shortridge Memorial Park	91110100052	DCNR
Lower Merion Township	South Ardmore Park	91110100037	DCNR
Lower Merion Township	St. Pauls Tot Lot	91110100055	DCNR
Lower Merion Township	Penn Wyne Elementary School	91110100949	DCNR
Lower Merion Township	Penn Wyne Park	91110100058	DCNR
Lower Merion Township	Polo Field	91110100057	DCNR
Lower Merion Township	Austin Memorial Park	91110100043	DCNR
Lower Merion Township	Vernon V. Young Memorial Park	91110100036	Township
Lower Merion Township	Ardmore Ave. Community Center	91110100039	DCNR
Lower Merion Township	Haverford Ave Twp. Park	0	Township
Lower Merion Township	Essex Ave Twp Park	0	Township
Lower Merion Township	Senior Citizens' Center of Ardmore	0	Township
Lower Merion Township	Bryn Mawr Community Center	0	Township
Lower Merion Township	Sharpe Park & Bird Sanctuary	0	Township
Lower Merion Township	Packer Park	0	Township
Lower Merion Township	Lower Merion High School	0	Township
Marple	Folcroft Park	0	Mun. Comp Plan U
Marple Township	Marple Elementary School (R.E.T.S.)	45120100246	DCNR
Marple Township	Russell Elementary School	45120100242	DCNR
Marple Township	Loomis Elementary School	45120100241	DCNR
Marple Township	Paxon Hollow Middle School	45120100244	DCNR
Marple Township	Paxon Hollow Country Club	0	Mun. Comp Plan U
Marple Township	Kent Park	0	Mun. Comp Plan U
Marple Township	Larchmont Park	0	Mun. Comp Plan U
Marple Township	Township Park	0	Mun. Comp Plan U
Marple Township	New Ardmore Park	0	Mun. Comp Plan U
Marple Township	Lawrence Park Swim Club	0	Mun. Comp Plan U
Marple Township	Lawrence Park	0	Mun. Comp Plan U
Marple Township	Township Park	0	Mun. Comp Plan U
Marple Township	Drexel Swim Club	0	Mun. Comp Plan U
Marple Township	Cardinal O'Hara High School	0	Mun. Comp Plan U
Marple Township	Township Park	0	Mun. Comp Plan U
Marple Township	Gamma Tennis & Swim Club	0	Mun. Comp Plan U
Marple Township	Township Park	0	Mun. Comp Plan U
Marple Township	Marple Newtown Swim Club	0	Mun. Comp Plan U
Marple Township	Township Park	0	Mun. Comp Plan U
Marple Township	Marple Gardens park	0	Mun. Comp Plan U
Marple Township	Malin Road Tot Lot	0	Mun. Comp Plan U
Morton Borough	Morton Borough Hall & Gym	45140001833	DCNR
Newton Township	Aronimink Golf Club	0	Mun. Comp Plan
Newtown Township	Brookside Park	45150100597	DCNR
Newtown Township	Culbertson E.S.	45150100240	DCNR
Newtown Township	Winding Way Park	45150100596	DCNR
Newtown Township	Marple Newtown High School	45150100247	DCNR
Newtown Township	Marple Newtown Senior H.S.	45150100245	DCNR
Newtown Township	Marple Newtown Leisure Services	0	Mun. Comp Plan



Phila.	Granahan	0	Phila.Rec-Dept
Phila.	Cobbs Creek Ice Rink	0	Phila.Rec-Dept.
Phila.	Morris RC	0	Phila.Rec-Dept
Phila.	Christy RC	0	Phila.Rec-Dept.
Phila.	Carroll Park	0	Phila.Rec-Dept.
Phila.	Shepard RC	0	Phila.Rec-Dept.
Phila.	Nichols Park	0	Phila.Rec-Dept.
Philadelphia	John Heinz Natl. Wildlife Refuge - Tinicum	45070100636	DCNR
Philadelphia	Rose	0	Phila.Rec-Dept
Philadelphia	Barkan Park	0	Phila.Rec-Dept.
Philadelphia	Malcolm Park	0	Phila.Rec-Dept.
Philadelphia	Cedar Park	0	Phila.Rec-Dept
Philadelphia	Tustin RC	0	Phila.Rec-Dept.
Philadelphia	Sherwood Park	0	Phila.Rec-Dept.
Philadelphia	Myers Francis RC	0	Phila.Rec-Dept.
Philadelphia	McCreesh	0	Phila.Rec-Dept.
Philadelphia	Connell Park	0	Phila.Rec-Dept.
Philadelphia	Island RC	0	Phila.Rec-Dept.
Philadelphia	Elmwood Park	0	Phila.Rec-Dept.
Philadelphia	Clearview Park	0	Phila.Rec-Dept.
Philadelphia	Eastwick Regional Park	0	Phila.Rec-Dept.
Philadelphia	Pepper School	0	Phila.Rec-Dept.
Philadelphia	82nd and Lyons Park	0	Phila.Rec-Dept.
Philadelphia	Eastwick Walkway	0	Phila.Rec-Dept.
Prospect Park Borough	Witmer Field	0	Township
Prospect Park Borough	Park Square	0	Township
Radnor Township	Rosemont Park	45170100907	DCNR
Radnor Township	Cowan Field	45170100904	DCNR
Radnor Township	Fenimore Woods	45170100909	DCNR
Radnor Township	Encke Park	45170100902	DCNR
Radnor Township	Fifth Ward Park	45170000567	DCNR
Radnor Township	Harford Park	45170100900	DCNR
Radnor Township	Ithan Valley Park	45170100901	DCNR
Radnor Township	Odoriso Park	45170100906	DCNR
Radnor Township	Saw Mill Park	45170000569	DCNR
Radnor Township	Willows Park	45170100908	DCNR
Radnor Township	Skunk Hollow	45170100903	DCNR
Radnor Township	South Devon Park	45170100905	DCNR
Radnor Township	Unkefer Park	0	Township
Radnor Township	Converse Field	0	Township
Radnor Township	Main Line Senior Center	0	Township
Radnor Township	Radnor Middle School	0	Township
Radnor Township	Wayne Elementary School	0	Township
Radnor Township	Ithan Elementary School	0	Township
Radnor Township	Martha Browns Woods	0	Township
Radnor Township	Radnor High School	0	Township
Radnor Township	North Wayne Field	0	Township



Ridley Park Borough	Boeing Recreational Facility (Private)	45180100494	DCNR
Ridley Park Borough	Bonnes Park	45180100490	DCNR
Ridley Park Borough	East Lake Park	45180100483	DCNR
Ridley Park Borough	Ridley Park Swim Club (private)	45180100492	DCNR
Ridley Park Borough	Ridley Park Golf Club	45180100487	DCNR
Ridley Park Borough	Veterans Park	45180100488	DCNR
Ridley Park Borough	Tome Street Tot Lot	45180100485	DCNR
Ridley Park Borough	Recreation Park	45180100484	DCNR
Ridley Park Borough	Nevin Street Park	45180100486	DCNR
Ridley Park Borough	Lakeview Elementary School	45180100493	DCNR
Ridley Park Borough	Hetzel Road Park	45180100489	DCNR
Ridley Park Borough	Flatiron Park	45180100491	DCNR
Ridley Township	Amosland E.S.	45177001844	DCNR
Ridley Township	Brookwood Playground	45070100830	DCNR
Ridley Township	Ridley H.S.	45177000549	DCNR
Ridley Township	Ridley M.S.	45177000551	DCNR
Ridley Township	Woodlyn E.S.	45177000550	DCNR
Rutledge Borough	Rutledge Triangle Park	45190001835	DCNR
Rutledge Borough	Rutledge Community Hall	45190001836	DCNR
Sharon Hill Borough	Academy Park	45195100921	DCNR
Sharon Hill Borough	Academy Park H.S./Sharon Hill E.S.	45195100785	DCNR
Sharon Hill Borough	Memorial Park	45195100321	DCNR
Sharon Hill Borough	unknown	0	Township
Springfield Township	Crowell Park	45200000573	DCNR
Springfield Township	Ellson Glen Park	45200000583	DCNR
Springfield Township	Doe Run Park	45200000584	DCNR
Springfield Township	Greenbriar Park	45200000582	DCNR
Springfield Township	Maple Street Park	45200000621	DCNR
Springfield Township	Pennsdale Park	45200000628	DCNR
Springfield Township	Levis Road Park	45200000622	DCNR
Springfield Township	Indian Rock Park	45200000625	DCNR
Springfield Township	Walsh Park	45200000579	DCNR
Springfield Township	Veterans Memorial Park	45200000576	DCNR
Springfield Township	Rolling Green Park	45200000577	DCNR
Springfield Township	Jane Lownes Park	45200000624	DCNR
Springfield Township	Woodland Park	45200000572	DCNR
Springfield Township	Spring Valley Park	45200000575	DCNR
Springfield Township	Thomson Park	45200000574	DCNR
Springfield Township	Lehigh Circle Park	45200000623	DCNR
Springfield Township	Meadowgreen Park	45200000626	DCNR
Springfield Township	Netherwood Park	45200000627	DCNR
Springfield Township	Wagner Wayside Park	45200000578	DCNR
Springfield Township	Williams Park	45200000581	DCNR
Springfield Township	Wildwood Avenue Park	45200000580	DCNR
Springfield Township	Kerr Park	0	Township
Springfield Township	Ampitheater @ Williams Park	0	Township
Tinicum Township	Governor Printz Park	45215100357	DCNR
Tinicum Township	John Heinz Natl. Wildlife Refuge-Tinicum	45070100636	DCNR
Tinicum Township	Manor Field	0	Township
Tinicum Township	Westinghouse Grove	0	Township



Tredyffrin Township	Conestoga Senior High School	29255101423	DCNR
Upper Darby Township	Aronimink E.S.	45235100256	DCNR
Upper Darby Township	Beverly Hills M.S.	45235100255	DCNR
Upper Darby Township	Beverly Hills Recreation	45235100379	DCNR
Upper Darby Township	Bishop Park	45235100367	DCNR
Upper Darby Township	Brookwood Park	45235100380	DCNR
Upper Darby Township	Bywood E.S.	45235100257	DCNR
Upper Darby Township	Clark Play Area	45235100366	DCNR
Upper Darby Township	Drexel Park Gardens	45235100364	DCNR
Upper Darby Township	Drexel Hill E.S.	45235100258	DCNR
Upper Darby Township	Drexel Hill M.S.	45235100254	DCNR
Upper Darby Township	Dermond Recreational Area	45235100363	DCNR
Upper Darby Township	Garrettford E.S.	45235100259	DCNR
Upper Darby Township	Westbrook Park E.S.	45235100264	DCNR
Upper Darby Township	Primos E.S.	45235100262	DCNR
Upper Darby Township	Gillispee Park	45235100385	DCNR
Upper Darby Township	Golf Rd. Play Area	45235100382	DCNR
Upper Darby Township	Highland Park E.S.	45235100260	DCNR
Upper Darby Township	Hillcrest E.S.	45235100261	DCNR
Upper Darby Township	Huey Park	45235100370	DCNR
Upper Darby Township	Keystone Play Area	45235100381	DCNR
Upper Darby Township	Kirklyn Play Area	45235100369	DCNR
Upper Darby Township	Manison Park	45235100384	DCNR
Upper Darby Township	Multi Service Center	45235100368	DCNR
Upper Darby Township	Mckinley Play Area	45235100372	DCNR
Upper Darby Township	Penn Pines Park	45235100373	DCNR
Upper Darby Township	Scullion Park	45235100376	DCNR
Upper Darby Township	Second Ward Play Area	45235100374	DCNR
Upper Darby Township	Stonehurst Hills Elementary School	45235100263	DCNR
Upper Darby Township	Upper Darby Senior High School	45235100253	DCNR
Upper Darby Township	Watkins Ave. House	45235100387	DCNR
Upper Darby Township	Westview Play Area	45235100365	DCNR
Upper Darby Township	Pine & Spruce Streets Playground	45070100828	DCNR
Upper Darby Township	Observation Hill Park	45235100371	DCNR



APPENDIX G

Political Districts in the Watershed



In a watershed of 31 municipalities, it is important for residents to know who the local legislators are (Table G-1). In order to visualize the political jurisdiction it is as simple as referring to a map (Figures G-1 through G-3). In order to take action on behalf of the watershed, it is recommended (Section 7) that interested parties consult the local legislator, be it a Federal Congressperson, State Senator, or State Representative (Table G-2).

Table G-1 Legislative Districts within the Darby Creek Watershed Municipalities, 12-2001

Darby Municipalities	U.S. Congressional Districts	PA Senatorial Districts	PA House of Representative Districts
Delaware County			
Aldan	7th	26th	163
Clifton Heights	7th	26th	163
Collingdale	7th	26th	162
Colwyn	1st	26th	162
Darby Boro	2nd	8th	162
Darby Twp.	1st	26th	163 / 185 (see map)
East Lansdowne	7th	26th	164
Folcroft	1st	26th	162
Glenolden	1st	26th	162 / 163
Haverford	7th	17th	166
Lansdowne	2nd	26th	163
Marple	7th	26th	165
Millbourne	7th	26th	164
Morton	7th	26th	161
Newtown	7th	26th	168
Norwood	7th	26th	162
Prospect Park	7th	9th	162
Radnor	7th	17th	165 / 166 / 167 (see map)
Ridley Park	7th	9th	161
Ridley Twp.	7th	9th	161
Rutledge	7th	26th	161
Sharon Hill	7th	26th	162
Springfield	7th	26th	161 / 165 (see map)
Tinicum	1st	9th	162
Upper Darby Twp.	7th	26th	163 / 164 / 165 (see map)
Yeadon	2nd	8th	191
Chester County			
Easttown	7th	19th	167th
Tredyffrin	7th	19th	157th
Montgomery County			
Lower Merion	13th	17th	147 / 148 (see map)
Narberth	13th	17th	148
Philadelphia County			
Philadelphia	1 / 2 (see map)	8th	185 / 188 / 190 / 191 / 192 (see map)

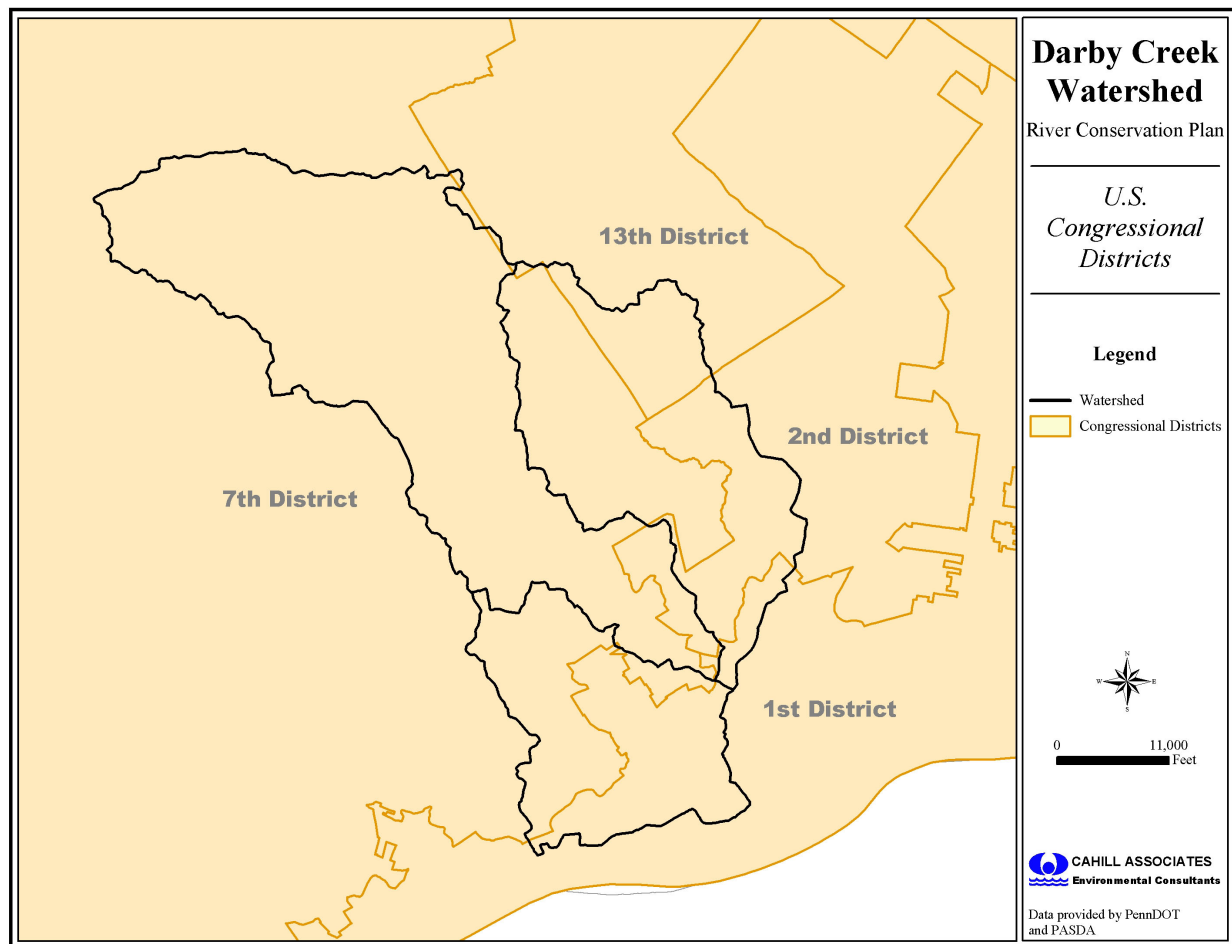


Figure G-1 U.S. House of Representative Districts in the Darby Creek Watershed, 12-2001

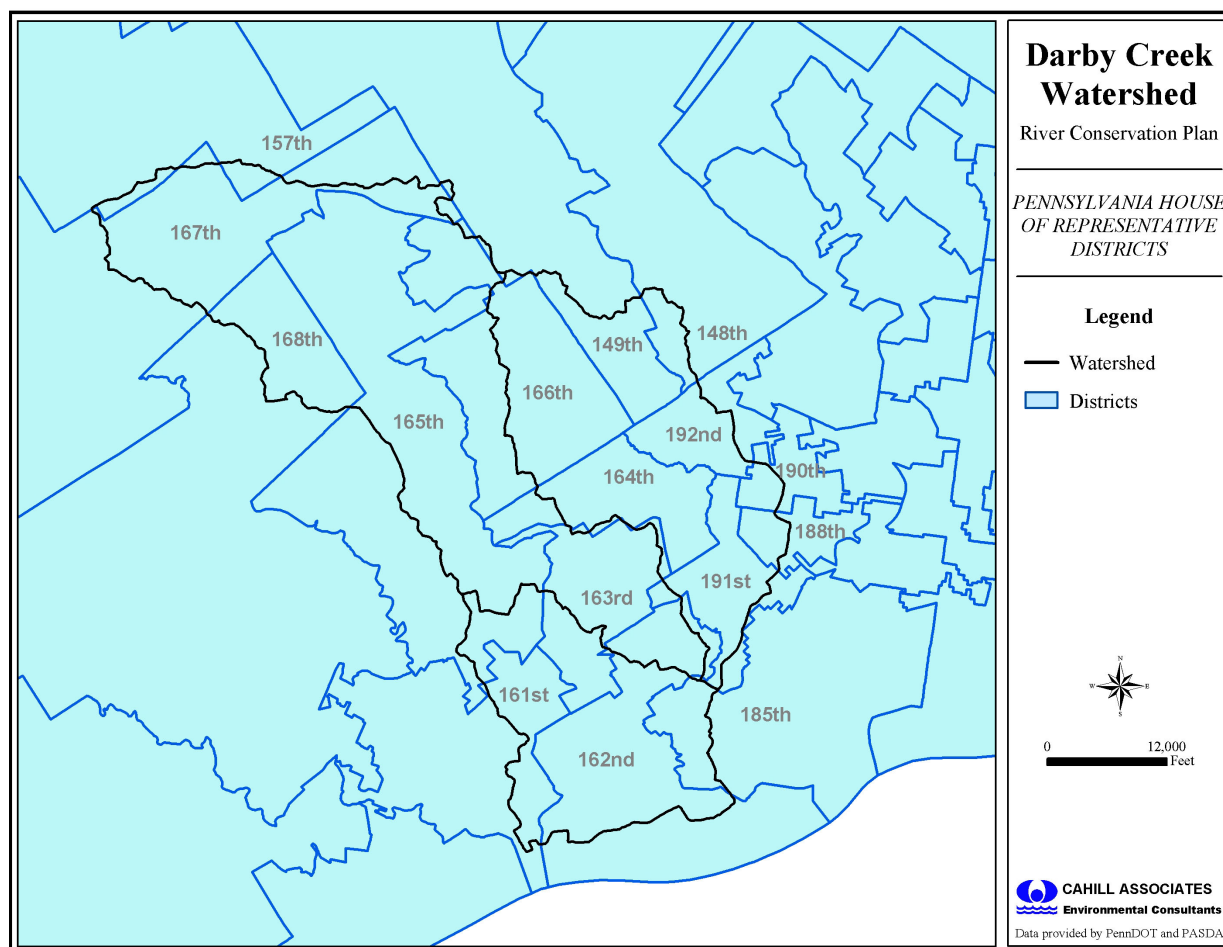


Figure G-2 PA Senatorial Districts in the Darby Creek Watershed, 12-2001

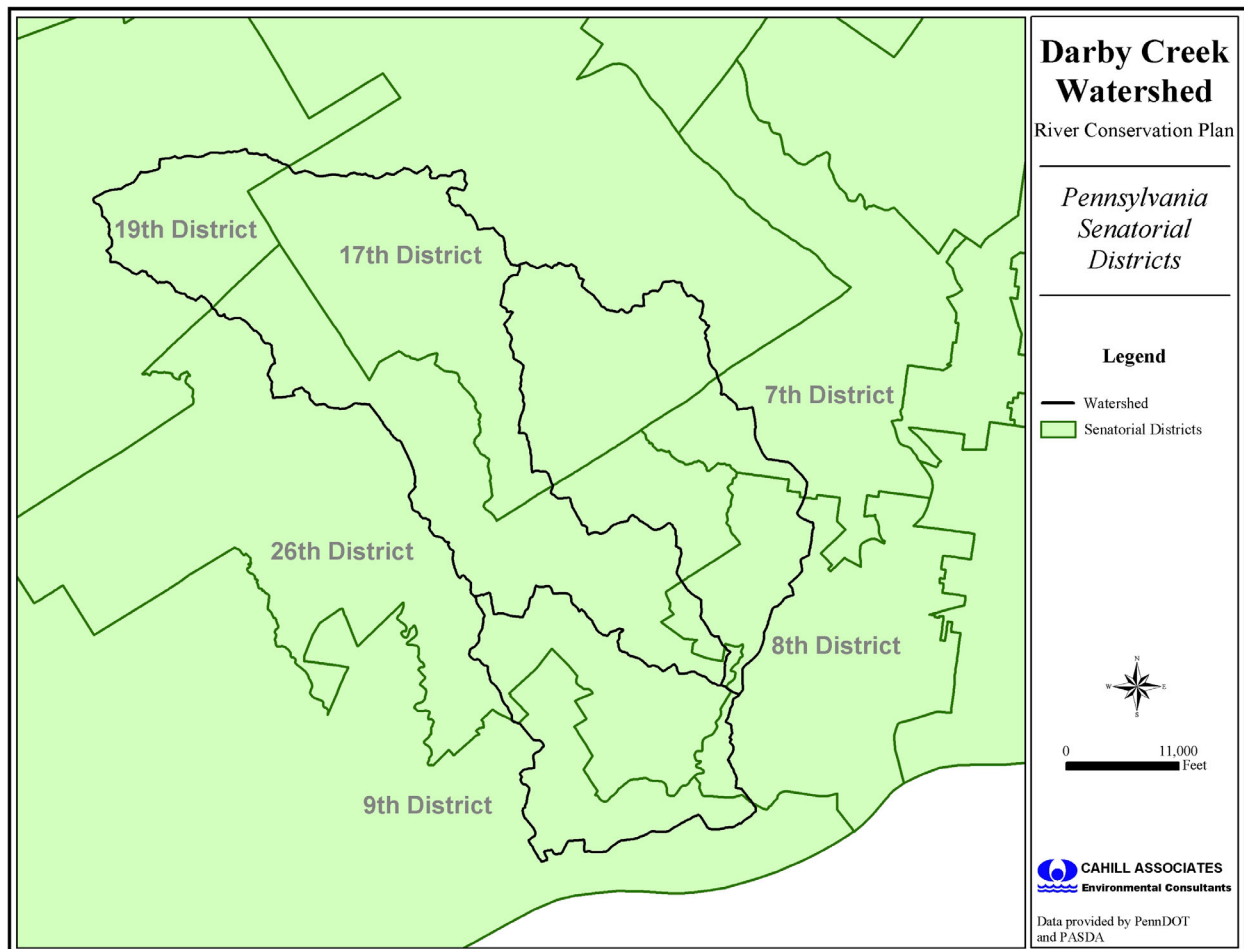


Figure G-3 PA Senatorial Districts in the Darby Creek Watershed, 12-2001



Table G-4 Contact Information for Legislative Representatives for Watershed Municipalities, 12-2001

U.S. Senators - Local Contact Information http://www.senate.gov/				
District	Name	Address	Telephone	Fax (if available)
PA	Arlen Specter (Rep)	9400 Federal Bldg., 600 Arch St.	(215) 597-7200	(202) 228-1229
PA	Richard (Rick) Santorum (Rep)	1 South Penn Square, Widener Bldg., Suite 960	(215) 864-6900	(215) 864-6910
U.S. House of Representatives - Local Contact Information http://www.house.gov/				
District	Name	Address	Telephone	Fax (if available)
1	Robert A. Brady (Dem)	Colony Building, 511 Welsh Road	(610) 874-7094	(215) 596-4665
2	Chaka Fattah (Dem)	4104 Walnut Street	(215) 387-6404	-
7	Curt Weldon (Rep)	1554 Garrett Road	(610) 259-0700	-
13	Joseph M. Hoefl	1768 Markley Street	(610) 272-8400	(610) 272-8532
Pennsylvania Senators - Local Contact Information http://www.pasen.gov/welcome.html				
District	Name	Address	Telephone	Fax (if available)
8	Anthony Hardy Williams (Dem)	5008 Baltimore Ave, 2nd Floor Suite, Mercy Wellness Center	(215) 662-5519	(215) 644-0660
9	Clarence D. Bell (Rep)	280 N. Providence Road	(610) 565-9100	-
17	Constance H. Williams (Dem)	601 S. Henderson Rd. Suite 201	(610) 992-9790	(610) 768-3104
17	Richard A. Tilghman	406 Gatcombe Lane	(610) 525-7674	-
19	Robert J. Thompson (Rep)	15 W. Gay Street	(610) 692-2112	(610) 436-1721
26	Edwin B. Erickson (Rep)	5037 Township Line Road	(610) 853-4100	(610) 853-4136
Pennsylvania House of Representatives - Local Contact Information http://www.house.state.pa.us/				
District	Name	Address	Telephone	Fax (if available)
147	Raymond Bunt, Jr. (Rep)	105 Memorial Drive, Lower Suite 1	(610) 287-4181	(610) 287-4348
148	Lita Indzel Cohen (Rep)	117 East 4th Ave.	(610) 397-0505	(610) 397-0508
157	Carole A. Rubley (Rep)	500 Chesterbrook Blvd., Suite E-2A	(610) 640-2356	(610) 640-2354
161	Thomas P. Cannon (Rep)	310 Amosland Rd.	(610) 461-5543	(610) 534-6881
162	Ron Raymond (Rep)	1337 Chester Pike	(610) 534-1002	(610) 534-1710
163	Nicholas A. Micozzie (Rep)	6 South Springfield Rd.	(610) 259-2820	(610) 259-7019
164	Mario J. Civera, Jr. (Rep)	232 Long Lane	(610) 352-7800	(610) 352-3389
165	William F. Adolph, Jr. (Rep)	920 W. Sproul Rd.	(610) 544-9878	(610) 338-2294
166	Greg Vitali (Dem)	1001 E. Darby Rd.	(610) 789-3900	(215) 560-4197
167	Robert J. Flick (Rep)	229 W. Lancaster Ave.	(610) 688-8002	(610) 688-6266
168	Matthew J. Ryan (Rep)	214 N. Jackson St.	(610) 566-2000	(610) 566-2003
185	Robert C. Donatucci (Dem)	161 S-17 Porter St.	(215) 468-1515	(215) 952-1164
188	James R. Roebuck, Jr. (Dem)	4800 Baltimore Ave.	(215) 724-2227	(215) 724-2230
190	Mike J. Horsey (Dem)	5151 Walnut Street	(215) 747-0757	(215) 560-2682
191	Ronald G. Waters (Dem)	6027 Ludlow St., Unit A	(215) 748-6712	(215) 748-1687
192	Louise Williams Bishop (Dem)	1991 North 63rd Street	(215) 879-6625	(215) 879-8566

