

# Natural Resource Regulations for Middle Delaware River Communities

		<b>Land Resources - Soils</b>			<b>Land Resources - Steep Slopes</b>		
<b>Municipality</b>	Location of recent Ordinances and date enacted	Agricultural Security Area (acres)	Restrictions on Prime Agricultural Soils	Control Development on Restrictive Soils	Percent Protected on Slope 8-15%	Percent Protected on Slope 15-25%	Percent Protected on Slope 25+%
<b>Bridgeton</b>	Zoning Ord. June 1999	0	no requirement	100% OS on floodplain soils	no requirement	85%	25 to 35% slope - 90% >35% slope - 100%
<b>Durham</b>	Zoning Ord. 1992	1,246	no requirement	100% OS on floodplain soils	60%	70%	85%
<b>New Hope</b>	Zoning Ord. Amend. 1994	0	no requirement	100% OS on floodplain soils	50%	70%	85%
<b>Nockamixon</b>	Zoning Ord. 2002	2,428	no requirement	100% OS on floodplain soils	no requirement	15-24% slope, 70%	25-30% slope, 80% 30+% slope, 85%
<b>Plumstead</b>	Zoning Ord. Amend. 2001	1,587	no requirement	100% OS on floodplain soils	no requirement	70%	85%
<b>Riegelsville</b>	Zoning Ord. 1989	0	no requirement	100% OS on floodplain soils	no requirement	70%	80%
<b>Solebury</b>	S & LD Amend June 1995	2,826	no requirement	100% OS on floodplain soils	permitted conditional uses (residential a conditional use)	permitted conditional uses (residential a conditional use)	ag. & rec. (no structures) uses only w/ setbacks

Sources: Bucks County Planning Commission, 2003 Summary, Forks Twp. Zoning Ord., 2000, Williams Twp. Zoning Ord., 1990. City of Easton Zoning and Subdivision Ord., 2001 rev.

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Municipality	Location of recent Ordinances and date enacted	Agricultural Security Area (acres)	Restrictions on Prime Agricultural Soils	Control Development on Restrictive Soils	Percent Protected on Slope 8-15%, % Natural Cover	Percent Protected on Slope 15-25%, % Natural Cover	Percent Protected on Slope 25+%, % Natural Cover
<b>Tinicum</b>	Zoning Ord. Amend. March 2000	2,823	No more than 25% can be developed, all development in overlay is conditional use	100% OS floodplain soils, but may not apply if FEMA did a detail study	60%	15-20% slope: 70% 20-25% slope: 85%	25-30% slope, 90% 30+% slope, 100%
<b>Upper Makefield</b>	Zoning Ord. 1996	1,496	80% - Class I soils 75% Class II soils 70% - Class III soils	100% OS on floodplain soils	no requirement	75%	85%
<b>Easton</b>	City of Easton Zoning Ordinance and Subdivision Regulations (2001 rev.)	0	none	Erosion and Sedimentation Study required	no requirement	no requirement	increase lot size by 50%, maximum impervious surface reduced by 25%.
<b>Forks</b>	Zoning Ord. 2000	908 (as of 2001)	none	100% OS floodplain soils	no requirement	15-20% slope: 80% 20%+ slope: 90%	90%
<b>Williams</b>	Zoning Ord. 1990	937 (as of 2001)	none	Development within alluvial soils subject to floodplain regulations	Requires site plan	Minimum 3-acre lot size. 70% protected	Minimum 5-acre lot size. 85% protected

# Natural Resource Regulations for Middle Delaware River Communities

	Land Resources - Woodlands			Land Resources - Minerals	Water Resources - Water Supply		
Municipality	Percent Protected for Open Space in Sensitive Areas	Percent Protected for Open Space in Other Areas	Tree Protection Ordinance	Quarry Operations Regulations Location	Water Conservation Devices	Well Drilling Ordinance	Low Density Zoning Near Supply
<b>Bridgeton</b>	max. building coverage/lot <30%: 70%, max. building coverage/lot >30%: 50%	max. building coverage/lot <30%: 70%, max. building coverage/lot >30%: 50%	Yes--100% in TPZ	no requirement	no requirement	Yes-- Construction Standards	No
<b>Durham</b>	80%	80%	Yes--100% in TPZ	Quarry Regulations (Zon. Ord. 1993)	no requirement	Yes-- Construction Standards (SLDO 1982)	No
<b>New Hope</b>	60%	60%	Yes--100% in TPZ	no requirement	no requirement	Yes-- Construction Standards (SLDO 1995)	No
<b>Nockamixon</b>	OSM District-90%, RP & RA Districts-80%, R Districts-70%	50% all other areas	Yes--100% in TPZ	Quarry Regulations (Zon. Ord. 1990)	Yes--on fixtures	Yes-- Construction Standards (Twp. Well Drilling Ord.)	No
<b>Plumstead</b>	80% in zones RP, RO, R-1 - R-4, 60% in zones C-1, C-2, C-3, C-4, VC, I, LI, Q	80% in zones RP, RO, R-1 - R-4, 60% in zones C-1, C-2, C-3, C-4, VC, I, LI, Q	Yes--100% in TPZ	Quarry Regulations (Zon. Ord. 1991)	Yes--on toilets only	Yes Construction Standards (Ord. 1995)	No
<b>Riegelsville</b>	80%, 50% in I - Industrial zoning district	50%, except in I dist.- must maint. ontin. canopy	Yes--100% in TPZ	Quarry Regulations (Zon. Ord. 1/15/89)	no requirement	Yes-- Constructions Standards (SLDO 1991)	No
<b>Solebury</b>	RD & RD-C distr. - prot. wherever poss., replace 10" & 12" caliper trees, respectively	RD & RD-C distr. - prot. wherever poss., replace 10" & 12" caliper trees, respectively	Trees 6" or > diam. to be removed must be replaced (SALDO)	Quarry Regulations (Zon. Ord. 1992)	Yes--on Fixtures	Yes--Constr. Stands. & Req. Hydrogeologic Report	No

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<b>Tinicum</b>	80% all areas	80% all areas	Yes, Woodland Mgmt. Ord.	Extraction Regulations (Zon. Ord. 2000)	Yes--on fixtures	No	Yes--Critical Recharge Distr. (Zoning Ord. 2000)
<b>Upper Makefield</b>	80% in zones JM, CM, CR-1	50% in zones other than JM, CM, CR-1	Yes--100% in TPZ	Quarry Regulations (Zon. Ord. 1996)	Yes--Twp. Code 1988	Yes--Construction Standards (9/77) & Twp. Code ('82)	Yes--Newtown Area Joint Municipal Comprehensive Plan
<b>Easton</b>	Yes, consult with County Conservation District.	no requirement	Consult with County Conservation District	no requirement	no requirement	no	no requirement
<b>Forks</b>	90%: Floodplain, swamps 70%: Meisic 50%: Upland	no requirement	yes - woodland mgmt. plan required.	no requirement	no requirement	no	no requirement
<b>Williams</b>	no requirement	no requirement	Plan required for removal of more than 10 trees with a trunk diameter of 6 inches or more.	no requirement	no requirement	no	no requirement

# Natural Resource Regulations for Middle Delaware River Communities

		<b>Water Resources - Water Quality</b>			
<b>Municipality</b>	Wastewater Plan for Municipalities	Wastewater Pre-treatment, includes sewage treatment (plant and treatment level) All plants must also meet DEP regulations	Percent Protected for Open Space for Lake/Pond/Watercourse	Percent Protected for Open Space for Lake/Pond/Watercourse Margin (Margin in ft.)	On-Lot Disposal System Management or Education Programs
<b>Bridgeton</b>	Palisades Area Wastewater Facilities Plan	None	100%	100% (50ft)	OLDS Management
<b>Durham</b>	Palisades Area Wastewater Facilities Plan	Pennridge (M15) Advanced Secondary	100%	100% lake (150ft), 100% pond (75ft)	No
<b>New Hope</b>	Bucks County Sewerage Facility Plan, Lambertville 201 Study	Lambertville NJ (M19) Secondary	100%	80% pond (100ft), 70% lake (100ft)	No
<b>Nockamixon</b>	Palisades Area Wastewater Facilities Plan	None	100%	no requirement	No
<b>Plumstead</b>	Bucks County Sew. Fac. Plan & Neshaminy Basin Sub-Region II 201 Facility Plan 1984 (in the process of updating)	None	100%	100% for streams, watercourse, lakes, ponds, waters of the Commonwealth & waters of the US with some exceptions.	(will be required in updated Act 537 plan)
<b>Riegelsville</b>	Palisades Area Wastewater Facilities Plan	None	100%	80%	No
<b>Solebury</b>	Solebury Official Sew. Fac. Plan Rev. 1975, Rev. to 537 Plan for New Hope/Sole. 1992	Lambertville NJ (M19) Secondary, Buckingham (M27) Tertiary	no requirement	no requirement	OLDS Management

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<b>Municipality</b>	Wastewater Plan for Municipalities	Wastewater Pre-treatment, includes sewage treatment (plant and treatment level) All plants must also meet DEP regulations	Percent Protected for Open Space for Lake/Pond/Watercourse	Percent Protected for Open Space for Lake/Pond/Watercourse Margin (Margin in ft.)	On-Lot Disposal System Management or Education Programs
<b>Tinicum</b>	Palisades Area Wastewater Facilities Plan	None	100%	100% - lake 150 ft, pond 75 ft, watercourse 50 ft (except roads and utilities)	OLDS Management
<b>Upper Makefield</b>	Upper Makefield Twp. Act 537 Sewer Facility Plan	N.E. Phila. (M21) Secondary	100% ponds/lakes only	no requirement	OLDS Management & Education Programs
<b>Easton</b>	Water Supply and Sewage Facilities Plan Update (JPC, 1966), Bushkill-Lower Lehigh Joint Sewer Authority System 1970.	City of Easton	no requirement	no requirement	none
<b>Forks</b>	Forks Township Act 537 Sewage Facilities Plan Update 1995	City of Easton	100% ponds, lakes	70% within 50ft of lake, ponds, wetlands and watercourses	none
<b>Williams</b>	Water Supply and Sewage Facilities Plan Update (JPC, 1970), Act 537 Sewage Facilities Plan - 1-78 Corridor, 1995	None	no requirement	25 ft. buffer along Delaware and Lehigh Canals. 75 ft. along Delaware and Lehigh Rivers. 25 ft. along streams.	none

# Natural Resource Regulations for Middle Delaware River Communities

					<b>Stormwater</b>		<b>Land/Interface Resources - Floodplain</b>
<b>Municipality</b>	<b>Private Well Testing (Location For Criteria)</b>	<b>Watershed Location</b>	<b>Prevent Industrial Contamination through Code Enforcement</b>	<b>Erosion and Sedimentation Control (Location of Criteria)</b>	<b>Stormwater Runoff Controls</b>	<b>Stormwater Management Plans or Criteria Location</b>	<b>Percent Protected for Development in 100-yr. Floodplain (% OS)</b>
<b>Bridgeton</b>	Yes--test for MCL's & additional tests	Delaware River North	Yes	Yes--SLDO 1995	Groundwater Recharge, Water Quality Control, and Release Rates	Yes--SLDO 1995	100%
<b>Durham</b>	No	Delaware River North	Yes	Yes--SLDO 1982	Groundwater Recharge, Water Quality Control, and Release Rates	Yes--SLDO '82, Stormwater Ord. '03, Zon. Ord. '92	100%
<b>New Hope</b>	No	Delaware River South	Yes	Yes--SLDO Amend 1995	Post Development Runoff = Pre-Development Runoff	Yes--SLDO Amend. 1995	100%
<b>Nockamixon</b>	No	Tohickon & Delaware River North	Yes	Yes --SLDO Amend. 1997	Groundwater Recharge, Water Quality Control, and Release Rates	Yes --SLDO Amend. 1997	100%
<b>Plumstead</b>	Yes--Ord. 1994	Tohickon, Neshaminy, & Delaware River South	Yes	Yes --SLDO 1995	Groundwater Recharge, Water Quality Control, and Release Rates	Yes--SLDO 1995	100%
<b>Riegelsville</b>	Yes--Bacteriological tests (SLDO 1991)	Delaware River North	Yes	Yes --SLDO 1991	Groundwater Recharge, Water Quality Control, and Release Rates	Yes--SLDO 1991	100%
<b>Solebury</b>	S & LD Amend June 1995	Delaware River South	Yes	S & LD Amend June 1995	Groundwater Recharge, Water Quality Control, and Release Rates	Yes--SLDO 1982	100%

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					<b>Stormwater</b>		<b>Land/Interface Resources - Floodplain</b>
<b>Municipality</b>	Private Well Testing (Location For Criteria)	Watershed Location	Prevent Industrial Contamination through Code Enforcement	Erosion and Sedimentation Control (Location of Criteria)	Stormwater Runoff equals Pre & Post-development	Stormwater Management Plans or Criteria Location	Percent Protected for Development in 100-yr. Floodplain (% OS)
<b>Tinicum</b>	Yes	Delaware River North & Tohickon	Yes	Yes --SLDO Amend. 1/16/90	Groundwater Recharge, Water Quality Control, and Release Rates	Yes--Stormwater Management Ord. 2002	100%
<b>Upper Makefield</b>	Yes-- Bacteriological tests (SLDO 1996)	Delaware River South	Yes	Yes --SLDO 1996	Post Development Runoff = Pre-Development Runoff	Yes--SLDO 1996	100%
<b>Easton</b>	no	Martins/ Jacoby Creek and Bushkill Creek	yes	Yes--Subdivision Ordinance, 1989	Conditional no detention or post development = pre development runoff (100% release rate)	Title 13, Stormwater Ordinance - part of Planning and Zoning Code.	Uses must conform with Flood Zone District Regulations. Land suitability report required.
<b>Forks</b>	no	Martins/ Jacoby Creek and Bushkill Creek	yes	Yes - SLDO	Post Development Runoff = Pre-Development Runoff	Yes - SLDO (1999 Act 167 Plan)	100% except by DEP permit
<b>Williams</b>	no	Fry's Run and Delaware River North	yes	yes- SLDO	Post Development Runoff = Pre-Development Runoff	yes-SLDO	Uses must not result in increased flood height. Structures must be 1.5 feet above 100-yr. Floodplain elevation.

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# Natural Resource Regulations for Middle Delaware River Communities

		<b>Wetlands</b>			<b>Geology</b>	<b>Restrictive Geologic Formations</b>	
<b>Municipality</b>	Limit Development on 100-yr. Flood Fringe	Percent Protected for Open Space in Wetland Areas	Percent Protected for Open Space in Wetland Margins (ft. and/or %)		Geologic Features	Carbonate Geology Ordinance	Limit Development in Groundwater Areas
<b>Bridgeton</b>	Yes	100%	50 ft.	yes	Delaware Palisades, Nockamixon Cliffs, Ringing Rocks, High Falls, Mine Spring	No	Yes--Comp. Plan 1994
<b>Durham</b>	Yes	100%	no	no	Durham Caves, Monroe Border Fault	100% prot. - karst geol., caves, sinkholes	No
<b>New Hope</b>	Yes	100%	no	no	None	No	No
<b>Nockamixon</b>	Yes	100%	no	no	Nockamixon Cliffs	No	No
<b>Plumstead</b>	Yes	100%	100 % (75ft)	yes	Delaware Palisades, Cabin Run	No	No
<b>Riegelsville</b>	Yes	100%	80%	no	None	Yes--regulates development in carbonate areas	No
<b>Solebury</b>	Yes	no	no	no	Bowman's Hill, Solebury Mountain, Ingham Spring	Yes--regulates development in carbonate areas	No

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<b>Municipality</b>	Limit Development on 100-yr. Floodplain Fringe	Percent Protected for Open Space in Wetland Areas	Percent Protected for Open Space in Wetland Margins (ft.)	Stream Corridor Protection/Riparian Buffer	Geologic Features	Carbonate Geology Ordinance	Limit Development in Groundwater Areas
<b>Tinicum</b>	75% protected, structures must be floodproofed (1.5 ft above 100-yr floodplain)	100%	100% - 50 ft, except roads and utilities	yes	Roaring Rocks, High Rocks, Doan Cave, Delaware Palisades	No	Yes--Zoning Ord. 2000
<b>Upper Makefield</b>	no requirement	100%	no	yes	Jericho Mountain	No	Yes--Zoning Ord. 1996
<b>Easton</b>	no requirement	Land suitability report required for sensitive areas	no requirement	no requirement		no	no
<b>Forks</b>	By DEP permit only. Structures must be floodproofed (1.5 feet above 100-yr floodplain)	100%	no requirement	70% protected within 50 ft of shoreline of lake or pond		no	no
<b>Williams</b>	Permits development with special provisions specified in Floodplain Ordinance.	Permits issued if applicant complies with Federal and State wetlands regulations	no requirement	Yes. 75 feet from Delaware and Lehigh Rivers. 25 feet from streams. 25 feet landscaped buffer along Delaware and Lehigh Canals.	Elephant Rock, Hexenkopf Rock,	no	no

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