



1-1-2006

Supplemental Community Inserts to the 2006 State of the Estuaries Report

PREP

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Barrington Data	1990	2000	2005
Population	6164	7475	8071
Impervious Surface (acres).....	764	1187	1387
Impervious Surface (% of land)	2.6	4	4.7
Acres of Impervious Surface per Person.....	0.124	0.159	0.172
Key Conservation Areas*: Bumfagging Hill, Creek Pond Marsh, Lower Isinglass, Middle Isinglass, Upper Isinglass, Preston Pond, Rochester Neck, Stonehouse Brook			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

Recommended Community Actions

(Your community may have already completed some of these actions)

- **Learn About and Protect Critical Habitats**
- **Designate Prime Wetlands**
- **Update Buffer Regulations**
- **Adopt Regulations that Reduce Sprawl**
- **Promote Effective Stormwater Management**

LEARN ABOUT AND PROTECT CRITICAL HABITATS

Municipalities should conduct a natural resources inventory to identify critical habitats and then prioritize areas for land protection. Appropriate land conservation strategies can follow, such as fee simple purchases, conservation easements, and regulatory protections. Many communities commit town funding and/or earmark land use change taxes for land conservation. Master plans and ordinances should be updated to better protect critical town resources.

Resources To Help You:

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Identifies key areas to be protected and develops regional strategies for maintaining diverse habitats, forest ecosystems, and water resources
All planning boards & conservation commissions have a copy of the plan
Online: www.nhep.unh.edu/resources/actions.htm
Contact Mark Zankel (mzankel@tnc.org, 603.224.5853)

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Contains conservation strategies and maps identifying highest quality habitats
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The NHEP can provide contact information for individuals from these communities
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Buffers benefit water quality and wildlife by providing habitat, filtering pollutants from runoff, promoting groundwater infiltration, and stabilizing stream banks to control erosion. Many communities do not have adequate buffer regulations (set-back ordinances **do not** protect buffers). Buffers must be undisturbed areas with diverse natural vegetation to be fully functional.

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Brentwood Data	1990	2000	2005
Population	2590	3197	4069
Impervious Surface (acres).....	532	829	1023
Impervious Surface (% of land)	5.0	7.7	9.5
Acres of Impervious Surface per Person.....	0.205	0.259	0.251
Key Conservation Areas*: Bloody Brook, Dudley Brook, Dog Swamp, Exeter River, Middle Piscassic River			

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Brookfield Data

	1990	2000	2005
Population	518	604	666
Impervious Surface (acres).....	139	191	198
Impervious Surface (% of land)	1.0	1.3	1.4
Acres of Impervious Surface per Person.....	0.269	0.316	0.298
Key Conservation Areas*: Pike Brook, Moose Mountains			

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Candia Data

	1990	2000	2005
Population	3557	3911	4141
Impervious Surface (acres).....	531	794	931
Impervious Surface (% of land)	2.7	4.1	4.8

Acres of Impervious Surface per Person..... 0.149 0.203 0.225

Key Conservation Areas*: Upper North Branch River, Fordway Brook Headwaters

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Chester Data	1990	2000	2005
Population	2691	3792	4570
Impervious Surface (acres).....	423	720	856
Impervious Surface (% of land)	2.5	4.3	5.1
Acres of Impervious Surface per Person.....	0.157	0.19	0.187
Key Conservation Areas*: Dumpling Hill, Upper Exeter River, Fordway Brook Headwaters			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

Recommended Community Actions

(Your community may have already completed some of these actions)

- **Learn About and Protect Critical Habitats**
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Danville Data	1990	2000	2005
Population	2534	4023	4426
Impervious Surface (acres).....	260	445	534
Impervious Surface (% of land)	3.5	6	7.2
Acres of Impervious Surface per Person.....	0.103	0.111	0.121
Key Conservation Areas*: Upper Exeter River			

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Deerfield Data

	1990	2000	2005
Population	3124	3678	4190
Impervious Surface (acres).....	492	768	969
Impervious Surface (% of land)	1.5	2.4	3
Acres of Impervious Surface per Person.....	0.157	0.209	0.231
Key Conservation Areas*: Candia Road, Upper North Branch River, Thurston Pond / Hartford Brook, Saddleback Mountain, Pawtuckaway Mountains			

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Dover Data	1990	2000	2005
Population	25042	26884	28776
Impervious Surface (acres).....	1873	2626	3172
Impervious Surface (% of land)	11.0	15.4	18.6
Acres of Impervious Surface per Person.....	0.075	0.098	0.11
Key Conservation Areas*: Bellamy River, Rochester Neck, Garvin Brook, Lower Cocheco River, Fresh Creek, Garvin Brook			

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Durham Data	1990	2000	2005
Population	11818	12664	13321
Impervious Surface (acres).....	675	1026	1098
Impervious Surface (% of land)	4.7	7.2	7.7
Acres of Impervious Surface per Person.....	0.057	0.081	0.082
Key Conservation Areas*: Crommet Creek, Lubberland Creek, LaRoche Brook, Oyster River, Woodman Brook, Lower Lamprey, Johnson Creek, Bunker Creek			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

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East Kingston Data

	1990	2000	2005
Population	1352	1784	1983
Impervious Surface (acres).....	222	335	439
Impervious Surface (% of land)	3.5	5.3	7
Acres of Impervious Surface per Person.....	0.164	0.188	0.222
Key Conservation Areas*: none identified			

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Epping Data

	1990	2000	2005
Population	5162	5476	5935
Impervious Surface (acres).....	658	1071	1292
Impervious Surface (% of land)	4.0	6.5	7.8
Acres of Impervious Surface per Person.....	0.127	0.196	0.218
Key Conservation Areas*: Kennard Hill, Pawtuckaway River, Middle Piscassic River, North River / Rollins Brook, Birch Hill Rd Lowlands			

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Population	12481	14058	14584
Impervious Surface (acres).....	937	1376	1559
Impervious Surface (% of land)	7.5	11	12.4
Acres of Impervious Surface per Person.....	0.075	0.098	0.107
Key Conservation Areas*: Bloody Brook, Dudley Brook, Squamscott River, Middle Piscassic River, Dog Swamp, Exeter River, Great Meadows, Taylor River & The Cove			

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Farmington Data	1990	2000	2005
Population	5739	5774	6540
Impervious Surface (acres).....	687	966	1090
Impervious Surface (% of land)	3.0	4.2	4.7
Acres of Impervious Surface per Person.....	0.12	0.167	0.167
Key Conservation Areas*: Blue Hills			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

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Fremont Data

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Impervious Surface (acres).....	329	538	654
Impervious Surface (% of land)	3.0	4.9	5.9
Acres of Impervious Surface per Person.....	0.128	0.153	0.164
Key Conservation Areas*: Spruce Swamp, Upper Exeter River			

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Greenland Data	1990	2000	2005
Population	2768	3208	3408
Impervious Surface (acres).....	455	713	845
Impervious Surface (% of land)	6.7	10.5	12.5
Acres of Impervious Surface per Person.....	0.164	0.222	0.248
Key Conservation Areas*: Fabyan Point, Packer Bog, Middle Winnicut River, Lower Winnicut River, Squamscott River			

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Hampton Data

	1990	2000	2005
Population	12278	14937	15423
Impervious Surface (acres).....	1179	1605	1717
Impervious Surface (% of land)	14.2	19.3	20.6
Acres of Impervious Surface per Person.....	0.096	0.107	0.111
Key Conservation Areas*: Taylor River & The Cove, Hampton Marsh			

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Hampton Falls Data

	1990	2000	2005
Population	1503	1880	2014
Impervious Surface (acres).....	342	536	699
Impervious Surface (% of land)	4.4	6.9	9.1
Acres of Impervious Surface per Person.....	0.227	0.285	0.347
Key Conservation Areas*: Taylor River & The Cove, Hampton Marsh			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

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Kensington Data	1990	2000	2005
Population	1631	1893	2068
Impervious Surface (acres).....	243	378	470
Impervious Surface (% of land)	3.2	5	6.2
Acres of Impervious Surface per Person.....	0.149	0.2	0.227
Key Conservation Areas*: Taylor River & The Cove, Hampton Marsh, Upper Great Brook, Muddy Pond, Great Meadows			

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Kingston Data

	1990	2000	2005
Population	5591	5862	6205
Impervious Surface (acres).....	651	1019	1212
Impervious Surface (% of land)	5.2	8.2	9.7
Acres of Impervious Surface per Person.....	0.116	0.174	0.195
Key Conservation Areas*: none identified			

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Lee Data	1990	2000	2005
Population	3729	4145	4364
Impervious Surface (acres).....	468	740	841
Impervious Surface (% of land)	3.7	5.8	6.6
Acres of Impervious Surface per Person.....	0.125	0.179	0.193

Key Conservation Areas*: North River / Rollins Brook, Lamprey River, Oyster River

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Madbury Data

	1990	2000	2005
Population	1404	1509	1741
Impervious Surface (acres).....	252	394	392
Impervious Surface (% of land)	3.4	5.3	5.3
Acres of Impervious Surface per Person.....	0.179	0.261	0.225
Key Conservation Areas*: Oyster River, Johnson Creek, Bunker Creek			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

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Middleton Data

	1990	2000	2005
Population	1183	1440	1662
Impervious Surface (acres).....	205	284	350
Impervious Surface (% of land)	1.8	2.5	3
Acres of Impervious Surface per Person.....	0.173	0.197	0.211
Key Conservation Areas*: Cocheco Headwaters, Hart Brook / Mt. Tenneriffe, Moose Mountains			

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Milton Data	1990	2000	2005
Population	3691	3910	4329
Impervious Surface (acres).....	597	839	985
Impervious Surface (% of land)	2.8	4	4.7
Acres of Impervious Surface per Person.....	0.162	0.215	0.228
Key Conservation Areas*: Union Meadows, Northeast Pond, Hart Brook / Mt. Tenneriffe			

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New Castle Data

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Population	840	1010	1045
Impervious Surface (acres).....	108	155	171
Impervious Surface (% of land)	21.4	30.7	33.9
Acres of Impervious Surface per Person.....	0.129	0.153	0.164
Key Conservation Areas*: none identified			

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New Durham Data	1990	2000	2005
Population	1974	2220	2429
Impervious Surface (acres).....	458	628	727
Impervious Surface (% of land)	1.7	2.4	2.8
Acres of Impervious Surface per Person.....	0.232	0.283	0.299
Key Conservation Areas*: Cocheco Headwaters, Coldrain Pond, Cooper Cedar Woods			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

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Newfields Data

	1990	2000	2005
Population	888	1551	1646
Impervious Surface (acres).....	142	251	308
Impervious Surface (% of land)	3.1	5.5	6.8
Acres of Impervious Surface per Person.....	0.16	0.162	0.187

Key Conservation Areas*: Squamscott River

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

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Newington Data

	1990	2000	2005
Population	990	775	794
Impervious Surface (acres).....	687	941	1056
Impervious Surface (% of land)	13.2	18	20.2
Acres of Impervious Surface per Person.....	0.694	1.214	1.33

Key Conservation Areas*: Fabyan Point

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

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Newmarket Data

	1990	2000	2005
Population	7157	8027	9184
Impervious Surface (acres).....	480	707	819
Impervious Surface (% of land)	5.9	8.8	10.1
Acres of Impervious Surface per Person.....	0.067	0.088	0.089
Key Conservation Areas*: Squamscott River, Lower Lubberland Creek, Crommet Creek, Lubberland Creek			

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North Hampton Data	1990	2000	2005
Population	3637	4259	4522
Impervious Surface (acres).....	648	958	1100
Impervious Surface (% of land)	7.3	10.8	12.4
Acres of Impervious Surface per Person.....	0.178	0.225	0.243
Key Conservation Areas*: Upper Little River, Middle Little River, Lower Little River, Winnicut River / Cornelius Brook			

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Northwood Data

	1990	2000	2005
Population	3124	3640	3897
Impervious Surface (acres).....	424	610	717
Impervious Surface (% of land)	2.4	3.4	4

Acres of Impervious Surface per Person..... 0.136 0.168 0.184

Key Conservation Areas*: Saddleback Mountain, Pawtuckaway Mountains, Blue Hills

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

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Nottingham Data	1990	2000	2005
Population	2939	3701	4182
Impervious Surface (acres).....	448	693	842
Impervious Surface (% of land)	1.5	2.3	2.8
Acres of Impervious Surface per Person.....	0.152	0.187	0.201
Key Conservation Areas*: Bumfagging Hill, Pawtuckaway River, Lamprey River, Kennard Hill, Langley Pond, Cyrus Pond, Pawtuckaway Mountains			

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Portsmouth Data

	1990	2000	2005
Population	25925	20784	21117
Impervious Surface (acres).....	2128	2726	3054
Impervious Surface (% of land)	21.3	27.3	30.5
Acres of Impervious Surface per Person.....	0.082	0.131	0.145
Key Conservation Areas*: Upper Berry's Brook, Great Bog, Packer Bog			

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Raymond Data

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Impervious Surface (acres).....	977	1484	1714
Impervious Surface (% of land)	5.3	8	9.3
Acres of Impervious Surface per Person.....	0.112	0.153	0.165
Key Conservation Areas*: Lower Fordway Brook, Dumpling Hill, Fordway Brook Headwaters, Pawtuckaway Mountains			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

Recommended Community Actions

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Rochester Data	1990	2000	2005
Population	26630	28461	30337
Impervious Surface (acres).....	2395	3304	3942
Impervious Surface (% of land)	8.5	11.7	13.9
Acres of Impervious Surface per Person.....	0.09	0.116	0.13
Key Conservation Areas*: Rochester Neck, Rochester Heath Bog, Preston Pond, Blue Hills			

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Rollinsford Data

	1990	2000	2005
Population	2645	2648	2690
Impervious Surface (acres).....	266	381	437
Impervious Surface (% of land)	5.7	8.1	9.3
Acres of Impervious Surface per Person.....	0.1	0.144	0.163

Key Conservation Areas*: Garvin Brook, Fresh Creek

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Rye Data	1990	2000	2005
Population	4612	5182	5298
Impervious Surface (acres).....	587	878	1026
Impervious Surface (% of land)	7.3	11	12.8
Acres of Impervious Surface per Person.....	0.127	0.169	0.194
Key Conservation Areas*: Awcomin Marsh, Bailey Brook, Lower Berry's Brook, Upper Berry's Brook, Seavey Creek / Fairhill Swamp, Packer Bog			

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Sandown Data

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Population	4060	5143	5711
Impervious Surface (acres).....	337	544	701
Impervious Surface (% of land)	3.8	6.1	7.9
Acres of Impervious Surface per Person.....	0.083	0.106	0.123

Key Conservation Areas*: Upper Exeter River

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Seabrook Data

	1990	2000	2005
Population	6503	7934	8432
Impervious Surface (acres).....	802	1206	1539
Impervious Surface (% of land)	14.1	21.3	27.1
Acres of Impervious Surface per Person.....	0.123	0.152	0.182
Key Conservation Areas*: Hampton Marsh			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

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Somersworth Data

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Population	11249	11477	11851
Impervious Surface (acres).....	768	1021	1257
Impervious Surface (% of land)	12.3	16.4	20.2
Acres of Impervious Surface per Person.....	0.068	0.089	0.106
Key Conservation Areas*: none identified			

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Strafford Data	1990	2000	2005
Population	2965	3626	3962
Impervious Surface (acres).....	434	638	727
Impervious Surface (% of land)	1.4	2	2.3
Acres of Impervious Surface per Person.....	0.146	0.176	0.183
Key Conservation Areas*: Upper Isinglass, Blue Hills			

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Population	4955	6355	6965
Impervious Surface (acres).....	628	979	1246
Impervious Surface (% of land)	6.5	10.1	12.9
Acres of Impervious Surface per Person.....	0.127	0.154	0.179
Key Conservation Areas*: Parkman Brook, Squamscott River, Winnicut River / Cornelius Brook			

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Communities that completed the prime wetlands designation process

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Contact Dave Kellam (dave.kellam@unh.edu, 603.862.3403)

UPDATE BUFFER REGULATIONS

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ADOPT REGULATIONS THAT REDUCE SPRAWL

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Communities should incorporate conservation subdivisions, transfer of development rights, and other innovative land use regulations to minimize sprawling development.

Resources To Help You:

Land Conservation Plan for New Hampshire's Coastal Watershed Land

Includes model ordinances for Conservation Overlay District

Online: www.nhep.unh.edu ("Resources" page)

All Conservation Commissions have a copy or CDs of plan can be ordered from Mark Zankel (mzankel@tnc.org, 603.224.5853)

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Contact Cliff Sinnott (c.sinnott@rpc-nh.org, 603.778.0885)

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Contact David Preece (dpreece@snhpc.org, 603.669.4664)

Strafford Regional Planning Commission

Online: <http://www.strafford.org>

Contact Cynthia Copeland (cjc@strafford.org, 603.742.2523)

PROMOTE EFFECTIVE STORMWATER MANAGEMENT

Communities should develop ordinances that encourage low impact development (LID) stormwater management treatment devices, which have been proven by UNH to be best at removing key contaminants. Communities' development ordinances also should minimize impervious surfaces in new developments and require best management practices during construction to minimize erosion, limit stormwater runoff, and promote infiltration. Municipalities' own practices should include regular street vacuuming, catch basin cleaning, and proper management of snow dumping sites.

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Online: <http://www.unh.edu/erg/cstev>

Contact Dr. Rob Roseen (rroseen@cisunix.unh.edu, 603.862.4024)

Wakefield Data	1990	2000	2005
Population	3057	4252	4705
Impervious Surface (acres).....	878	1225	1407
Impervious Surface (% of land)	3.5	4.8	5.6
Acres of Impervious Surface per Person.....	0.287	0.288	0.299
Key Conservation Areas*: Davis and Oak Hill, Moose Mountains, Union Meadows			

* from the *Land Conservation Plan for NH's Coastal Watersheds*, TNC, 2006

Recommended Community Actions

(Your community may have already completed some of these actions)

- **Learn About and Protect Critical Habitats**
- **Designate Prime Wetlands**
- **Update Buffer Regulations**
- **Adopt Regulations that Reduce Sprawl**
- **Promote Effective Stormwater Management**

LEARN ABOUT AND PROTECT CRITICAL HABITATS

Municipalities should conduct a natural resources inventory to identify critical habitats and then prioritize areas for land protection. Appropriate land conservation strategies can follow, such as fee simple purchases, conservation easements, and regulatory protections. Many communities commit town funding and/or earmark land use change taxes for land conservation. Master plans and ordinances should be updated to better protect critical town resources.

Resources To Help You:

Land Conservation Plan for New Hampshire's Coastal Watersheds
Identifies key areas to be protected and develops regional strategies for maintaining diverse habitats, forest ecosystems, and water resources

All planning boards & conservation commissions have a copy of the plan

Online: www.nhep.unh.edu/resources/actions.htm

Contact Mark Zankel (mzankel@tnc.org, 603.224.5853)

NH Wildlife Action Plan

Contains conservation strategies and maps identifying highest quality habitats

Online: www.wildlife.state.nh.us/Wildlife/wildlife_plan.htm

Contact Emily Brunkhurst (emily.brunkhurst@wildlife.state.nh.us, 603.271.2461)

Freshwater Wetlands Mitigation Inventory for 19 Coastal Communities

Identifies wetlands restoration, creation, and protection projects

Online: www.nhep.unh.edu/resources/actions.htm

Contact Mark West (mark@westenv.net, 603.659.0416)

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