Rockingham
Planning
Commission

Attachment 95.6.2 - Pt. #1

121 Water Street, Exeter, N.H. 03833
603-778-0885 Fax 603-778-9183

NH COASTAL PROGRAM

ROCKINGHAM PLANNING COMMISSION FINAL REPORT

COASTAL NONPOINT POLLUTION PROGRAM EXETER/SQUAMSCOTT WATERSHED DEMONSTRATION PROJECT

GRANT NO. NA370Z0277-01

OCTOBER 31, 1995

This report was funded in part by a grant from the Office of State Planning, New Hampshire Coastal Program, as authorized by the National Oceanic and Atmospheric Administration (NOAA), Grant Award Number NA370Z0277-01.

NH COASTAL PROGRAM

ROCKINGHAM PLANNING COMMISSION
FINAL REPORT

COASTAL NONPOINT POLLUTION PROGRAM
EXETER/SQUAMSCOTT WATERSHED DEMONSTRATION PROJECT
GRANT NO. NA370Z0277-01

OCTOBER 31, 1995

During this year-long project, the staff of the Rockingham Planning Commission assisted the project manager from the NH Coastal Program in completing the work tasks included in this project. Assistance involved participation in meetings, consultation with the project manager on various aspects of the project, participation in meetings with local officials, review and input on the final report, and hosting meetings at the RPC offices. A detailed description of the work performed is provided below:

Work Task A: Educational Workshops

A meeting was held in December at the RPC offices with the Coastal Program staff to discuss the educational workshops. Topics discussed included the content of the workshops, the scheduling of the workshops, and the desire to hold two or three regional workshops. Subsequent to this meeting, the Coastal Program staff decided that direct meetings with local planning boards would be a more effective method of providing technical assistance regarding nonpoint pollution management.

RPC staff made arrangements for the NH Coastal Program staff to attend Planning Board meetings in Stratham, Greenland, and Hampton. The purpose of the meetings was to provide information on the extent of the non-point pollution problem that exists in the area and to discuss steps that municipalities could take to regulate non-point pollution on the local level. Water quality information was also presented and discussed.

Work Task B: Demonstration Project

RPC staff assisted the Coastal Program staff in selecting local officials that might be willing to serve on the steering committee. Mailing lists were provided and in a few instances, RPC staff contacted the towns to follow up on having an appointment made. Publicity for the study was prepared by the RPC in the form of an article published on the front page of the April edition of the Rockingham Planning News, which is the newsletter of the RPC (Attachment I).

The RPC agreed to serve as the host to the meetings of the steering committee due the central location of the office. Meetings of the steering committee were held in March, April, May, June, August, and October. At least one RPC staff person attended and participated in each of these meetings.

US Department of Commerce
NOAA Coastal Services Center Library
2234 South Hobson Avenue
Charleston, SC 29405-2413

RPC staff assisted the Coastal Program staff in locating and reviewing the local regulations and regulations to determine how they address nonpoint pollution. After the Coastal Program staff prepared an assessment of each town's regulations and ordinances, the RPC planners for each town reviewed the information for accuracy and completeness and informed the Coastal Program staff of suggested changes.

A GIS map of the Exeter River Watershed was prepared for use at one of the Steering Committee meetings. RPC staff also provided maps, copies and reports regarding previous studies on nonpoint pollution sources done by the RPC to the staff of UNH's Jackson Lab. A second version of the base map, which was more readable, was produced for inclusion in the final report at the request of the project manager (Attachment II).

As it has done in the past, the RPC provided information on the available model ordinances and regulations to the communities within the coastal watersheds. As requested, the RPC worked with the local planning boards to amend their local regulations to incorporate these provisions.

RPC staff participated in discussions regarding the format and content of the final report. A description of the various model ordinances available to address non-point pollution issues was prepared and sent to the project manager for inclusion in the final report (Attachment III). A draft of the final report was sent to all members of the steering committee for their review. The RPC reviewed the draft in detail and sent a marked up copy to the project manager for her to use in completing the final report. The RPC will assist in the distribution of the final report once copies are available.

US Department of Commerce
NOAA Coastal Services Center Library
2234 South Hobson Avenue
Charleston, SC 29405-2413

ATTACHMENT I

"ROCKINGHAM PLANNING NEWS" ARTICLE PROMOTING THE EXETER AND SQUAMSCOTT RIVER WATERSHED STUDY

Rockingham Planning News

The Newsletter of the Rockingham Planning Commission

Vol. 13 No. 1 April 15, 1995

INSIDE

Exeter River Update 1
Exeter/Squamscott River Watershed Study Underway 1
ArcView I - For Free! 2
GIS Update 3
Spring Land Use Conference ... 3
Natural Resource Lecture Series & Planning Board Training Workshops 3
Seminars to Improve Rural Fire Protection 3
Septic Rule Affects Planners 3
Five Communities Selected for RPC Planning Grant 4
Coastal Program Projects Approved 4
Transportation Plan and TIP Updates Underway 4
Statewide Transportation Planning Study 5
Staff News 5
Upcoming Meetings/Events 5

ROCKINGHAM PLANNING COMMISSION
121 Water Street
Exeter, N.H. 03833
778-0885 - Fax: 778-9183

Executive Committee

Officers
Dan Quinlan, Chairman
David Holden, Vice Chairman
Walter Shivik, Treasurer
Nancy Haberstroh, Secretary
Mary Allen, Past Chairman
Members-At-Large
Glenn Coppelman, Forest Griffin, Susan Hastings & Lawrence Smith
Alternates
Thomas Case, Stephen Cushing, Ralph Foster & Deidre Morse

Sandown Rejoins Commission

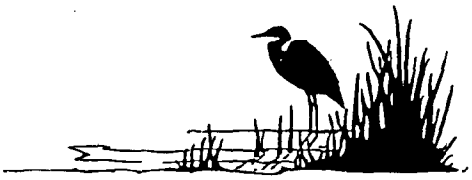
We are happy to report that Sandown is once again a member of the RPC. At the recommendation of the Planning Board and the Board of Selectmen, the voters approved a warrant article to restore membership at the March Town Meeting. The Town had been non-members for two years. This brings community membership in the RPC to an all time high of 24 of the 27 municipalities in the RPC's planning district. Welcome back Sandown!

At the top of the agenda for local technical assistance to Sandown this year will be helping the Planning Board update its Master Plan and CIP and to draft a growth management ordinance to be acted on next March. At the recently concluded Town Meeting the Town enacted Interim Growth Management (RSA 674:23) which will expire next year. Since 1980, the Town's growth rate has averaged over 7% annually -- the second highest in the region. Despite a slow down elsewhere, residential growth continues at a rapid rate in Sandown and has made it difficult for the Town to keep up with the demand for expansion of schools and other municipal services. It is hoped that these updates will provide the tools needed to pace development while expanding services at a rate the Town can afford.

Exeter River Update

On January 31, 1995 the Senate held a legislative hearing on the nomination of the Exeter River to the N.H. Rivers Management and Protection Program. With the help of Senators Russman and Keogh, an amended version of the nomination sailed through its first round of hearings, with the Senate voting in March to recommend the Exeter River's nomination into this program. The revised Senate Bill 111 designates that portion of the Exeter River from its headwaters to its confluence with Great Brook into this program, and authorizes local river management advisory committees to accept and expend funds for river protection.

The original nomination, sponsored by the Rockingham Land Trust and the Exeter River Watershed Association and prepared by the Rockingham Planning Commission, included those portions of the Exeter River from the headwaters to Great Dam, the meeting of the Exeter River with the tidal Squamscott River. The revision was in response to the concerns of the Town of Exeter over the draft in-stream flow rules and their ability to draw drinking water from the river. This revision includes a provision that the portion of river from the confluence with Great Brook to the Great Dam can be designated contingent on the approval of the Exeter Board of Selectmen. For further information please contact Betsy Ware, Senior Planner at the RPC.



Exeter/Squamscott River Watershed Study Underway

The Exeter and Squamscott Rivers are valuable resources for the region as they provide drinking water for Exeter, significant recreational opportunities for area residents, valuable habitat for fish and wildlife, and a significant portion of freshwater inflow to the Great Bay Estuary. In January, the RPC joined together to begin the Exeter/Squamscott River Watershed Nonpoint Pollution Control Project. The objective is to analyze the watershed, study land uses in the areareview land use regulations for each municipality, and work with a steering committee to develop a strategy to effectively manage sources of nonpoint pollution.

The first meeting of the Steering Committee was held on March 27th. Committee members include town representatives appointed by their Selectmen and representatives from the RPC, Rockingham

Land Trust, Exeter River Watershed Association, NH Coastal Program, and the Rockingham County Conservation District. The Committee discussed the project's goals, reviewed the work plan, and located possible water quality testing sites.

The next meeting of the Steering Committee is scheduled for April 17th at 4:00 p.m. at the RPC offices. For more information contact Jennifer Fox, NH Coastal Program, 431-9366 or Steven Bird, RPC, 778-0885.

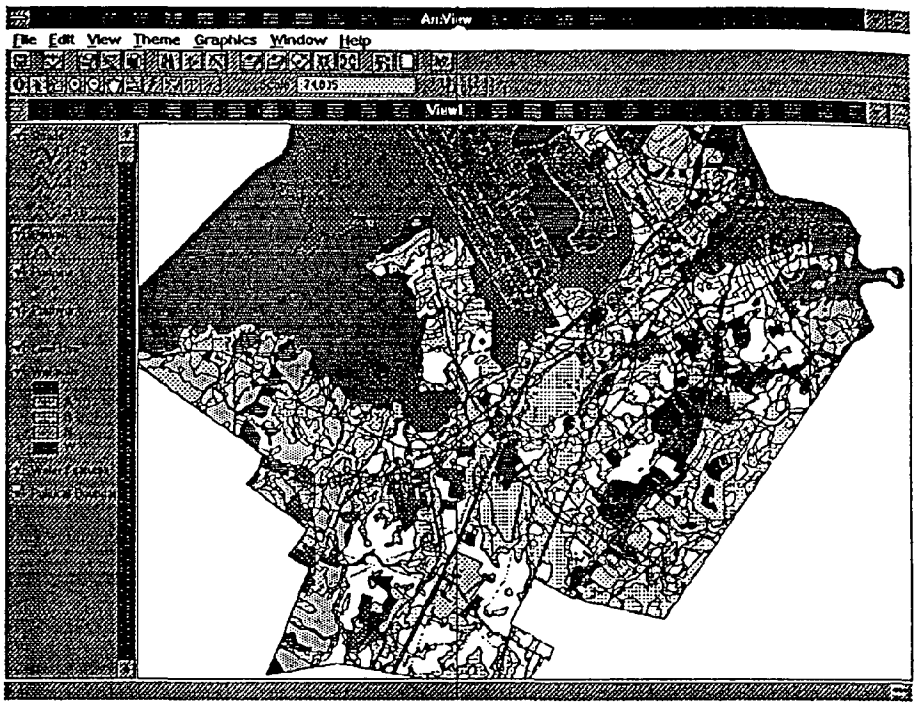
ArcView I - For Free!

Communities interested in getting started in using GIS (Geographical Information Systems) on a shoestring now have a solution. ESRI, the company that publishes the industry standard ARC/INFO GIS software (the standard used by N.H.'s GRANIT system), has announced that its *ArcView 1* software package can be obtained at no cost via the Internet. ArcView 1 has been superseded by the next version, ArcView 2, however, the earlier version remains a useful, easy-to-use tool for querying and displaying existing databases -- and you can't beat the price!

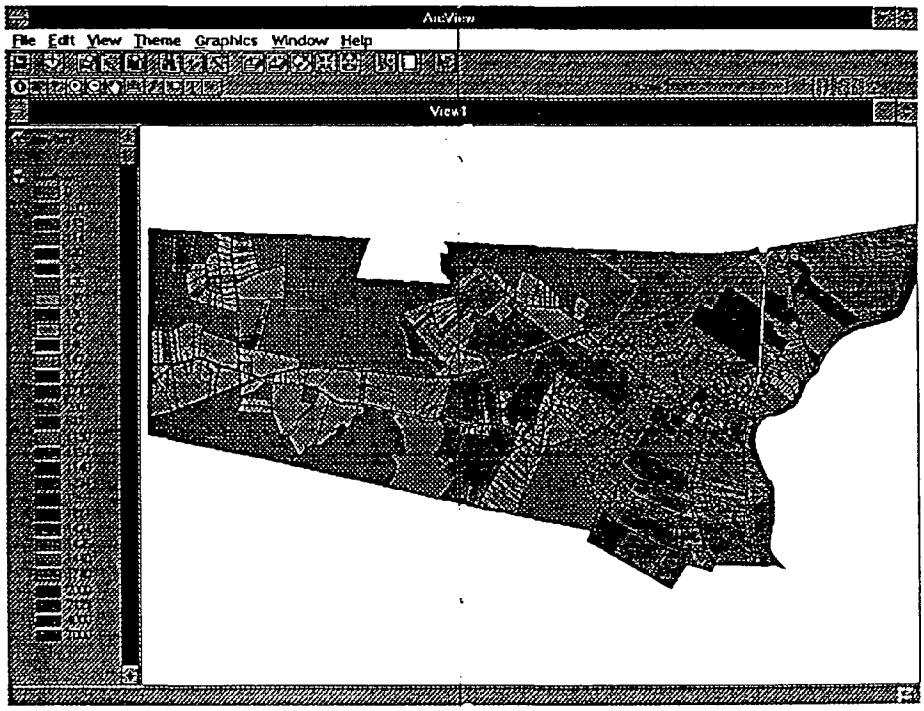
"But we have no existing GIS database" you say? Not true! From the GRANIT system and from the RPC's in-house development, every community in our region can get access to a substantial set of ready to use GIS "coverages" (i.e., maps) including:

- base map with roads/streets
- surface water
- USGS aquifers
- soils (including hydric soils and slope classes, farmland soils, etc.)
- existing land use (RPC - 1986 -- currently being updated
- zoning (RPC - 1993)
- tax parcels (for communities who have had them digitized and rectified)
- public lands (available in June)
- census tracts and blocks and TIGER files

Here's what we recommend you have for computer hardware and software to get ArcView 1 up and running: a 486 DX 33
Here's what we recommend you have for



This screen image shows how we use ArcView (in this case ArcView 2) to overlay and view various GIS coverages. In this instance, several sites near Exit 3 on I-95 are being evaluated for suitability as a park and ride lot.

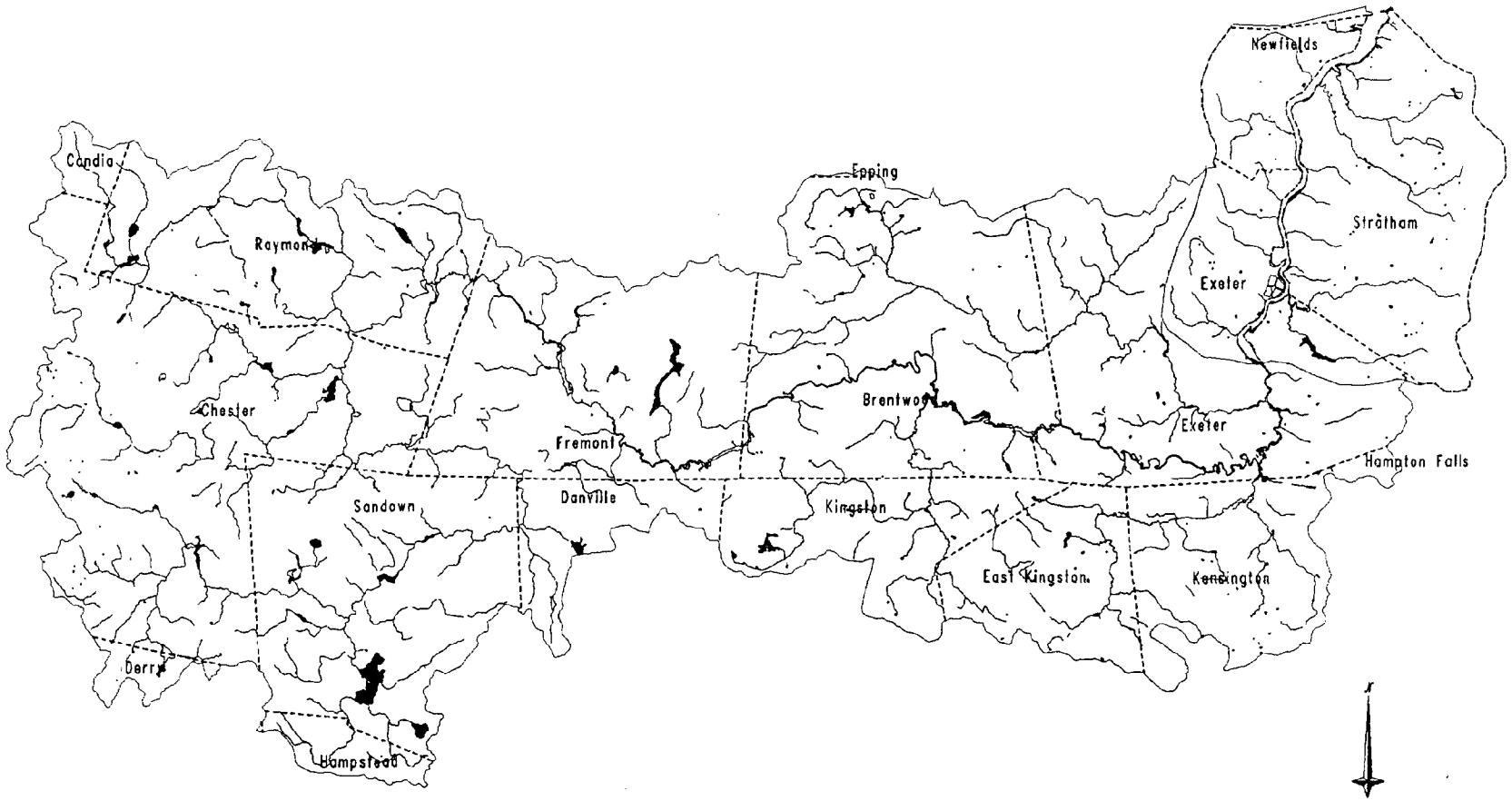


This ArcView 2 screen shows land parcels in Newfields by land use code. Although you cannot digitize or edit GIS coverages through ArcView, effective use can be made of existing Arc/Info data. The GIS coverages we have developed, and all those available through GRANIT, can be viewed and queried through ArcView.

ATTACHMENT II

EXETER AND SQUAMSCOTT RIVER WATERSHEDS MAP

EXETER AND SQUAMSCOTT RIVER WATERSHEDS



Sources: "Base data (town boundaries, hydrography, roads) from USGS Digital Line Graphs, 1:24,000, as archived in the GRANIT database, Complex Systems Research Center, University of New Hampshire."

These digital layers are registered to NAD 83 and N.H. State Plane Coordinates.

Scale 1:30000

Prepared by the Rockingham Planning Commission
March 17, 1995 DRA

ATTACHMENT III

DESCRIPTION OF MODEL ORDINANCES AVAILABLE TO MUNICIPALITIES IN THE EXETER AND SQUAMSCOTT RIVER WATERSHEDS

EXETER/SQUAMSCOTT WATERSHED NONPOINT POLLUTION CONTROL PROJECT

MODEL ORDINANCES:

1. **Shoreland Protection**: The N.H. Office of State Planning (OSP) has developed a model Shoreland Protection Ordinance to assist local municipalities in implementing the provisions of RSA 483-B, the Shoreland Protection Act. The Act establishes a program for managing the shoreland adjacent to New Hampshire's great ponds, rivers, artificial impoundments, and coastal waters. The model generally tracks the recommendations of the Shoreland Protection Act, but also goes beyond the minimum requirements of the Act in several areas. Each section of the model contains explanatory notes to assist in understanding the model language. A municipality may decide to adopt all or any portion of the model. The benefits of protecting shoreland include: maintenance of safe and healthy conditions; prevention and control of water pollution; protection of important fish, bird, and wildlife habitat; reduction of flooding and accelerated erosion; protection of wetlands; maintenance of water quantity and related stream flows during low flow periods; protection of shoreland cover as a means of maintaining water quality; and the conservation and protection of natural beauty and scenic qualities.

2. **Subdivision and Site Plan Review Regulations**: Subdivision regulations apply to the subdivision of land, while site plan review regulations apply to nonresidential and multi-family development. Both types of regulations are important in the effort to provide for the proper treatment of stormwater runoff and the control of nonpoint pollution sources. Various versions of model subdivision and site plan review regulations have been prepared by a variety of groups. Locally, the Rockingham Planning Commission has recently prepared model regulations for subdivision and site plan review. These models cover everything from application procedures to surety agreements. The provisions that specifically address non-point pollution include erosion and sediment control, stormwater management, and control of hazardous materials.

   There are numerous other sources for model subdivision and site plan review regulations, including versions prepared by other regional planning agencies, the N.H. Office of State Planning, and many books published on the topic.

3. **Stormwater Management and Erosion and Sediment Control**: As land is developed, the natural vegetation is removed, slopes are changed, areas are paved, and water courses are altered. This causes stormwater runoff to increase and reduces the land's ability to provide natural treatment to runoff. Stormwater runoff from lawns, sidewalks, parking lots, and streets may contain high concentrations of various pollutants. Soil from the disturbed land also can runoff into surface water due to erosion. Controlling these problems is the subject of a publication from the

Rockingham County Conservation District entitled, "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas of New Hampshire". The handbook is an excellent source for information on this topic and contains a model erosion and sediment control regulation.

4. **Excavation Regulations**: RSA 155-E is the state law that regulates excavations in New Hampshire. The law covers permitting procedures, buffer provisions, limits of excavation, operational standards and reclamation standards. The law applies in all communities, regardless of whether they have adopted it's provisions. However many communities have adopted versions of the law and have increased some of the standards due to local situations. Model excavation regulations are available from the Rockingham Planning Commission and other regional planning agencies. Proper operation and reclamation of excavation sites will reduce the potential for erosion and other nonpoint pollution sources.

5. **Soil Type Lot Size Regulations**: In the 1970's the Rockingham County Conservation District developed a system for determining building lot sizes based on the land's capacity to handle the effluent from the septic system. This model has been adopted by many communities in Rockingham County and throughout the state. In the early 1990's, a group called the Ad Hoc Committee for Soil-Based Lot Size Regulations, conducted an extensive review of the soil type lot size regulations and made revisions to make the regulations even more scientifically defensible. The result was the "Model Subdivision Regulations for Soil-Based Lot Size", published in June, 1991. All communities with soil type lot size regulations should bring their local regulations into conformance with the standards set forth in the model. Adoption of this model will reduce the likelihood of nonpoint pollution from septic systems placed on inadequate soil types or insufficient lots.

NOAA COASTAL SERVICES CTR LIBRARY
3 6668 14111560 2