



CITY OF DOVER

DOVER PLANNING BOARD – AGENDA

Meeting Type: Workshop
Meeting Location: Council Chambers – 288 Central Avenue Dover NH 03820
Meeting Date: **Tuesday, February 8, 2011**
Meeting Time: **7:00 pm**

1. Discussion/Review of the Conservation Lands Audit and Online Inventory as prepared by Kane & Ingraham Conservation Consultants under the Piscataqua Region Estuaries Partnership (PREP) grant program. Steve Bird, City Planner.
2. Michele Alexander will present on the development of a comprehensive Sustainability Plan for Dover.

The public is welcome to attend.

CONSERVATION LANDS AUDIT AND ONLINE INVENTORY FOR DOVER, NH

Project ID #: 10-LR-2
Contract Number: 10-052

A Final Report to
The Piscataqua Region Estuaries Partnership

Submitted by

Christopher Kane and Pete Ingraham
Project Consultants

And

Steve Bird, City Planner
City of Dover Department of Planning and Community Development
288 Central Avenue, Dover NH 03820

January 31, 2011

This project was funded in part by a grant from the Piscataqua Region Estuaries Partnership as authorized by the U.S. Environmental Protection Agency's National Estuary Program, and helps implement the Partnership's Management Plan for the Region's estuaries.



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- **Conservation Lands Audit and Online Inventory for Dover, NH Report Attached**

ABSTRACT

This project developed a functional inventory of the numerous conservation lands located throughout the City of Dover. The City's inventory of conservation lands was disjointed and clearly in need of organization. A consultant was hired to conduct the research necessary to produce a complete, up to date and easily accessible "functional Inventory" that is readily accessible to municipal volunteers and the public through the City website.

EXECUTIVE SUMMARY

The City of Dover has engaged in land protection efforts for over 50 years. Dover is located in an area that represents the best remaining opportunities to conserve critical ecological, biological, and water resources of New Hampshire's coastal watersheds. The City, through its Open Land Committee and Conservation Commission, has had remarkable success in protecting many acres of conservation land, particularly over the last decade. The objective of this project was to complete and implement an updated, City wide computerized, on line "functional inventory" and associated map of all protected lands in Dover.

The completed inventory included formatted data for transmittal and entry into NH GRANIT conservation data layer. According to the criteria established for the Conservation Lands Audit / Inventory, a total of 282 tax parcels were included as conservation land. This represents 3,098 acres of conservation lands in the City. The project yielded an additional 742 acres of conservation parcels previously un-documented by GRANIT in Dover.

INTRODUCTION

The City of Dover applied for and obtained this grant from the Piscataqua Region Estuaries Partnership to enable the City to be able to hire a qualified and experienced consultant to complete the project. This had been a goal of the Conservation Commission and Open Lands Committee for many years, especially as more properties were being protected through the efforts of municipal staff and dedicated volunteers. The City was fortunate to be able use the PREP funding to hire Kane and Ingraham, a local conservation consulting firm with extensive experience in preparing very similar conservation land inventories in other coastal communities of New Hampshire.

PROJECT GOALS AND OBJECTIVES

The objective of this project is to complete an updated, City-wide functional inventory of all protected lands in the City of Dover and provide this information on-line via a portal on the City of Dover's website and through New Hampshire's Statewide Geographic Information Systems (GIS) Clearinghouse (GRANIT).

This project primarily implements Piscataqua Region Estuaries Partnership (PREP) Management Plan Actions LND-29 (Provide technical assistance in land protection and management to regional land trusts and municipal conservation commissions), and LND-36 (Encourage conservation easements).

ACTIVITIES

Work Completed (by Task):

1.4.1 COLLECT AVAILABLE DATA ON PROTECTED LANDS IN DOVER

Initial Coordination Meeting

A coordination meeting was held on February 26, 2010 between representatives from the Dover Conservation Commission and the Dover Open Lands Committee, the Project Manager from the Planning Department staff, the City GIS Technician, and Chris Kane and Peter Ingraham, the selected consultants. The purpose of this meeting was to discuss the work plan, budget and timeline for this project.

Confirm requirements for GRANIT data

Kane and Ingraham reviewed the data fields required to conform to the GRANIT requirements and obtained the latest data for Dover. Additional fields were added to the database to include data available from the City's Assessing Office. Care was taken to make sure the information collected would be compatible to GRANIT so that it could be submitted as an update once completed.

Meeting and Review of Existing Easement Documents

The consultants met with City staff to review property files, to develop property priority guidelines, and to glean information relative to properties in the City that need to be considered as a part of the project. This included obtaining a database of all City parcels from the City's GIS Technician and arranging to review a box of files provided by the former Chairman of the Conservation Commission. The consultant also obtained additional documents and file materials from the Strafford County Registry of Deeds. The consultant began recording all appropriate data into a database that is compatible with the City of Dover's in-house GIS system and GRANIT. The consultant met with the project manager to review the conservation files contained in the Open Lands Committee library in City Hall. During the course of the project, numerous e-mails and telephone conversations between the consultant and the project manager occurred to review the data collected and to discuss the details of particular properties.

Compilation of Database

The consultant recorded all appropriate data into a database that is compatible with the City of Dover's in-house GIS system and GRANIT. Data categories include GIS data, tax/lot sub-lot numbers, acreage, type of protection, book and page recorded documents and plans, and other relevant data.

In order to sync with City parcel data, each individual tax lot or portion thereof was created and tracked as a separate entry. A total of 249 such polygons comprise the database and GIS spatial data file. The spatial data and database are designed to link for the purposes of administering the GIS data, and to facilitate uploading it to the City website for public use. The data is also organized to be submitted to GRANIT essentially as-is for the updating of the Conservation Lands data layer.

On December 17, 2010, the project manager and two members of the Dover Open Lands Committee met to review the conservation lands database information and the conservation lands map that was submitted by the consultant. Utilizing the numerous years of experience of these dedicated volunteers, the information was reviewed for accuracy and completeness. The project manager then communicated the amendments and questions generated to the consultant, who investigated each question to correct and clarify the information. Given the overall number of properties involved, the changes were minimal.

As part of the final report, individual Conservation Property Profile sheets were prepared. Each sheet provides pertinent information on each conservation property, including owner, tax map and lot number, size of property, protection type, grantor and grantee. In the future, the City plans to supplement the Conservation Property Profile sheet with an aerial photograph for each property so that the public can get a better sense of the location of each parcel.

1.4.2 CONSERVATION LANDS INVENTORY ON-LINE ACCESS

Conservation Lands Inventory On-line Access

The City of Dover has created an on-line portal with a land parcel map on the City of Dover's website that provides access to data collected in section 1.4.1. The report prepared by the consultant, including the conservation map, will be available through a link from the Planning Department and Conservation Commission pages.

Submit data to GRANIT

The City of Dover has submitted the data collected by the consultant to GRANIT for the purposes of updating of the Conservation Lands data layer. The data was organized to be compatible with the GRANIT requirements.

1.4.3 ISSUE MEDIA/PRESS RELEASE

The City of Dover produced and issued a press release describing the project at the end of the project. The press release described the objective of the project and described the results achieved with the funding. The press release is attached.

OUTCOMES

The City plans to continue to update the inventory as more property is protected. One idea that resulted from this project was to produce an interactive conservation map that would be on the website and would allow the public to click on a parcel and be directed to information, including a property profile sheet and an aerial photograph, for that particular parcel. You could include any number of other items, including a copy of a deed, a baseline documentation report or more detailed conservation feature maps.

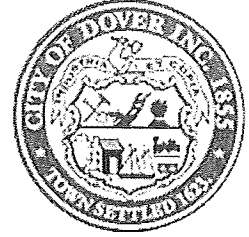
The City also wants to explore different variations of the conservation map, which can be produced by sorting the data based on different features or attributes. These different map versions would be added to the web-site so the general public could view them.

January 31, 2011

FOR IMMEDIATE RELEASE:

Contact:

Christopher Parker, Director of Planning and Community Development
603-516-6008



Conservation Lands Inventory Completed for City of Dover

DOVER, N.H. – The Conservation Consulting firm Kane & Ingraham recently completed a comprehensive City-wide functional inventory of all protected lands in the City of Dover. A total of 3,098 acres of lands subject to some form of restrictions for conservation use were tallied in the course of the project. 742 of these acres were newly-documented conservation acres resulting from this study. The results of this project are available for viewing on-line via a portal on the City of Dover's website at www.dover.nh.gov. For each conservation parcel, a profile sheet has been prepared. Information included on the profile sheet includes name, size, tax parcel number, type of protection, use limitations, and registry of deeds book and page information if applicable.

The inventory information will be used to update the conservation data maintained in the New Hampshire's Statewide Geographic Information Systems (GIS) Clearinghouse (GRANIT). This project was funded in part by a grant from the Piscataqua Region Estuaries Partnership, as authorized by the U.S. Environmental Protection Agency's National Estuary Program, and helps implement the Partnership's Management Plan for the Region's estuaries.

The information gathered in the inventory will be very helpful as the Planning Board begins the process of updating the Conservation and Open Space chapter of the Master Plan.

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CONSERVATION LANDS AUDIT AND ONLINE INVENTORY FOR DOVER, NH

Summary Report to City of Dover



January, 2011

Kane & Ingraham, Conservation Consultants



Kane & Ingraham
Conservation Consultants

This Conservation Lands Audit and Online Inventory was funded in part by a grant from the Piscataqua Region Estuaries Partnership, as authorized by the U.S. Environmental Protection Agency's National Estuary Program, and helps implement the Partnership's Management Plan for the Region's estuaries.

Acknowledgements

The authors would like to acknowledge the assistance and advice of a number of people who helped in the development and improvement of this study. They include members of the Dover Conservation Commission and City staff. In particular, the following people were invaluable in their assistance:

Steve Bird
Tom Fargo
Anna Boudreau
Marcia Gasses
Kathleen Meyers
Christopher Parker

Assumptions and Limitations of Project

The information contained in this report is based principally on stock geographic information systems (GIS) data publicly available from federal and state agencies. While the reader can expect these data to have a high level of spatial, temporal, and content accuracy, these data are meant for broad-scale planning purposes and have not been field verified in the City of Dover. Any property-specific land management or conservation activities initiated as a result of this planning effort should seek to verify actual locations of features and property boundaries in the field to provide more refined location information for the features mapped here.

Disclaimer

Every reasonable effort has been made to maintain a high level of quality in developing this Conservation Lands Audit and On-Line Inventory project and the accompanying large-format map ("The Project"). However, the City of Dover and Kane & Ingraham ("The Producers") make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the data described or displayed in The Project. The Producers do not assume any liability associated with the use or misuse of this information. The information depicted in The Project is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or property conveyance purposes. In addition, the resources described and mapped in The Project are subject to alteration by natural and human influences, and thus this project is a static representation of the natural and cultural resources in Dover, one that will benefit from periodic updates.

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I. PROJECT SCOPE AND METHODS

The foundation of the project was a comprehensive inventory of properties in Dover that are either legally restricted by conservation terms in a deed, or that are otherwise considered conservation land by tradition, intent or vote of the City, or some other means. This Inventory culminated in a Conservation Database produced in MS Excel as single sortable worksheet, which was populated with salient information on each property. Over 300 tax parcels were initially reviewed as possible conservation / public lands over the course of the project.

Certain criteria were established by Kane & Ingraham and the Dover Conservation Commission and staff as to which lands would be included in the study. As a result of this filtering process, the following types of properties were included in the results as conservation lands:

- Properties restricted by conservation easements
- Properties with conservation restrictions in a fee deed
- Properties granted to City of Dover or a sub-division thereof, or that have the Dover Conservation Commission mentioned in the deed as an authority to the property
- Properties not specifically restricted, but owned by an organization whose primary purpose is conservation, such as the N.H. Fish & Game Department, or the Society for the Protection of New Hampshire Forests
- Relatively large, undeveloped open space properties owned by the City of Dover that do not have legal conservation restrictions, but that are relatively inaccessible and large
- Lands co-owned by neighbor / owner groups that have Restrictive Covenants for conservation in the deeds or on a plan
- City of Dover -owned lands that have established conservation uses, but no legal restrictions per se
- Lands owned by water districts for well-head / water supply protection
- Lands owned by the City of Dover and devoted primarily to organized recreation, but protected under an overseeing program such as the Land and Water Conservation Fund

Consequently parcels in the following categories were excluded from the final Conservation Database:

- City-owned lands that were acquired for purposes other than conservation
- Lands owned or primarily used by school districts

- Lands owned by the City but devoted primarily to organized recreation, and not protected under a restrictive program
- Lands owned for unspecified purposes by the State of New Hampshire
- Properties held by the NH Department of Transportation
- Vacant house lots in otherwise developed areas, that do not otherwise provide access to other open space
- Private lands registered under the Current Use program, but otherwise un-restricted
- Properties exempt from property taxes, but other but otherwise un-restricted
- Small parks that are not primarily open space
- Properties less than 1 acre in size unless specifically protected in some way by conservation restrictions in a deed, or whose apparent intent is for conservation

Conservation Lands Database

In the research for the Conservation Inventory phase of the project, all references to any lands in Dover that had appeared on any available list as potentially held for conservation purposes were researched. Other sources of data regarding conservation lands were also investigated, including the GIS mapping Conservation Lands data layer administered under the umbrella of "GRANIT", the central clearinghouse for geospatial data at Complex Systems at the University of New Hampshire. All available records in the Dover Planning Department were searched, including reports of City-owned open space properties, monitoring files, Conservation Commission property files, old plans, and lists of City lands and Conservation lands.

A thorough search was conducted of the records on the Strafford County Registry of Deeds online website. Searches of Grantor/Grantee records were made for the following entities: City of Dover, Society for the Protection of New Hampshire Forests, Strafford County Conservation District, Audubon Society of New Hampshire, The Nature Conservancy, N.H. Fish & Game Department, Strafford Rivers Conservancy, Southeast Land Trust, and the Rockingham Land Trust. Any lead to a potential conservation property was followed using various search methods online. This provided much of the critical information and documents that the Inventory relied on.

Some protection methods extend over either portions or complete multiple lots. Others are restricted to a portion of a tax lot. For ease in reference to conservation parcels, the data unit of a tax parcel was chosen. As the information on each property was gathered, it was entered into a database by Tax Map, Lot and Sub-lot number.

70 fields of pertinent information were recorded, to the extent the data was available, for each parcel. To facilitate submission of conservation lands data to GRANIT, the database was designed as an expanded clone of the GRANIT Consland attribute table that forms the data

background for the GRANIT mapping of conservation lands. These 49 GRANIT data fields and a brief description are shown in Table 1.

Table 1. GRANIT Data Fields

Field #	Field Name	Field Description
1	TID	GRANIT ID number (GIS Consland Layer)
2	NAME	Tract Name
3	NAMEALT	Alternate Tract Name
4	P_NAME	Parcel Name
5	P_NAMEALT	Alternate Parcel Name
6	PPTYPE	Primary Protection Type Code
7	PPTYPE_Desc	Primary Protection Type Description
8	PPTERMTYPE	Term of Protection Code
9	PPTERM_Desc	Term of Protection Description (eg. Perpetual)
0	PPTERM	Length of Limited Protection Term
11	SPTYPE1	Secondary Protection Type 1 Code
12	SPTYPE1_Desc	Secondary Protection Type 1 Description
13	SPTYPE2	Secondary Protection Type 2 Code
14	SPTYPE2_Desc	Secondary Protection Type 2 Description
15	PPAGENCY	Primary Protecting Agency/Organization Code
16	PPAGENCY_Desc	Primary Protecting Agency/Organization Description
17	PPAGENTYPE	Type of Primary Protecting Agency Code
18	PPAGENTYPE_Desc	Type of Primary Protecting Agency Description
19	SPAGENCY1	Secondary Protection Agencies 1 Code
20	SPAGENCY1_Desc	Secondary Protection Agencies 1 Description
21	SPAGENCY2	Secondary Protection Agencies 2 Code
22	SPAGENCY2_Desc	Secondary Protection Agencies 2 Description
23	RSIZE	Reported Size of Tract (acres)
24	CSIZE	Calculated Size of Tract (acres)
25	P_RSIZE	Reported Size of Parcel (acres)
26	P_CSIZ	Calculated Size of Parcel (acres)
27	PROGRAM	Code for Program or agency under whose auspices the protection took place
28	PROGRAM_Desc	Description of program or agency under whose auspices the protection took place
29	LEVEL_	Protection Level Code
30	LEVEL_Desc	Protection Level Description (eg. Permanent Conservation Land)

31	MSTATUS	Management Status Code
32	MSTATUS_Desc	Management Status Description (eg. entirely protected from conversion of natural land cover)
33	SOURCE	Source of information used for mapping the tract
34	ACCURACY	Code for general flag to indicate the accuracy of mapping
35	ACCURACY_Desc	Description of level of mapping accuracy
36	COBKPG	County, Book, Page of recorded deed in Registry of Deeds
37	DATEREC1	Date of recording of first conservation instrument
38	DATEREC2	Date of recording of subsequent for conservation instruments
39	ACCESS	Level of Public Access Code
40	ACCESS_Desc	Level of Public Access Description
41	DATEADDED	Date record (spatial/attribute) was added to the database
42	DATEALTER	Date of last revision of any of the tract boundaries or attributes
43	NOTES1	Additional notes field
44	NOTES2	Additional notes field
45	NOTES3	Additional notes field
46	NOTES4	Additional notes field
47	PID	Old GRANIT ID number
48	GAP_STATUS	Code for level of protection and management allowed
49	GAP_Desc	Description of level of protection and management allowed

21 additional fields were added the Conservation database to provide more depth to the data as it relates to the conservation specifics of each parcel. These additional fields are shown in Table 2 below.

Table 2. Additional Data Fields

Field #	Field Name	Field Description
50	Map_ID	ID assigned to tract on Conservation Lands Inventory map
51	Feature_ID	Unique identifier code for linking database to spatial data
52	PID_Dover	Parcel ID (links to Dover GIS)
53	Map	City of Dover Tax Map
54	Lot	Tax Lot
55	Sublot	Tax Sublot
56	Grantee	Grantee in deed, or property owner
57	Grantor	Grantor of deed
58	Location	General location of tract
59	Street	Street address (if any)

60	Plan	File number of recorded plan at Registry of Deeds
61	Purposes	Abstract summary of Conservation Purposes in deed or plan
62	Limitations	Abstract summary of Use Limitations in deed or plan
63	LegalNotes	Abstract summary of Reserved Rights of other terms in deed
64	SrcNotes	Source of data for this project
65	MapNotes	Notes regarding new parcel mapping
66	Notes	Additional notes field
67	GRANITNotes	Notes regarding mapping of and submission to GRANIT
68	DateComplete	Date data entry was complete
69	Staff	Staff who entered data
70	Owner_Name	Name of current property owner

As parcel data was completed, each parcel was mapped using the digital Dover tax parcel data as the basis for external boundaries where they apply. In cases where only portions of a tax parcel are protected, the non-protected portions were excluded from the mapping. Plans and legal descriptions were used to map these boundaries with a high level of accuracy. All parcels previously mapped by GRANIT were reviewed for accuracy, and in a number of cases were refined. Each parcel mapped was assigned a Map ID number to use in identifying that parcel on the accompanying GIS map of Dover shown in Appendix B.

Some 19,740 data cells constitute the data base, to the extent that data was available. The database is thus much too extensive to practically print, therefore this product was provided to the City of Dover electronically.

II. RESULTS AND DISCUSSION

According to the criteria established for this Conservation Lands Audit / Inventory, a total of 282 tax parcels were included as conservation land. This represents 3,098 acres of conservation lands in the City. Part of this project involved a refinement of the 2010 update to the GRANIT Consland database. After validating, adjusting and correcting this data, a total of 2,356 acres of conservation land were accounted for in Dover. The project yielded an additional 742 acres of conservation parcels previously un-documented by GRANIT in Dover. Table 3. below shows a break-down of the aggregate conservation lands acreage by protection type.

Table 3. Acreage of Conservation Lands in Dover by Protection Type

Primary Protection Type	Code	Total Dover Acres
Conservation Easement	CE	1,367
Deed Restriction	DR	139
Flowage Rights or Easement	FE	125
Fee Ownership	FO	1,223
Protective Easement (for Water Supply Lands)	PE	10
Set Aside Open Space Areas of Developments	SA	<u>234</u>
	Total	3,098

The resulting database and GIS products for this project will form a solid foundation for the on-going administration of land conservation, and for conservation planning in Dover. The resulting current, comprehensive and accurate mapping will also provide a better picture of the state of conservation in Dover and the region generally. As new properties are protected in the future, they can be added to the database and GIS system according to the same protocol.

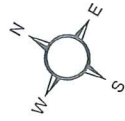
On-line Access

These data have been provided in digital form to the City of Dover GIS department. Once a selection process is complete, select conservation lands will be available for display on the City's GIS website portal as a data layer.

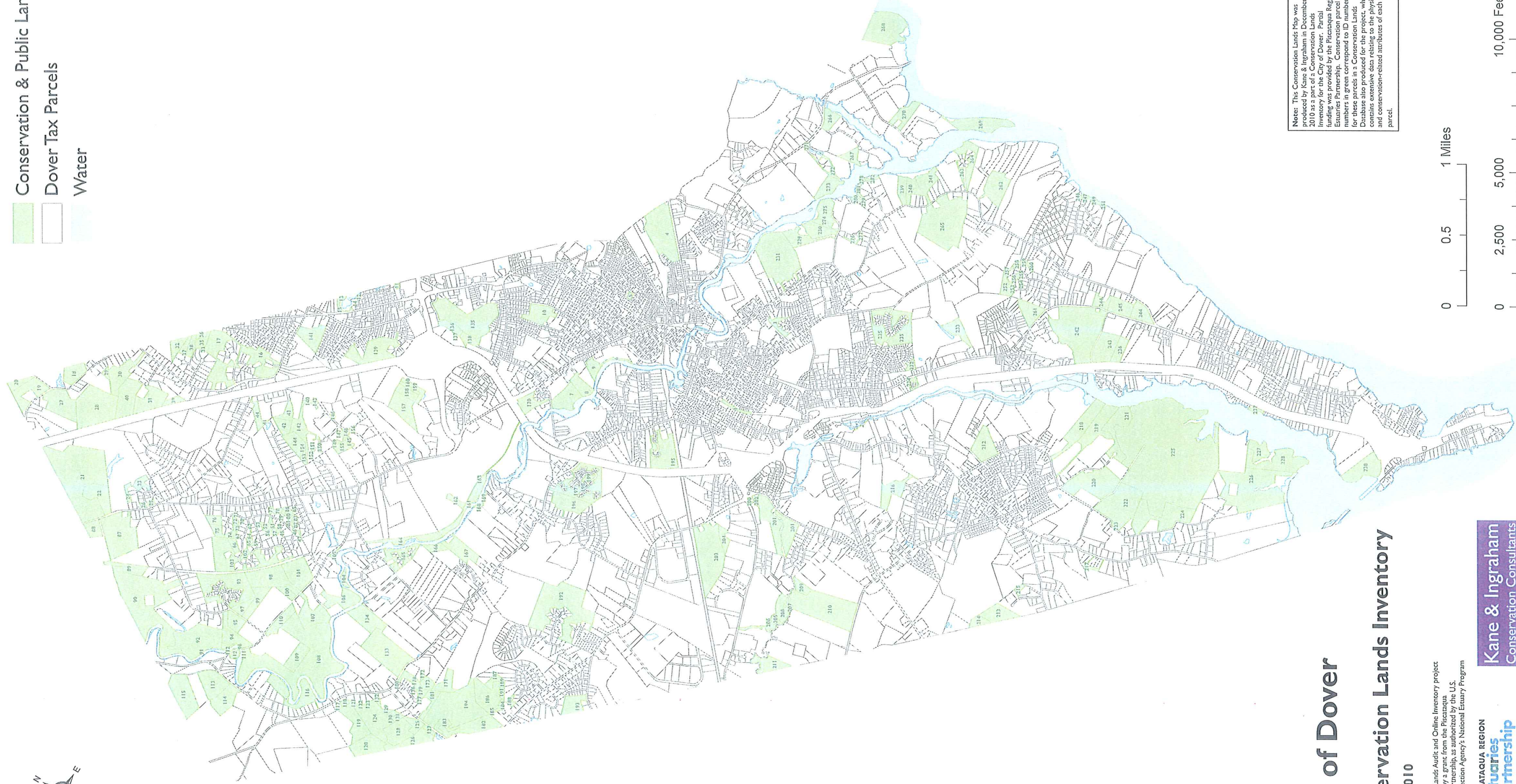
Conservation Parcel Profile Sheets

The enhanced ability of City staff to track individual tax parcels vis-à-vis any conservation restrictions is a useful outcome of this project. This will be especially useful for those parcels for which the City has stewardship responsibilities. In order to make the extensive data more accessible, 16 select salient fields of data were selected to display on individual sheets that can be filed by tax parcel. Appendix B is comprised of this complete set of Conservation Parcel Profile Sheets, provided in order of tax map, lot and subplot order (same order as Map ID).

**Appendix A: Map of Conservation & Public
Lands in Dover, NH**



- Conservation & Public Lands
- Dover Tax Parcels
- Water



Note: This Conservation Lands Map was produced by Kane & Ingraham in December, 2010 as a part of a Conservation Lands Inventory for the City of Dover. Partial funding was provided by the Piscataqua Region Estuaries Partnership. Conservation parcel numbers in green correspond to ID numbers for these parcels in a Conservation Lands Database also produced for the project, which contains extensive data relating to the physical and conservation-related attributes of each parcel.

0 0.5 1 Miles

0 2,500 5,000 10,000 Feet

City of Dover

Conservation Lands Inventory

January 2010

This Conservation Lands Audit and Online Inventory project was funded in part by a grant from the Piscataqua Region Estuaries Partnership, as authorized by the U.S. Environmental Protection Agency's National Estuary Program



Appendix B: Conservation Property Profiles

Tax Parcel: 34-21-

Property Name: Cassily LCHIP - Cochecho Park

Owner: LAND AND COMMUNITY HERITAGE INVESTMENT PROGRAM

Conservation Acres: *Reported Size:* 8.31 *Calculated size:* 8.53

Protection Type: Fee Ownership

Grantor: City of Dover

Grantee: Land and Community Heritage Investment Program Authority

Purposes: Purposes: To protect Property for agricultural, forestry, water quality, open space, public access, transitory low-impact outdoor recreation, and other conservation purposes (RSA 227-M).

Use Limitations: Deed conveys Executory Interest and Public Access subject to the following conditions: Public pedestrian access conveyed, on and across Property, for recreational purposes, but not camping. Grantor may post against / limit access for activities inconsistent with Purposes, or for public safety. Grantor reserved right to post against vehicles, hunting on active livestock field or during planting / growing season, or on forest land during active forestry. Conveyance of property prohibited. No construction, maintenance, or installation of physical improvements, no alteration of soil surface, except as necessary for allowed uses and purposes. Management according to stewardship plan, forestry according to scientifically-based practices. Activities and management not to materially impair scenic quality of property as viewed from public waterways, roads, trails, and not to harm State-listed rare species. No dumping, storage of hazardous materials, vehicle parts and bodies, etc. Annual inspection for compliance shall be assured by Grantor.

Reserved Rights, etc:

SCRD Book & Page: 17/3204/699

Date: 20050615

SCRD Plan: 79-71

GRANIT Number: 155-100 -002