

RANDOM THOUGHTS – color coded while reading the following conservation plans:

Black: My thoughts, independent of other towns' plans

Orange: Amherst, NH – Conservation Plan – January 2018

Blue: Londonderry, NH 2011 Open Space Task Force report

Green: City of Portsmouth – 2010 Undeveloped Land and Natural Resource Inventory

Purple: Town of Warner 2009 Conservation Plan – “Today’s Vision, Tomorrow’s Reality”

Red: Durham Conservation Web Site

Aqua – Henniker Conservation Web Site – Natural Resource Inventory

Fremont: Open Space Report – July, 2010

All of these plans can be found on the Resource Documents web page, here:

http://www.paulwainwrightphotography.com/5_atk_cons_resource_docs/index.html

The **Conservation Plan** is a science-driven and consensus-based approach to further protecting the town’s environmental resources. The plan integrates the best available information with expert judgement.

Here are Atkinson’s 2015 maps of wildlife habitats (needs to be updated):

http://www.paulwainwrightphotography.com/5_atk_cons_resource_docs/document_files/09j.pdf

http://www.paulwainwrightphotography.com/5_atk_cons_resource_docs/document_files/09k.pdf

Does RPC maintain any of the following maps? Amherst’s county planning commission keeps such maps for their towns:

- Farmland soils
- Hydrology or aquifer transmissivity
- Landscape (wildlife) corridors

- Trail connectivity
- Lands in conservation
- Wetlands and surface waters
- Favorable gravel well areas (for municipal supply)

Amherst has a **Wetland and Watershed Conservation District**

Need to be proactive, before a property comes before the Planning Board

Amherst has two primary criteria:

- Irreplaceability (i.e., uniqueness)
- Vulnerability (i.e., likely to be developed)

We need to find and include our **Big Tree Certificate** for our Champion Ash – I can't find any reference to our tree in the state's big tree registry, maintained by UNH Cooperative Extension

Where can we find DES maps of **rare plant communities**? NH Natural Heritage Bureau? Catch phrase: "**Exemplary Natural Communities**" – I sent email to the NH NHB on 7/13 asking for help with this.

Are there maps of **invasive species infestation**?

Are there maps of **wildlife corridors**? "Wildlife Connectivity Zones" – E.g., streams – Warner shows maps derived from GRANIT.

Portsmouth hired **Neatline Associates** to produce their maps (which are quite nice), and **West Environmental** to do their natural resource inventory for the 91 parcels of city-owned open space land.

Portsmouth's document is aimed at managing existing city-owned parcels of open space, **rather than providing a strategy for acquiring or protecting additional parcels**

of conservation land. Thus, it is not as useful to Atkinson as an example of a “good” Land Conservation Plan.

From Warner’s plan, other organizations we may want to get help from:

- Department of Resources and Economic Development
- NH Fish & Game
- Our consulting forester (Charlie Moreno)
- UNH Cooperative Extension
- SPNHF
- NH DES
- Southeast Land Trust

Goals of Warner’s plan:

- Guide the identification of **land conservation projects**
- Guide work to **advocate for regulatory protections**
- Guide efforts for public **outreach and education**

Warner is quite different from Atkinson since only 7% of their land is considered “developed.” **87% is forested**, with the remainder being primarily roads, ponds, wetlands, or agriculture.

How many “stream miles” do we have in Atkinson? Answer (from our own NRI): 20.5 miles

Warner’s Conservation Plan has a nice **survey** that starts on page 65 of their plan: http://www.paulwainwrightphotography.com/5_atk_cons_resource_docs/document_files/08k.pdf

Warner's Conservation Plan has a **list of attributes** which they use when considering whether to protect a piece of land, either by purchase or by easement. The list starts on Page 104 of their plan (see the previous link). The list **does not imply any weighting or prioritization**, but rather: "The Commission will consider the importance of each attribute in its broader context."

Durham has a nice **map** on their web site that shows Conservation and other lands:

https://www.ci.durham.nh.us/sites/default/files/fileattachments/conservation_commission/page/54587/durham_conservation_lands_2016_srpc.pdf

It was prepared by the [Strafford Regional Planning Commission](#). Can we do something similar? I like how the surrounding towns are "dimmed out."

There's also a nice aerial view of Durham with major roads in orange and surrounding towns dimmed out:

https://www.ci.durham.nh.us/sites/default/files/fileattachments/conservation_commission/page/54587/aerial_town-of-durham_reduced.pdf

Durham also has a nice map of public wells, FEMA floodplains, and groundwater contamination areas:

https://www.ci.durham.nh.us/sites/default/files/fileattachments/conservation_commission/page/54587/water-resources_town-of-durham_reduced.pdf

The value of Atkinson's real estate base is clearly linked to the quality of its environment and **natural resources**.

The Henniker NRI contains some nice text in the intro about why the value of natural resources is important.

Start with a brief history of the Conservation Commission (“About the Atkinson Conservation Commission”)

- TM vote to establish both the **Commission** and the **Conservation Fund**
- TM vote to clarify the intended uses of the Conservation Fund
- TM vote to establish a **Town Forest**
- Include references to the relative RSAs for each of the above
- **Include the CC Mission Statement that was adopted in 2018**

Summarize the major roles and responsibilities of the Conservation Commission, making reference to NH RSA 36-A

Include a chapter specifically on the **Conservation Fund and the Land Use Change Tax**

- Table of income and expenses (include a narrative about what the funds have been used for over the last 20+- years)

There should be a chapter on Conservation Methods – Londonderry has a particularly good section called **Land Protection Methods** – see their Chapter 4.

- Conservation Easements
- Fee ownership
- Deed restrictions (these provide relatively weak protection)
- Government Regulations, e.g., zoning. These are not seen as permanent protections since such regulations could be changed in the future.
- Unusual land characteristics that, by their nature, make the land very difficult to develop.
- Londonderry has a nice **table** comparing various attributes of Fee Ownership and Conservation Easement protections. See Londonderry’s Page 24. ***I recommend we plagiarize it, with their permission.***

Include a chapter about current **Town Forests and other conserved lands**

- NH ACC definition of “conservation land”
- Table of all conservation-related parcels, both Town Forests and others
- Include both land owned by the Town, and land for which there is a **conservation easement** – indicate who holds the easement deed
- Include when and how they were acquired by the town (i.e., sources of funding)
- Include regulations about hunting for each parcel

Include a chapter on **Trails**

- Maps
- Descriptions of major features of each

Include a **map** of the town’s **watersheds**

Interesting conceptual goal: **All residents should be within a 10 minute walk of at least 10 acres of conserved land**

We need a chapter on **external sources of funding** – e.g., grants etc.

“NATURAL RESOURCE INDICATORS”

Catch phrases:

- “Natural resource goals”
- “Natural resource score”
- “Nutrient attenuation”
- “Groundwater recharge”

Purpose: to inform the Town’s decision makers when they are considering acquiring or otherwise protecting a parcel of land, in order to help them focus on **high-value natural resource areas**.

Drinking Water Protection (both **quality** and **quantity**)

- How important is the parcel to **protecting sources of drinking water**, both private wells and public sources (i.e., HAWC)?
- Is the parcel part of a **NH DES drinking water protection zone** around a public source of drinking water (i.e., HAWC well)? – include in the conservation plan a **map** of these protection zones
- Does the parcel provide an important **groundwater recharging** function?
- Does the parcel provide a **natural upland buffer** for a stream, pond, or wetland? [this may be more important for **habitat protection** than for drinking water protection]
- Is the parcel above a high-yield **aquifer**? – include in the conservation plan a **map** of the town’s aquifers
- Important terminology “lingo”: “**undisturbed natural vegetative cover**”
- What is the recommendation for buffers from biologists and other experts?
- Observation: a lot of the above qualities are not distinct attributes, but are highly interrelated with each other

Flood Control – AKA “Stormwater Management Opportunities”

- Although probably not a big factor in Atkinson, is the parcel in a 100-year floodplain?
- Does the parcel function as a “sink” for flood waters, which would otherwise be diverted to other undesired areas (such as a neighborhood) if the parcel were to be developed?
- Is the parcel in an area where an increase in impervious surfaces could exasperate a flooding issue?
- As above, these qualities are not distinct attributes

Scenic Vistas

- Does the parcel have any importance for maintaining a scenic vista?

Preserving Agricultural Land

Farms contribute to the community’s character and scenic views, contribute to the local economy, and are frequently an important source for locally-grown agricultural products. It is in the best interest of the town’s character and soil stability to keep farms in active agricultural use.

- Is the parcel currently being used for **farming**? – include a **map** of current farmland in Atkinson
- Are the **soils** in this parcel highly ranked by the USDA Natural Resources Conservation Service? – include an **NRCS soils map** for Atkinson

Passive Recreation

- Does the parcel have the potential to be **used by the public** for passive outdoor recreation such as hiking, snowshoeing, or bird watching?
- Is the parcel **adjacent to conservation lands** that are already used for passive outdoor recreation?

Wildlife Habitat

- What value does the parcel have to **preserving wildlife habitat** on the area?
- Is the parcel **adjacent to conserved land** that has high habitat value?
- Does the parcel provide an important **wildlife corridor** between other habitat areas that would otherwise become fragmented by roads, structures, or other impervious surfaces if the parcel were to be developed?
- Does the parcel provide an **upland buffer** of undisturbed natural vegetative cover adjacent to a pond, stream, or wetland? Extra credit if it is one of Atkinson's 8 Prime Wetlands.
- Does the parcel contribute to **species diversity** in the area?
- Does the parcel either directly provide, or indirectly protect, habitat for one or more **animal or plant species** listed by the NH Natural Heritage Bureau as **rare, threatened, or endangered**? Include in the conservation plan a **list of these species** known to exist in Atkinson, together of a **map** showing the locations of their habitats and/or locations of documented sightings. *We should consider setting guidelines for buffers around rare or endangered plant species. Londonderry uses 500 feet. Animal species present a more difficult buffer issue since they move around, and a fixed buffer guideline may not be practical.*
- The conservation plan should include mention of animal species that require large, intact blocks of open land – these would be **species that only inhabit the interior of forested land** because they require a significant surrounding buffer of protection. *Does Atkinson have any of these species anymore?*
- The conservation plan should include a **map of undeveloped open space**, both protected and “at risk,” that currently exists in town.
- Include the **NH Wildlife Action Plan map** of habitat conditions in Atkinson, together with their definition of Tier 1 (highest rank in NH), Tier 2 (highest

ranked habitat in the biological region), and Tier 3 (supporting landscapes). Supporting landscapes typically act as buffers to the Tier 1 and 2 “core” habitat areas. – *I have a copy of two maps from the NH WAP database, but they seem out of date.*

Historically Significant Structures or Other Features

- Does the parcel contain an historically significant structure or other feature, or does it provide protection for, or preserve the visual appeal of, such a structure or feature on an adjacent property?

Forest Management Potential

- Does the parcel have the potential to be managed as a Town Forest? Such land could provide revenue for the Forest Maintenance Fund. At the same time, management as a Town Forest would help to insure the health of the forest, the age and species diversity of its trees, and the quality and diversity of its wildlife habitat.

Potential for Hunting

- Does the parcel lend itself to hunting – is it large enough and contain habitat that is conducive for hunting, and/or is it contiguous with parcels that are currently open to hunting?

Potential for Education

- Does the parcel have the potential to be used in environmental education programs, both through our schools and community youth programs such as

Troop 9, and through Continuing Education programs for adults through organizations such as the Kimball Library?

Londonderry has **permanently protected 15%** of its land, either by outright acquisition, or by conservation easements – essentially acquiring the building rights to the land, either by purchase or donation. This 15% does not include land that is “partially” protected by zoning, such as cluster open space, which has been set aside by zoning to enable an increase in building density on other land. Such open space is rarely set aside for an **explicit environmental reason**, is not managed with **environmental conservation** as the primary goal, and is typically **not accessible to the general public** for passive recreational activities.

As of 2011, voters in Londonderry had approved more than \$8 million in **open space bonds**.

Londonderry has a **Conservation Overlay District**. *Not sure what this is, but maybe it is something that Atkinson should consider.*

*Londonderry has done an elaborate evaluation of **Natural Resource Values** – what values are important to the town, how to numerically assess the values associated by all the land in town, and have produced a map of the town with colors that indicate the areas of highest natural resource value. See map 5-1 on Page 28 of the 2011 report. They have also come up with a map of Priority Parcels by Acquisition Strategy – see Map 5-3 on Page 32. **This approach seems out of our reach in Atkinson.***

Thoughts while reading the 2015 Master Plan

Highlights from the **Vision Chapter**:

- Encourages the preservation of our rural character in an **environmentally responsible** manner
- Encourages sufficiently **low density of new development** to insure the continued health of individual water supplies (i.e., private wells)
- Encourages the protection of property values through the maintenance of open spaces and the **protection of natural resources**

2013 Master Plan Community Survey – **HIGH Priority Action Items** include:

- Preserve open spaces: fields, forests, and farms
- Maintain Atkinson's rural character
- Protect lakes, rivers, wetlands
- Establish stream-side buffers to preserve water quality and wildlife habitat
- Strengthen enforcement of environmental regulations
- Protect groundwater/drinking water supplies
- Wetlands setback should stay at 100 feet
- **Acquire properties for additional conservation land**

Master Plan – Existing Land Use chapter (last updated March 2012)

- In 2012, Atkinson had 3227 acres (44.5%) of forested land. What is it today?
- There is an **Existing Land Use map** (last updated in 2005) – this should be updated and included in the conservation plan – here is the 2005 map:
http://www.paulwainwrightphotography.com/5_atk_cons_resource_docs/document_files/23m.pdf
- “Natural resources most impacted by growth and development (as of the 2005 map) have been forested unfragmented lands.”

- Map of “Conserved and Open Space Lands” should be revised to distinguish between land that has been set aside for a conservation purpose, and land that is “dedicated open space” for a cluster development that has been set aside to satisfy a zoning regulation that permits increased density in other areas. This land is generally restricted for use by the development’s own residences, is **rarely chosen for its conservation values**, and is not considered to be “Conservation” land by the NH Association of Conservation Commissions. Here is the current map:
http://www.paulwainwrightphotography.com/5_atk_cons_resource_docs/document_files/23da.pdf

Master Plan – Future Land Use Chapter (last updated December 2014)

- There’s lots of discussion that supports protecting habitat, wetlands, surface waters, and vistas through both buffers and setbacks. See the highlighted stuff here:
http://www.paulwainwrightphotography.com/5_atk_cons_resource_docs/document_files/23e.pdf
- Consider lifting some of the words from this chapter to support our rationale for placing value on conservation land that serves as a **buffer** to a wetland or wildlife habitat.
- Most of the discussion and recommendations in this section are aimed at improving our zoning regulations that includes buffers to wetlands and wildlife habitats.
- Section F refers to a CTAP Buildout Analysis map that shows the location and extent of the remaining developable lands – See page FLU-12 and FLU-14. **This map should be located, updated, and included in the Land Conservation Plan.**

Master Plan – Natural Resources Inventory (Adopted December 2011)

- The maps listed in Appendix D – Map Set are not contained in the PDF file. These need to be **located** and probably **updated**.
- We **need to get our Prime Wetlands onto our maps**, both the GIS version of our tax maps, and into the GRANIT database.

- There seems to be a lot of verbiage about ecological stuff that does not pertain specifically to Atkinson.
- Is there a listing or map of **wetlands in Atkinson**? ← we really need to do this
- The “Big Tree” URL on page 40 is out of date. The correct one is:
https://extension.unh.edu/fwt/bigtrees/admin/reports/report_docs/bigtree_rep_champ.cfm
- Our Champion Ash is not listed there – Pete McVay is working to correct this.
- We should start using the NH ACC definition of “conservation” land, which is more specific than just “open space.”
- The Natural Resource Inventory should be updated – especially the maps – for areas that overlap with the Land Conservation Plan.

Conservation Commissions are the only local board authorized to “intervene” (request more time) to review applications for permits submitted to NH DES Wetlands Bureau under Section 404 of the Clean Water Act for projects that may impact wetlands.

Prioritization of land parcels for acquisition can be accomplished by evaluating these two factors (see page 13 of their plan):

- Irreplaceability
- Vulnerability

Amherst manages Town Forests in different ways. Some are selectively cut to promote forest health and diversity, and some are “managed” by allowing **natural forest dynamics** to proceed on their own. Of particular interest to Atkinson might be Amherst’s policy to **harvest species of tree that are threatened by insects or disease** before they die. We should consider this for Ash trees in our Town Forests.

From Sally Manikian at *The Conservation Fund*:

Hi Paul,

Thanks for the update, I have been wondering. Hearing about a legal dispute tie-up—I hope that makes sense!

In looking at conservation planning, there are available 30,000-foot level data sets that help identify conservation values.

A few are:

1. NH Fish and Games' Wildlife Action Plan: there are town by town maps that show ranked habitat.
2. The Nature Conservancy's Resilient and Connected Landscapes mapping: this is a multi-year project that looks at both high-value habitat that is resilient in the face of climate change, as well as habitat that promotes wildlife moving across the landscape.
<https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/reportsdata/terrestrial/resilience/Pages/default.aspx>
3. Nearby conservation lands or easements: connectivity across existing conservation lands is important as well. If you've used NH GRANIT before, you can access those layers there.

If the Conservation Commission wants to invest some dollars in the work, working with an ecological consultant to get ground-level analysis could be helpful. Rick Van De Poll from Sandwich does a lot of wetland and wildlife inventories with towns.

Hope this helps as a start! Good to hear from you.
Sally

Sally Manikian
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Fremont: "This document is for informational and planning purposes only. The Town of Fremont does not intend this document to be used for regulatory purposes and does not constitute any commitment on the part of the Town or landowners to implement the recommendations contained herein."

The Fremont Open Space Plan can serve as a guidance document for the community in implementing planning and resource protection initiatives, and making capital improvement and budgetary decisions relating to land and resource preservation. The plan can also help guide voluntary efforts to implement land conservation easements and promote stewardship of both private and public lands.

...identification of high value **resources** and their occurrence relative to one another – “co-occurrences” – “green infrastructure” – “ecosystem services” – “resource base”

...serve as a guide for future open space planning and land protection in the Town.

The town of Fremont includes “managed green space” (parks, golf courses, etc.) in their concept of Green Infrastructure.

“Land conservation can be used as a tool to protect resources that contribute to quality of life, such as drinking water protection and passive recreation.”

We need to **fact check** the claim that vacant land results in lower tax bills.

→ We need to summarize the Master Plan survey that talks about the citizens’ desire for land protection.

Fremont has an Open Space Committee in addition to the Conservation Commission

Our Land Conservation Plan should (among other things) **advise land owners** who are considering maintaining their land as open space.

Fremont got a grant from the **UNH Cooperative Extension - Natural Resource Outreach Coalition (NROC)** to identify lands of high natural resource value.

Ideas for events: **Turtle Walk** and the **Owl Prowl**

Fremont Page 5 contains a good description of the work done by the Open Space Task Force.

I believe our planning work should stop after Fremont’s “Step 3” in the middle of p. 9

Fremont has a comparison of protection strategies similar to Londonderry’s, but much shorter. See p. 14

Fremont’s Appendix C has a good list of Grant Money sources – we need to update and expand the list to reflect the current-day status of these sources.