

CARING FOR NATURAL RESOURCES



Taking Action in Your Community

About the training

NR1: Vermont's Ecology & Environment
Scientific concepts, landscape context

NR2: Caring for Natural Resources in Your
Community
Bringing knowledge to action

What we'll cover

Module A

Local Planning
and Local Data

Module B

Tools for
Maintaining
and Enhancing
Natural
Resources

Module C

Taking Action

Overview

Tools

How to

The goal: build understanding about how to move from idea to action

Town forest?
Get kids
involved? Map
wildlife crossings?
River clean up?
Zoning changes?



Keeping forests, wildlife, and water healthy



CARING FOR NATURAL RESOURCES



Taking Action in Your Community

A scenic landscape featuring rolling hills and a forest. In the foreground, there is a field of tall, golden-brown grass. The middle ground shows a dense forest of trees with some autumn-colored foliage. In the background, there are more hills and a clear blue sky. A semi-transparent brown box is overlaid on the lower left portion of the image, containing white text.

**MODULE A – LOCAL
PLANNING AND LOCAL
DATA: FOUNDATIONS FOR
ACTION**



Section 1

The Importance of Planning

Planning: a framework and a vision for development

- Vision & values
- Policies that guide local action
- Natural resource policies

Happens within a larger context: statewide planning goals



VNRC Staff Photo

Land use decisions are made locally, but have regional impacts



Natural resources planning has many benefits



Forest products

\$1.4 billion annually



Tourism

\$1.4 billion annually



Fish & wildlife recreation

\$704 million annually

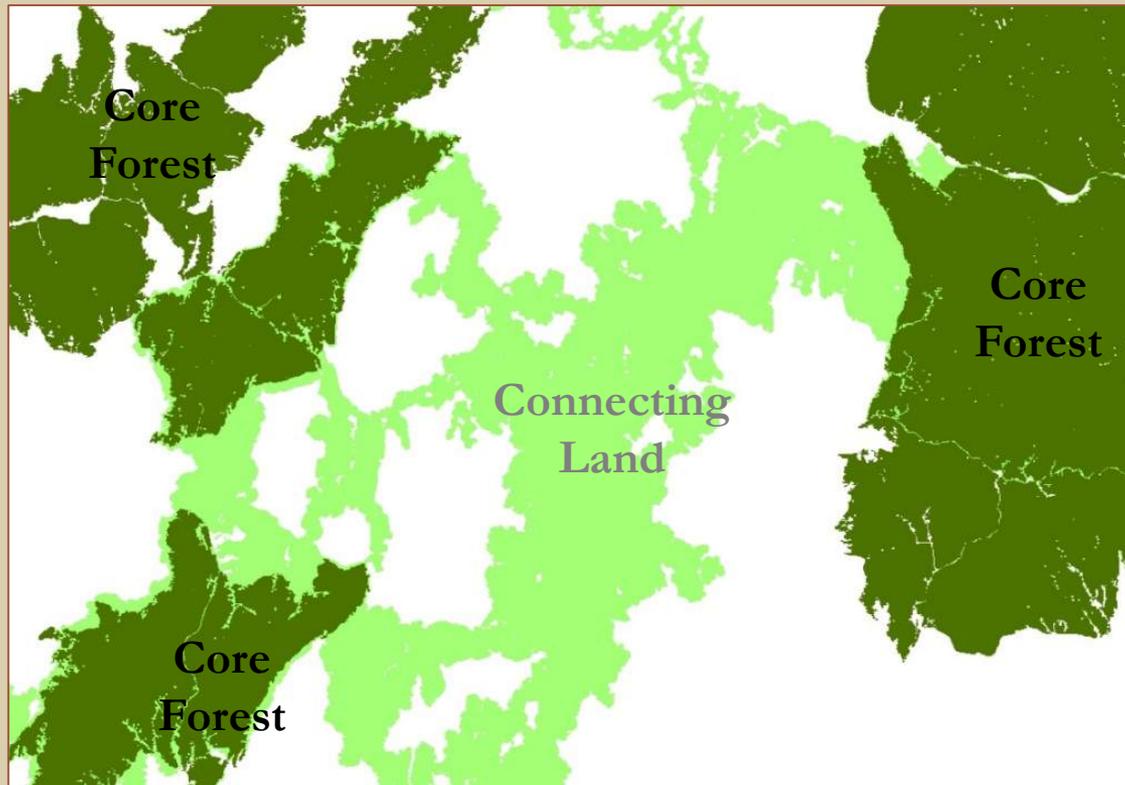
Source: [2015 Vermont Forest Fragmentation Report](#), Department of Forests, Parks and Recreation, ANR.



Healthy natural resources help us adapt to climate and other changes



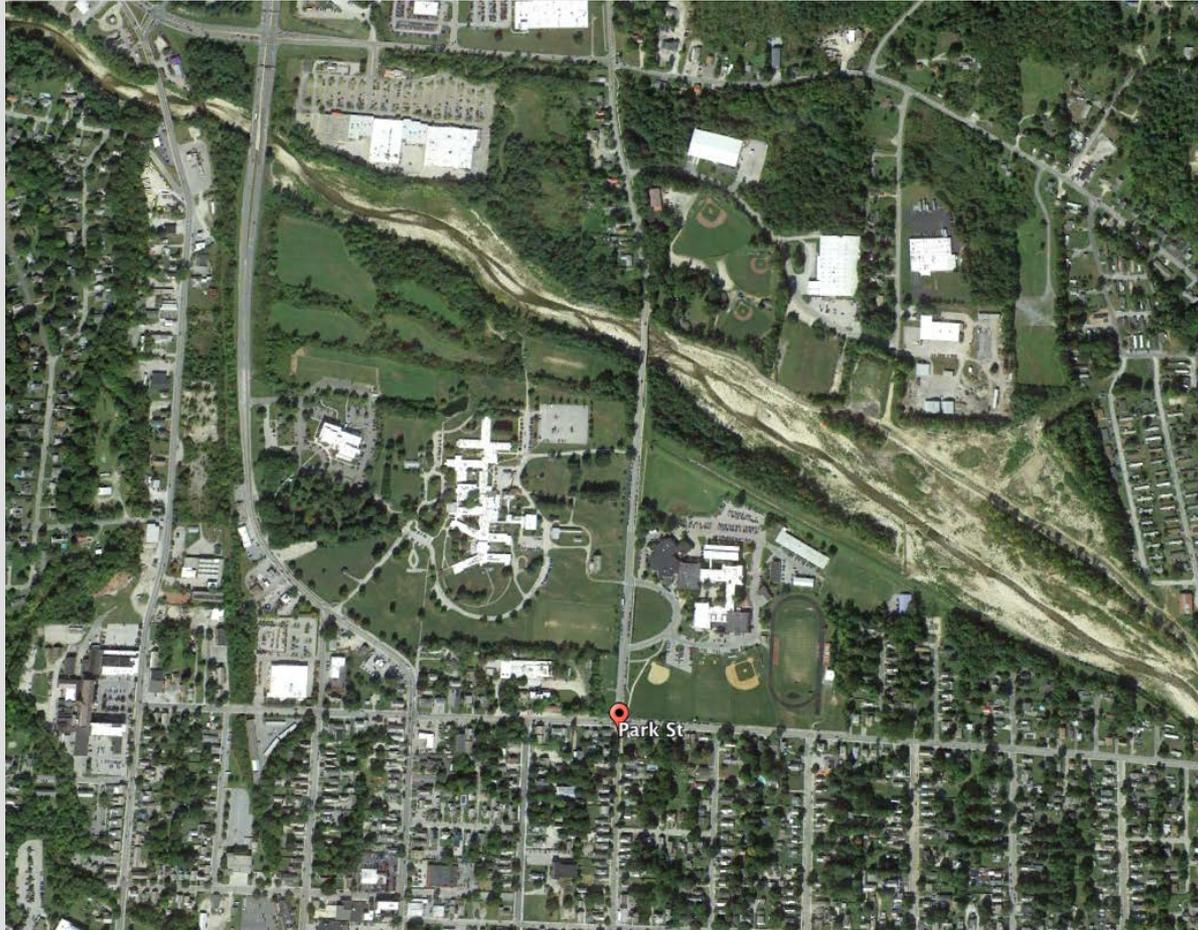
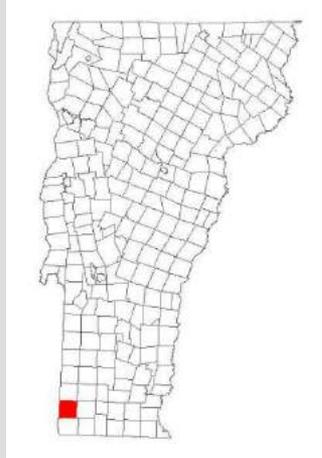
Ecosystem resilience



Avoided costs

Example: avoided costs

Roaring Branch, Bennington



Bennington

Example: avoided costs

Roaring Branch, Bennington

How did the project help?

- Eligibility for state funds
- \$93 million in avoided costs
- Protect local economy

Lessons learned

- Up front investment can yield significant benefits
- Limiting floodplain development in combination with restoring the river was successful.



Case study adapted from

http://accd.vermont.gov/sites/accd/files/Documents/strongcommunities/cpr/Case_Study_Bennington.pdf

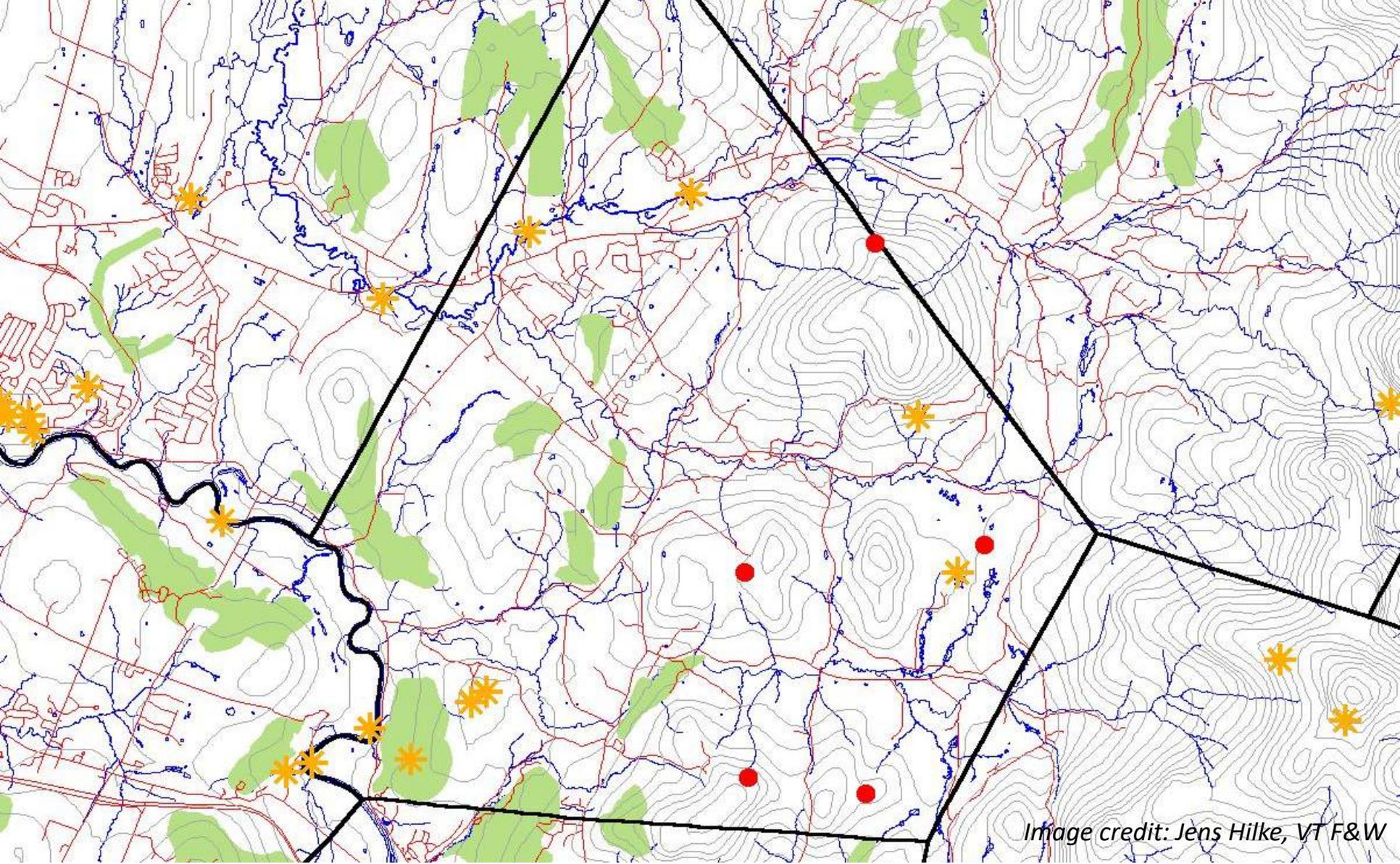


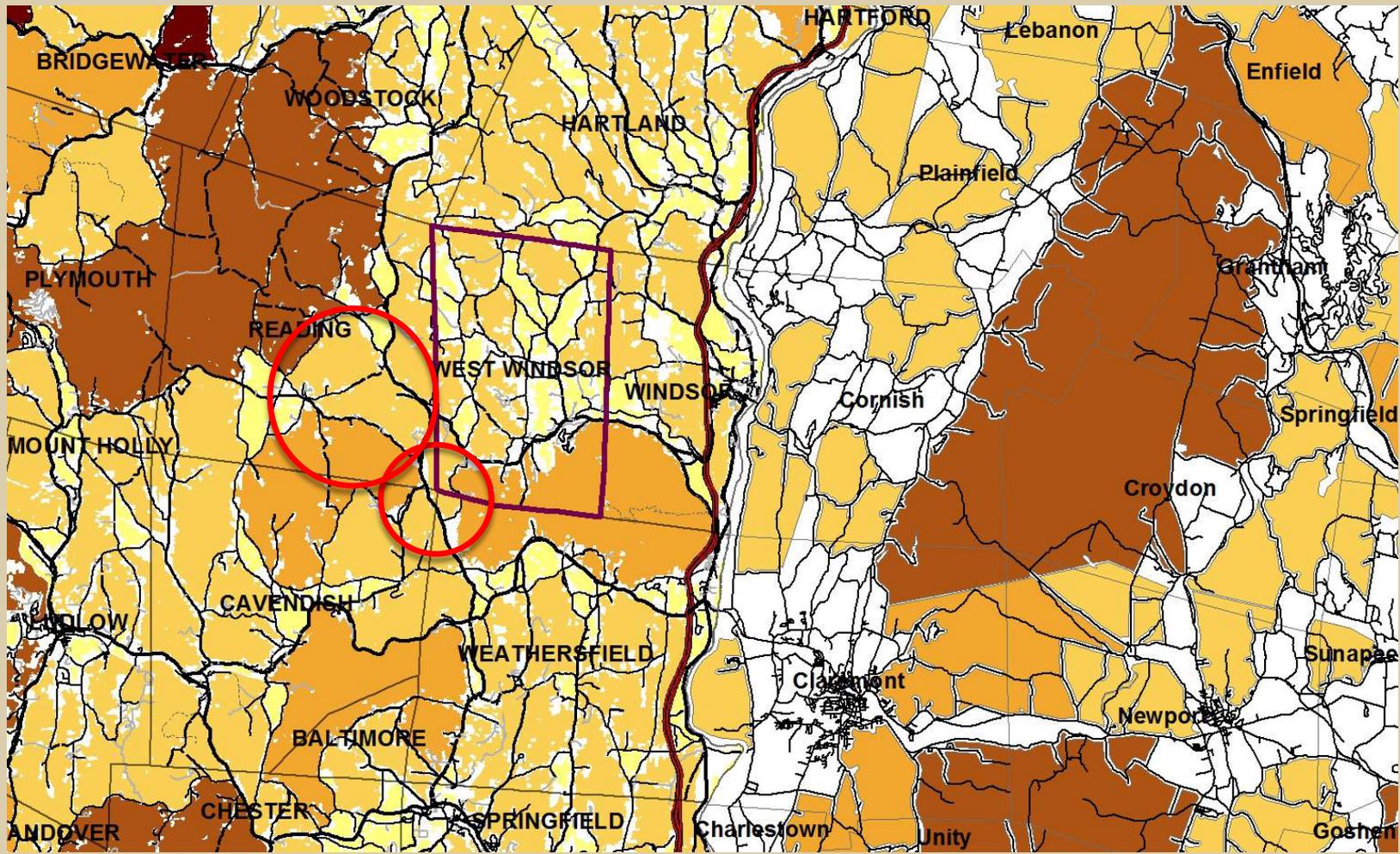
Image credit: Jens Hilke, VT F&W

**Section
2**

**Taking Stock of Natural Resources in Your
Community**

Natural resources *inside* your town connect to network *outside*

Example: Wildlife habitat in West Windsor and beyond



Other data sources



FLOOD READY VERMONT

**LEARN
MORE**

See the resources webpage more information.

Local data helps connect people to town resources, make decisions



Data collection methods depend on local goals, resources

- Citizen science
- Professional inventories
- Desktop surveys

Inventory = an ongoing process



Types of inventories compared

Survey type	Cost (\$\$\$)	Cost (time, people power)	Expertise needed?	Result?	Translating into action?	Example
Citizen science	Low/free	Organizing, training volunteers. Good data requires multiple years.	Management, coordination of volunteers	Greater involvement, build understanding & support	Helpful for fine scale resources if data consistent.	Salisbury
Desktop	Low/free	Volunteers	Mapping software	Immediate data	Appropriate for landscape scale; less for species.	Burke
Formal	High	Time deciding how to use report	Trained ecologist	Detailed scientific report	Detailed for landscape and species scale. May guide regs.	Plainfield

Example:

Inventories in Three Communities

SALISBURY: Citizen Science



- *Who:* Conservation commission, volunteers, F&W, RPCs
- *Why:* Concern about road crossings and genetic exchange
- *Result:* Town plan map, website, workshops, videos

BURKE: Desktop survey



- *Who:* F&W, Regional Planning Commission
- *Why:* Concern about ski area growth; protect wildlife, views
- *Result:* Natural Resources Overlay District (zoning)

PLAINFIELD: Formal survey



- *Who:* Conservation & Planning Commissions; consulting ecologist
- *Why:* Map natural communities for town planning
- *Result:* Plainfield Ecological Inventory; zoning changes

Collecting local data is just the first step

- Interpret
- Prioritize
- Integrate

Help is available!

**LEARN
MORE**

See the resources page for more information.



Recap: planning and taking stock

□ *Planning*

- ▣ balances competing priorities
- ▣ considers local decisions within broader landscape

□ *Taking stock*

- ▣ Builds understanding of your local resources

CARING FOR NATURAL RESOURCES



Taking Action in Your Community



**MODULE B – WAYS TO
MAINTAIN AND ENHANCE
NATURAL RESOURCES**

NR2 - Outline

Local Planning and Data: Foundations for Action

Ways to Maintain and Enhance Natural Resources

- **Where local actions fit with other regulation**
- **Non-regulatory tools**
- **Regulatory tools**

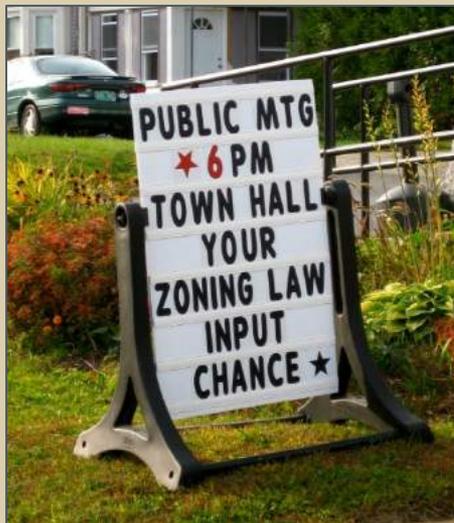
Taking Action

What kinds of “tools” are we talking about?



Non-regulatory tools

- Education and outreach
- Land conservation
- Land management



Regulatory tools

- Zoning
- Subdivision regulations
- Site design requirements

Select tools that reflect your community

A **combination** of tools is best... but the **variety** and **complexity** of those tools depends on your community.





**Section
3**

**Where local actions fit with other
regulation**

Act 250: Overview

- ❑ Evaluates environmental impacts of large projects
- ❑ Different thresholds depending on local regulations
- ❑ Ten criteria
- ❑ Public process, citizen commissions



**LEARN
MORE**

Course resources page
– coming soon!

[Natural Resources
Board](#)

Act 250: Limitations

You may think that Act 250:

- reviews most development
- addresses most impacts

However:

- Act 250 reviews 1-2% of subdivisions, and limited commercial development
- Often relies on ANR permits



Act 250: What can be done locally?

Municipalities can:

- Review smaller subdivisions & commercial projects (the ones that are under the Act 250 threshold)
- Develop local standards to review environmental impacts

Wetlands Regulation: Overview



- ❑ Support wetland vegetation, hydrology, and soils
- ❑ Fight pollution, abate floods, provide habitat
- ❑ Cannot be replaced
- ❑ Mapped *and* non-mapped wetlands require permits

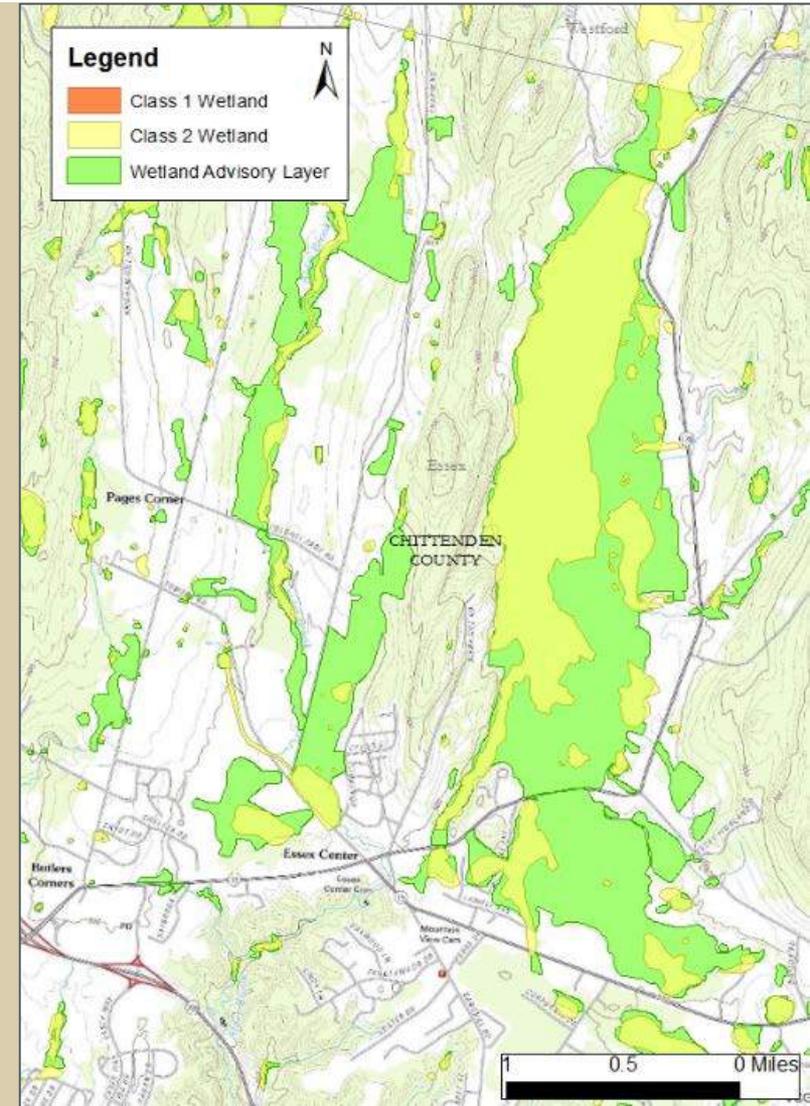
Wetlands Regulation: Limitations

You may think that:

- ❑ No impacts are allowed
- ❑ All wetlands that require permits are mapped

However:

- ❑ Only some of the regulated wetlands are mapped
- ❑ Permits still allow some development in wetlands



Wetlands: What can be done locally?

- Develop town plan policies
- Wetlands inventory
- Zoning standards for wetlands
- Add wetlands to state maps
 - Advisory layer (non-regulatory)
 - VT Significant Wetlands Inventory (regulatory)



Stormwater Regulation: Overview



- Stormwater = water that runs off the land
- Deposits pollutants in streams, rivers, wetlands
- Operational and construction permits are issued for stormwater – but only sites over 1 acre

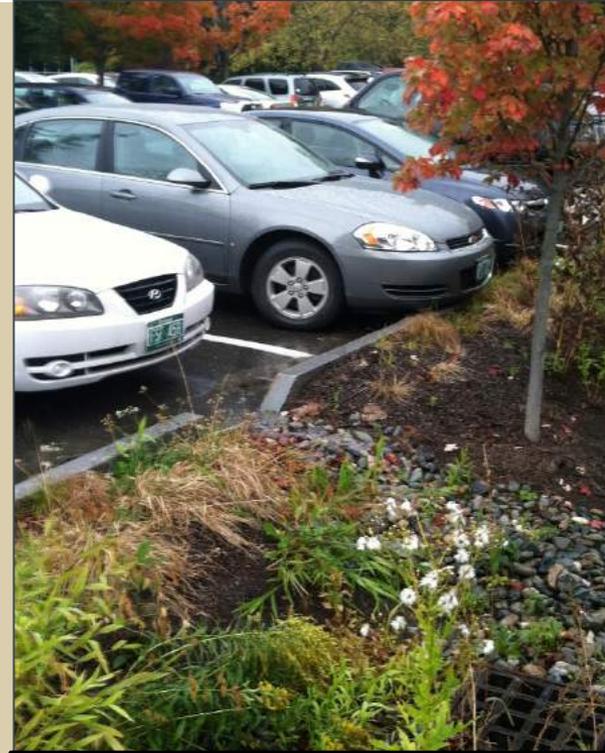
Stormwater Regulation: Limitations

You may think that:

- ❑ Stormwater is widely regulated
- ❑ Permits keep water clean

However:

- ❑ Most projects don't require permits
- ❑ Permits allow some additional pollution



Rain garden to absorb stormwater coming off a parking lot

Stormwater: What can be done locally?

- ❑ Municipal demonstration projects
- ❑ Review bylaws
- ❑ Update zoning and subdivision to encourage or require Green Stormwater Infrastructure
- ❑ Adopt lower stormwater permitting thresholds



Other opportunities:

Vermont Clean Water Act (VCWA)

VCWA: Local Requirements and Opportunities

What	Required by...	Local opportunities
Manage local road runoff and erosion	Approved Plan and permit coverage: summer 2018	High priority projects identified in Tactical Basin Plans get priority for Department of Environmental Conservation Grants
Address stormwater from existing impervious surfaces	Permit coverage required by 2023 (Champlain Basin) and 2028 (statewide)	
Protect river corridors and floodplains	Required for additional ERAF disaster assistance (a Clean Water Fund priority)	



Section 4

Non-Regulatory Tools

“Neighbor to neighbor” projects connect people with land, build support

□ *What:*

- ▣ Celebrating place
- ▣ Learning together
- ▣ Projects



□ *Who:*

- ▣ Conservation commissions, energy committees
- ▣ Watershed organizations
- ▣ Community service organizations

Example: neighbor to neighbor

Sullivan Education Woods Monthly Walks



Middletown Springs, VT

Example: neighbor to neighbor

Sullivan Education Woods Monthly Walks

How did the project help?

- Engaged residents
- Boosted appreciation of land
- Drew some tourists

Lessons learned/takeaways

- Strong volunteer base needed
- Hold events consistently
- Challenging to run long-term



Tax programs can help keep land undeveloped, less fragmented

- *What:*
 - ▣ Current use (UVA)
 - ▣ Local tax stabilization
- *Who:*
 - ▣ County foresters
 - ▣ Agency of Agriculture
 - ▣ Town
 - ▣ Tax department



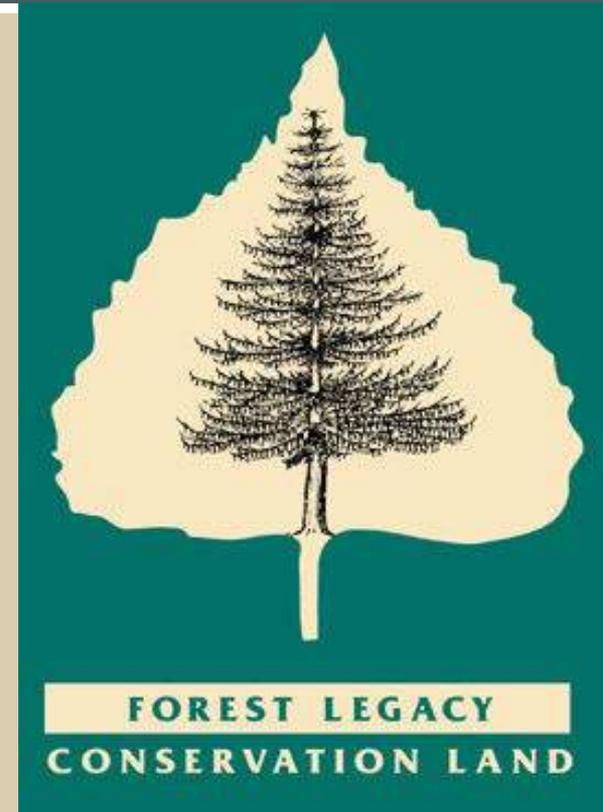
**LEARN
MORE**

See the resources webpage for more information.

Towns can support land conservation and stewardship

- *Towns can:*
 - ▣ Promote available programs
 - ▣ Help fund conservation easements
 - ▣ Endorse large land conservation project

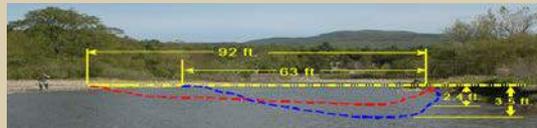
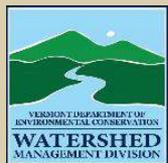
- *Other partners include:*
 - ▣ Land trusts
 - ▣ Private land owners
 - ▣ Organizations like Vermont Woodlands Association, VT Coverts, Audubon, NRCS/Conservation Districts



Tactical Basin Planning: A Framework for Implementation

Prioritizes actions throughout each basin and at the local level, including:

- Statewide Surface Water Management Strategy
- TMDLs – Lake Champlain, Long Island Sound, Lake Memphremagog, bacteria, etc.
- Vermont Clean Water Act (including municipal priorities)

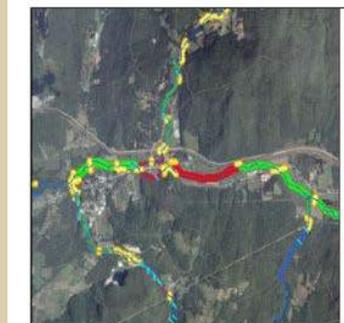


Tactical basin planning helps towns identify and implement local surface water priorities

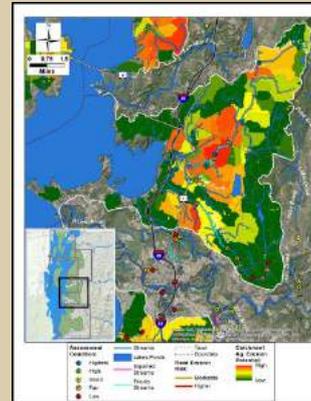
Water Quality Monitoring

Macroinvertebrate Site Summary										
Date	Sample Method	Discharge	Sticks	EPT	PM/D	BI	CGPA	EPT/EPT + C	PPCA/F	Community Assessment
8/16/1986	KN	46	36.5	10.5	85.9	1.46	6.30	0.52	21.0	Poor
8/29/1989	KN	68	59.5	3.2	75.1	3.41	0.20	0.02	47.7	Poor
9/26/1989	KN	42	36.0	5.3	70.6	2.58	5.30	0.51	27.1	Poor
9/20/1991	KN	47	33.0	3.2	88.6	1.18	4.26	0.50	30.4	Poor
9/15/1992	KN	67	49.5	11.0	85.9	2.14	3.74	0.52	43.7	Poor
9/10/1993	KN	72	53.0	3.2	80.4	2.80	37.94	0.80	41.1	Poor
9/5/1994	KN	34	17.0	11.0	10.0	7.96	11.21	0.52	37.3	Poor
9/7/1995	KN	141	95.0	10.0	92.0	2.10	4.01	0.01	47.3	Poor
9/1/1996	KN	136	22.0	11.0	71.1	1.55	0.80	0.01	41.9	Poor
9/8/1997	KN	100	21.0	12.0	63.0	1.46	14.17	0.07	51.4	Fair
9/15/1998	KN	42	36.0	5.0	76.1	1.94	3.80	0.42	33.0	Poor
9/10/1999	KN	107	25.0	14.0	50.1	2.24	3.44	0.00	51.0	Fair
9/15/2000	KN	307	32.0	11.0	50.1	0.53	0.30	0.01	41.1	Fair
9/5/2001	KN	304	27.0	17.0	75.7	2.22	1.12	0.50	53.2	Fair
9/2/2002	KN	259	13.0	11.0	48.0	2.81	0.80	0.00	35.2	Fair
9/2/2002	KN	190	20.0	11.0	51.0	2.10	1.20	0.02	57.6	Fair
9/7/2003	KN	465	27.0	12.0	55.3	1.72	0.60	0.74	44.4	Fair
9/5/2004	KN	622	35.0	18.0	51.0	1.55	3.00	0.34	45.3	Good
8/16/2005	KN	388	34.1	17.5	38.1	2.26	4.20	0.00	61.2	Good
9/5/2006	KN	296	29.1	18.0	68.0	1.07	2.81	0.00	42.0	Fair
9/4/2007	KN	374	35.0	17.0	75.1	1.57	2.14	0.77	52.0	Good
9/5/2008	KN	253	36.0	18.0	77.1	3.20	0.25	0.72	48.0	Good
9/5/2008	KN	267	31.0	19.0	70.0	2.10	5.50	0.52	42.0	Good
9/26/2009	KN	207	40.0	22.0	73.0	2.00	5.70	0.70	55.0	Good
9/22/2009	KN	350	30.0	20.0	69.4	1.00	0.50	0.50	43.0	Good
8/27/2011	KN	305	34.0	19.0	75.1	3.20	5.32	0.00	50.1	Good

River Corridor Plans



Agricultural Assessments



Stormwater Master Plans



Figure 4. Subwatershed delineation to a culvert at the southwest corner of the Poulson's Door and Windsor business at the corner of RR 73 and Highway 20.

Road Inventory and Erosion Risk



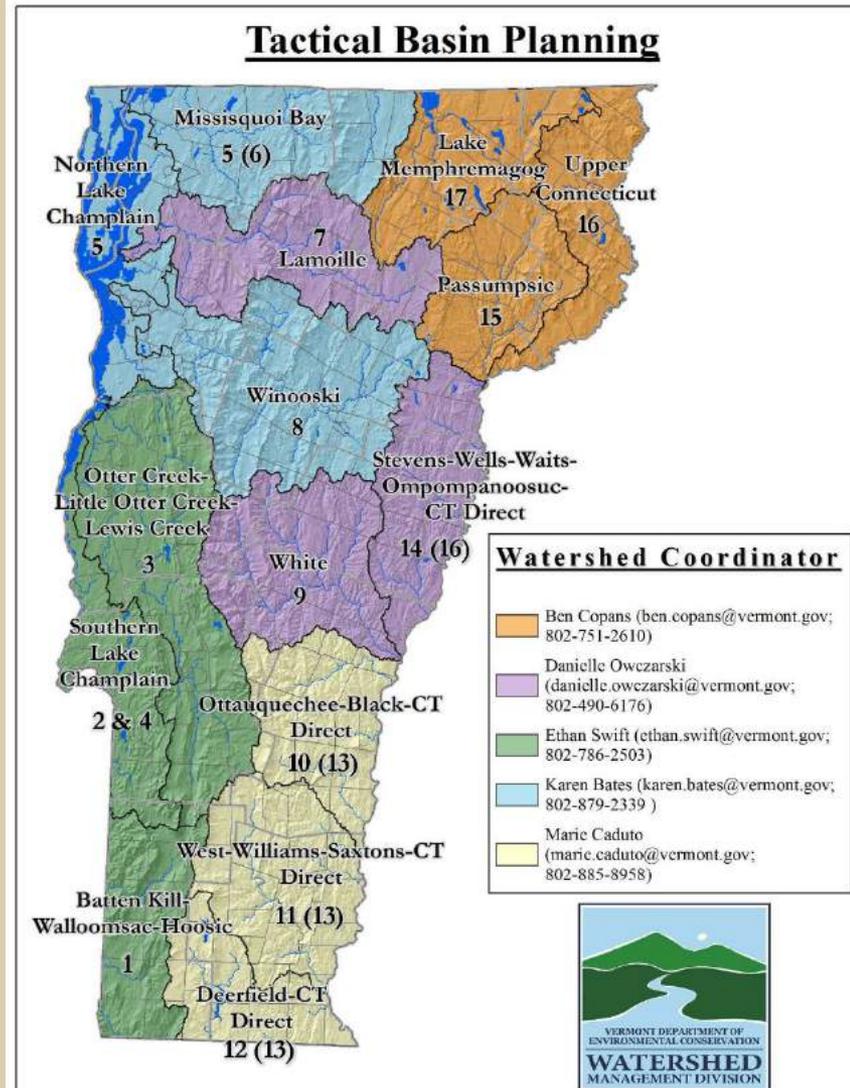
Monitoring and assessments identify:

- conditions of surface water
- priorities for action

Local involvement in basin planning is also a way to get ahead of the curve.

- Road management
- Stormwater management
- River corridor/floodplain management and protection
- Surface water protection (reclassification)
- Contact your Basin Planner to find out more!

<http://dec.vermont.gov/watershed/map/basin-planning>



Other local initiatives can support natural resources

Conservation Fund



Town Forests



Smart Growth

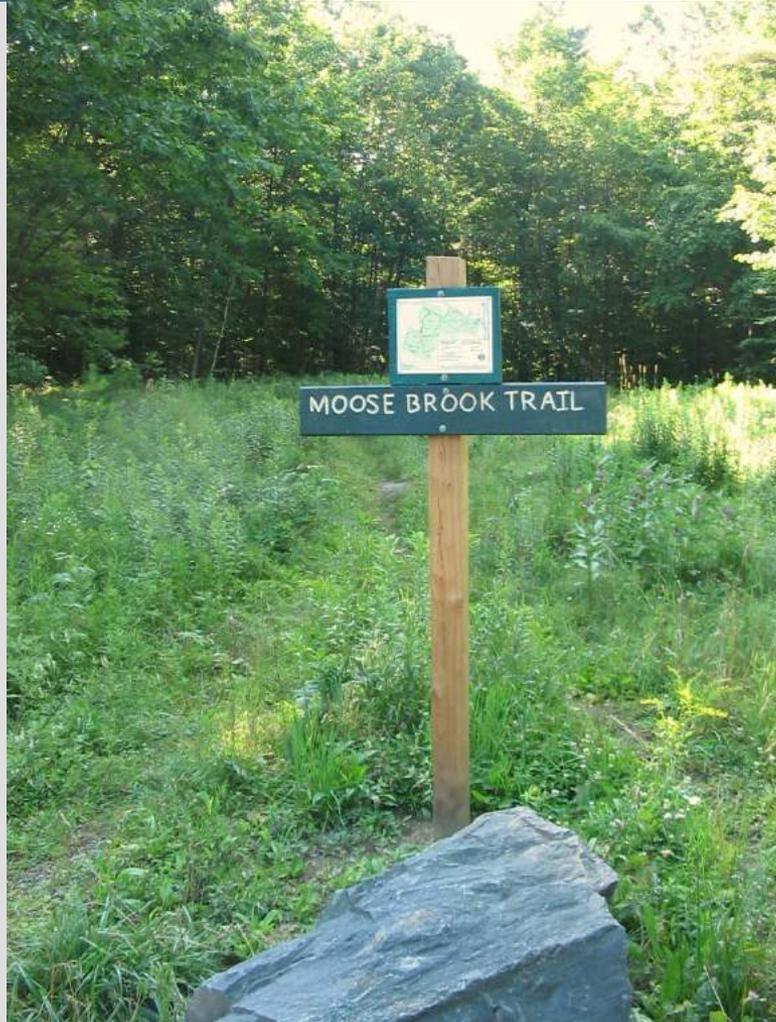


Energy Development



Example: town support of stewardship, conservation fund

Hartford Conservation Fund



Hartford, VT

Example: town support of stewardship, conservation fund

Hartford Conservation Fund

How did the project help?

- Developed forest management plan
- Funded inventories
- Helps landowners with conservation easements

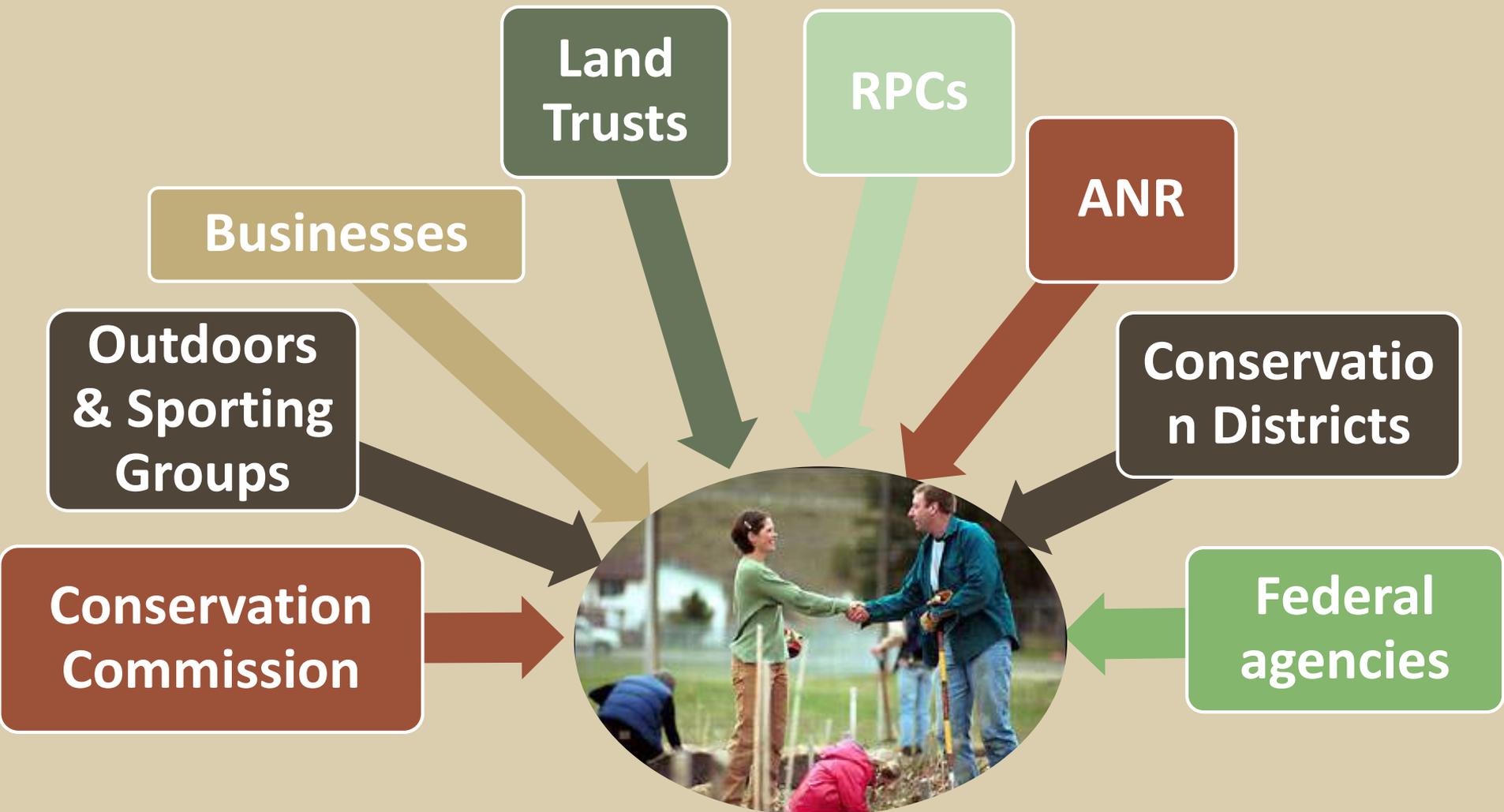
Lessons learned/takeaways

- Regular source of funds needed
- Forest management and harvest can support conservation goals



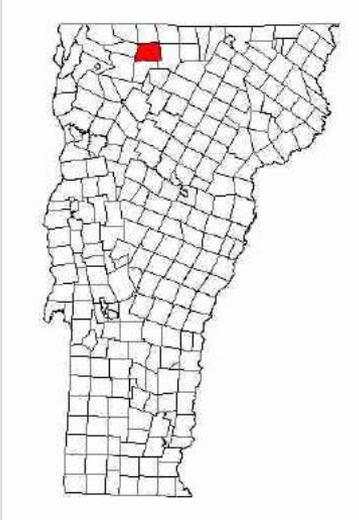
Photo showing former site of a dam, now used for wildlife habitat, in forest.

Build broad partnerships



Example: building broad partnerships

Island View Park



Enosburg Falls, VT

Example: building broad partnerships

Island View Park

How did the project help?

- Town acquired land
- Assured river access
- Provided affordable housing

Lessons learned/takeaways

- Collaboration and partnership are key
- Project benefitted from Vermont River Conservancy's leadership and coordination
- Challenging to meet fundraising goal in short timeframe

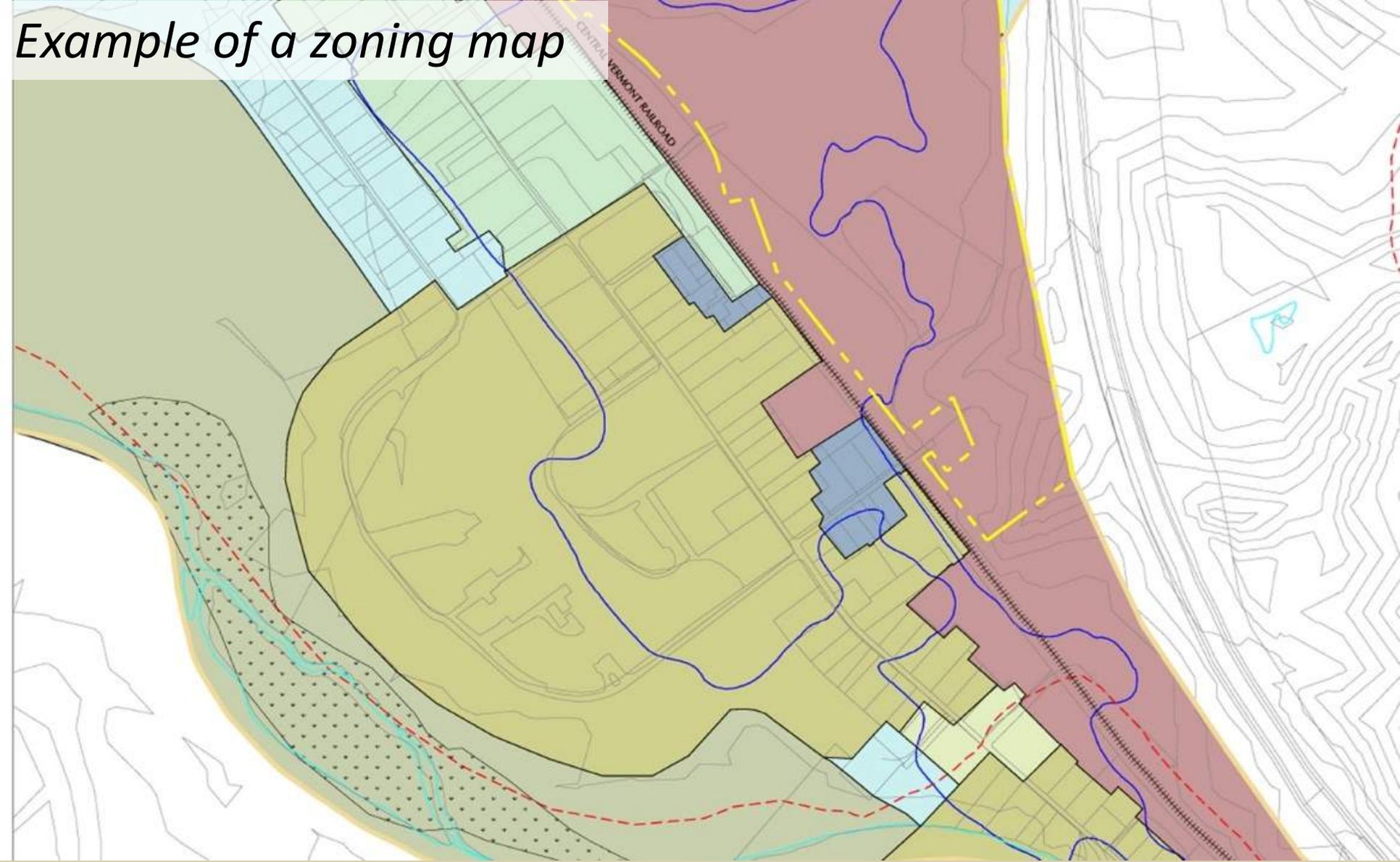


Things to consider: non-regulatory tools

Things to consider

- May be easier to implement
- Helps people connect
- Reinforces commitment
- Track record of success
- Supports other actions
- Efforts may be less comprehensive
- May not fully address landscape scale, though can raise awareness
- Could be less permanent and long term

Example of a zoning map



Section 5

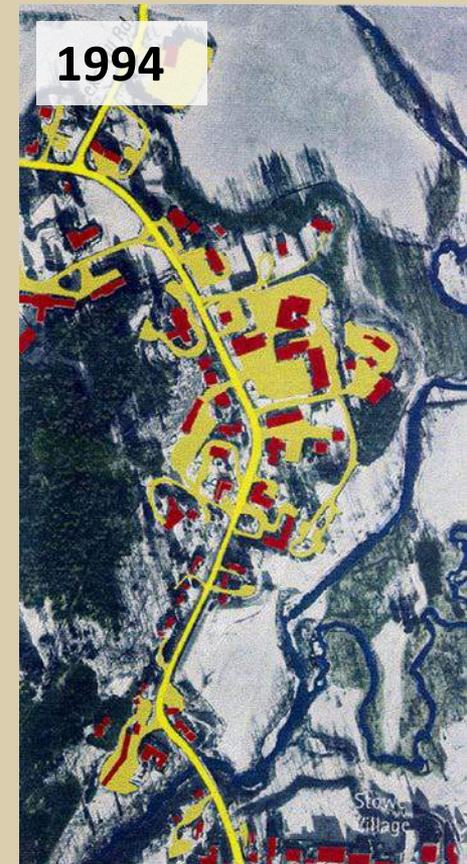
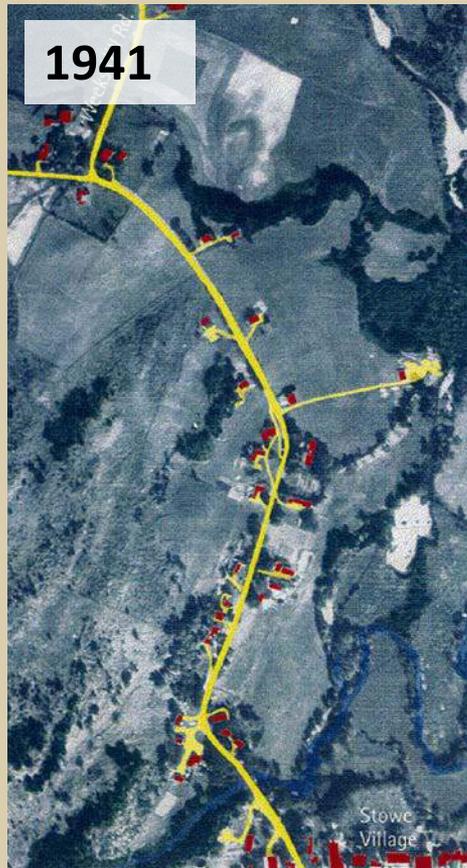
Regulatory Tools

Regulatory approaches we will cover

- Subdivision regulations
- Zoning
- Site design
- We'll also talk briefly about...
 - Ordinances and stand alone bylaws
 - Smart growth
 - Things to consider

Why regulate?

Because development happens *incrementally*.



Stowe Mountain Road

Outreach lays the groundwork (but it's more than just meetings)



Subdivision regulations shape pattern

- Control the **pattern** of development
- Help towns plan for **infrastructure** (sewers, roads)
- Guides **parcel configuration**
- May include requirements for stormwater or green stormwater infrastructure
- Standards in rural areas can protect NRs; standards in villages can shape public realm.

*An important tool in a rural,
incrementally developing state.*

Parcel configuration vs. settlement pattern

Overall settlement pattern



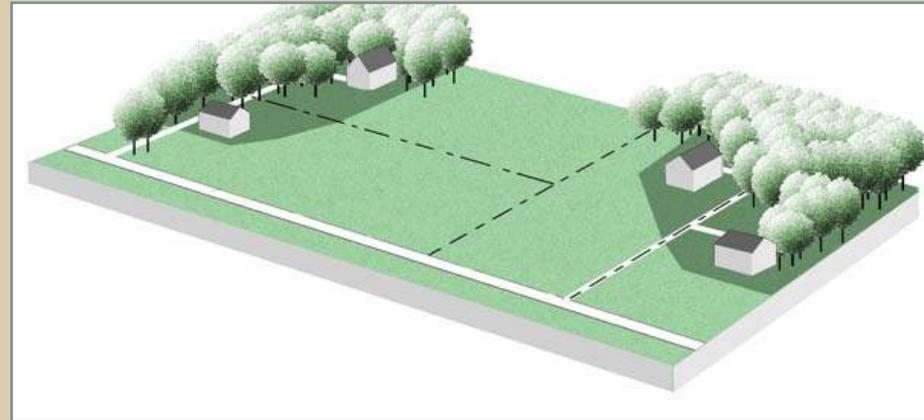
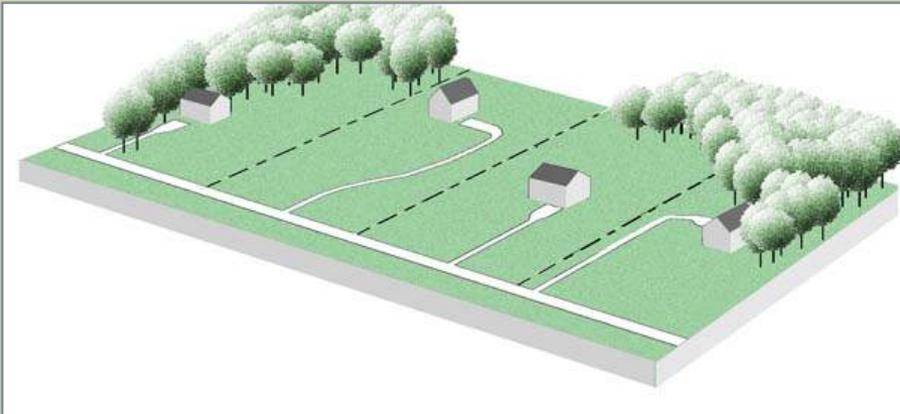
Ensure that open space remains functional and connected



Subdivision design standards: habitat

Example:

“Roads, driveways, and utilities shall be designed to avoid the fragmentation of identified natural areas and wildlife habitat.”



Things to consider: subdivision regulations

Things to consider

- In rural areas, can help prevent fragmentation
- Shapes location of buildings, roads
- Can help keep open space connected
- Towns can adapt suburban-style regs to better support NRs
- Standards must be clear and specific
- Takes capacity to administer
- Good design and layout essential

Zoning districts typically dictate uses, lot sizes

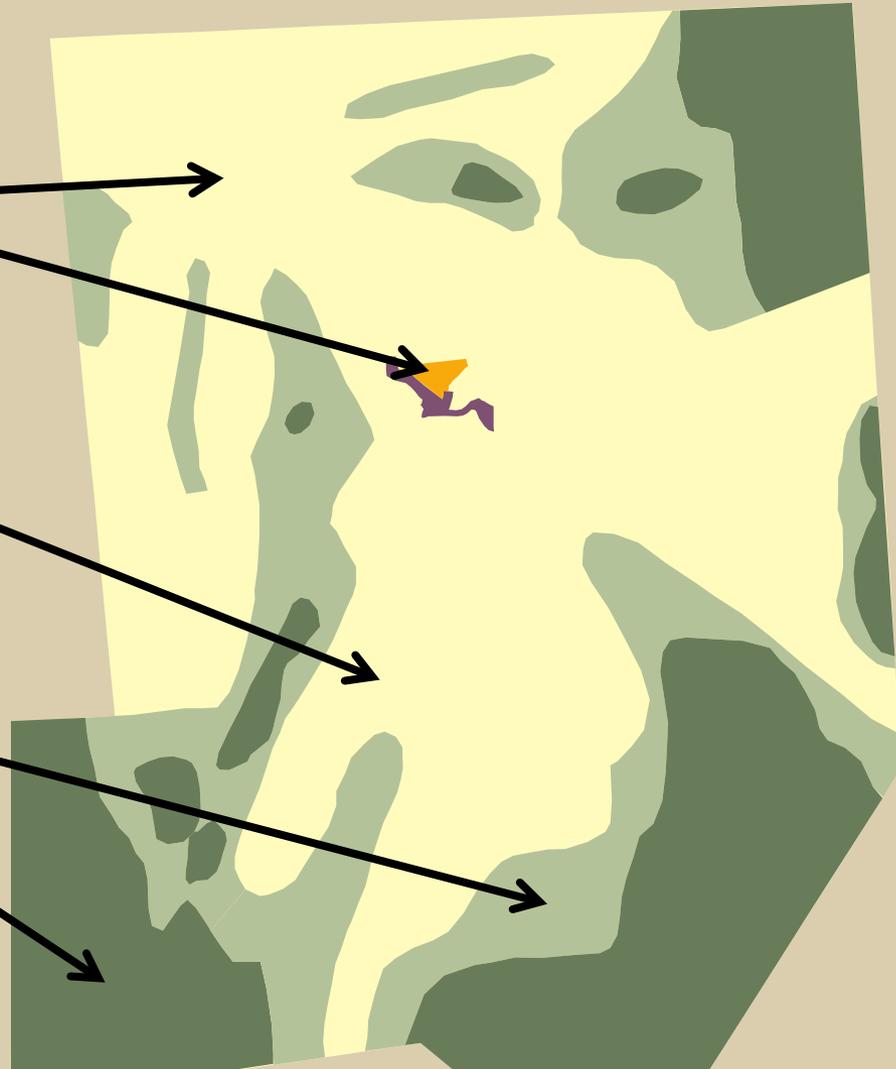
For example:

Village districts

Ag/residential district

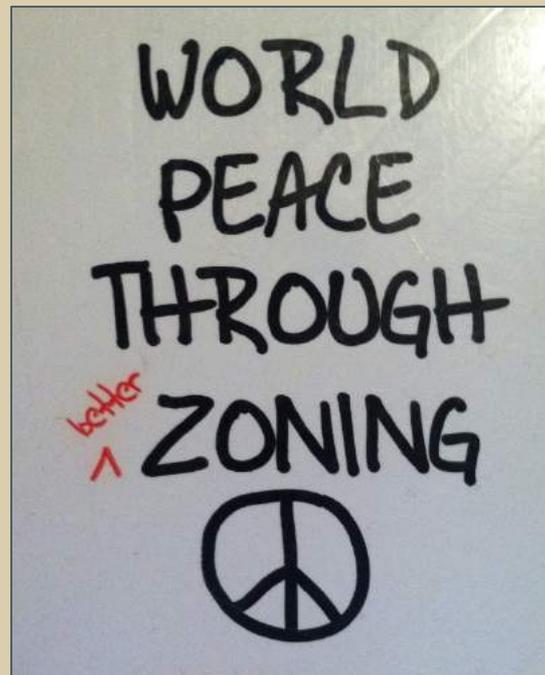
Conservation districts

About 80% of Vermont towns have zoning.



Where does zoning come from?

- Public health and safety
- When used, should advance Vermont's planning & development goals



Zoning for natural resource protection

- Typically defined by on-the-ground features – forest blocks, riparian areas.
- Can help protect forests, drinking water, habitat
- How? Districts may...
 - ▣ Require large lot sizes
 - ▣ Limit uses in the district
 - ▣ Have separate review standards



Zoning can support good resource management...

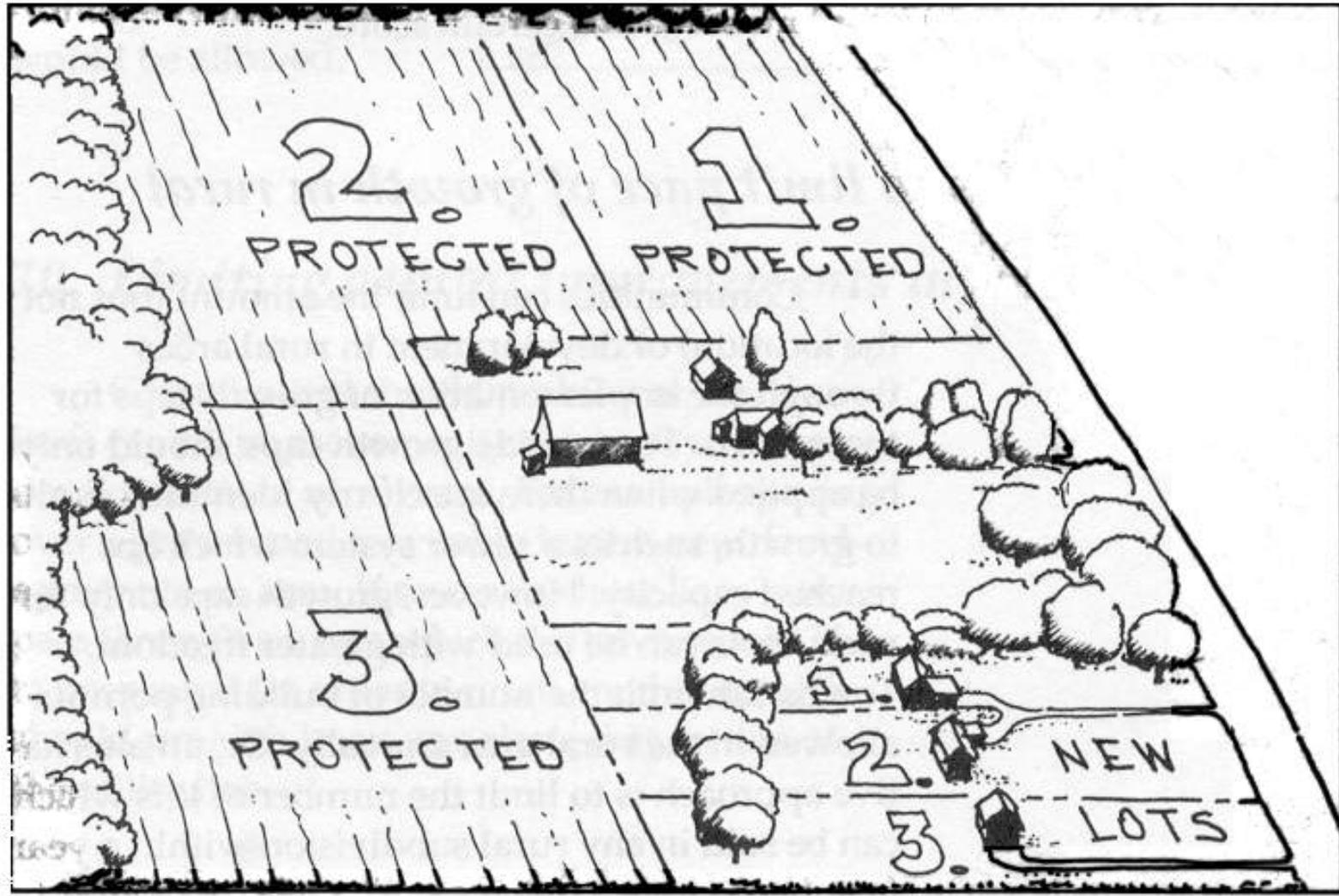


...but some zoning undermines natural resources.



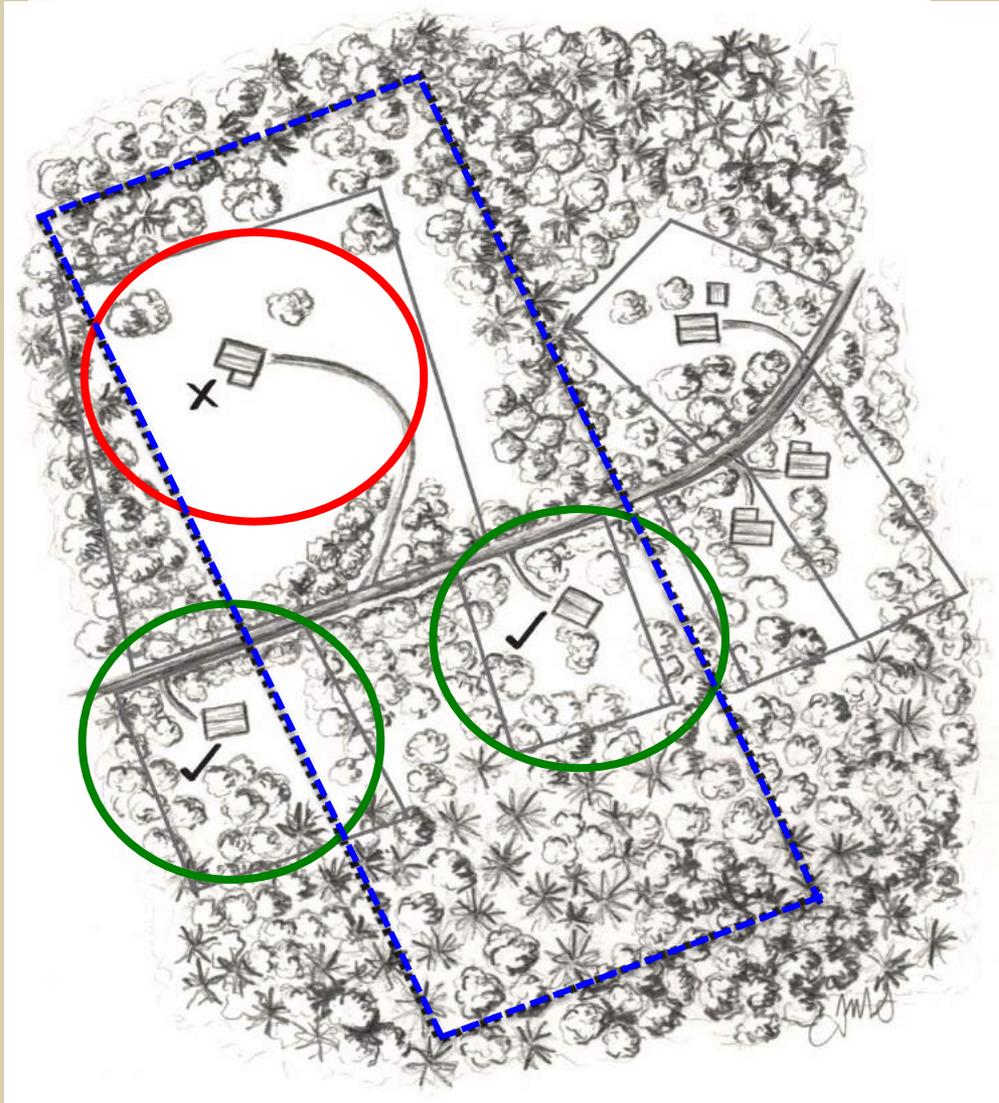
Zoning that supports natural resources

Density-based zoning



Zoning that supports natural resources

Overlay districts



Things to consider: zoning

Things to consider

- Protects vulnerable resources by shaping development
- Good tool for contiguous resources like forests
- Lasting, though not permanent
- Takes capacity to administer
- Can be controversial
- Done incorrectly, can fragment natural resources & cause sprawl
- Only used when development is happening

Example: zoning

Conservation Zoning District



Bolton, VT

Example: zoning

Conservation Zoning District

How did the project help?

- Generally works well to protect key resources
- Town has found it to be usable when reviewing development

Lessons learned/takeaways

- Did not anticipate all uses
- Newly completed natural resources inventory will be used to make sure district includes the most important resources



Site design standards direct placement of roads, buildings, stormwater

Example:

“Stormwater shall be managed through land development strategies that emphasize the reduction of impervious surface areas such as streets, sidewalks, driveway and parking areas and roofs.”

Ways this may be achieved:

“Reduce driveway lengths by minimizing setback distances. Encourage/require shared driveways.”



Rain garden to clean stormwater coming off a parking lot

Things to consider: site design

Things to consider

- Site design can help a project fit the landscape
- Maintain connections
- Avoid or mitigate offsite impacts (light, stormwater, etc.)
- Maintain water quality
- Even if a site is well designed, location still matters
- Requires training to implement
- May require applicants to hire a consultant

Ordinances and standalone bylaws can support natural resources

Flood hazard ordinance



Road ordinance



Solar ordinance/
bylaw



Smart growth supports communities and natural resources



Note: Certain zoning tune ups can help natural resources

If your town already has zoning...

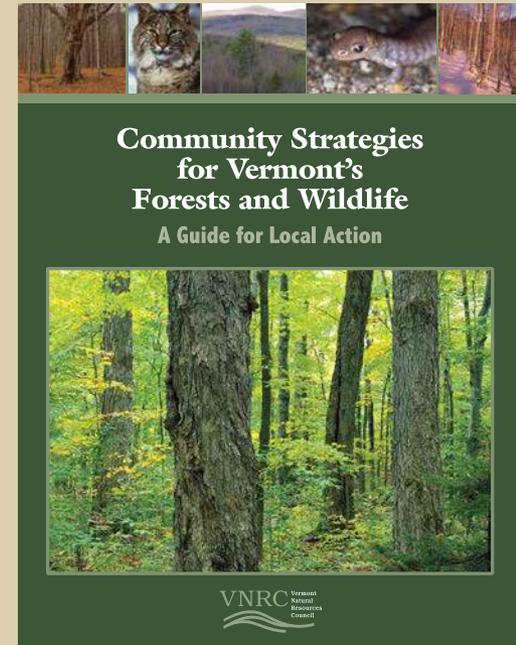
- Make sure it implements the town plan
- Review and update definitions
- Review and update standards
- Refine purpose statements for each district
- Consider adding or strengthening subdivision regulations

A decision to regulate must consider vision, local capacity, property rights

- If you use zoning, do it proactively
- Balance community priorities
- Generate community support
- Involve landowners
- Understand statutory limitations
- Use specific language
- Be ready to enforce

More information

- ❑ Community Strategies for Vermont's Forests and Wildlife – www.vnrc.org
- ❑ Mapping Vermont's Natural Heritage
- ❑ Vermont Planning Information Center - www.vpic.info
- ❑ Regional Planning Commissions



**LEARN
MORE**

See the resources webpage for more information.

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Recap: Course Overview

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Module A: Local Planning and Local Data

Key concepts:

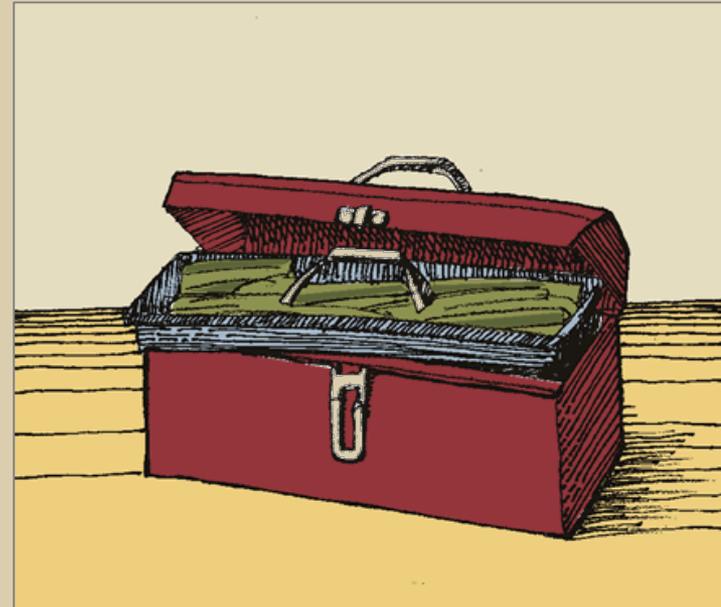
- Planning helps balance community priorities
- Local choices affect broader landscape
- Data collection – from citizen science to professional inventories!
- Data is a foundation for conversations about taking action.

Module B: Tools for Maintaining & Enhancing Natural Resources

Key concepts:

- Local action matters
- Regulatory & nonregulatory: it takes a combination.
- Select tools that fit your community's context

Community celebration
Current use
Outreach
Subdivision regulations
Tactical basin planning
Tax stabilization
Zoning (including overlay districts)





MODULE C – TAKING ACTION

Taking Action

Local Planning and Data: Foundations for Action
Strategies for Maintaining and Enhancing Natural
Resources

Taking Action

- **Get organized**
- **Communication and participation**
- **Identify community values**
- **Prioritize and choose solutions**
- **Design a work plan for taking action**



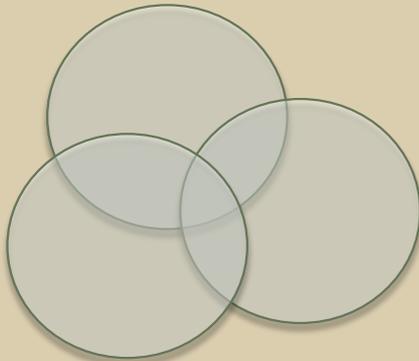
**Section
6**

Get Organized

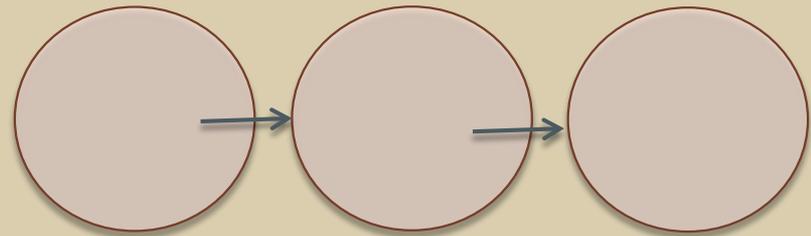
Step: Identify a group to lead the effort

- Who should be involved?
 - ▣ Existing groups plus other views
- Why? The team:

Helps coordinate and collaborate...



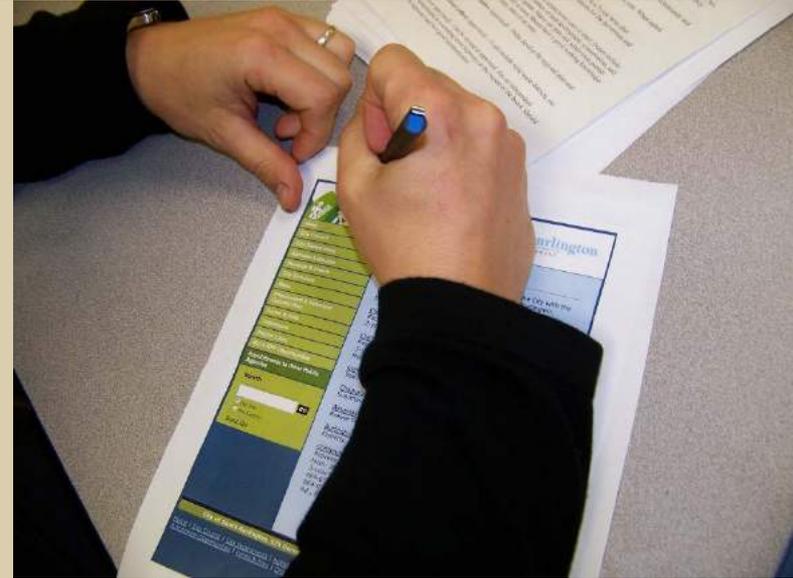
...rather than persuade and convince.



Step: Assess community readiness

Things to look at:

- ▣ Community interest and mood
- ▣ Community capital, strengths, and capacity
- ▣ Communication culture, connection, trust



TIP

Take notes on the brainstorm for later reference

TIP

Check your assessment with other community members, and broaden core team if needed.

Step: Identify need to be addressed, and natural resources vision you seek

- What is the **need**?
- What is your (broad) **vision** for success?

TIP

The town plan is a good resource.

TIP

Summarize answers and use for sharing the ideas or as the basis for a later grant application.

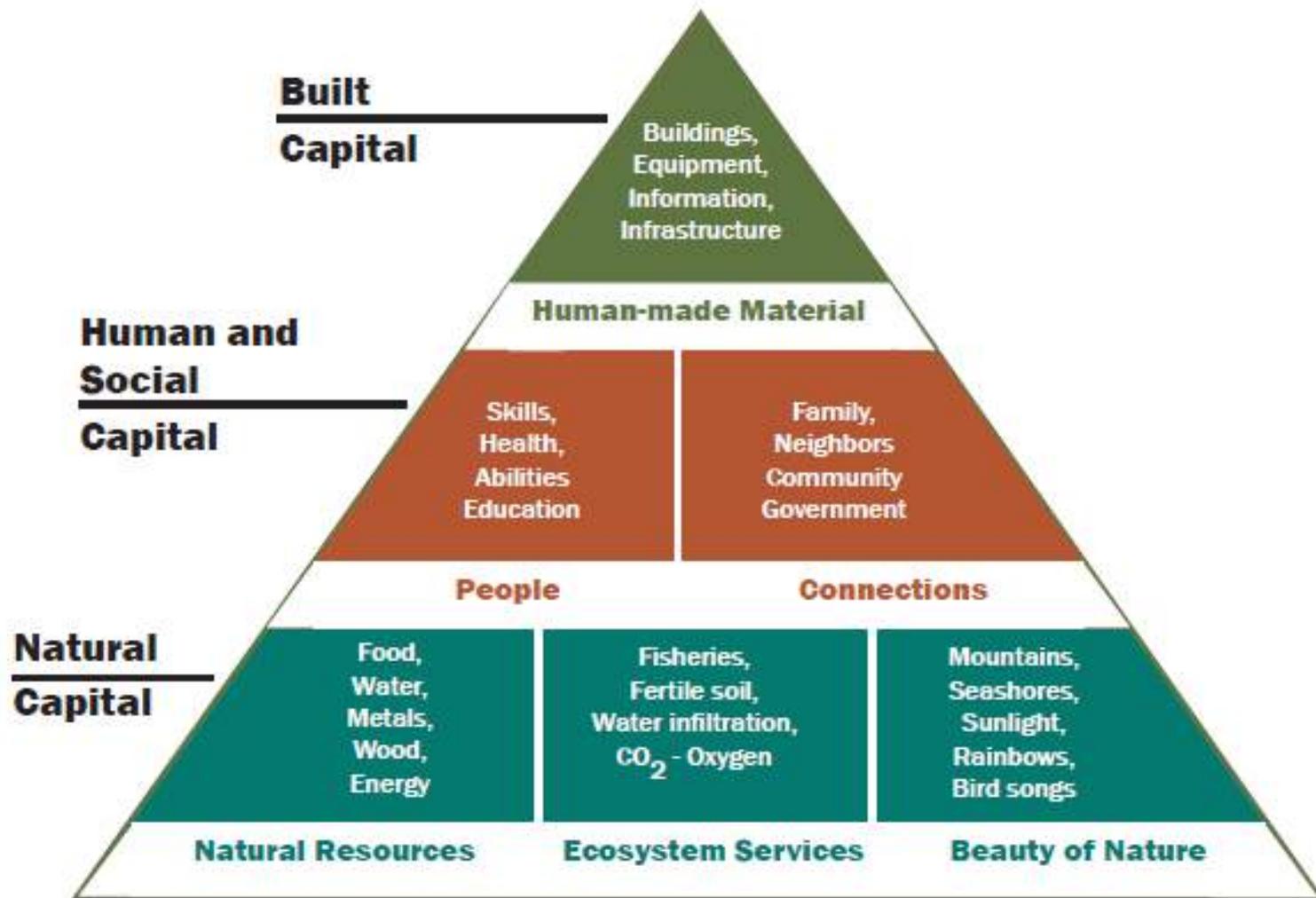
Step: Sketch out a roadmap



**LEARN
MORE**

- Community Heart & Soul Field Guide – Step 2
- Vermont Planning Manual

'It's pretty clear what we need – why go through all these organizing steps?'



Getting Organized: Recap

What	How	Timeline?
1. Identify the team	<ul style="list-style-type: none">- Existing groups- Variety of viewpoints	
2. Assess community readiness	<ul style="list-style-type: none">- Brainstorm- Get feedback	<ul style="list-style-type: none">- First meeting (brainstorm)- Revise at 2nd meeting after getting feedback
3. ID needs, vision, network	<ul style="list-style-type: none">- Brainstorm- Get feedback	Same as above
4. Roadmap	<ul style="list-style-type: none">- Plan for next steps considering readiness, needs	Second or third meeting of team



Section
7

Essential skills - Communication and Participation

Connecting, not just informing



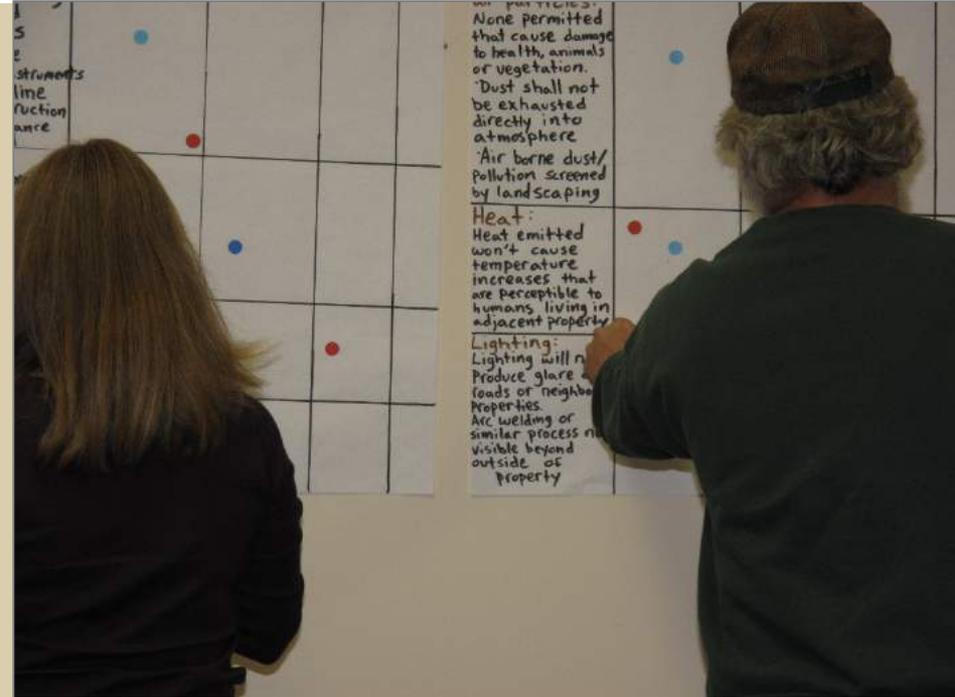
What's required



What's needed

Participation doesn't happen just once

- Generate new, more, and better ideas
- Build community understanding and support
- A way to engage and involve people
- Build trust and credibility



What does your community network look like?

Town Officials

Tree Committee

Municipal Boards

Anglers

Schools

VAST

Business Owners

Faith Groups

Senior Center

Youth
Groups

Fire Department

Energy Committee

Service Clubs



Who's
connected?
How?

- Expand core team
- Verify assessments
- Spread the word

What makes people want to engage?

They want to...

- make a difference
- know their efforts won't be wasted
- be part of a successful enterprise
- see concrete results
- forge relationships
- learn and be challenged



Does your town provide these opportunities?

Start with a celebration

- Guided tours or outings
- Walks and talks
- Events (food!)
- Photo contests
- It's ok to have fun!



Ways to get the word out and gather input

- Web, email
- Social media
- “Old” media
- Webinars
- Focus groups and surveys
- Talking to people
- Hands on activities, like mapping



**LEARN
MORE**

Vermont Planning Manual

Meet people where they are

- “Dump and Donuts”
- General store or gas station at 6am
- Farmers Markets
- Existing meetings and events, including working with town boards



Example: how participation affects success

A success story

Town
Plan
Update



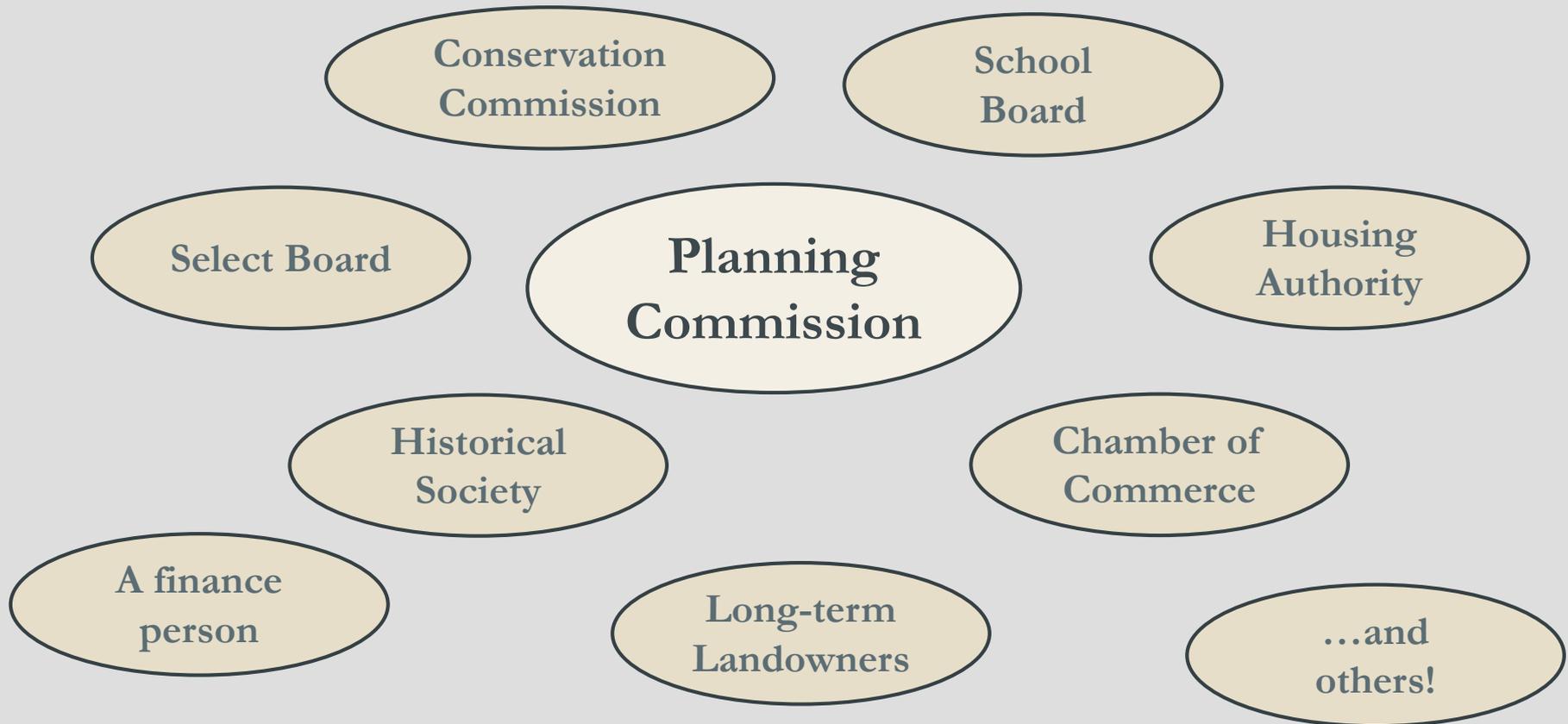
Zoning
Update
???

Hartford

Example: how participation affects success: HARTFORD

Setting Up for Success

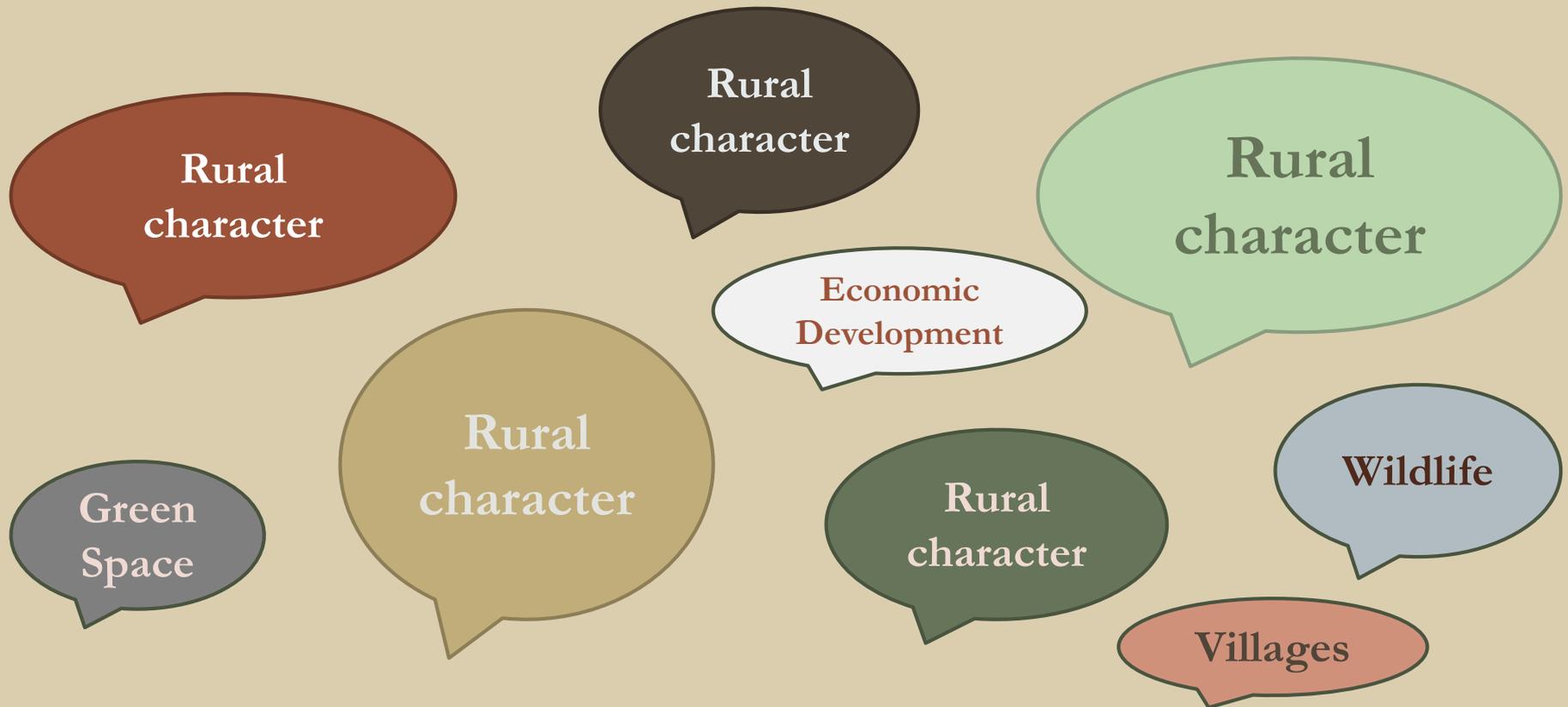
In Hartford, every Master Plan has its own Steering Committee.



Example: how participation affects success: HARTFORD

Community Visioning

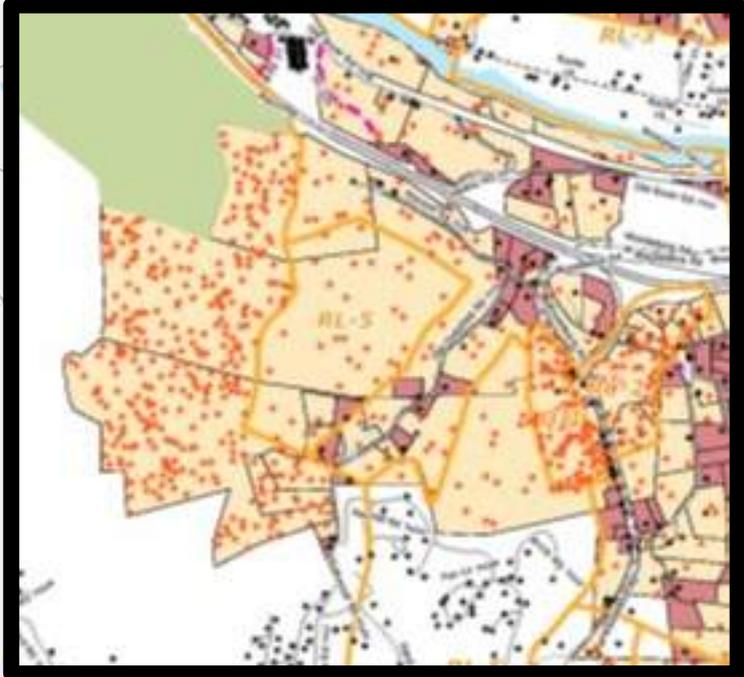
Visioning sessions were held in 5 different parts of the town.



Public follow-up sessions focused on specific topics.

Example: how participation affects success: HARTFORD

Data & Maps



ING
S
parcels
parcels
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Build-out
Analysis



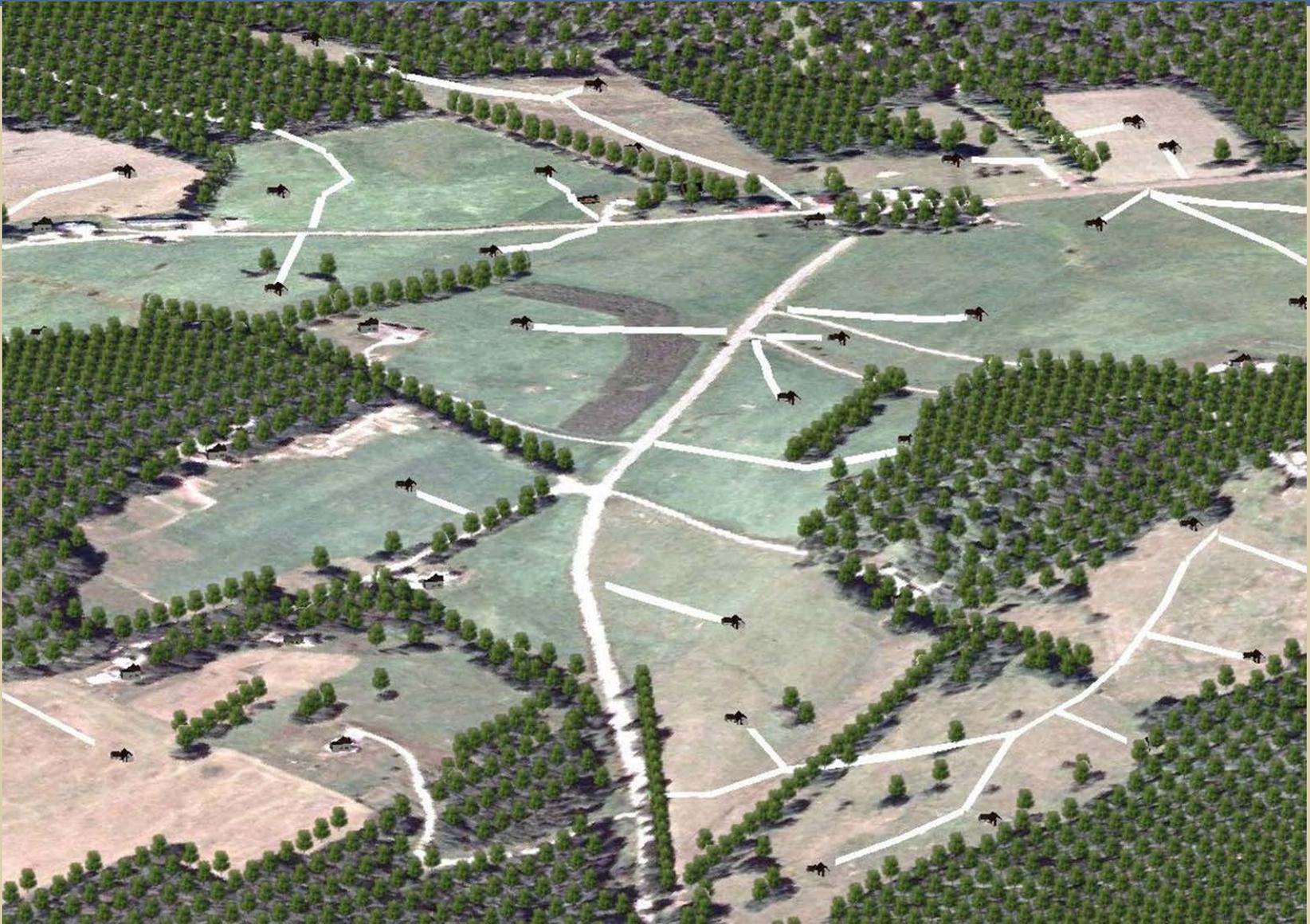
Example: how participation affects success: HARTFORD

Data & Maps & Visuals



Example: how participation affects success: HARTFORD

Data & Maps & Visuals



Example: how participation affects success: HARTFORD

Data & Maps & Visuals



ACTIVITY 1

Communication & Participation: What Works?



Activity: Communication and participation



1. Identify an audience to reach early in the process.
2. What would your message be to that audience?
3. What would you do to actively engage this audience early in the process?

HEARTREIGHTS OUR
COMMUNITY

SMALL TOWN WITH A
BIG HEART



Its Rich
History

Its People

The School
and
Library

Helpful
Resources



Beautiful scenery, Quiet
and Remote

Section
8

Identify Community Values

Ways to identify community values

- The municipal plan
- Surveys
- Heart & Soul
- Interviews
- Suggestion boards in public places
- Community values mapping
- And regular old conversations!

Stories about a place capture what's important.

Community values mapping: an activity to capture local knowledge

VALUES

Economic

Historic and community resources

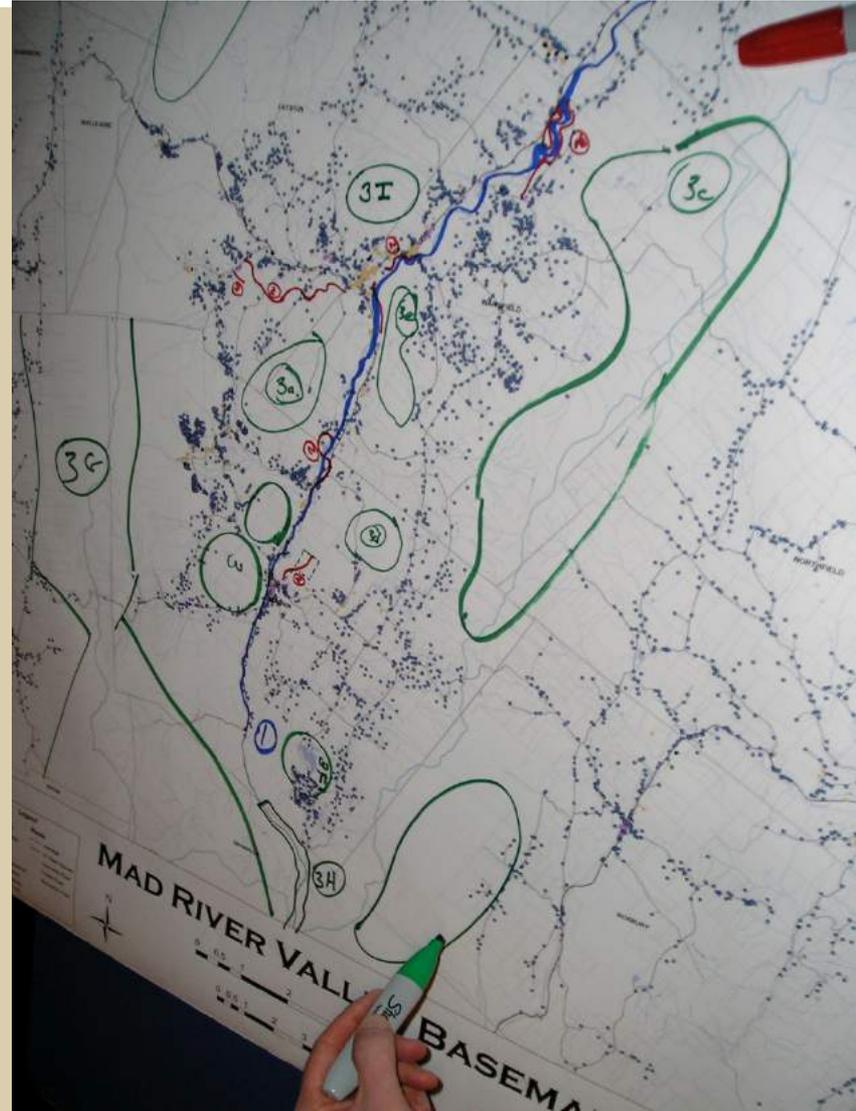
Hunting & Fishing

Recreation

Scenic

Wildlife

Working lands (forestry, agriculture)



Example: Community Values Mapping

Science to Action



Bolton, Huntington, Jericho, and Richmond

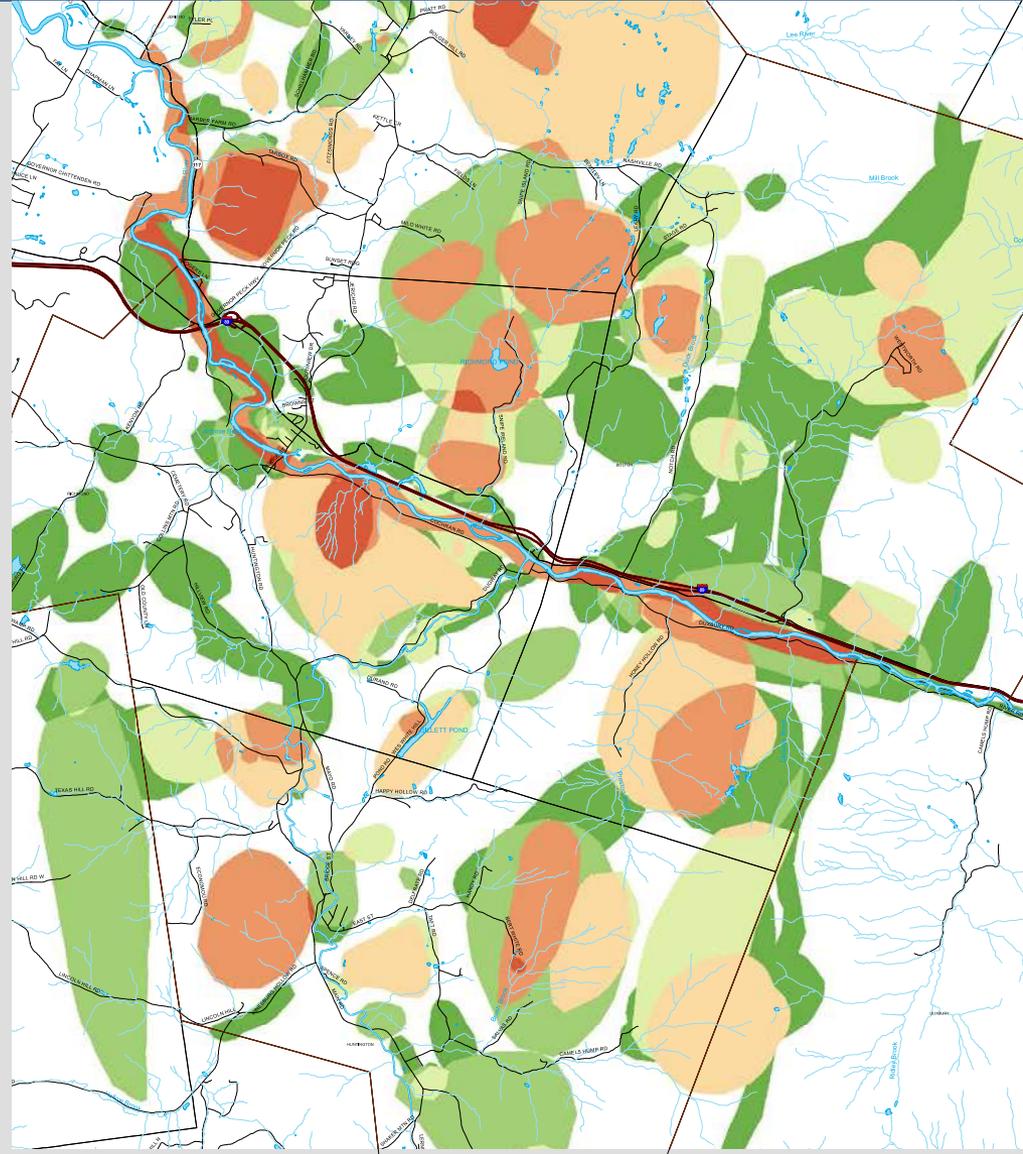
Example: Community Values Mapping Science to Action

How did the project help?

- Showed *locations* of community values
- Used in town planning

Lessons learned

- Showing relationship between values in space improves planning
- Process is better with a mix of people





**Section
9**

Prioritize and choose solutions

Maps and data: a starting place for prioritization



- Which *landscape-scale elements* are essential for ecological function?
- Where are important *community and species scale* resources located?

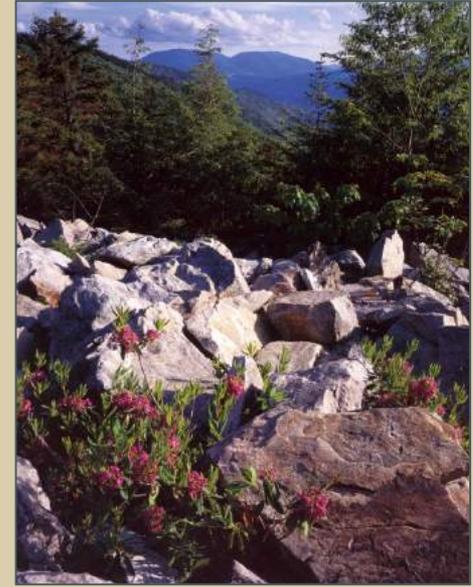
Six steps for prioritizing

DETERMINE ECOLOGICAL CONTEXT			IDENTIFY AREAS OF HIGH PUBLIC VALUE	DEVELOPING & CHOOSING OPTIONS	
1	2	3	4	5	6
Locate priorities at the landscape scale	Locate priorities at the species and natural communities scales	Identify important components within priority areas	Identify areas of high public value	Establish options	Evaluate and choose options



Step 1: Locate priorities at the landscape scale

- *What?* Physical features that are the foundation of a functional ecosystem.



- *Why?* Foundation must be intact for ecological function to continue.

Step 1: Locate priorities at the landscape scale

□ How?

- ▣ BioFinder
- ▣ Divides Vermont into “highest priority” and “priority” locations
- ▣ These will be areas for avoiding fragmentation and protecting water quality.



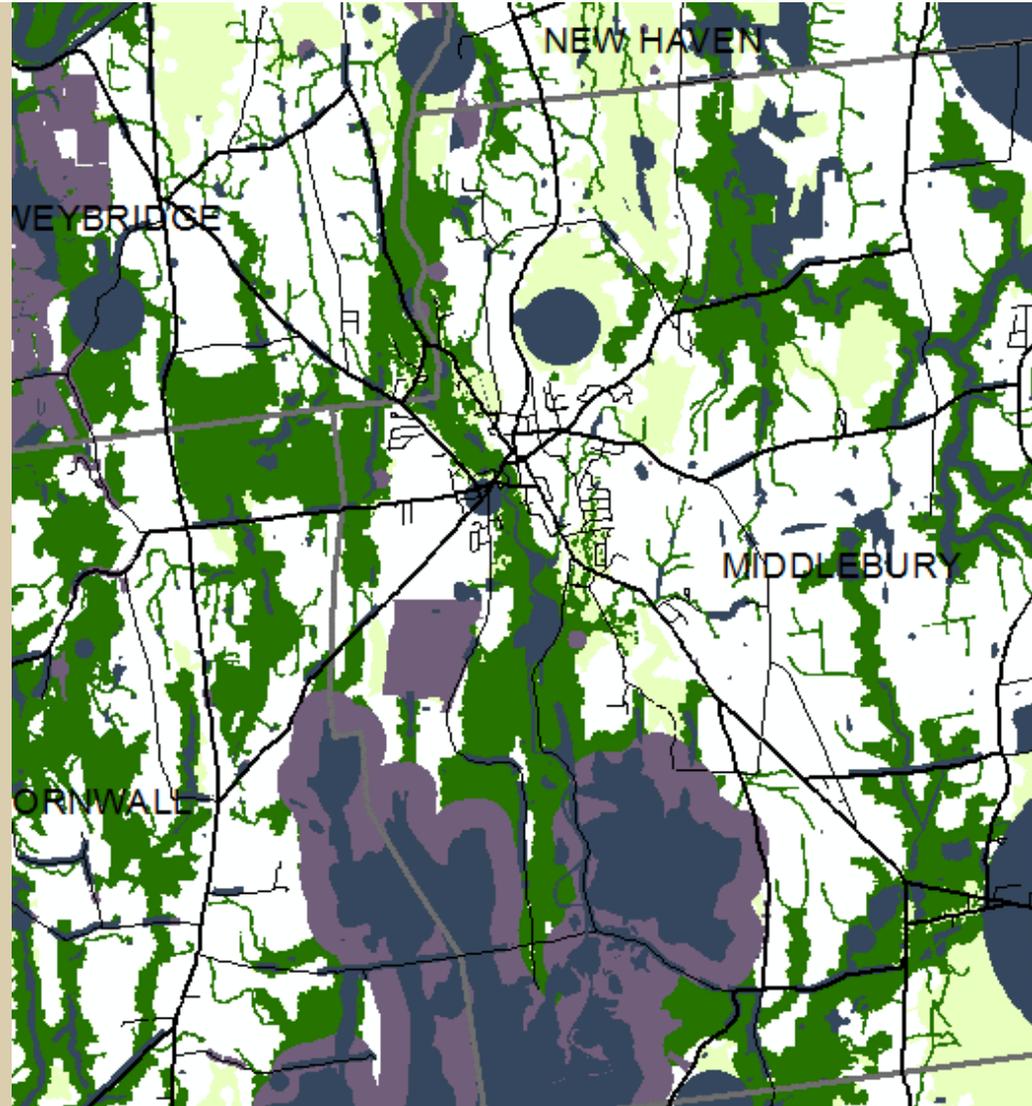
The STAGE

- Geophysical
- Forest networks
- Aquatic Network

■ Highest Priority
■ Priority

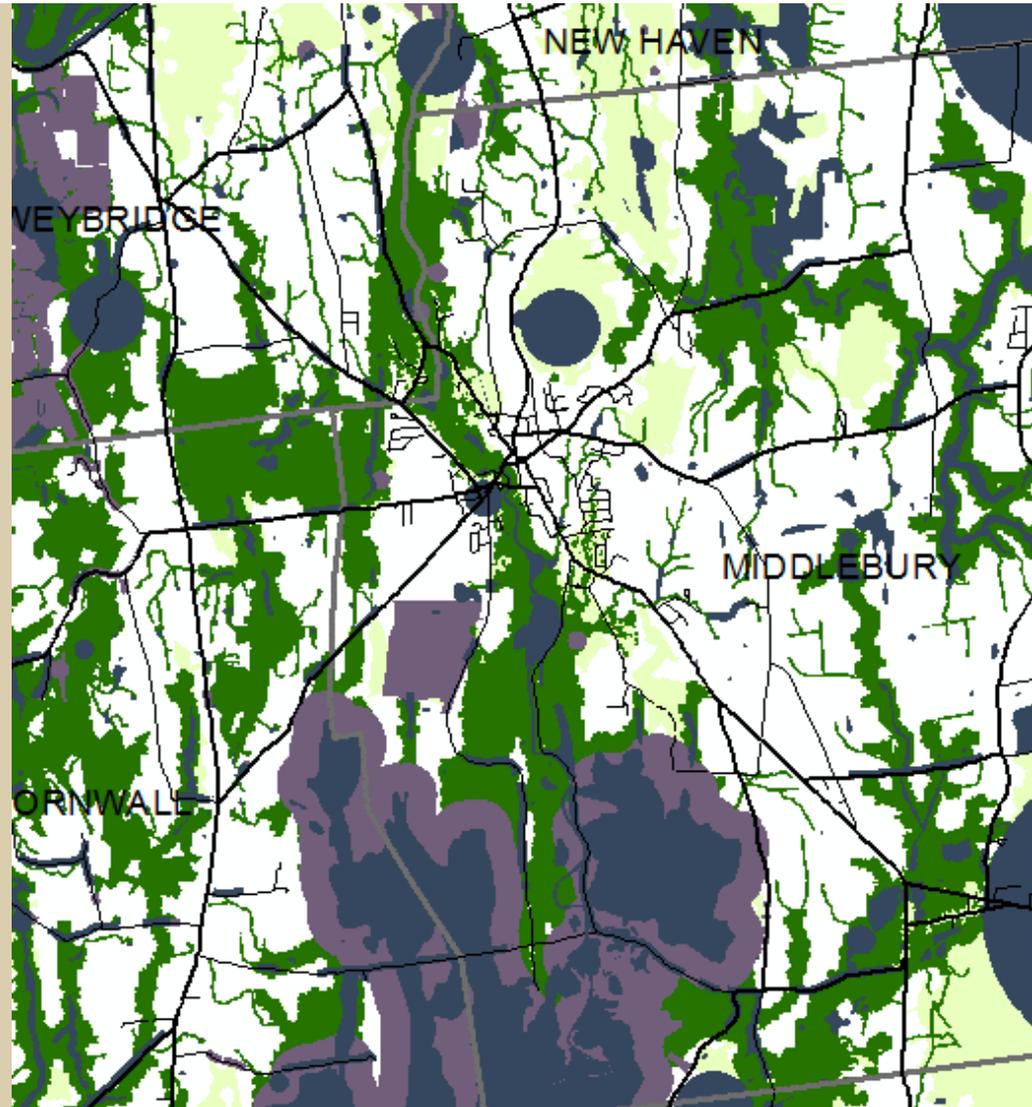
Step 2: Locate priorities at species and natural communities scales

- *Why?*
 - ▣ Smaller acreage, more vulnerable
- *How?*
 - ▣ Look at this layer for your town.
 - ▣ Focus actions in high priority and priority areas



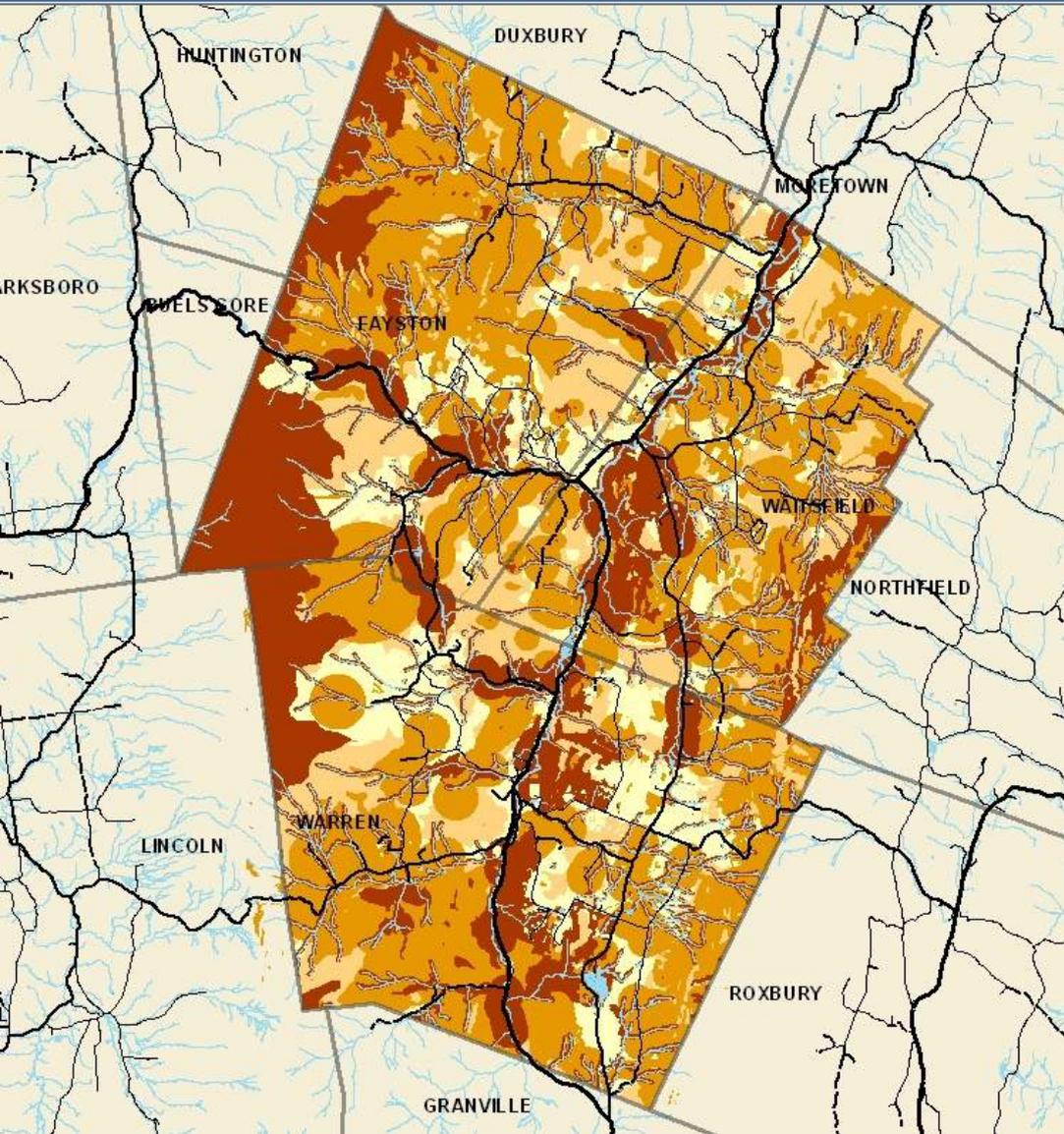
Step 3: Identify components within priority areas

- *What*: Priority layers are made of “components”
- *Why*: Different components, different strategies.
- *How*: BioFinder Component Map



Example: prioritizing local resources

Mad River Valley, VT



Tiered Ecological Priorities

show how vulnerable
different parts of the
landscape are

Step 4: Identify areas of high public value

Areas of High Public Value =
Areas of High Ecological Value
(OR)
Areas of High Community Value



Aligning community values and natural resource needs

- Highlight science up front
- Recognize what's guiding your decisions
- Incorporate and be sensitive to local climate, needs



Step 5: Based on priorities, brainstorm a list of possible options



Step 6: Evaluate options & make choices

For each strategy, consider...

- Does it help the natural resource?
- Does it align with community values?
- How much effort will it take?
- Do you have capacity?
- Cost?
- Who else can help? Opportunity to build on existing efforts?

Work with public to develop and evaluate options



PARTICIPATION

- Recap project, share priorities, get ideas
- Build on *values* – the why
- Brainstorm for ideas around those values
- Finalize recommendations
 - Communicate
 - Say how suggestions were handled and why – transparency
 - Be open to ongoing feedback

Example: how participation affects success

A success story (Continued...)

Town
Plan
Update



Hartford

Example: how participation affects success: HARTFORD

Choosing Options



Example: how participation affects success: HARTFORD

Choosing Options

Focus on
supporting local
agriculture

TOWN OF HARTFORD

MASTER PLAN

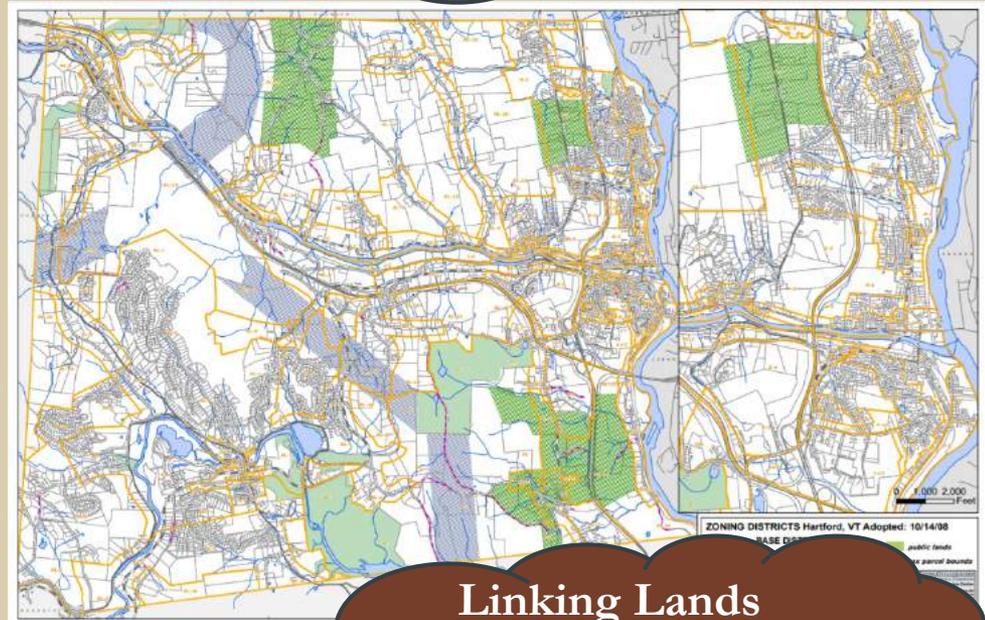
Adopted May 27, 2014

Prepared by the
Hartford Planning Commission
with the assistance from the
Hartford Department of Planning and Development Services
Two Rivers-Ottawaquechee Regional Commission
and the
Master Plan Steering Committee

Funded in part by Municipal Planning Grants from the Department of Housing

Work with
partners &
other towns

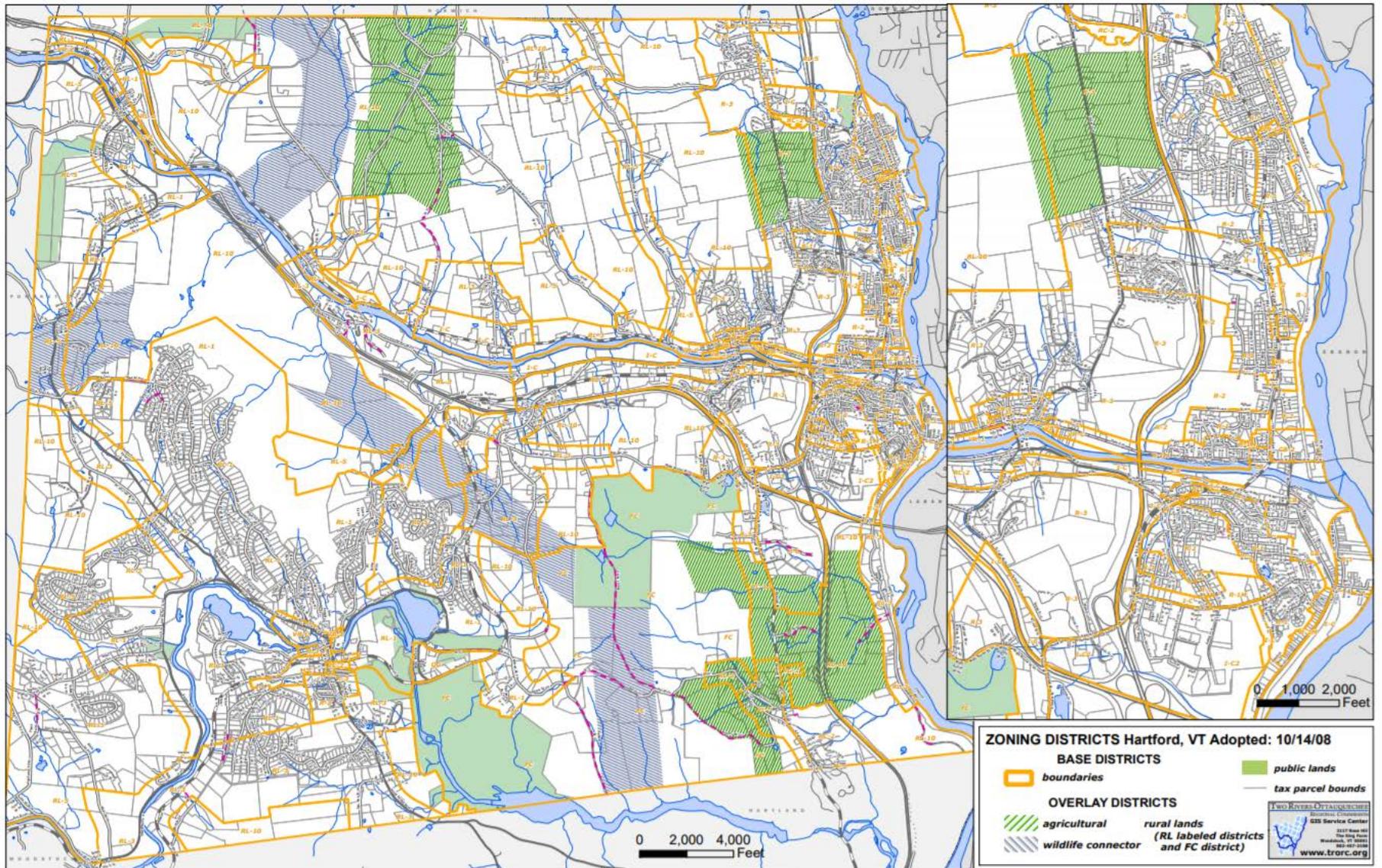
Outreach &
Education
Programs



Linking Lands
Alliance to learn
more about wildlife
movement

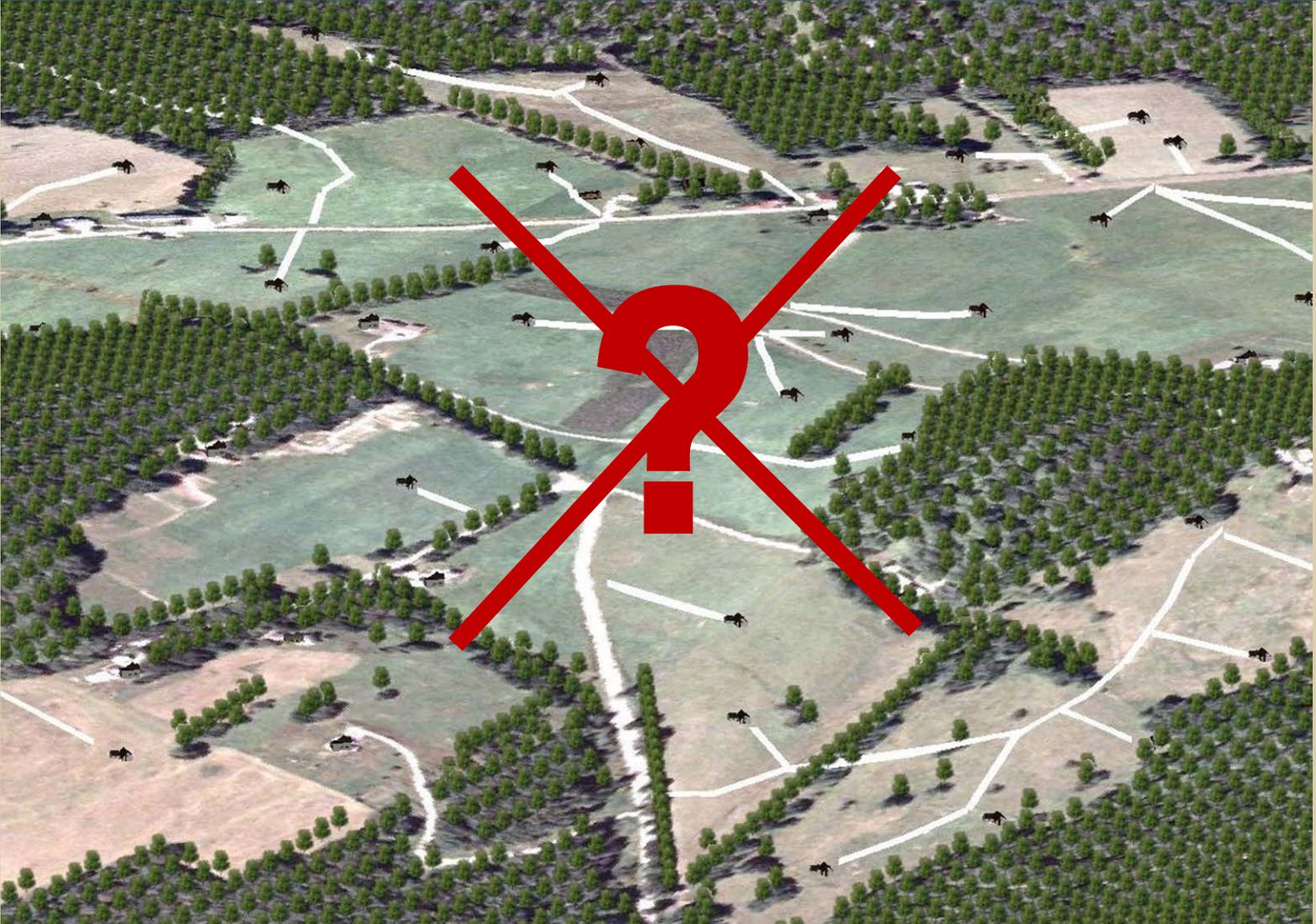
Example: how participation affects success: HARTFORD

Choosing Options



Example: how participation affects success: HARTFORD

Choosing Options



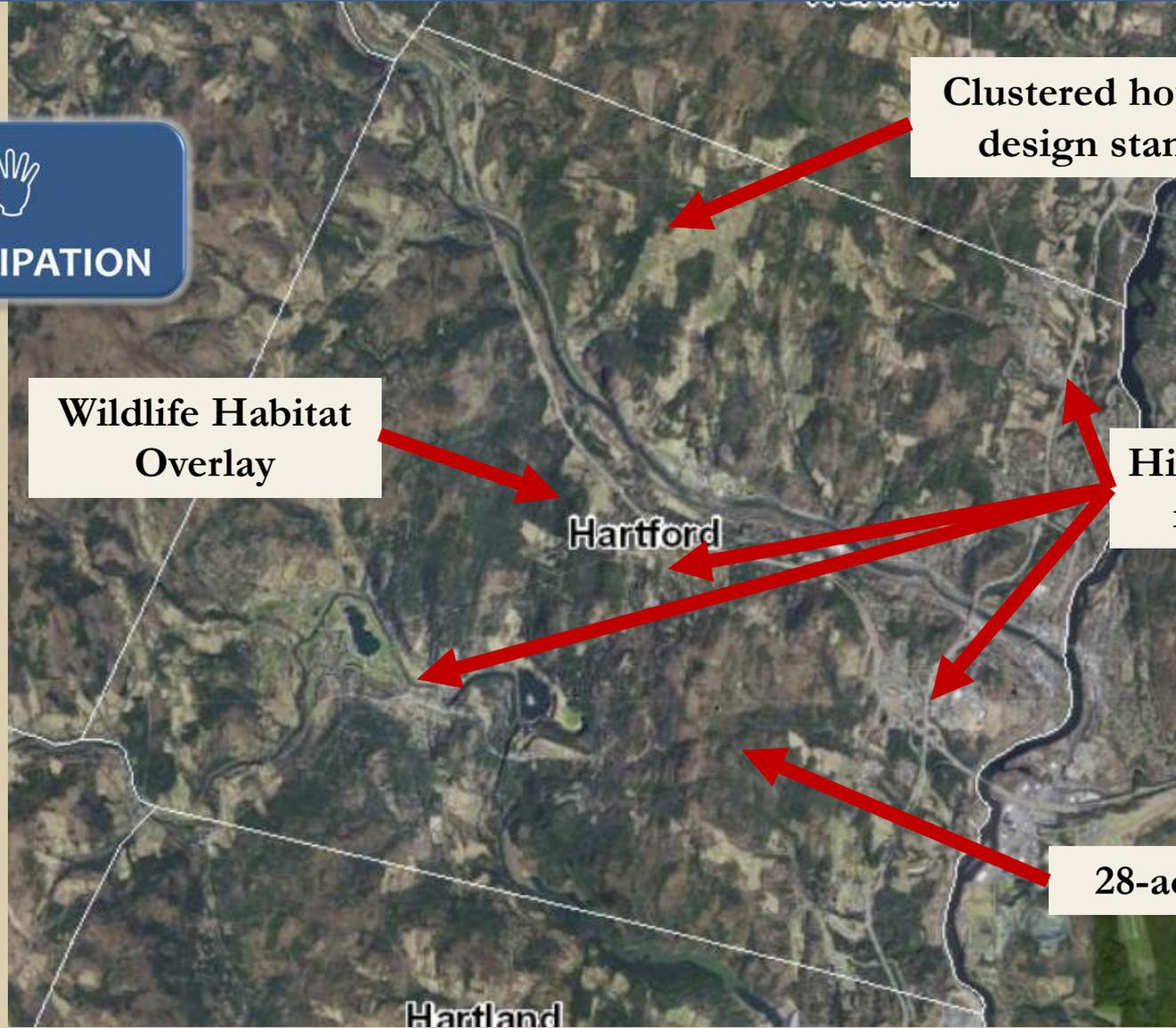
Example: how participation affects success: HARTFORD

Choosing Options



Example: how participation affects success: HARTFORD

Choosing Options



Clustered housing & design standards

Wildlife Habitat Overlay

Higher density in villages

28-acre zoning

Hartland

ACTIVITY 2

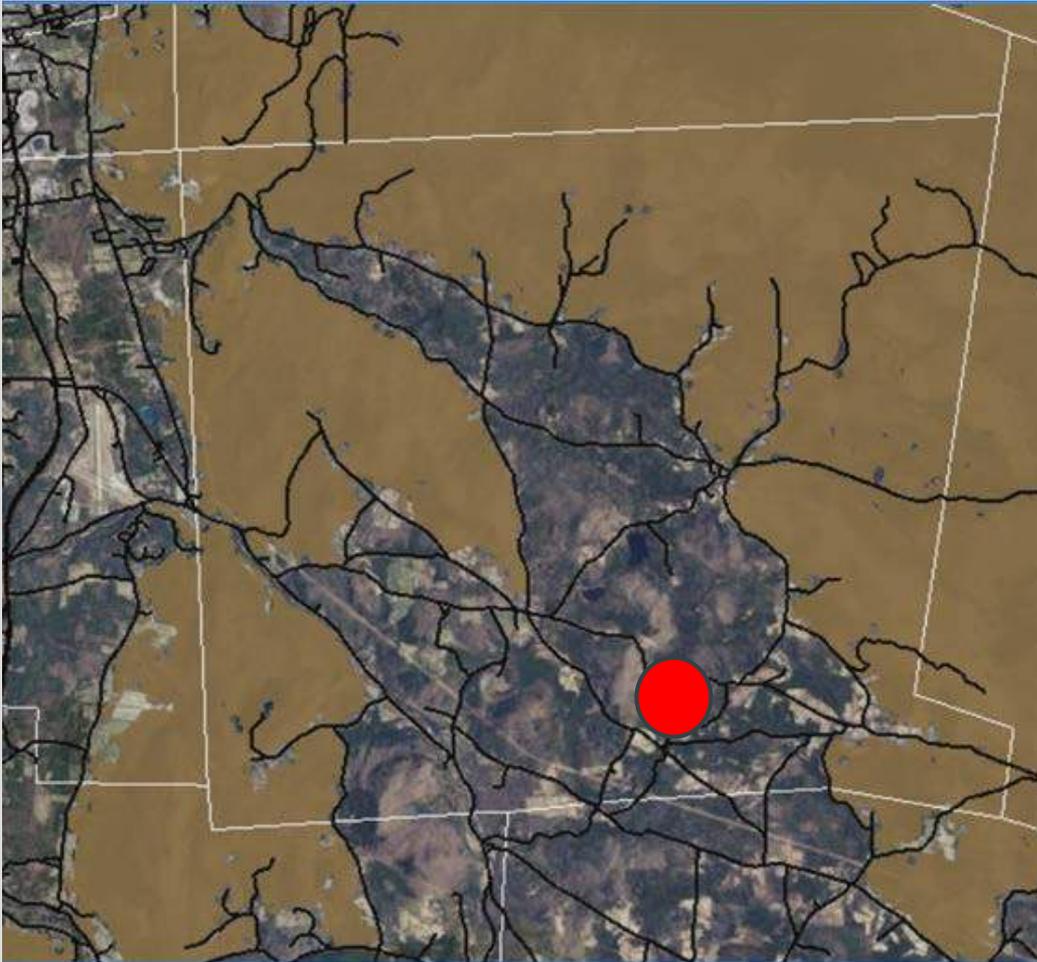
What Actions Would You Take?



Activity: Taking Action

Priority natural resource: a wildlife corridor

Regional Context



Activity: Taking Action

- ▣ Choose tools that would be best for your scenario

(Assume you'll start with a celebration! Assume you'll focus on participation. Consider these in your process, but they don't need to be on your list of tools!)

- ▣ Group report outs



**Section
10**

**Design An Implementation Plan for
Taking Action**

Turning decisions into a plan for action



Reinforce buy in



Realistic expectations



Delegate tasks



Show involvement

What should the implementation plan include?

Work plan item	For example...
Action/task	River corridor protection: stabilize stream bank
Why you're doing it	Reduce flood damage, save town \$ (e.g., culverts)
Action leader(s)	Paula S. and Kayla G.
Tasks	Identify interested landowners, identify plantings, seek tree donations, get volunteers, before/after photos
Timeline	Start in Jan. with goal of planting in May
Milestones/check ins	Landowners ID'd, plants selected, update S' board, contact news paper re: planting day, Front Porch Forum
Resources & capacity	Conservation District, local nursery, 4-H

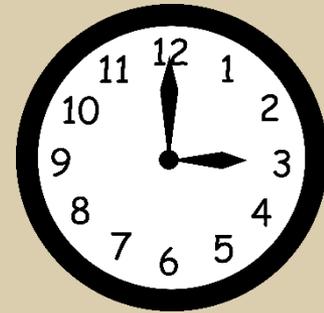
TIP

Connecting your actions with the town's work – through reporting or coordination - is essential.

Sketch out budget and other needs

- More than just money
 - ▣ Volunteers
 - ▣ Skills
 - ▣ Materials
 - ▣ Time

\$\$\$



Resources and funding



Designing a implementation plan: recap

What	Things to remember
1. Action plan	<ul style="list-style-type: none">- What, why, who, when- Partnerships, communication, “galvanizers”- Can be simple
2. Budgeting	<ul style="list-style-type: none">- Time- Money- Realistic expectations
3. Resources and funding	<ul style="list-style-type: none">- Small steps ok- Look for partnerships



PARTICIPATION



COMMUNICATION

ACTIVITY 3

Sketching Out An Implementation Plan



Activity: Drafting a work plan

- Turn the action you selected into a series of tasks.
- Draft a mini work plan for two tasks
 - ▣ 10 minutes to draft mini work plan
 - ▣ 10 minutes to report out to group



THANK YOU!