

Measuring Municipal Land Use Approaches for Maintaining Forests and Wildlife

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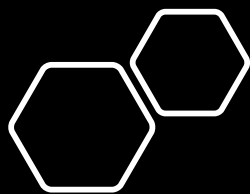
Vermont Fish & Wildlife Department



Agenda

- Project History & Methods
- Town Plan Review Results
- Bylaw Review Results
- Key Findings & Recommendations





Project History

- Statewide review every 10 years: 2000, 2011, 2021
- Complete Review of Town Plans, Zoning, and Subdivision Bylaws
- Sets direction for technical assistance by providers.



Wildlife Considerations in Local Planning An Evaluation of a Decade of Progress in Vermont

Prepared by:
Vermont Natural Resources Council



Prepared for:
Vermont Fish and Wildlife Department



Methods



235 TOWN PLANS



207 BYLAWS



145 SUBDIVISION
REGULATIONS

Overview of Metrics With A Wildlife Focus



Town Plan Analysis

- Plan & Municipal Governance Info
- Data Types
 - Federal / State / Local
- Mapping and Inventory
- Habitat Elements
 - Wetland, Grassland, Forest, Nat. Communities, etc.
- Habitat Concepts
 - Public value of habitat & access
- Species and Ecological Concepts
- Act 171/Forest Blocks and Connectivity
- Climate Change and Landscape Resilience
- Partnerships
- Non-Regulatory Policies
- Regulatory Policies

Zoning Analysis

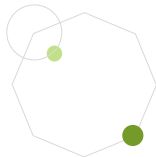
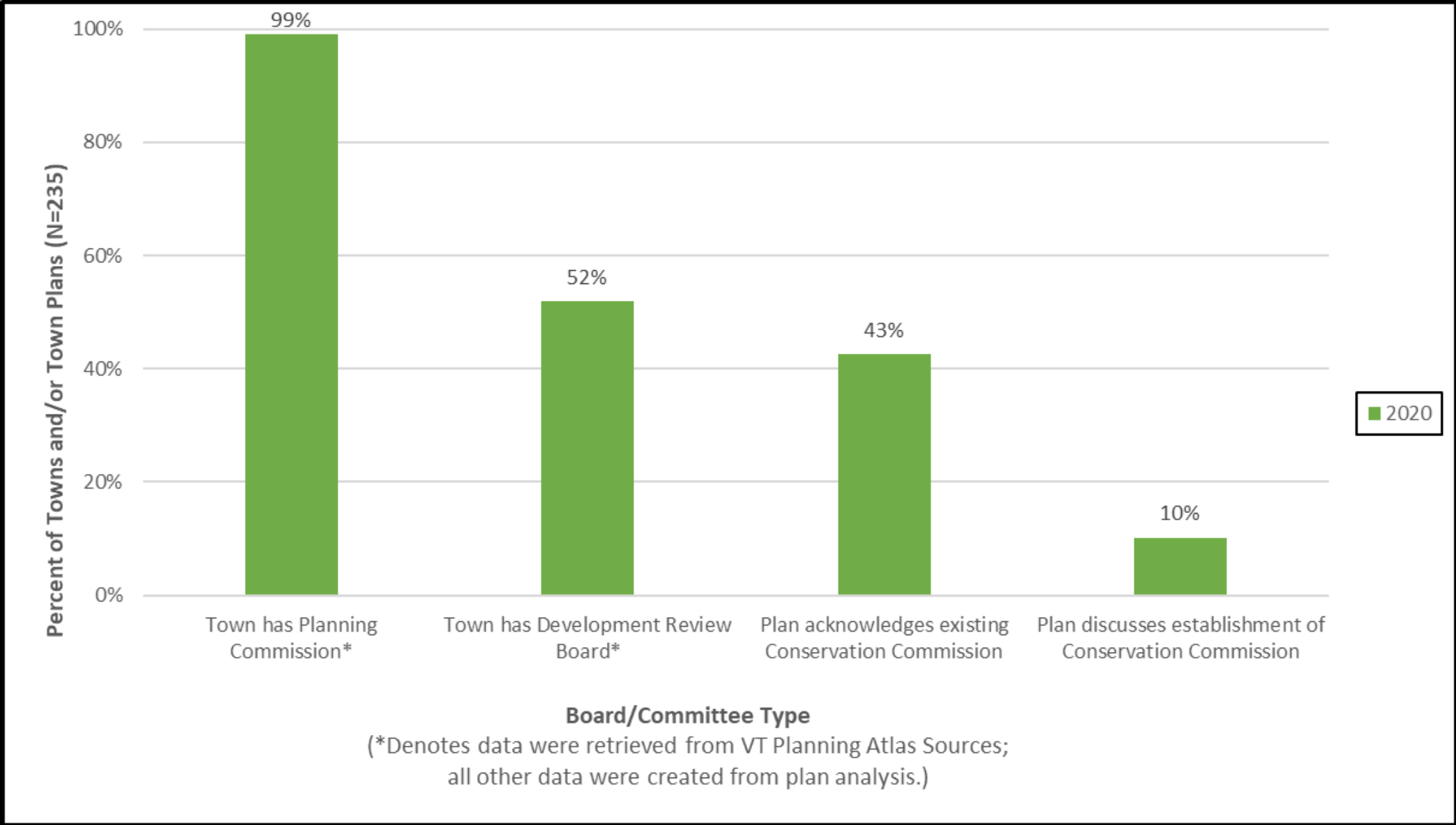
- Zoning Regulations
- Zoning District Types
- General Use Standards
- Conditional Use Standards
- Development Review Standards
- Clustering and Open Space (PRD/PUD)
- Shoreland and Riparian Buffers
- Consultation and Inventory

Subdivision Analysis

- Planning Standards
- Mapping and Inventory Requirements
- Address Fragmentation



Municipal Planning Structure

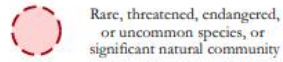


Habitat & Inventory Data

Natural Resources Map

Town of Newfane, Vt.

- Community facility
- Structure
- ▲ Drinking water source



Conservation land

Important agricultural soils

Incorporated village boundary

Deer wintering areas

Source Protection Area

Sand & gravel resource area

Sand resource area



Inset scale 1:15,840 (1" = 1/4 mile)



Data sources:

- Sand and gravel resources are from the VGIS data layer AGGRES. This data layer was derived from the series "Geology for Environmental Planning," published by the Vermont Geological Survey.

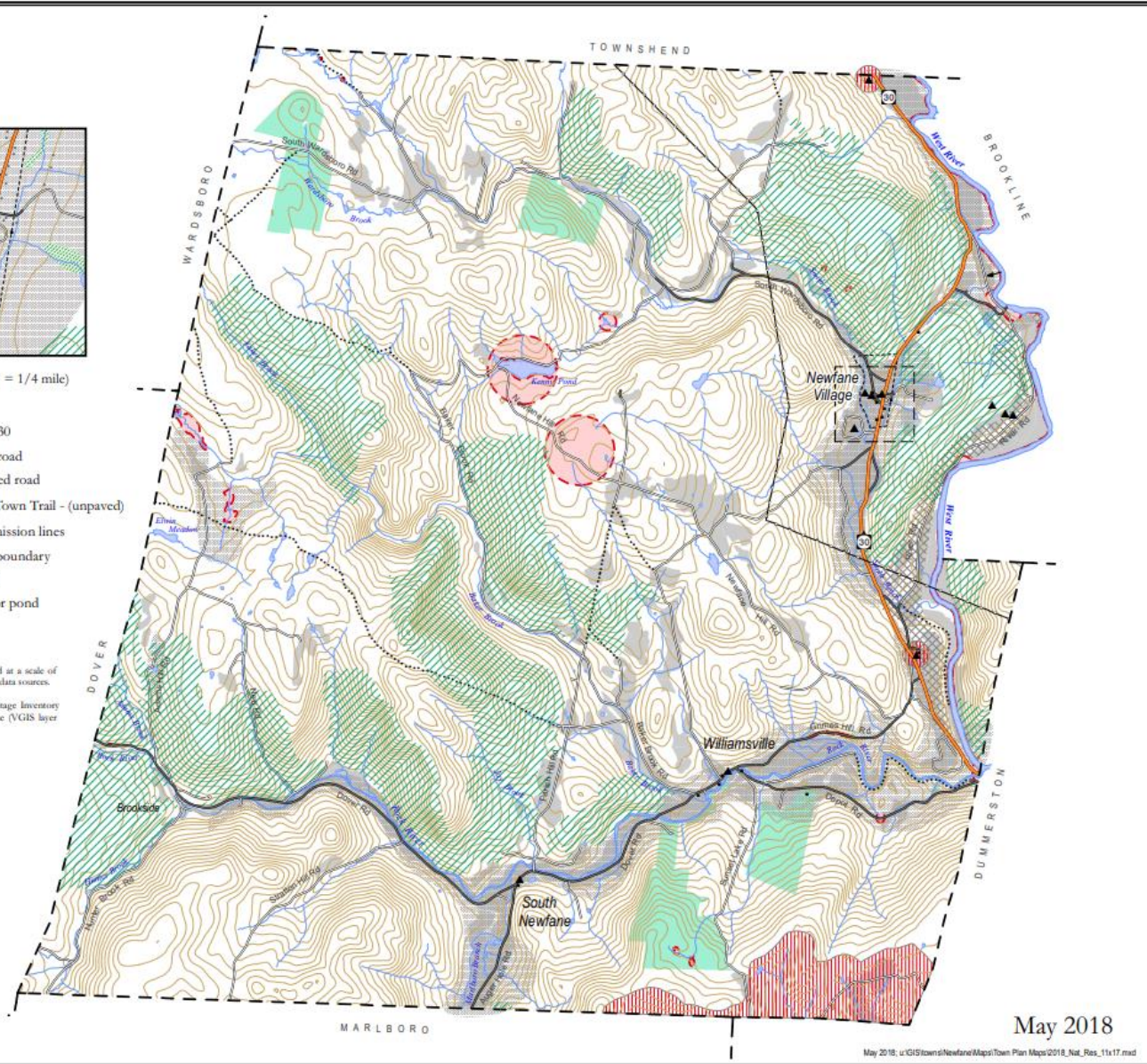
- Conservation lands data were obtained from the Vermont Conserved Lands Database developed by UVM Spatial Analysis Laboratory, and from data from the Vermont Land Trust. These data are current to 2016.

- Surface waters are from the Vermont Hydrography Dataset (VGIS data layer SWnnnnnnn). The dataset was generated at a scale of 1:5000 and was developed using digital orthophotos, topographic maps, color infra-red aerial photography and other ancillary data sources.

- Natural Heritage data are from VT Dept. of Fish and Wildlife, Nongame and Natural Heritage Program's Natural Heritage Inventory Database. This includes data on Rare, Threatened and Endangered Species and Significant Natural Communities database (VGIS layer RTENATCOM), and on uncommon species and other features (VGIS layer UNCOMSPOF), 2015.

- Deer wintering areas are taken from the VGIS data layer DEERWN. Digital data released in 2016 were used.

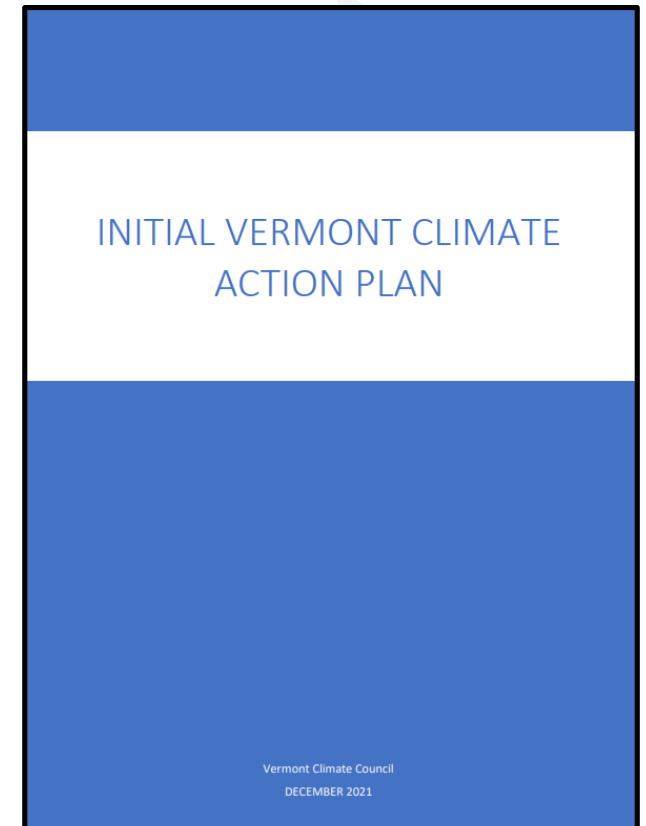
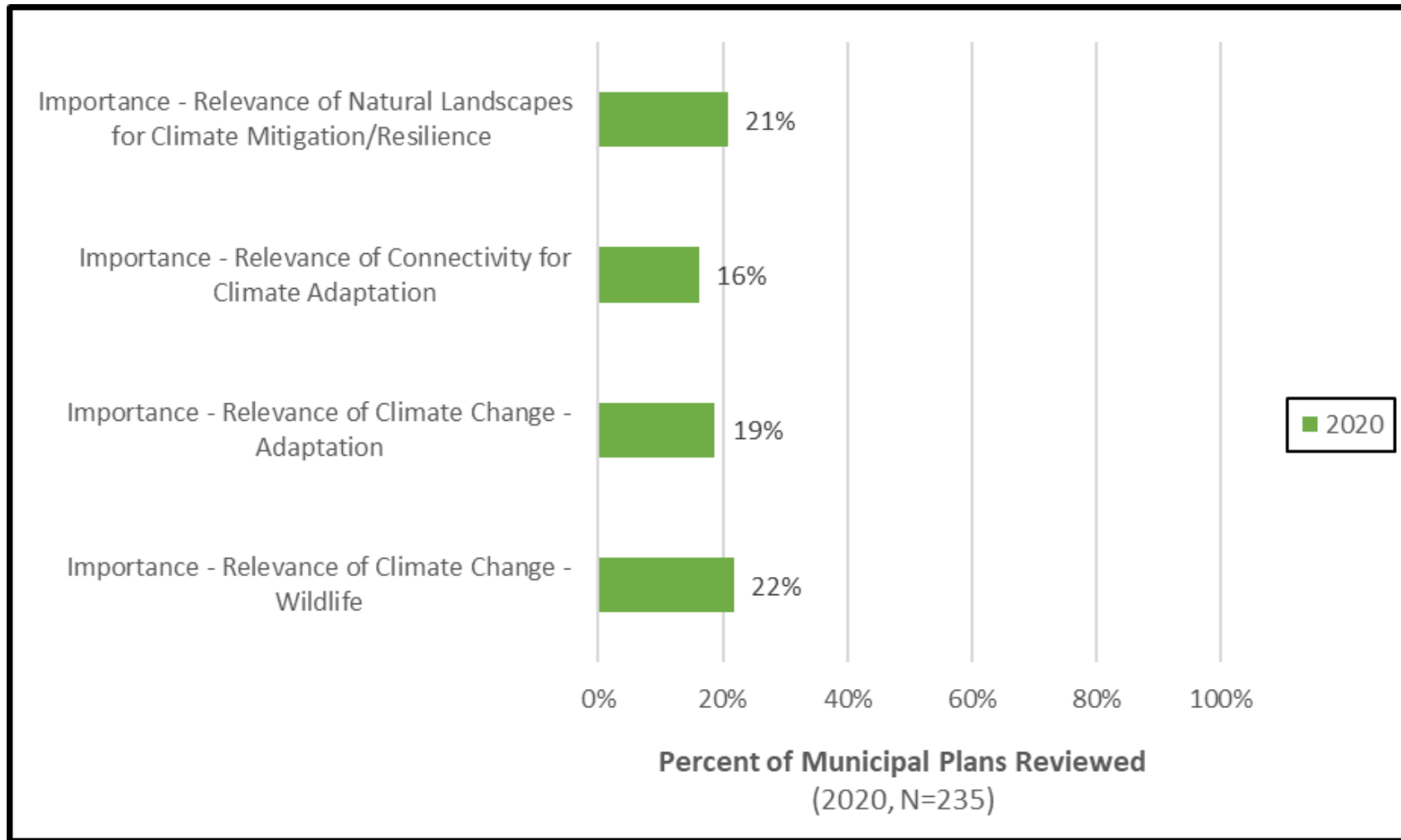
50-foot contour interval



May 2018

May 2018: u:\GIS\towns\Newfane\Maps\Town Plan Maps\2018_Nat_Res_1x17.mxd

Climate Change



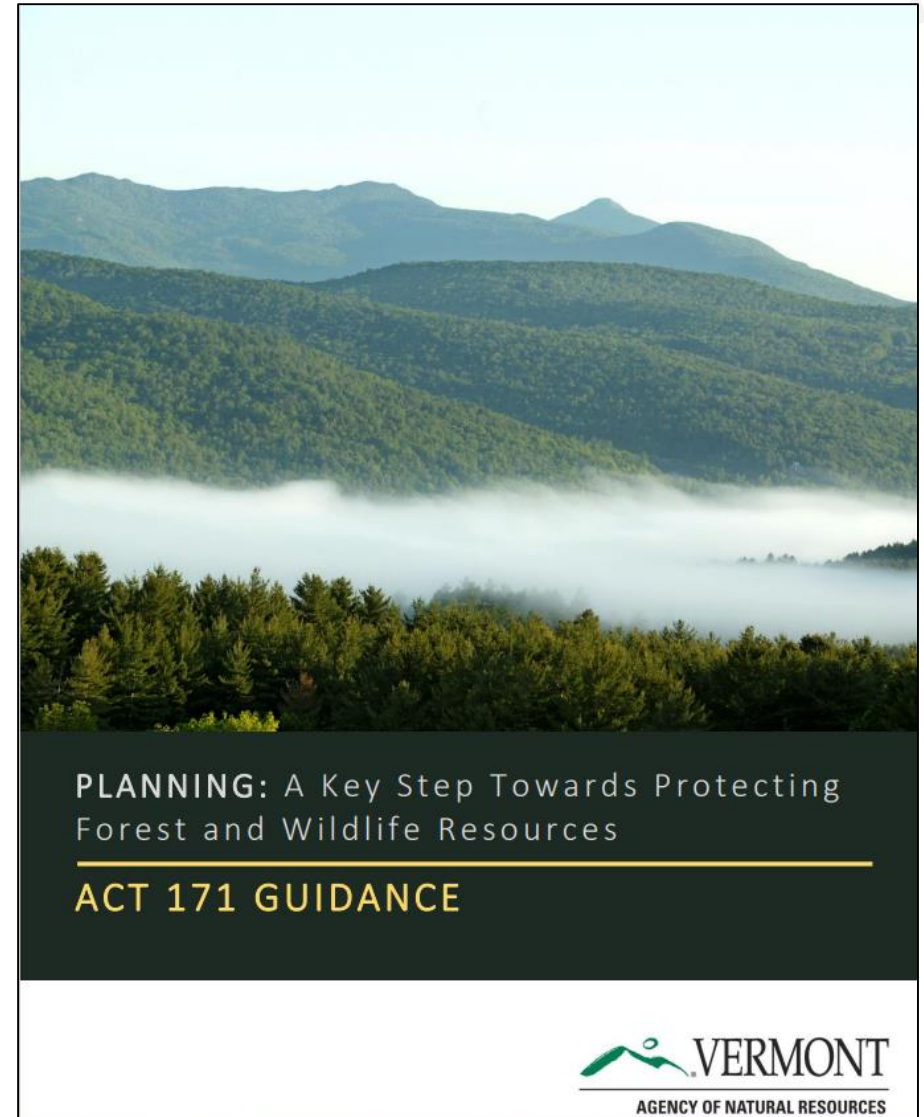
In 2009, only 2% of town plans recognized climate change.

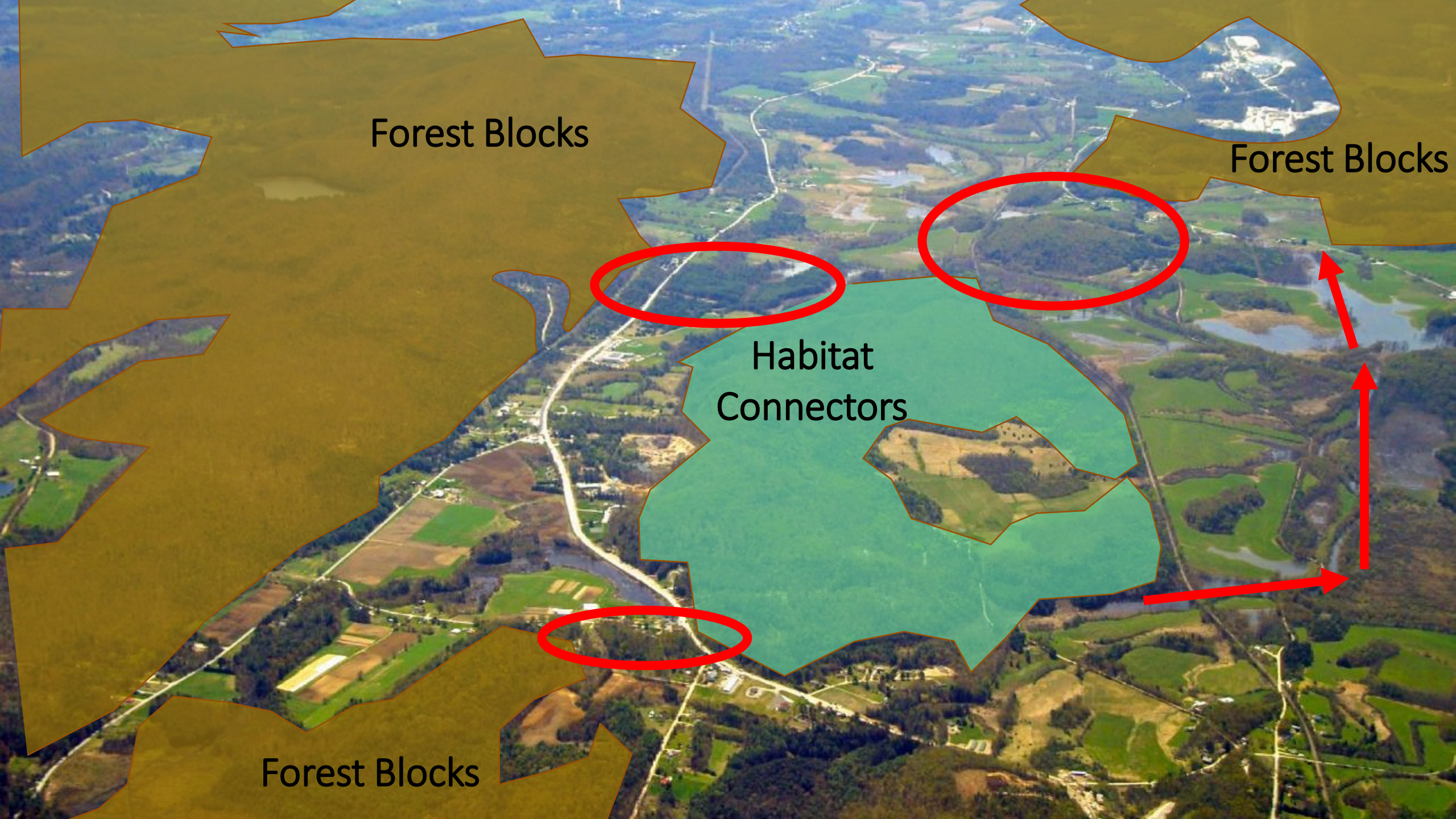


Act 171 Forest Integrity Planning

Requires town and regional plans to:

- Indicate those areas that are important as **forest blocks** and **habitat connectors**.
- Plan for land development in those areas **to minimize forest fragmentation** and promote the health, viability, and ecological function of forests.





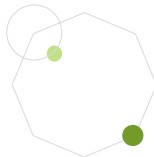
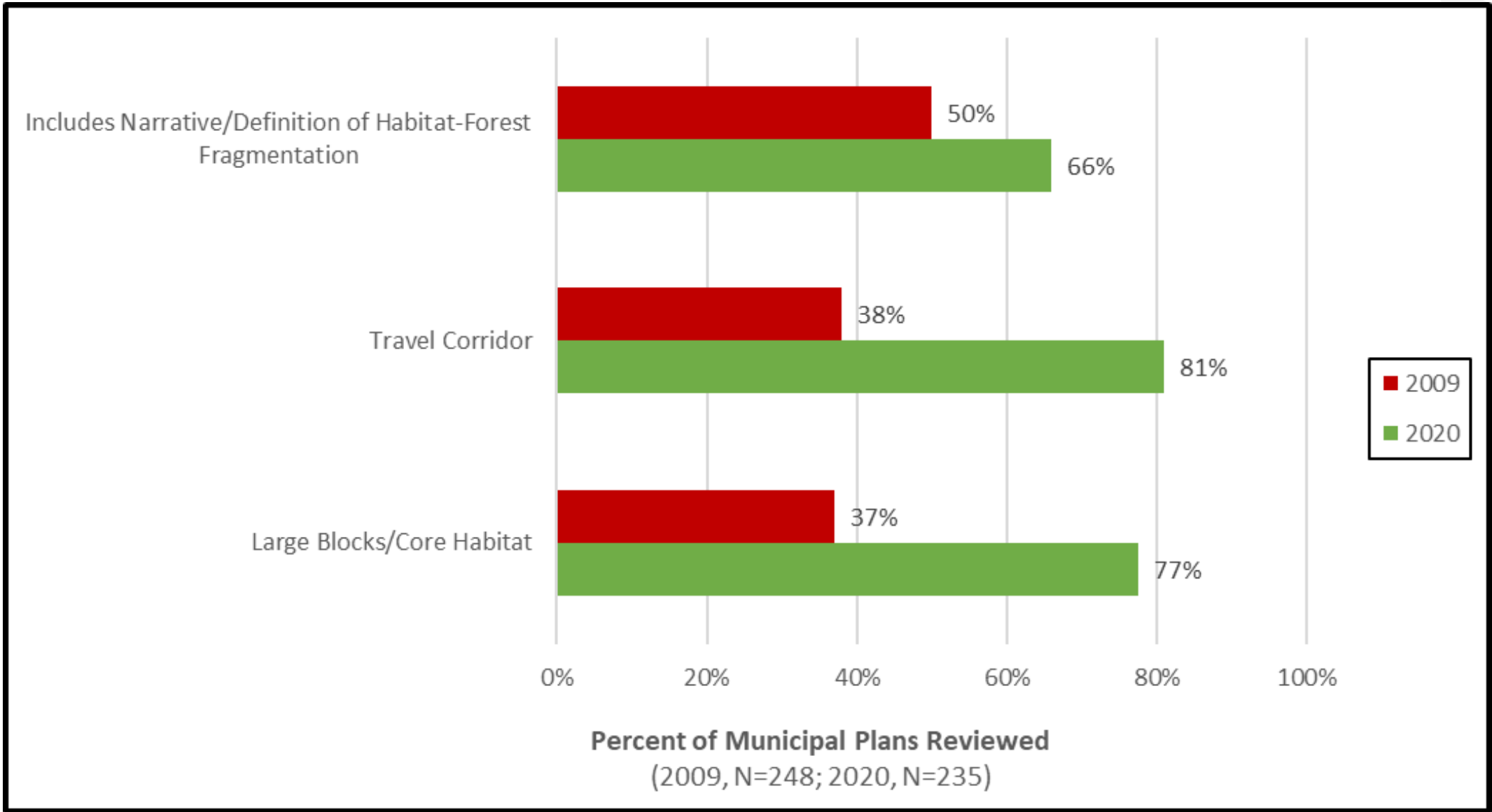
Forest Blocks

Forest Blocks

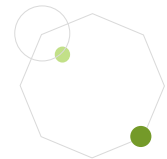
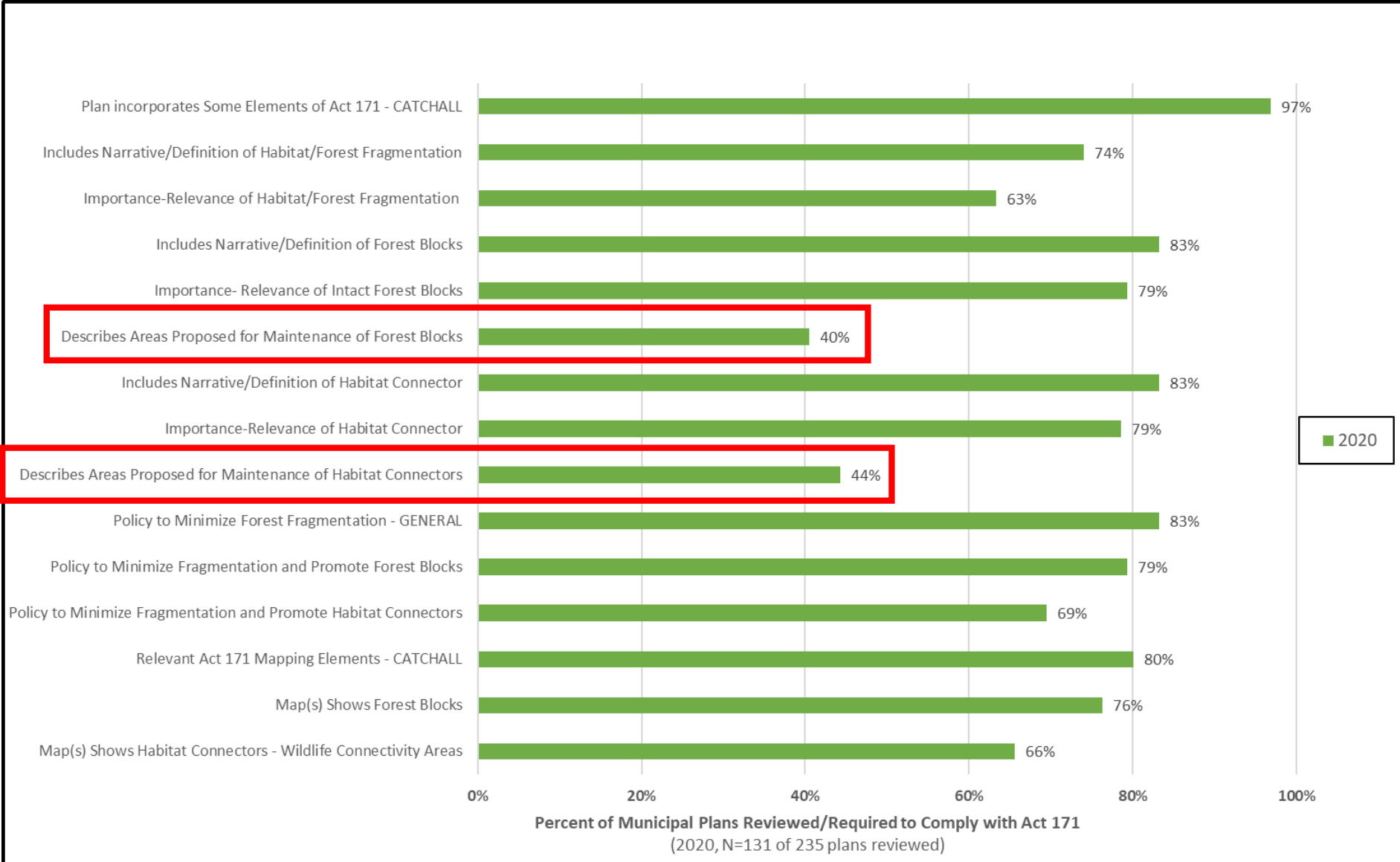
Habitat
Connectors

Forest Blocks

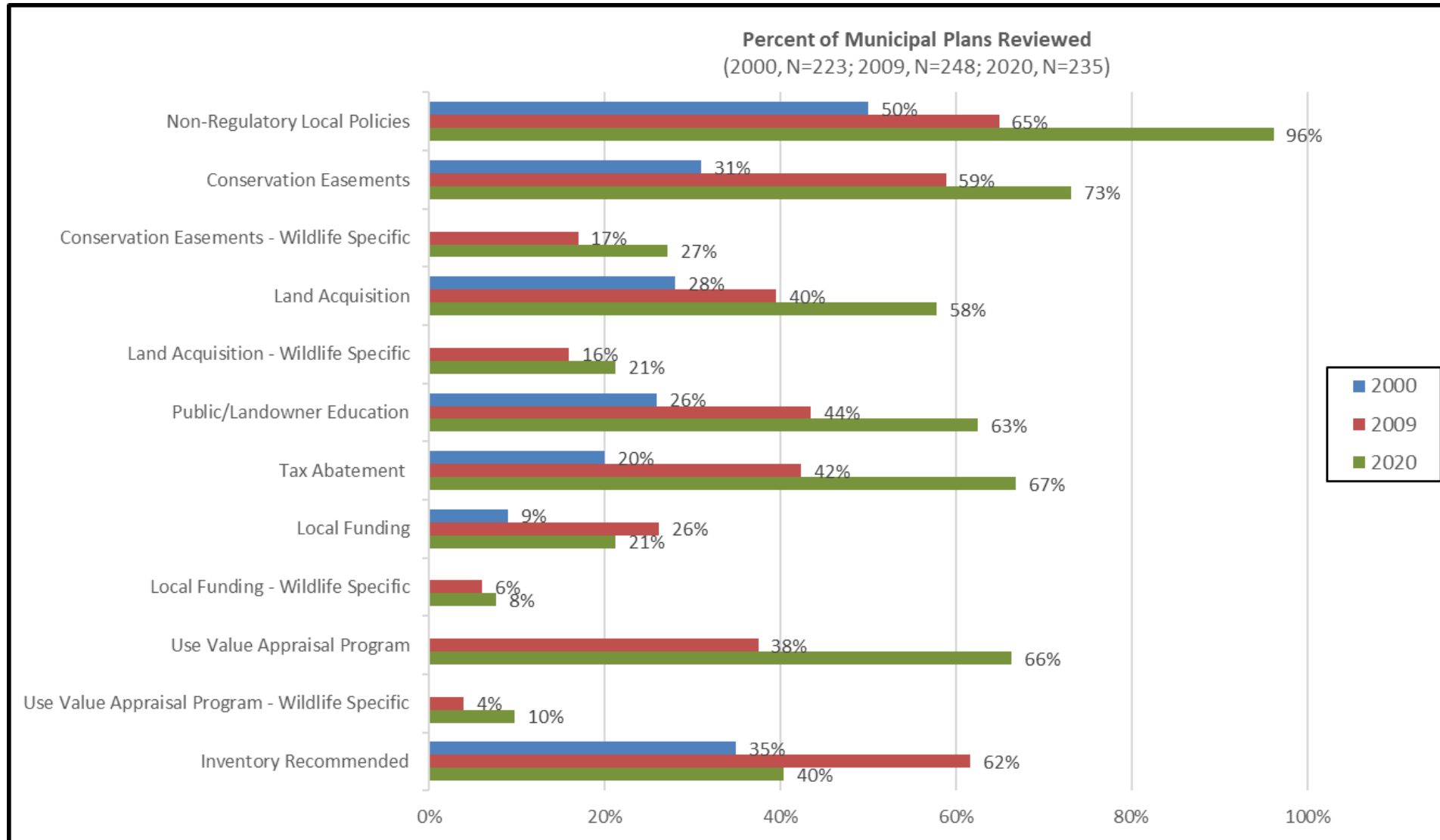
Forest Integrity Planning



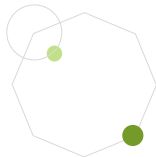
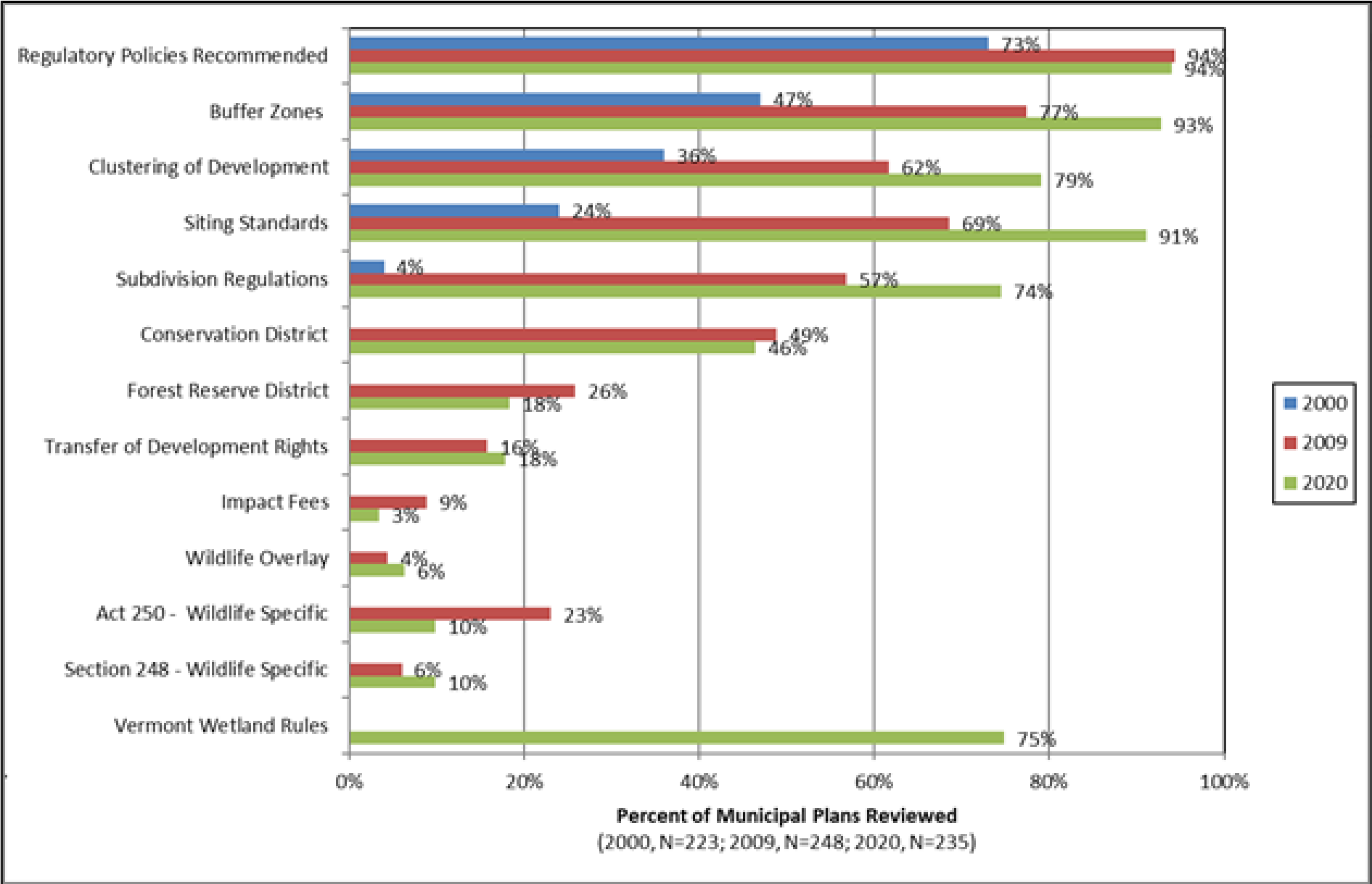
Act 171 Implementation



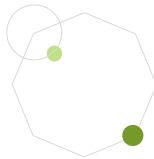
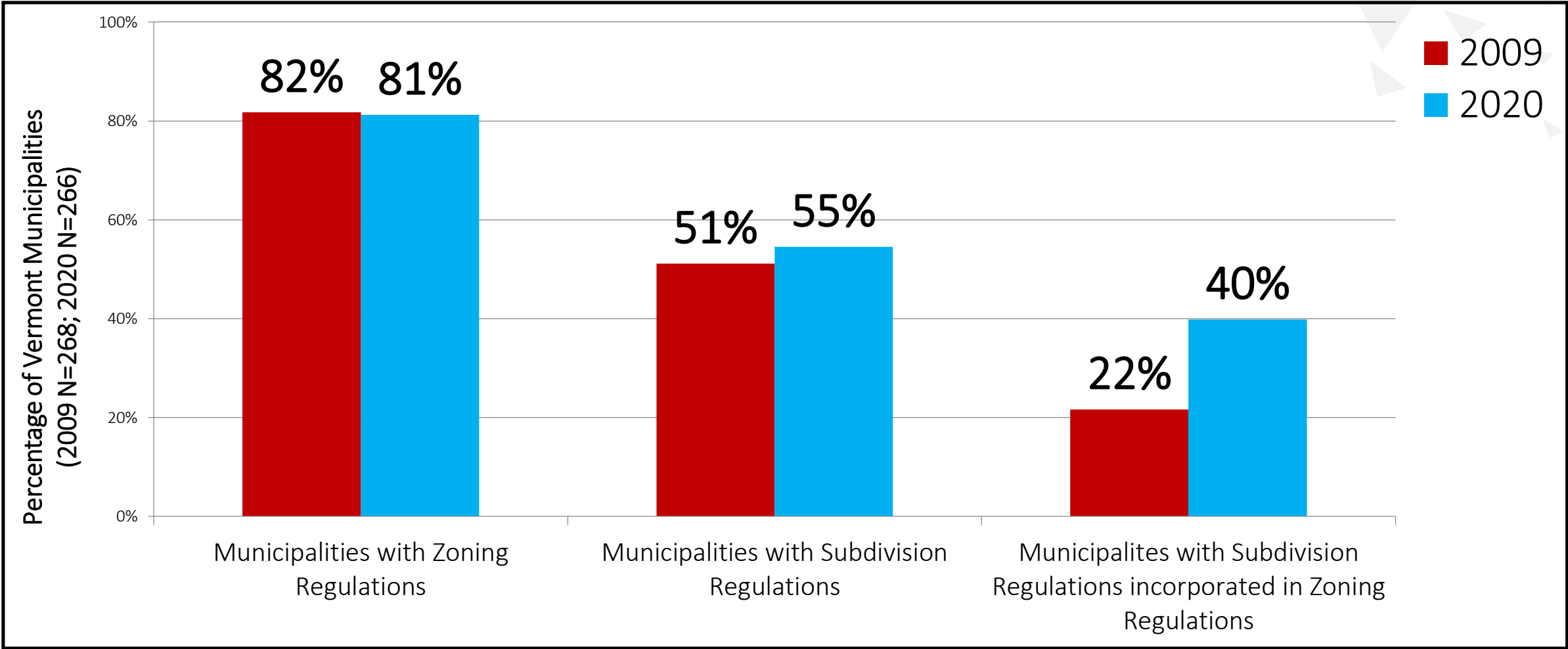
Strategies Recommended: Non-Regulatory



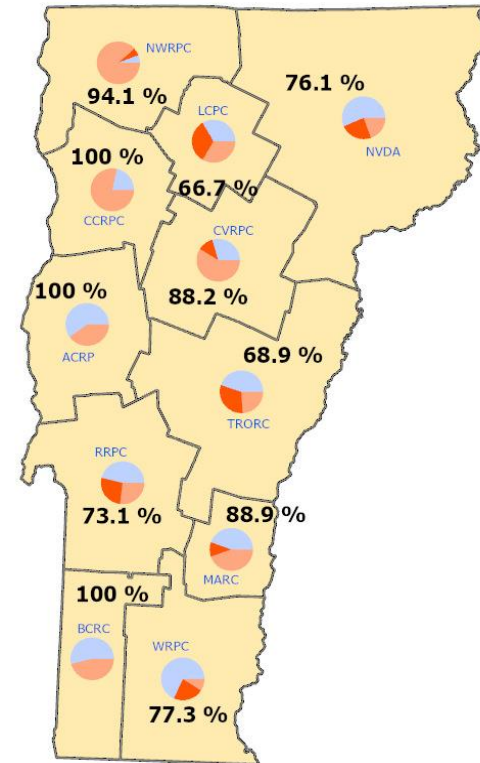
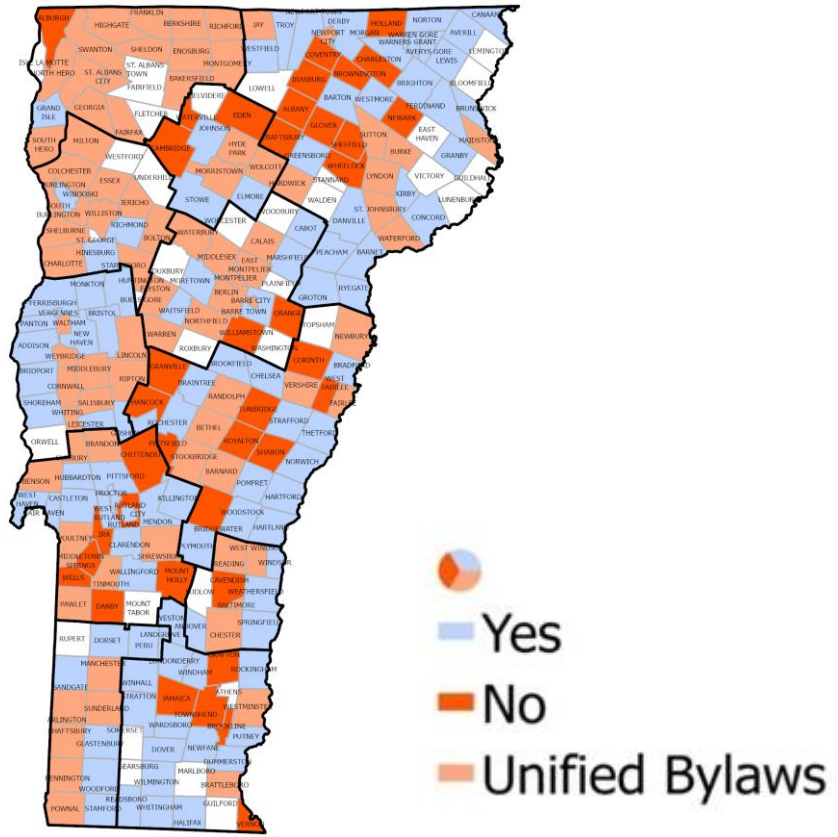
Strategies Recommended: Regulatory



Land Use Regulations



Towns with Zoning

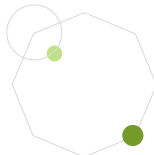


Zoning District Efficacy



	Conservation District	Forest Reserve District	Water Resource District	Natural Resources Overlay District	Wildlife Overlay District	Fluvial Erosion/ River Hazard District	Rural / Ag. / Resource / Res. District	Residential District	Open Space District
Percentage of towns where district exists*	44%	25%	11%	3%	4%	14%	82%	80%	16%
District has specific wildlife review**	19%	23%	9%	83%	63%	0%	6%	4%	15%
District has fragmentation standards**	10%	31%	0%	50%	50%	0%	4%	4%	15%

*Percent of Towns with Zoning Regulations
 **Percent of Towns with District



Development Review Standards

General Use Standards: Apply to most/all development regardless of the zoning district.

- Example: Surface Water Protection: To prevent soil erosion, protect wildlife habitat and maintain water quality, a naturally vegetated buffer strip shall be maintained ...

Conditional Use Standards: Evaluate certain land uses with an additional level of review within certain zoning districts or areas.

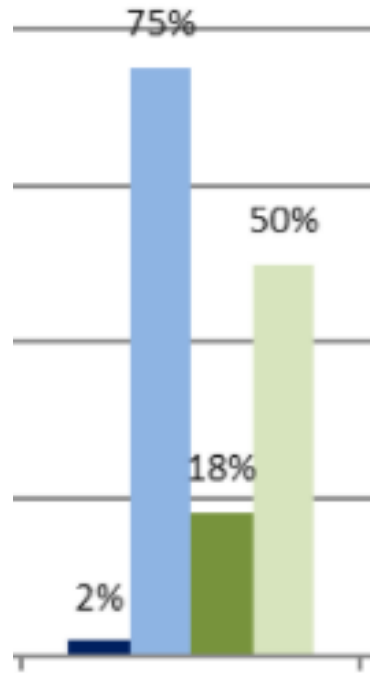
- Example: Single-family residence in a Forest Reserve District must demonstrate it will not result in an undue adverse impact on the character of the area affected.

Site Plan Requirement Standards: Apply to site layout and development design.

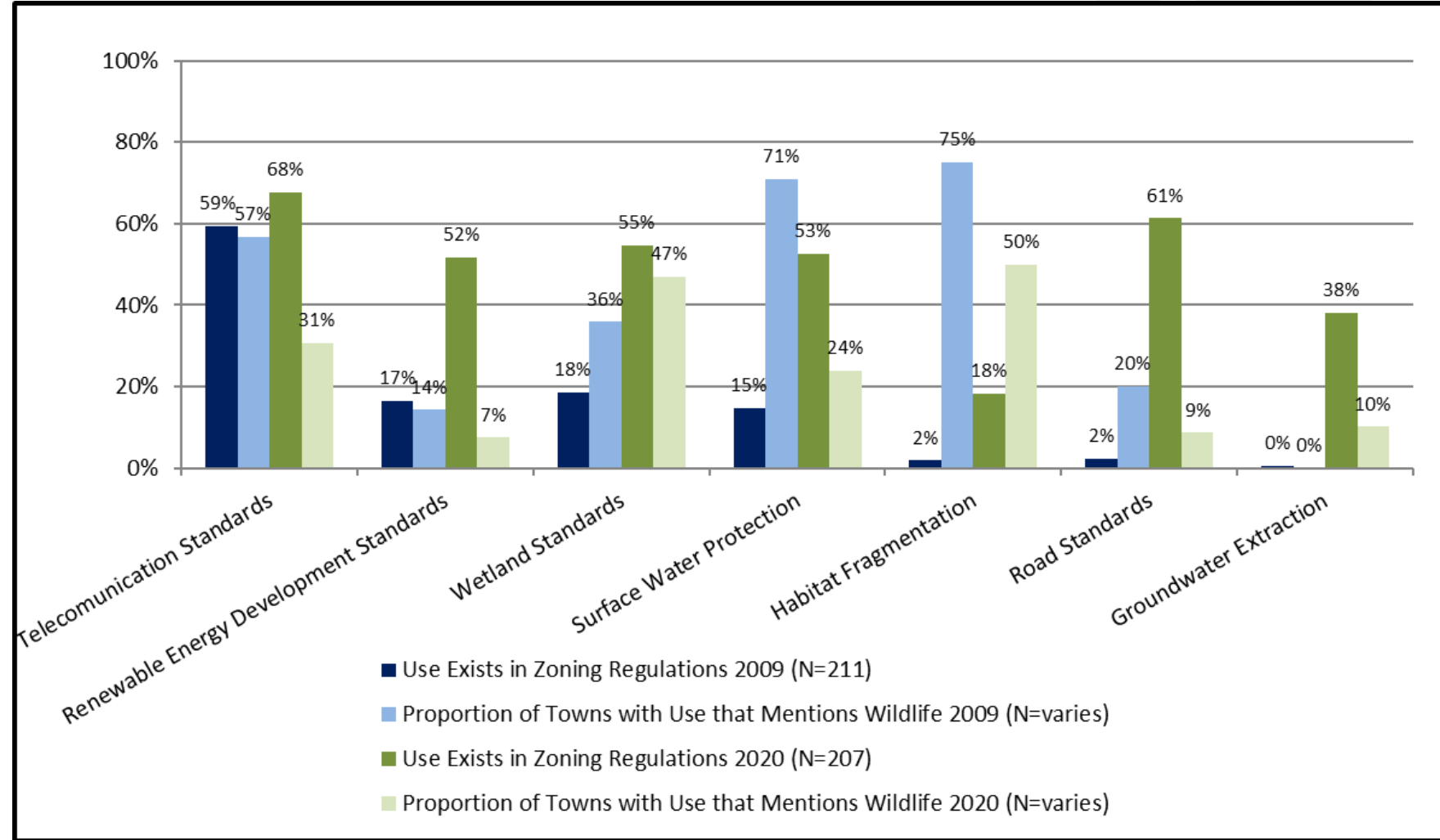
- Example: Protection of Natural Resources: The land to be developed will be able to support the intended use without undue adverse impacts to significant natural features (e.g. wetlands, wildlife habitat, steep slopes) as determined from the town plan or through site analysis.



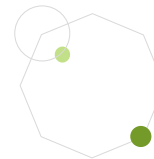
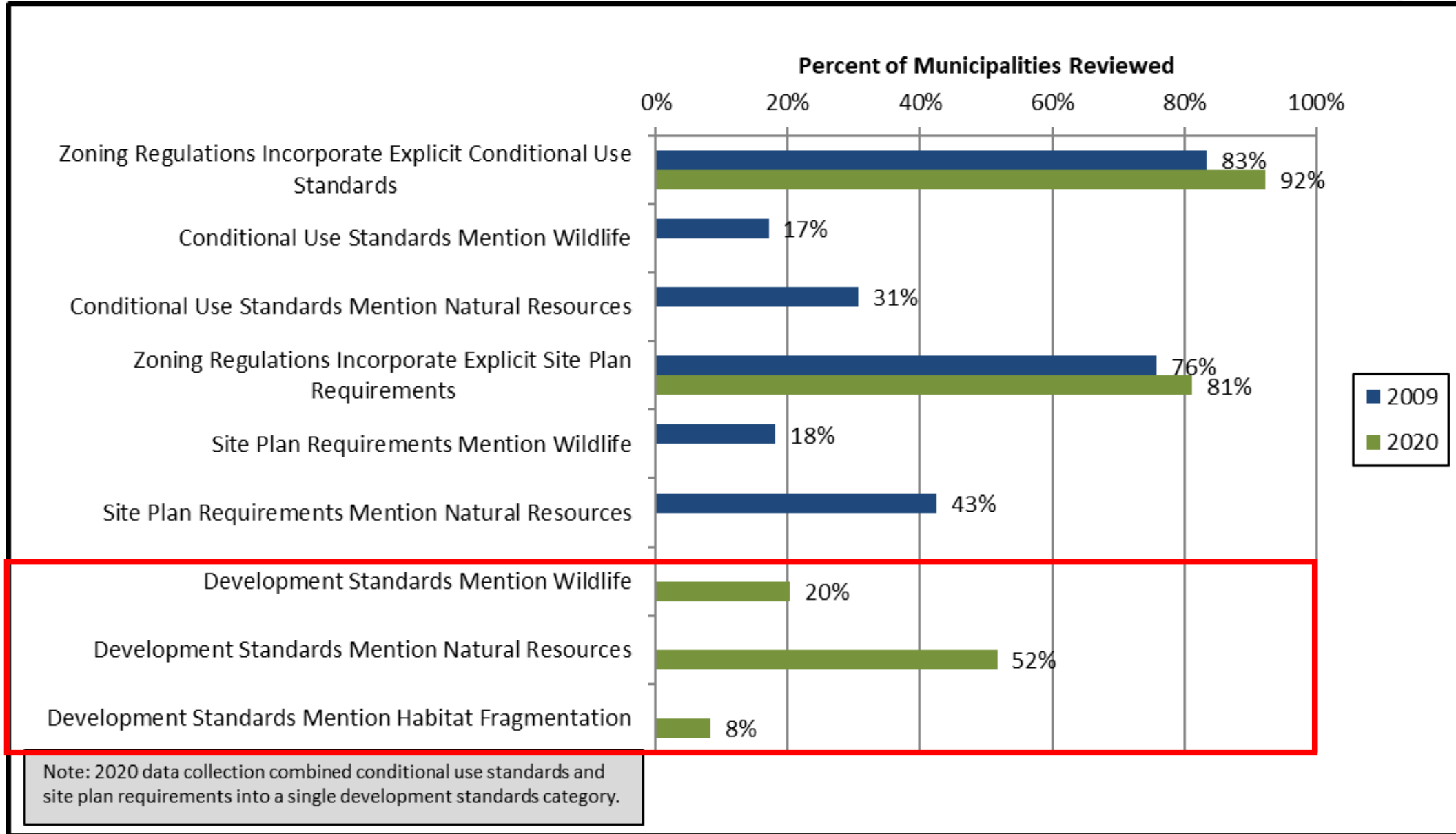
General Use Standards



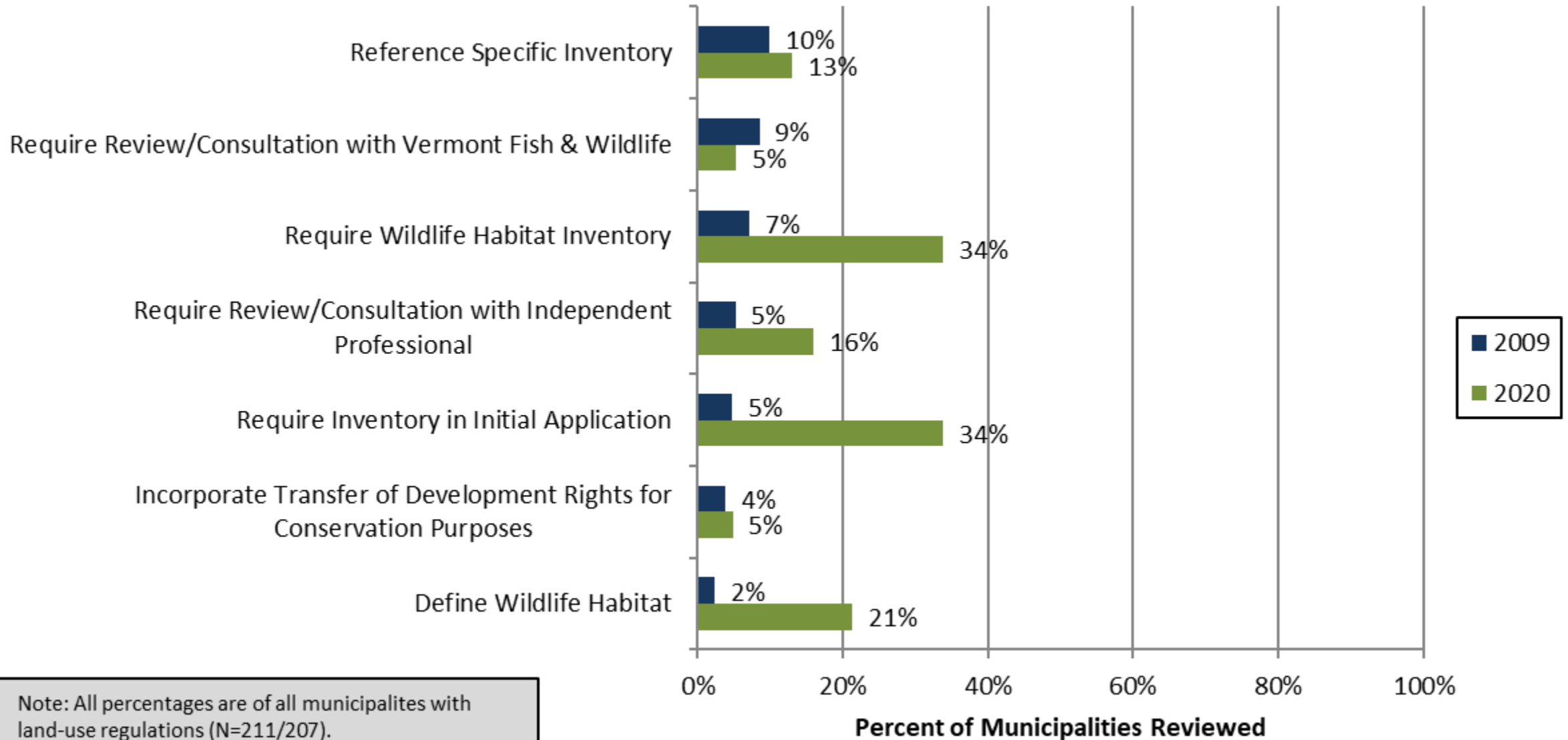
Habitat Fragmentation



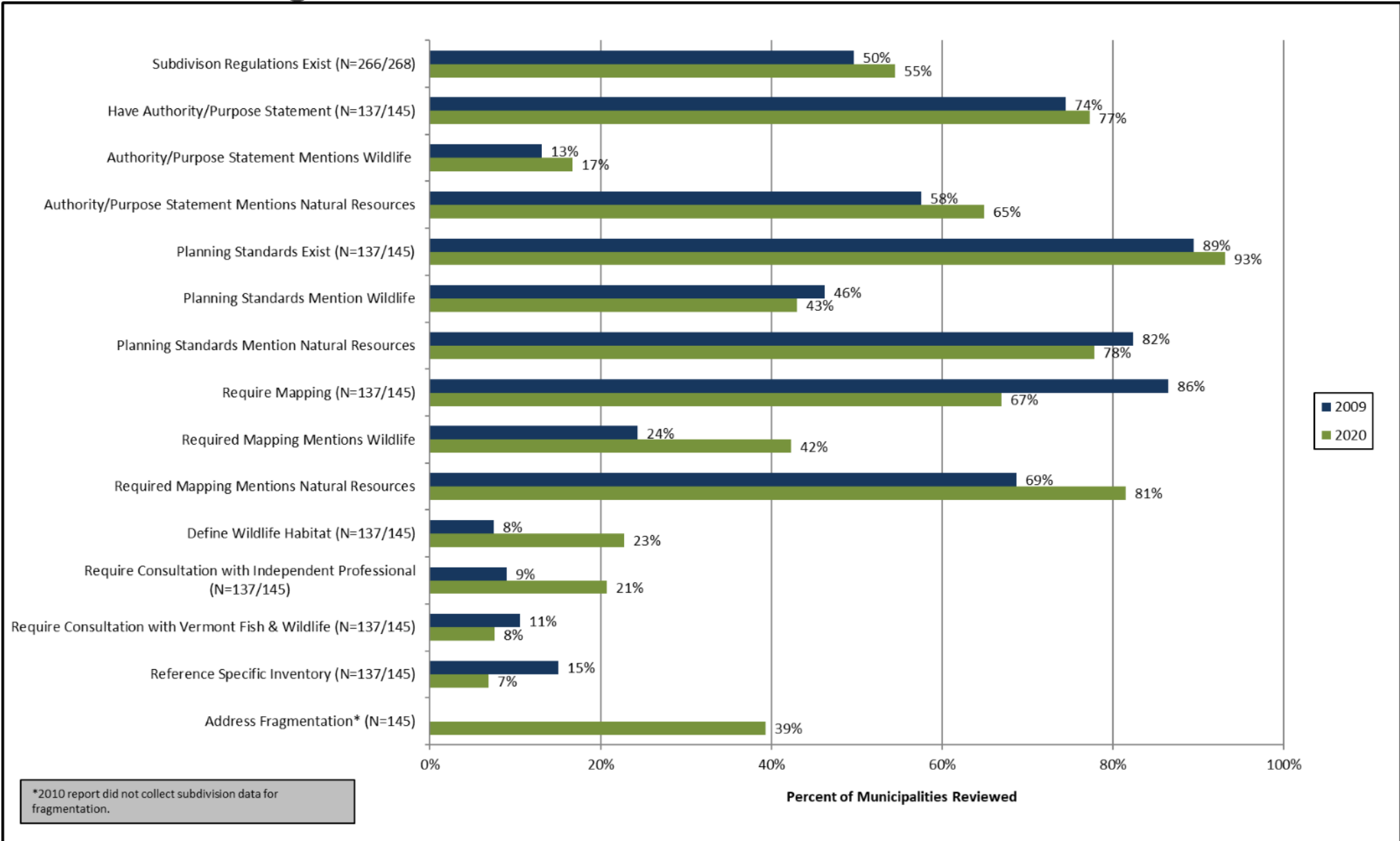
Conditional Use Standards



Additional Requirements in Bylaws

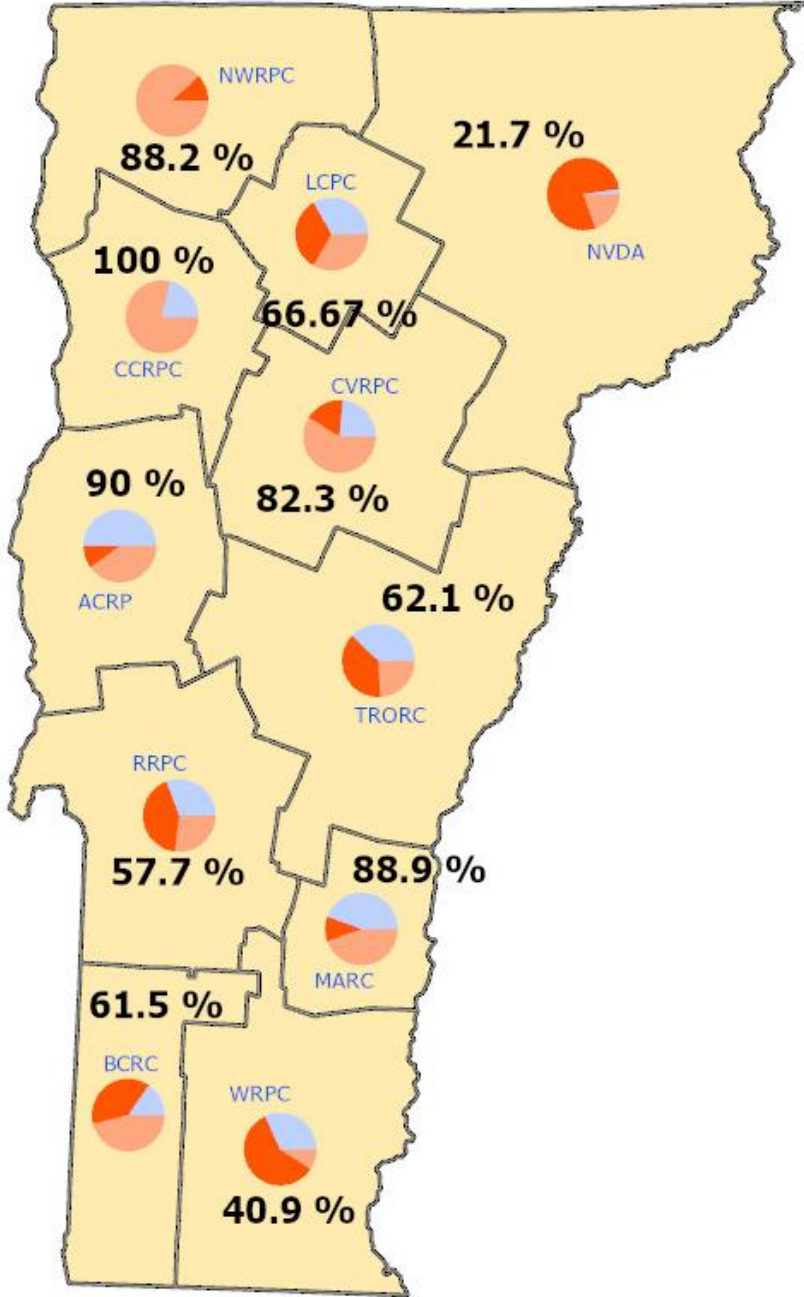


Subdivision Regulations



Subdivision Regulations

Town has Subdivision

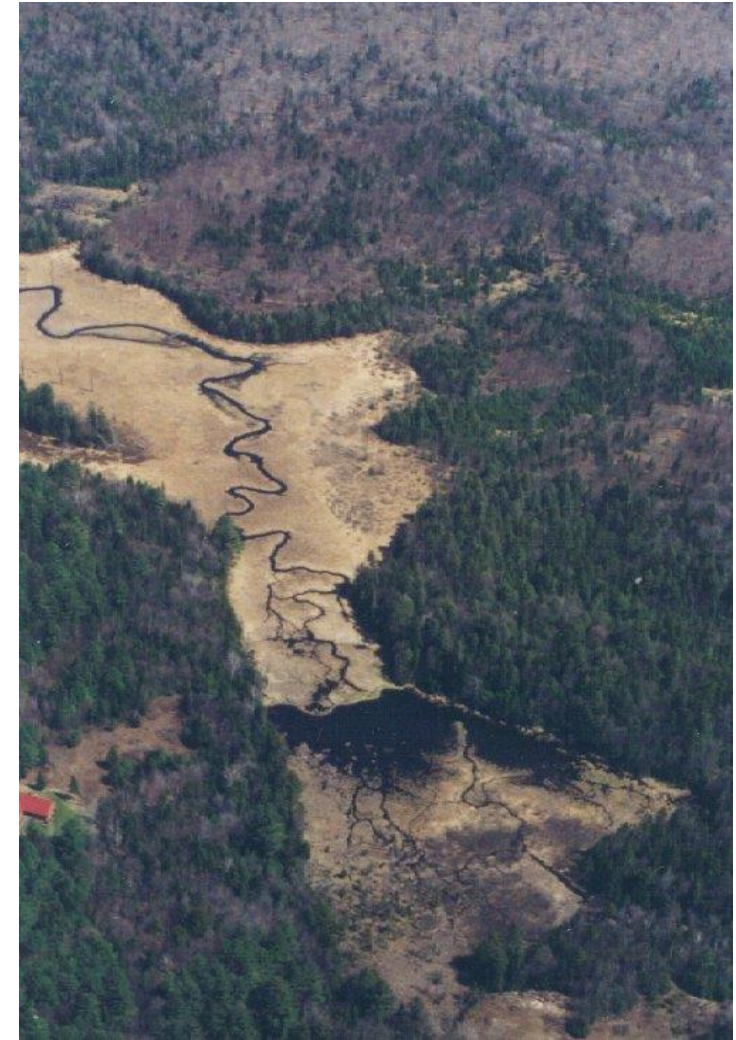


Key Findings

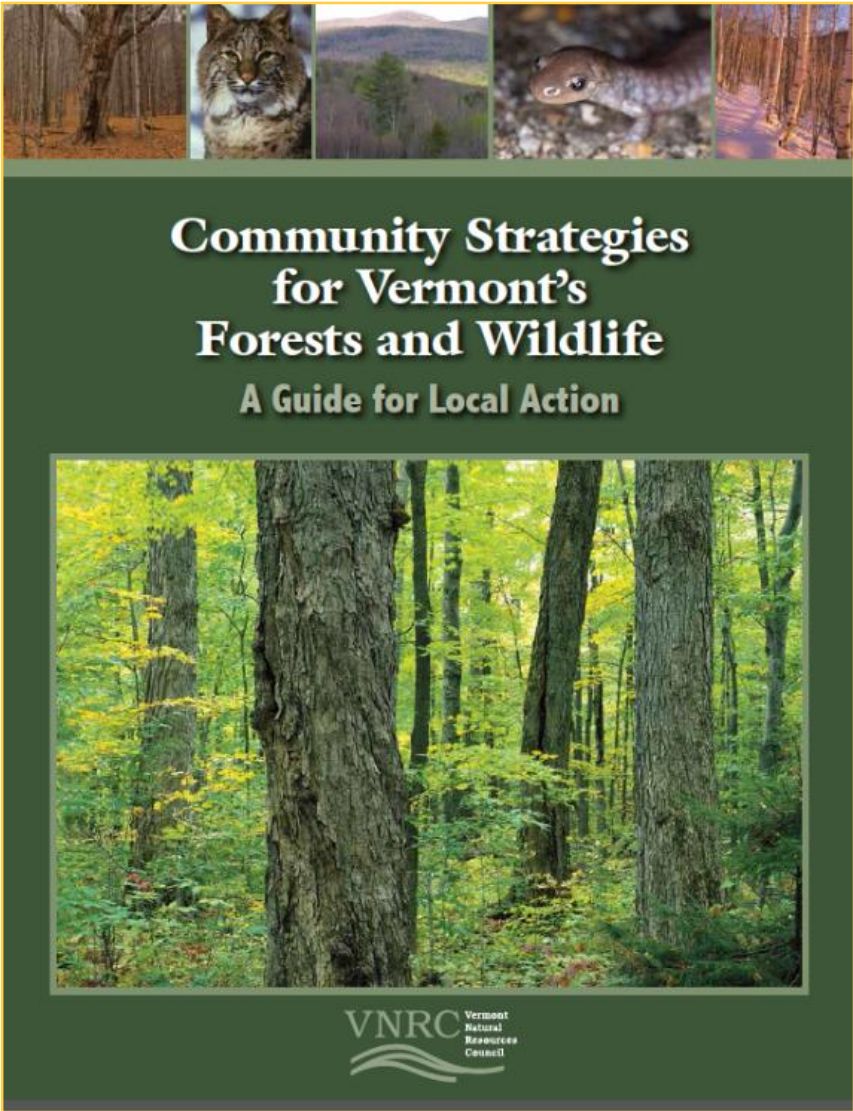
- Proactive planning is occurring at the municipal level for many wildlife related metrics.
- Town plans strongly recognize the value of non-regulatory and regulatory strategies.
- Increasing number of municipalities have identified forest blocks and travel corridors.
- There is a gap in planning to address climate change and impacts to wildlife/natural environment.
- Municipalities are employing strategies to shape how development occurs.
 - Municipalities are increasingly using siting and general use standards to shape development.
 - 74% of municipalities recommend subdivision regulations, but implementation is lagging (55%).
- Conservation districts are popular and many mention wildlife broadly.
 - Wildlife and natural resource overlay districts are the strongest in reviewing wildlife and fragmentation impacts; however, they make up a small percentage of conservation districts.
 - Overall, low percentage include specific standards to address wildlife impacts and fragmentation.
- Residential development, by and large, occurs in residential-oriented districts; however, only 9% mention wildlife, and only 4% have fragmentation standards.

Recommendations

- Support/fund efforts to translate science to planning.
- Support technical assistance to integrate existing data, and new data from local inventories, into town plans and development review regulations.
- Continue to implement Act 171 for forest blocks/connectivity.
- Improve policies to address climate change.
- Improve specificity about what to protect (include definitions).
 - Be aware of J.A.M. Golf and need for clear regulations.
- Transition town plan support for regulatory action into meaningful policies.
- Provide technical assistance to municipalities to strengthen development review standards that address wildlife impacts, and the fragmentation of habitat.



Resources



Wildlife Considerations Report

Coming Soon!

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