

State of Vermont

SMART GROWTH

2020 Progress Report



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The conclusions, opinions, and recommendations in this report are those of the authors, and not necessarily those of people who provided background information or data for this project.

There are many factors that shape how Vermont's communities grow, develop and plan for our future. These include the collective decisions of individuals on where to live, work, go to school, and shop; decisions by individual businesses on where to locate; municipal decisions regarding how or whether to regulate land use and development; and the decisions of state government – both the Vermont legislature and various administrations – on how and where to invest public resources in infrastructure, transportation, government offices, schools and other institutions.

The decisions of state government are critical because, despite still retaining much of Vermont's historic, compact settlement pattern, many of the decisions made in recent decades have focused on the efficient movement of automobiles and the development of single-family homes on large lots outside of traditional town centers. The Smart Growth Progress Report is intended to evaluate the role that state spending plays in shaping how and where development occurs in Vermont to determine whether these decisions are leading to sprawl or supporting smart growth.

The land use patterns and transportation system that state spending helps to foster has many consequences. Sprawling development can negatively impact natural resources, such as water quality, wildlife habitat, and others; exacerbate climate change; make it difficult, and expensive, for people to access jobs, housing and services; undermine the ability of Vermonters – especially older Vermonters – to live independently; negatively impact public health; and diminish the state's iconic landscape and the character of our communities that are the foundation of our economy and quality of life.

Spending that supports smart growth, however, can help maintain Vermont's historic settlement patterns, which are being slowly eroded by scattered, poorly planned development. This is important, in that for over three decades a key land use and development goal under Vermont state statutes has been to ***“plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside.”***¹

To help achieve this goal, state decision makers need to understand the impact that state spending – on infrastructure, such as water and wastewater facilities; transportation facilities and services; economic development; affordable housing; and government

“Smart growth principles” means growth that:

- Maintains the historic development pattern of compact village and urban centers separated by rural countryside.
- Develops compact mixed-use centers at a scale appropriate for the community and the region.
- Enables choice in modes of transportation.
- Protects the State's important environmental, natural, and historic features, including natural areas, water quality, scenic resources, and historic sites and districts.
- Serves to strengthen agricultural and forest industries and minimizes conflicts of development with these industries.
- Balances growth with the availability of economic and efficient public utilities and services.
- Supports a diversity of viable businesses in downtowns and villages.
- Provides for housing that meets the needs of a diversity of social and income groups in each community.
- Reflects a settlement pattern that, at full build-out, is not characterized by:
 - scattered development located outside compact urban and village centers that is excessively land consumptive;
 - development that limits transportation options, especially for pedestrians;
 - the fragmentation of farmland and forestland;
 - development that is not serviced by municipal infrastructure or that requires the extension of municipal infrastructure across undeveloped lands in a manner that would extend service to lands located outside compact village and urban centers;
 - linear development along well-traveled roads and highways that lacks depth, as measured from the highway.

– 24 V.S.A. §2791 (13)

¹ 24 V.S.A. §4403(C)

offices and related facilities, has on land use, environmental quality and livability.

The Vermont Natural Resources Council (VNRC), in conjunction with several other organizations, first published a detailed report on the impact of state spending on land use patterns in 2003. That report looked at spending between the years 1998 and 2002. A subsequent report was published that examined state spending between 2003 and 2006. Both of those reports are available online at: <https://vnrc.org/smart-growth/>.

This report, which was prepared by VNRC in partnership with AARP Vermont, looks at spending between 2013 and 2019. In addition to identifying the extent to which state spending decisions supported sprawl or smart growth, the report includes recommendations regarding how state spending decisions and related policies could

better support our land use and development goals. In addition, the report also provides an update to a more comprehensive assessment of Vermont's land use and development policy framework that was included in the 2003 report and provides related recommendations.

This is a critical time in Vermont. The state is emerging from a public health crisis and facing global challenges that are bringing demographic change (both immigration and an aging population), unanticipated opportunities for public investment, and economic shifts. How we respond to these challenges and opportunities through policy and spending decisions will be increasingly important in the coming years. How we manage land use, housing and community development will determine whether Vermont can support livable, vibrant communities for people of all ages.



Land Use and Development Policy



Bob LoCicero

Act 250

Act 250, Vermont's Land Use and Development law, was established in 1970 as a response to the dramatic changes that occurred in the 1960s. These included the development of the interstate, the growth of the ski industry, and the first significant population growth from in-migration in the past 100 years, which contributed to a desire for better environmental and land use protections.

Act 250 evaluates projects for their impacts on natural resources, governmental services, and other areas of public interest using ten criteria. District Commissions, made up of people from the project's region, review applications.

Findings and Conclusions

During the study period (2013–2019), several changes and decisions helped Act 250 improve its ability to support smart growth and reduce sprawl.

Criterion 9L, Settlement Patterns, was created in 2014 to address sprawl. Projects in smart growth locations automatically meet this criterion; projects in outlying areas need to be infill or show that they do not contribute to strip development. Criterion 9L has improved the design of projects, though whether it has influenced an applicant's choice of locations is not yet clear.

Criterion 9B, Primary Agricultural Soils, aims to keep these soils available for farming. It requires mitigation when soils

are impacted. A 2014 change to the definition of "primary agricultural soils" improved 9B because it removed the argument that farmland that hasn't recently been farmed is automatically not viable for farming. In addition, a lower mitigation ratio for impacted soils was extended to additional state designated smart growth areas.¹

Criterion 9B could be still improved when it comes to mitigation. Today, off-site mitigation is automatically allowed in certain smart growth centers, while onsite mitigation is required in outlying areas. Applicants can argue that a non-smart growth site still warrants off-site mitigation under certain "appropriate circumstances," but the standards for this can cause confusion.

As of 2014² Criterion 5, Transportation, requires projects to integrate transportation demand management and provide safe access and connections for walking, biking, and transit.

Local and regional plan maps and policies, considered under Criterion 10, can promote smart growth, particularly when plans have strong smart growth policies. The Vermont Supreme Court in 2016 set a helpful precedent when it clarified how clear a policy needs to be to carry weight in the Act 250 process.³ In other cases, however, plan policies are unclear or underutilized.

Lastly, in 2014 Act 250 was updated to include a slightly more streamlined process – known as the "off ramp" – for Act 250's review of projects in downtowns.

1 Act 159, <https://legislature.vermont.gov/assets/Documents/2014/Docs/ACTS/ACT159/ACT159%20As%20Enacted.pdf>

2 Act 147, 2014 <https://legislature.vermont.gov/assets/Documents/2014/Docs/ACTS/ACT147/ACT147%20As%20Enacted.pdf>

3 *In re B&M Realty*, 2016 VT 114, ¶ 52.

Recommendations: Act 250

- Maintain Criterion 9L and ensure that its implementation is consistent across the state.
- Improve upon the changes to Criterion 5A by explicitly considering the congestion and safety impacts of development on bicycle, pedestrian, and transit infrastructure.
- Update Criterion 9B to strengthen the appropriate circumstances test to tie it more clearly to smart growth locations.
- Strengthen the connection of Act 250 to planning. Update Act 250 and planning statute so that only regionally-approved municipal plans may be used in Act 250, and so that regional plans must conform with state planning goals.
- Update the state Capability and Development plan maps to identify state interests, and use the maps in coordinated Act 250 project review. This is not a state land use plan, but a map that illustrates a project's surrounding context for better decision-making.

Strengthening Smart Growth in Municipal and Regional Plans

Municipal and regional planning processes are a chance for communities work together to develop a vision for their future, as well as policies and actions to implement that vision. Regional plans are required to advance the state's land use planning goals (24 VSA § 4302), which include smart growth goals; municipal plans aren't required to, but many do.

Those goals were updated by Act 171 in 2016 to include advance an important smart growth principle: development patterns that keep farm and forestland intact. Act 171 also updated the land use planning requirements so that all municipal and regional plans now must identify areas important as forest blocks and habitat connectors, and plan for development in those areas to both minimize fragmentation and promote the health, viability, and ecological function of forests.

Since the law went into effect in 2018, close to half of Vermont's communities have initiated Act 171, planning thereby raising awareness around the value of maintaining intact forest blocks and habitat connectivity across Vermont.

Recommendations: Municipal and Regional Planning

- Municipalities should support incremental zoning reform as a tool to encourage housing in their downtown and village centers.
- The Legislature should continue to support a robust

- Use Value Appraisal Program that allows willing landowners to enroll and conserve farm and forestland.
- The Legislature should explore a conservation tax credit for landowners who conserve land in priority natural resource areas.

Development at Highway Interchanges

Development at interstate interchanges often contributes to sprawling development patterns. These patterns can lead to safety and highway capacity issues and costly upgrades, and can draw business away from traditional, smart growth economic centers.

Pressure for development in these areas has continued during the study period. A Walmart was built near Exit 20 in St. Albans after many years, and a rest area was built at Exit 7 off I-89 in Berlin. In addition, two interchange proposals were proposed but ultimately scuttled.

Governor Howard Dean's Executive Order (EO) #07-01 called for more careful planning and preservation of these areas, but was allowed to expire in 2010. However, according to the 2007 Smart Growth Progress Report, even before its expiration, compliance with the EO was sparse.

Recommendations

- Promote better local and regional planning around interchange areas.
- Require Act 250 review, and context-sensitive design, around highway interchanges in order to ensure that roadway functions, aesthetics, and state investments in these important areas are not undermined by poorly-planned development.

Working Lands Enterprise Initiative

Established by the Legislature in 2012, the Working Lands Enterprise Initiative helps farm and forest entrepreneurs, particularly value-added producers, with both technical and financial assistance to grow their businesses. It was established to remedy a gap in the funding continuum that made it hard for these entrepreneurs to scale up their businesses. Since then, the initiative has disbursed over \$7 million to 240 agriculture and forestry projects in all 14 counties, which has leveraged \$11 million in matching funds, created over 500 jobs.⁴

This program takes an asset-based approach to economic development, building on and protecting working lands while fostering entrepreneurship and small businesses. This is a strategic investment given the outsized impact of farm and forest sectors to our state's economy,⁵ and the importance of intact farm and forest land for resilience and tourism.

4 <https://workinglands.vermont.gov/history-initiative>

5 Vermont 2020: Comprehensive Economic Development Strategy,

Agency of Commerce and Community Development. <https://accd.vermont.gov/sites/accdnew/files/documents/DED/CEDS/CEDS2020FullReport.pdf>, p. 16, accessed November 16, 2020.



Bob LoCicero

Farm and forest operations, known as working lands, are a key component of smart growth

Recommendation:

Continue, and increase, investments in the Working Lands Enterprise Fund, aiming for an investment of \$3 million annually.

Dissolution of the Development Cabinet

The Development Cabinet Law was passed in 2000. It was meant to facilitate coordination between agencies so that planning and investments aligned in support of the state’s goals, including smart growth goals. This “horizontal” coordination was laid out in Act 200, Vermont’s 1988 Growth Management Act, and complemented “vertical” coordination between local, regional, and state levels.⁶ However, the Development Cabinet was not consistently used for this, and was sometimes used to influence development projects. In 2019 the Vermont Legislature removed the Development Cabinet from statute on the advice of a Sunset Advisory Commission tasked with determining whether various state boards or commissions should continue to operate. The Agency of Commerce and Community Development’s written testimony stated that the Cabinet “fulfills an advisory function” and “the

Governor may at any time convene” Cabinet members to work on economic development planning.⁷ These statements are accurate, but did not mention the Development Cabinet’s other, coordinating role. The deletion of the Development Cabinet continues a long history of neglect of the interagency coordination envisioned by Act 200. Agencies do coordinate, but the systematic look at investments across agencies is not effectively institutionalized. It is possible that approaches other than the Development Cabinet could be more effective for coordinating state planning and investment, and ensuring that resources are directed toward smart growth goals.

Recommendation:

- Provide staff with capacity and authority to help coordinate planning and investments between agencies, in order to ensure that state investments – particularly of federal dollars expected for COVID-19 recovery –intentionally advance multiple goals (e.g., the land use planning and development goals, the goals of the State Plan on Aging, and others).

6 <https://accd.vermont.gov/sites/accdnew/files/documents/CD/CPR/DHCD-Planning-ACT200-After15Years-Report.pdf>, accessed November 20, 2020.

7 Testimony of John Kessler, General Counsel, ACCD, October 11, 2018, <https://legislature.vermont.gov/Documents/2018.1/WorkGroups/Sunset%20Advisory%20Commission/Documents/ACCD/W~John%20Kessler~ACCD%20Boards%20and%20Commissions%20Memo~10-9-2018.pdf>

Capital Construction/ State Buildings

Overview

The capital construction budget pays for the construction of state buildings, including state offices, courthouses, prisons, and police facilities. Vermont law requires that priority be given to siting facilities in downtown locations¹ and that preference be given to using existing space in a designated downtown, village center, or new town center.²

Smart Growth Connection

Locating state facilities in downtowns helps attract business activity and keeps development in areas that already have facilities and services in place. It reduces pressures to build outside of traditional centers in sprawl locations and saves limited state dollars. For client-oriented services, smart growth locations allow for transportation options beyond car ownership, helping to reduce one of the primary barriers for people accessing those services.

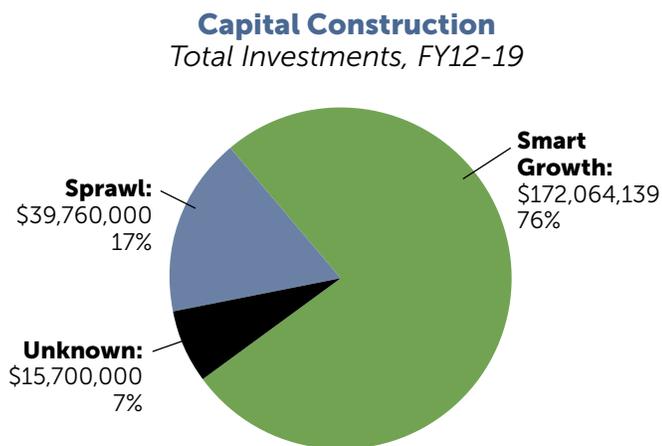
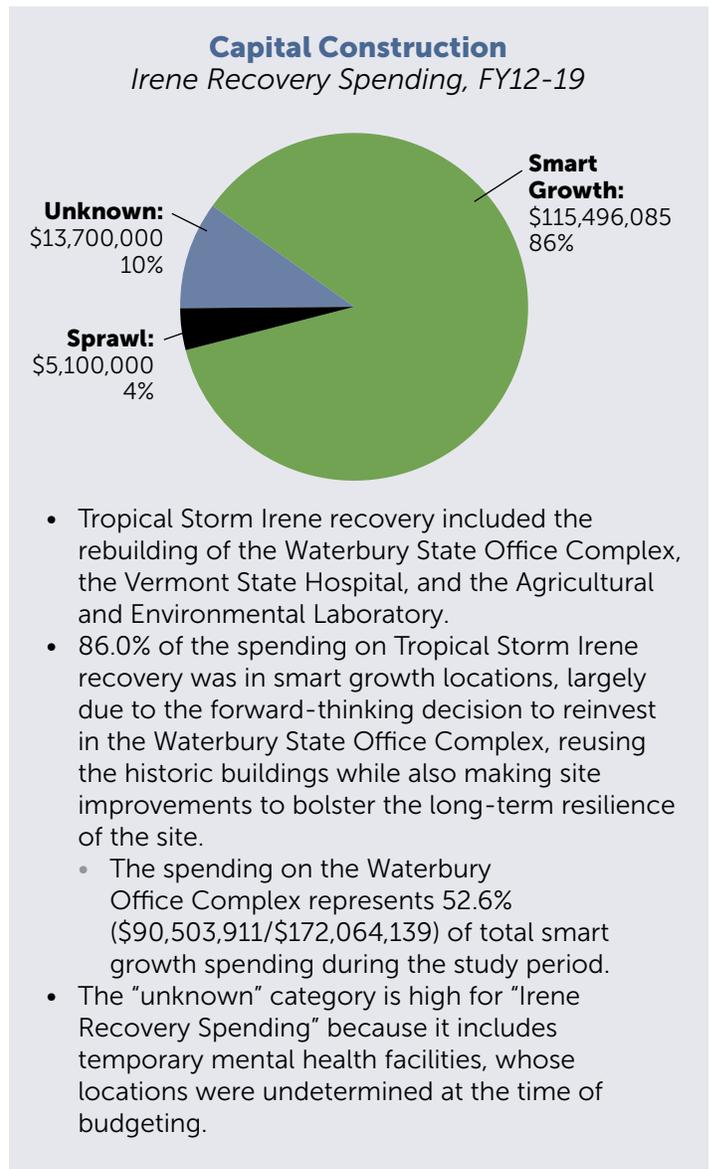
Findings and Conclusions: State Investment in Buildings

Study period: The capital budget is a two-year budget, so the study period looks at FY12-FY19.

Total projects:³ 40

Total investment: \$227,524,139

- 35 of the projects during the study period, totaling \$172,064,139, were in smart growth locations.
- The three projects in sprawl locations were 1) retrofits for state offices at the National Life Complex in Montpelier, 2) the Public Health Laboratory in Colchester,⁴ and 3) renovations at the State Archives in Middlesex.
- Two projects were in unknown locations. These included temporary buildings whose locations weren't known at the time of budgeting.



Capital Construction: Labs

In addition to Tropical Storm Irene recovery from FY12-FY19, spending on labs represented another major capital expense. Costs for the new Public Health Lab in Colchester totaled \$34 million during the study period, while the Agricultural and Environmental Laboratory cost approximately \$25 million.

There are arguments for locating labs farther away from population centers due to the pathogens handled

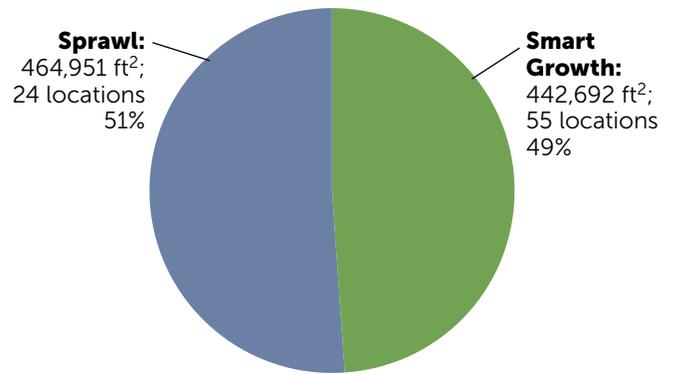
in these labs. We also acknowledge the cramped conditions reported in the former health lab in Burlington. We nevertheless suggest that labs can be appropriately sited in smart growth locations, in part because both of the labs built during this study period had previously been located in compact locations (Waterbury and Burlington, respectively).⁵ To consider both views, the table below shows state spending on smart growth and sprawl, with and without labs.

Table 1: State spending on buildings, with and without labs included

	Smart Growth	Sprawl	Unknown	Total \$\$
Total state spending – with labs	75.6%	17.5%	6.9%	\$227,524,139
Total state spending, without labs	87.3%	3.4%	9.3%	\$168,531,965

- Overall, state spending favored smart growth investments, with 75.6% of money going toward buildings in smart growth locations.
- The high percentage of state funds spent on sprawl during this study period can largely be attributed to the construction of the Public Health Laboratory in Colchester: All but \$660,000 of the \$34,660,000 in non-Irene sprawl spending went into the Colchester lab project, which was the only spending on new construction in a sprawl location during this timeframe.
- In making locational decisions, Buildings and General Services reports that it considers what uses are most impactful in downtown spaces, taking into account the efficient use of space in a building as well as the economic benefit to the downtown or village. At the same time, researchers view the overall goal of minimizing the square footage built elsewhere as a positive.

State Spending on Leases by Location
By area, 2019



- In 2019, 69.6% of the locations rented by Buildings and General Services, and 48.8% of the overall square footage, were in smart growth locations.
- Fewer locations (24), but a slight majority of the square footage (51.2%), were in sprawl locations.

Findings and Conclusions: State Spending on Leases

This study also looked at the locations of spaces that were leased by the state, which represent approximately 21% of the state's space.⁶

State Library and State Police Barracks

State decision makers recently decided to relocate police barracks to the site of the state's Department of Libraries, near Exit 7 off of I-89. They then used this as an opportunity to move the Department of Libraries from the highway interchange, in Berlin, to downtown Barre. While a state police barracks requires proximity to the interstate, a library is a use that is compatible with and can reinforce a downtown. The library now shares space with the Vermont Historical Society, which was not using all of the historic downtown building it occupied.

- In 2019, the top two largest leases – at the National Life Building in Montpelier and Airport Road in Berlin – accounted for 28% of all the state’s leased space, and 55% of the state’s leased space in sprawl locations.⁷ While the concentration of staff at these two locations offers opportunities for increased transit service, these locations nevertheless remain mostly auto-dependent.
- The third largest lease is in a smart growth location: 60,237 ft² at Barre City Place in Barre. This is an improvement from 2018, when the third largest lease - 45,605 ft² in Williston - was in a sprawl location. In fact, the square footage leased at the Williston location decreased to 8,017 ft² in 2019.
- Despite this improvement, state leases still slightly favor sprawl, with 51.2% of the square footage leased in sprawl locations.
- The Airport Road lease location (the Dill Building) has general office space, houses the VTrans testing lab (moved from its previous flood-prone location at a cost of about \$7 million), and is the backup internet site for the state of Vermont. While arguably strategic, this investment will make it harder over time to replace this space with downtown space.
- The state should maintain leases in smart growth locations even as it makes decisions for adapting to an increase telework and shortfalls in the budget.
- The state’s decision to rebuild in Waterbury after Tropical Storm Irene, and to incorporate flood elevation and river restoration into the project, shows leadership on smart growth and resilience. The state should develop policies to ensure that future state spending on disaster recovery – including any additional COVID-19 recovery funds – goes toward smart growth locations and resilience rather than funding sprawl.
- Complete the buildout of the Waterbury Complex and return state office workers from sprawl locations to smart growth locations.
- Continue to reduce the amount of leased space in sprawl locations. Establish a policy to evaluate new leases or those up for renewal through the lens of smart growth, especially for transportation options other than driving.
- Capital investments to leased buildings in sprawl locations should be minimized, since cumulative investments over time can make it harder to move from a location.

Recommendations

- In general, the state has done a good job prioritizing investment in smart growth locations. The Legislature and other decision makers should keep smart growth front and center and should continue the positive trend of minimizing new construction in sprawl locations.
- Improve pedestrian and other connectivity between the National Life Building and downtown Montpelier.
- Out of town sites should only be used for facilities requiring high accessibility, such as regional police barracks, and only after thoroughly investigating options for such facilities in growth centers.

Vermont’s State Designation Programs

Channeling state investments into smart growth locations is not a new concept in Vermont. Since the enactment of the Downtown Development Act in 1998, Vermont has had programs in place that provide substantial state support for downtown revitalization.

Under the program, municipalities that receive downtown or village center designations are eligible for a number of benefits, including tax credits, loans, and grants from various state agencies. In addition, new town centers, growth centers, and neighborhood development areas enjoy other benefits, such as priority consideration for grants, state affordable housing funds, and the siting of state buildings.

One key investment is the state’s historic tax credit program. From 2016 to 2020, the program awarded a total of \$12.7 million in tax credits to 112 projects in 53 communities, leveraging nearly \$207 million in private investment.⁸ These and all other dollars spent on this program are smart growth expenditures that provide foundational investments in historic buildings, community infrastructure, and placemaking while stimulating other investment.

These programs were improved during the study period with the addition of a new designation, the Neighborhood Development Area, to promote smart growth housing development.

School Construction

Schools are important community resources and often serve as an anchor in a community's development. Their location can either support or hinder smart growth. Schools in outlying areas force all students to be bussed or driven to school, and divert activity away from a town's center. Schools in outlying areas are also less likely to be a resource for the community at large, particularly for those who do not or cannot drive. The availability of athletic fields and low-cost land often drives schools outside of traditional centers. As schools consolidate, and begin to serve multiple communities, keeping schools in town centers will continue to be a challenge.

Typically, the State of Vermont contributes funding for school construction projects.⁹ Up to 30% of the total cost is provided by the state for most projects, although projects that result from school consolidations were eligible for up to 50% state funding until 2013. Additionally, projects to install

heating, water heating, cooling, or ventilation systems that use renewable energy sources can receive 75% of the approved cost.

Since 2007, however, state aid for school construction has been suspended so that the in order to permit the Commissioner of Education and the Commissioner of Finance and Management to "develop a sustainable plan for state aid for school construction."¹⁰ This suspension, which has continued, allows only for emergency repairs.¹¹

When school construction resumes once again, policymakers should have conversations to ensure that investments in any new facilities prioritize schools in or adjacent to smart growth areas, to encourage walking and biking, reduce the need to drive, and use the investment to better serve the community at large as a central resource.

1 24 VSA §2794(a)(12)

2 24 VSA §2793a(c)(5), 24 VSA §2973b(c)(2), 24 VSA §2793c(i)(3)(B)

3 For this report card, a "project" is considered a line item in the budget, though in some cases a single line item contains investments in 1-2 buildings.

4 Please see below regarding how researchers considered whether to consider this sprawl.

5 When considering this new building, the Department of Buildings and General Services reported that it decided that the nature of the facility and its operations would not be advantageous to any downtown setting. [add citation?]

6 *The Space Book 2019*, as of July 1, 2019. <http://www.bgs.vermont.gov/sites/bgs/files/files/property-management/2019%20Spacebook%20Web.pdf>

7 The amount of leased space at the National Life Building was 184,408 ft², and the amount leased on Airport Road in Berlin was 71,766 ft².

8 <https://accd.vermont.gov/sites/accdnew/files/documents/CD/CPR/CPR-Tax-Credit-Annual-Report.pdf>

9 16 VSA chap 123

10 2007 Acts and Resolves, No. 52

11 <https://education.vermont.gov/vermont-schools/school-operations/public-schools/facilities-construction>

Vermont Economic Progress Council

The Vermont Economic Progress Council (VEPC) is an independent board appointed by the Governor and General Assembly that administers the Vermont Employment Growth Incentive program (VEGI) for businesses, and Tax Increment Financing (TIF) tools for municipalities. Together, these programs are designed to create better-paying jobs within the state, while maintaining a high quality of community life.

Smart Growth Connection

Commercial and industrial development in or near existing downtowns, villages, and growth centers supports smart growth principles by providing accessible jobs, promoting historic preservation, and limiting sprawl-inducing infrastructure expansions (such as wastewater lines extended into rural areas).

Vermont Employment Growth Incentive

VEGI provides direct cash incentives for business recruitment, growth, and expansion to businesses that have met and maintained certain performance requirements.

Before 2016, the statute governing VEPC's various programs included nine "guidelines" to evaluate proposed projects.¹ The guidelines included two strong locational criteria: 1) "the enterprise should protect or improve Vermont's natural, historical, and cultural resources, and enhance Vermont's historic settlement patterns" and 2) "It is desirable for the enterprise to use existing infrastructure or to locate in an existing downtown redevelopment project."²

Unfortunately, these two smart growth locational criteria were eliminated during a reorganization of the VEPC statute in the 2016 legislative session,³ which saw these nine guidelines replaced by five "mandatory criteria."⁴ After these changes, the only remaining locational criterion is the fairly weak requirement that "the proposed economic activity would conform to applicable town and regional plans..."⁵ As a result, the VEGI program's smart growth policies became significantly weaker during the study period.

Findings and Conclusions: Vermont Employment Growth Incentive

Study period: FY13-FY19

Total projects: 49

Total awards made: \$30,727,791⁶

Data source: VEGI Annual Report Tables⁷

Industrial Parks

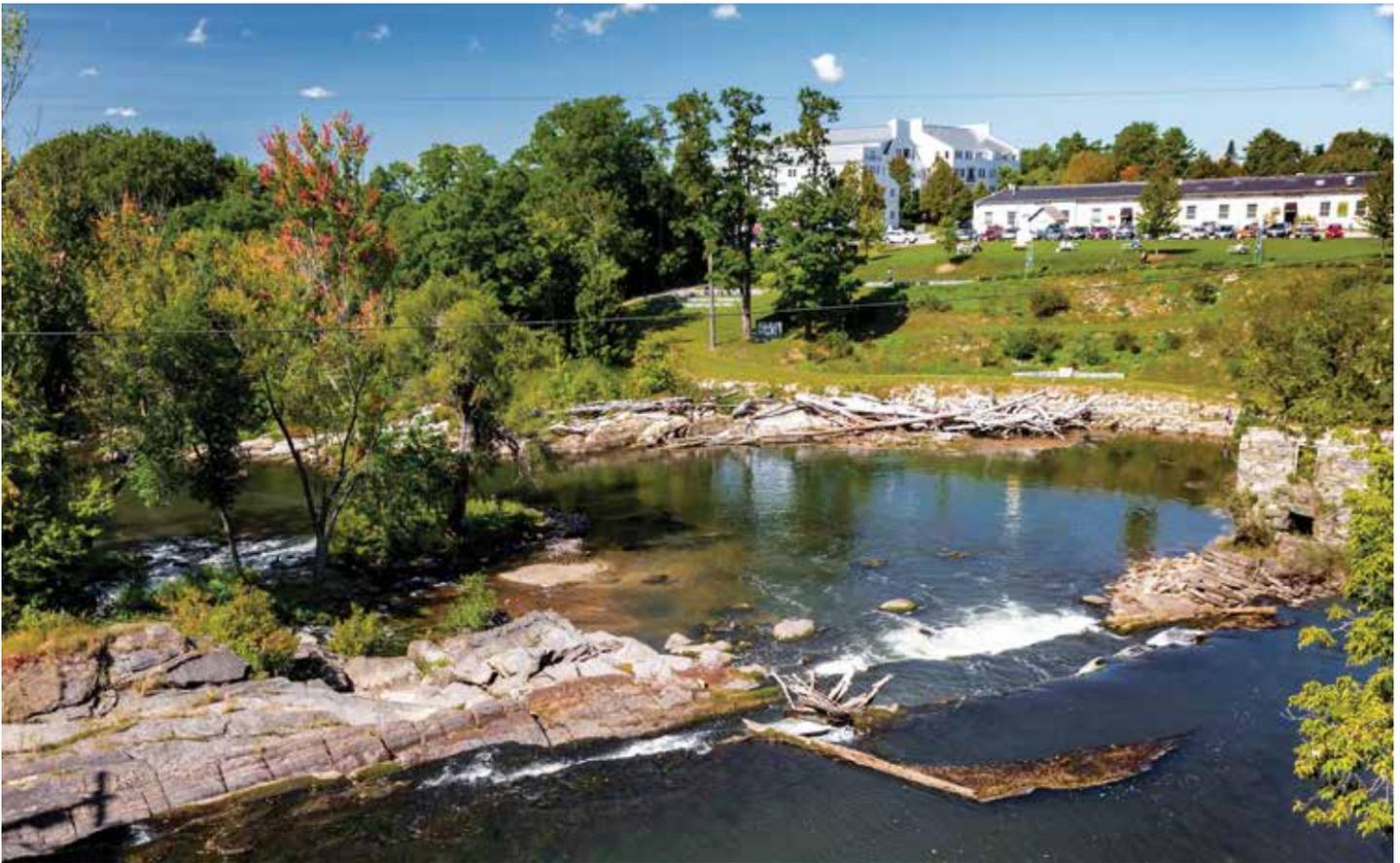
Though manufacturing is cleaner than it used to be, some uses remain unsuitable for downtowns and villages. But even when industrial parks cannot fit in smart growth *locations*, the *site* can be designed in an efficient way. In addition, communities can maximize their industrially-zoned land by requiring that office and retail uses be clearly incidental, secondary, or prohibited.



Morrisville Industrial Park
Compact design, potential for interconnections



St. Johnsbury Industrial Park
Spread out, disconnected

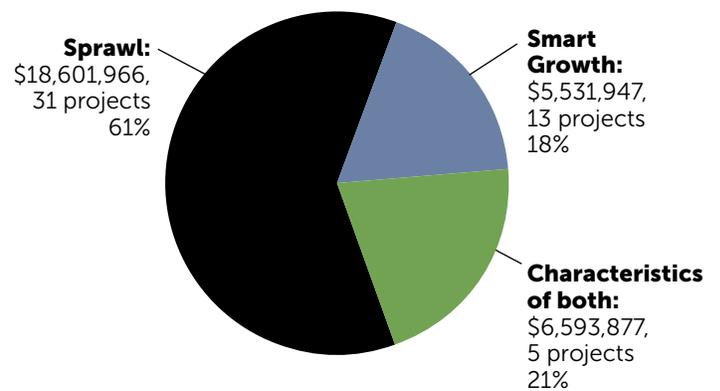


Bob LoCicero

In downtown Middlebury, Otter Creek is flanked by the Marble Works District, a bustling, walkable commercial and residential area.

- One project award, in the amount of \$5,351,000, accounts for the majority of the funds allocated to projects in the category “characteristics of both smart growth and sprawl.”
- Before locational guidelines were weakened, 21.1% of VEGI awards made went to projects in smart growth locations; after, this figure decreased to 15.4%. However, the percentage of projects in smart growth locations increased slightly.
- Both the percentage of funds awarded and the percentage of projects in sprawl locations decreased after the locational change.
- Due to the high percentage of projects in locations sharing characteristics of both smart growth and sprawl from 2017-2019, and because award amounts and locations vary greatly from year to year, it is difficult to conclusively say at this time how the locational changes affected investment.

**VEGI: Total Awards
2013-2019**



Vermont Housing & Conservation Board

The Vermont Housing & Conservation Board (VHCB), which is unique in the country for its dual focus, was established by the Vermont Legislature in 1987, and provides funding for the conservation of farmland, forestland, and natural areas; perpetually affordable housing; and historic preservation. VHCB originated at a time when upward pressure on land prices was making housing less affordable and increasing pressure on farm and forest landowners to subdivide for development. Investing in both housing and conservation helps address these challenges.

VHCB's investments provide housing that addresses "the spectrum of needs, from homelessness to homeownership,"¹ focusing on households with lower incomes. Its conservation investments preserve agricultural and forest land, natural areas, recreational land, and historic sites.² VHCB was created with a dedicated funding source to fund its work – 50% of the Property Transfer Tax – although the Legislature has frequently reduced funding below the statutory formula.

Housing Revenue Bond

During this study period (FYs 13-19), VHCB began administering the proceeds of a \$37 million housing bond, which was passed by the Legislature in 2017. In addition to serving lower income households, 25% of the housing created served those with moderate incomes (80% to 120% of area median income). As of January 2020, the bond has led to the creation or rehabilitation of 843 units of housing, including some of the "missing middle" housing types – condos, town homes, smaller homes – needed to accommodate our changing population.³ This represents one of the largest state investments in housing in Vermont's history.

The Smart Growth Connection

Quality housing in or adjacent to our downtowns and villages makes it easier to walk or take transit and fosters opportunities for community engagement, including for older Vermonters who may wish to downsize and live independently. Smart growth housing also avoids land-consumptive sprawl. Conservation of farm, forest, and natural areas also directly supports smart growth.

Overall Findings and Conclusions: Housing and Conservation

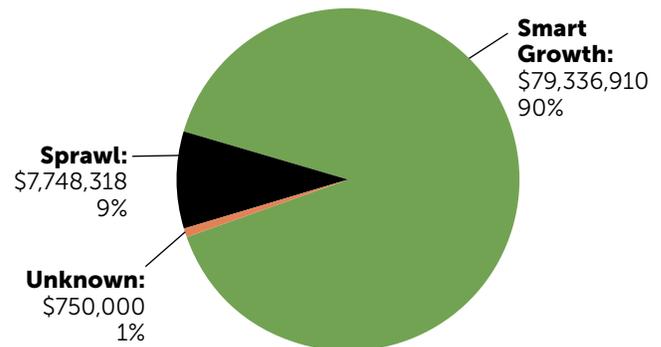
Study period: FY13-FY19

Total projects: 348

Total investment: \$87,835,228

Data sources: VHCB annual reports; reports from VHCB database generated by VHCB staff

VHCB: Total Investments by Location FY 2013-2019



Without the Applegate Biomass energy retrofit project, 93.7% of spending would be smart growth, 5.4% would be sprawl, and .9% unknown.

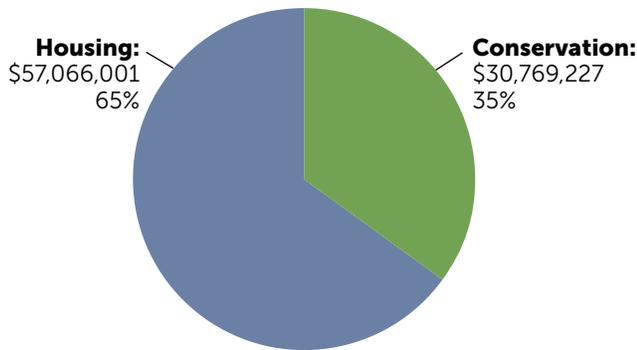
1 VHCB Annual Report, 2017, p. 4.

2 This report looks only at state dollars spent by VHCB on housing and conservation. VHCB also administers federal housing programs for the state, including HOME and the National Housing Trust Fund,

to which it applies the same smart growth priorities. Conservation funding leverages other resources, including federal funds that come to the state through VHCB such as NRCS funds.

3 VHCB Annual Report, 2019, p. 1.

VHCB: Housing and Conservation Spending FY 2013-2019



- VHCB's total investment includes 332 smart growth projects (housing, conservation, and historic preservation), 13 projects in sprawl locations, and three projects in the "unknown" category. (All conservation projects are considered smart growth.)
- With its strong locational policies, sustained commitment to housing close to services and transportation, and significant investment in farm and forest land, VHCB is one of the state's most important smart growth programs.

- During the study period, VHCB invested \$57,066,001 in 98 affordable housing projects, including investments in nine mobile home parks. VHCB directed the majority of its investments to smart growth locations.
- All investments in new housing were in smart growth locations.
- Of the projects in sprawl locations, all were improvements made to existing housing, including energy efficiency upgrades in mobile home parks, which are an important part of the state's affordable housing stock and disproportionately serve seniors.⁴
- Of the 21 projects specifically intended to serve older adults, 100% are in smart growth locations.
- One of the 13 projects in sprawl locations involved major investments in efficiency measures (biomass heating and weatherization) at an older, 130-unit apartment complex called Applegate Apartments.

% of Spending by Location	Smart Growth	Sprawl	Unknown
Total housing investment	85.1%	13.6%	1.3%
Total housing investment MINUS Applegate	90.1%	8.5%	1.4%

Findings and Conclusions: Housing

Study period: FY13-FY19

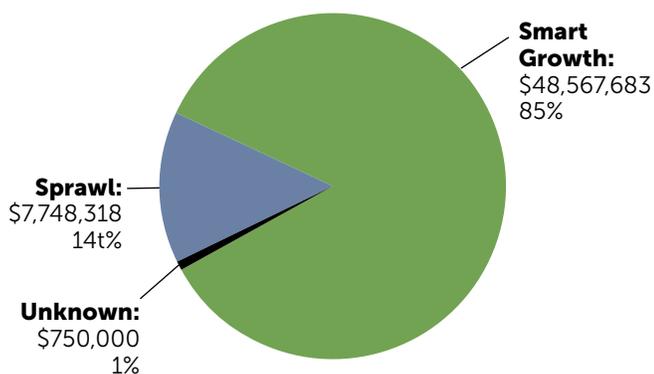
Total projects: 98

Total investment: \$57,066,001

Data sources: VHCB annual reports; reports from VHCB database generated by VHCB staff

- VHCB's housing policies direct investments to a range of housing types that diversify Vermont's housing mix in smart growth locations. The project evaluation criteria prioritize community revitalization projects; projects in compact areas with infrastructure, services, and transportation choices; and the reuse of existing (often historic) structures.⁵ When new construction is proposed, smart growth locations are encouraged. In addition, to minimize the impacts of projects outside smart growth areas, VHCB has policies related to clustering buildings and maintaining open space.⁶

VHCB: Total Housing Investment



Findings and Conclusions: Conservation

Study period: FY13-FY19

Total projects: 250

Total investment: \$30,769,227

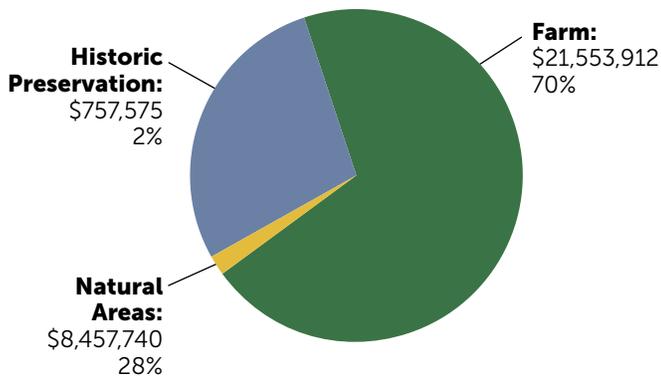
Data sources: VHCB annual reports; reports from VHCB database generated by VHCB staff

4 A 2012 look at resident demographics in Vermont's mobile home parks found that 37% of households had at least one person over the age of 65, compared to 24% of households statewide. Source: Baker, Hamshaw, & Woodward. (2012). *Vermont Mobile Home Parks: Resident Demographics* [Fact Sheet]. University of Vermont: Burlington, VT. https://www.cvoeo.org/filelibrary/file_61.pdf

5 Vermont Housing and Conservation Board. *Policy Position: Funding for Affordable Housing Projects*. March 15, 2012

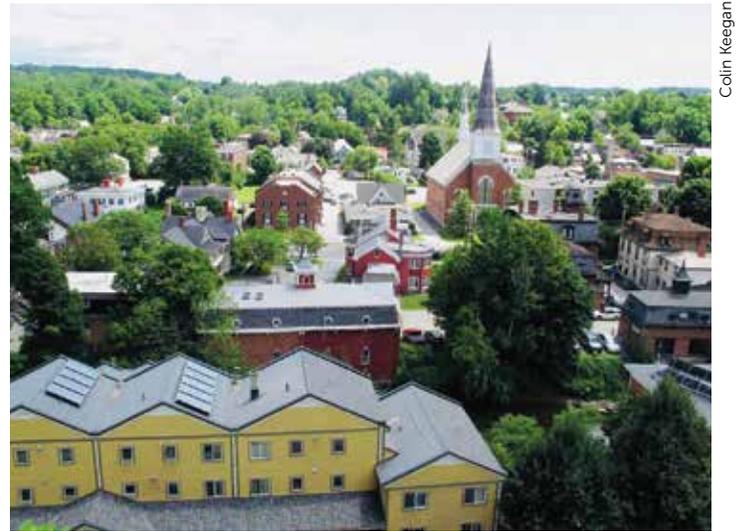
6 Vermont Housing and Conservation Board. *Policy Position: Guidelines for New Construction Housing Projects*. November 20, 1998. <https://vhcb.org/sites/default/files/policy/housing/newconstruction.pdf>

VHCB: Conservation Investments by Type



100% of VHCB's conservation investments are considered smart growth.

- From FY13-FY19, VHCB invested a total of about \$30,769,227 in projects to conserve farmland, forestland, natural areas, and historic resources. 100% of VHCB's conservation investments are considered smart growth.
- VHCB invested \$21,553,912 (70.0% of conservation dollars) in 181 farm projects, the majority of which were in Addison, Chittenden, and Franklin counties. According to VHCB, about 25% (on average over time) of the acreage conserved in farm projects is forested. Farm conservation makes up the majority of investment during this period – unsurprising considering the significant pressures on farms in recent years.
- VHCB invested \$8,457,740 (27.6% of conservation dollars) in projects to conserve forests and natural areas. Many projects included recreational opportunities, which are increasingly the focus of economic development in many rural communities.
- VHCB invested approximately \$757,600 (2.5% of conservation dollars) in historic preservation projects. These represent a minor portion of the “conservation” category of investment, though many housing projects also foster historic preservation.
- VHCB's farmland conservation policies prioritize land



Colin Keegan

The yellow building in the foreground is home to the North Branch Apartments, an affordable housing complex in downtown Montpelier.

close to other conserved land, and located in a farming community that has areas threatened by development. Projects where other resources can be protected, like wildlife habitat and riparian areas, are also viewed favorably.⁷

Recommendations

- Recovery recommendation: In light of the COVID-19 health and economic crisis, ensuring that we have adequate housing is more important than ever for people's safety and well-being. At the same time, migration to Vermont due to COVID-19 (along with likely increased migration due to climate disruption) reinforces the need to conserve key farm, forest, and natural areas.
- The Legislature should fully fund VHCB at statutory levels – 50% of the Property Transfer Tax – particularly if PTT revenues are up. Due to regular reductions of funding below the statutory formula by the Legislature, VHCB has been underfunded by over \$50 million since its inception,⁸ representing significant lost opportunities for Vermont and Vermonters.

7 Vermont Housing and Conservation Board. Policy: Funding Conservation of Agricultural Land. June 2016.

8 Vermont Housing and Conservation Coalition, 2018

Transportation

The Vermont Agency of Transportation (VTrans), in addition to maintaining and expanding the state portion of the highway network, administers programs related to bicycle and pedestrian transportation and public transit. The majority of the state’s roads are under municipal jurisdiction, and the majority of bike/ped investments are made on local roads, though often with state funding.

Smart Growth Connection

Smart growth puts homes, shopping, jobs, and services closer to each other, making it easier to offer transportation options such as through transit, sidewalks, and bike paths. By contrast, sprawl makes driving the only option, which can be isolating and expensive for the third of the population that does not drive.¹

Transportation choices are essential for older adults, as well as people who cannot drive, or choose not to. Choices other than driving can also help people be more active, reduce chronic disease risks and health costs, save money on owning a vehicle, and reduce vehicle emissions, Vermont’s greatest contributor of greenhouse gases. Using rail for freight can also help reduce pollution and wear and tear on the roads.

Findings and Conclusions: Total State Investments in Transportation

Study period: FY13-FY19

Data sources: VTrans Capital Programs

Table 1: Overview: Percentages of Total Transportation Budget Devoted to Various Modes

Year	Percent of Total Transportation Budget Devoted to Walking and Biking ³	Percent of Total Transportation Budget Devoted to Public Transit	Percent of Total Transportation Budget Devoted to Roads and Bridges ⁴	Total Transportation Budget ⁵
2013	1.1%	3.9%	64.5%	\$654,122,151
2014	1.3%	4.4%	67.0%	\$649,105,650
2015	1.2%	4.4%	64.3%	\$682,673,989
2016	1.3%	4.4%	63.7%	\$614,158,684
2017	1.6%	5.1%	65.4%	\$608,398,376
2018	1.7%	5.3%	65.2%	\$609,960,115
2019	2.0%	4.8%	67.5%	\$609,225,205

1 This includes children, people with disabilities who cannot drive, 20% of adults 65+, and those who choose not to drive.

2 Because of how they appear in the annual VTrans Capital Program, bike/ped dollars reflect actual construction figures, whereas transit dollars show budgeted/anticipated figures.

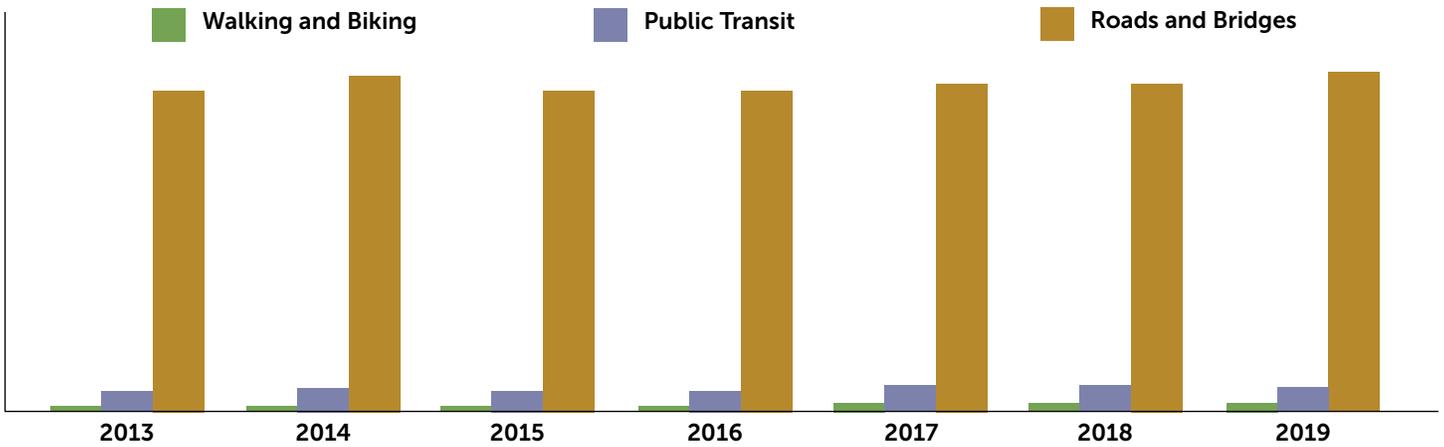
3 Bike/ped program plus Transportation Alternatives. Excludes earmarks.

4 As used in this report, the “Roads and Bridges” category includes numerous categories from the VTrans Capital Program: paving,

interstate and state highway bridges, the VTrans “roadway” category, highway safety and traffic, rest areas, maintenance, non-disaster town highway programs, and the Municipal Mitigation Grant Program. This report’s definition is therefore a more expansive category than the “roadways” line item in the VTrans budget.

5 Used as the denominator for percentage calculations. For this report “total transportation budget” is the total VTrans budget minus money spent on bike/ped earmarks, which is why these numbers are lower than the numbers in the Capital Program. Money budgeted for disaster recovery is included as part of the budget.

Percentage of Transportation Budget by Mode



If money spent on disaster recovery is added as a "Roads and Bridges" expenditure, the percentage of the budget that goes to roads and bridges increases significantly.

Table 2: Percentage Spent on Roads and Bridges With and Without Disaster Recovery Dollars

Percentage spent on roads and bridges	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Without town highway disaster recovery expenditures	64.5%	67.0%	64.3%	63.7%	65.4%	65.2%	67.5%
With town highway disaster recovery expenditures	75.4%	72.3%	71.8%	69.6%	67.6%	66.4%	68.6%

In this table, "disaster recovery" funds include town highway (TH) non-federal disaster funds, TH federal disaster funds, and TH public assistance grants. It does not include additional FHWA Emergency Relief funds that the state receives to help recover from disasters.



Bob LoCicero

Burlington bike path

- While the majority of VTrans' budget goes toward roads and bridges – primarily maintenance of the existing system – funding for transit, walking, and biking saw slight increases during the study period.
- Roads and bridges projects may include paved shoulders, sidewalks on bridges, and pedestrian signals, all of which support walking and biking.
- The expenses on disaster recovery listed in the VTrans budget were significant during the study period and included ongoing recovery from Tropical Storm Irene. Expenses ranged from \$6.4 million in FY19 to \$71,250,000 in FY13. These numbers don't include additional Federal Highway Administration dollars that the state also used for recovery, which ranged from \$5.3 million in FY17 to \$25 million in FY13 (data not obtained for FYs 18 and 19).

Additional Support For Walking And Biking

In addition to bicycle and pedestrian spending, there are other ways VTrans supports walking and biking.

- **Integrated bike/ped improvements:** Highway and bridge projects sometimes include features that serve walking and biking – for example, shoulder widening or the addition of sidewalks to bridges. A 2015 VTrans report⁶ estimates that approximately 11.7% of the money spent on highway and bridge construction projects went toward improvements that supported walking and biking. In addition, VTrans reports a steady improvement in looking for and integrating bike/ped opportunities as part of the road design process.
- **Engineering Instructions:** VTrans has taken steps to integrate walking and biking infrastructure

through its “Engineering Instructions.” These provide direction to those designing roadway projects – for example, by making 11’ the standard lane width, in most circumstances, which allows for wider shoulders for bicycles, and by providing guidance for bike lanes. Several of these instructions, which were adopted between 2012 and 2018, note that they should ultimately be incorporated into the Vermont State Standards, which were last updated in 1997.

- **On-Road Bicycle Plan:** The state’s on-road bicycle plan prioritizes road improvements and maintenance activities, and is used to guide decisions such as which shoulders are widened, or where street sweeping occurs first.

Findings and Conclusions: Spending on Bicycle Aand Pedestrian Facilities

Grants to support walking and biking infrastructure in Vermont – from sidewalks, to recreational trails, to streetscaping that creates a more welcoming, pedestrian-friendly environment – come from several sources, summarized below. The Bicycle and Pedestrian Program’s Federal Aid Awards require a 20% local match, and awards \$3 million in funds each year. A state-funded grant program (the “small projects” grants), which

began in state fiscal year 2016, uses funds that are more flexible, and can be deployed more quickly, but requires a 50% local match.⁷ This grant program is budgeted at approximately \$300,000 annually. The other source of funds for bike/ped investments is the Transportation Alternatives (TA; formerly Transportation Enhancements) Program. These are federal funds that can be used for bicycling and pedestrian facilities, but also for projects including historic preservation, environmental mitigation for stormwater, and recreational trails. Vermont receives approximately \$2.2 million in TA funds each year.

Table 3: Funding for Walking and Biking in Vermont

Program Name	Amount Available Annually	Local Match	Eligible Project Types
Bicycle and Pedestrian Program Federal Aid Awards	\$3 million (approx.)	20% 50%	Bicycle lanes, shoulders, sidewalks, pedestrian crossings and signals, shared use paths, and ADA improvements.
Bicycle and Pedestrian Program Small-Scale Awards	\$300,000 (approx.)	20%	Same as above; focus on necessary safety improvements; may be bid out or undertaken by local public works departments.
Transportation Alternatives (formerly Transportation Enhancements)	\$2.2 million (approx.)		Bike/ped facilities, historic preservation, stormwater mitigation, recreational trails, Safe Routes to School

⁶ “Vermont Agency of Transportation Report on Bicycle-Pedestrian Accommodation Activities – Calendar Year 2015”. At the Legislature’s request, VTrans began tracking these expenditures in 2007, though after 2015 the legislature no longer required the reports.

⁷ <https://vtrans.vermont.gov/highway/local-projects/bike-ped>, accessed 12/21/18.

Table 4: Total Funding for Bicycle and Pedestrian Projects*(includes state and federal funding, but does not include federal earmarks or local matches.)*

Fiscal Year	Bicycle & Pedestrian Program Funding	Transportation Alternatives Program	Total Bike/ Pedestrian Funding
2013	\$4,860,280	\$2,421,811	\$7,282,091
2014	\$4,963,409	\$3,575,911	\$8,593,320
2015	\$4,824,642	\$3,254,023	\$8,078,665
2016	\$4,165,321	\$3,729,745	\$7,895,066
2017	\$7,090,492	\$2,753,719	\$9,844,211
2018	\$8,191,581	\$1,898,159	\$10,089,740
2019	\$10,359,600	\$2,028,380	\$12,387,980

In the annual transportation budget, the primary data source for this report, funds appear in the year they are spent, not the year they are awarded. Because of this, variations between years may reflect the fact that projects are ready for construction at different times. According to VTrans staff, projects may be built 2-4 years after being awarded funds. This means the table above tells us about spending on construction, not legislative or state commitment in any given year.

In 2017, the General Assembly specified that all of the Transportation Alternatives funding would be put toward “environmental mitigation projects relating to stormwater and highways” for FY18 and FY19.⁸ to help the state meet its clean water funding obligations. Funding priorities are returned to normal in FY20 and FY21, but the law specifies that in FY22 and beyond, \$1.1 million (or less if there are limited applications) of the TA funding be put toward water quality projects.

- The bump in spending after 2016 may reflect the end of a backlog: after a seven-year hiatus of funding for the bike ped program,⁹ it’s likely that projects awarded funding in 2012 and 2013 went to construction in 2017 and after. This makes it clear that continued funding is essential not only for steady improvement of the transportation system, but also to ensure continuity for project planning and development.
- Earmarks – one-time federal funding that is awarded to a municipality but that passes through VTrans – accounted for over \$23 million in additional spending on walking and biking infrastructure. Projects

Complete Streets – Unmet Potential:

Unfortunately, we do not have a sense of the percentage of roads or number of miles that are considered “Complete Streets,” which are streets designed to serve users of all ages and abilities, with improvements that are suitable for the context (for example, sidewalks support walking and biking in downtown and village centers, but wider shoulders might provide safe walking space on certain rural roads). Despite the passage of the Complete Streets law in 2011, there is no system for establishing benchmarks or goals related to implementation of Complete Streets.

funded by earmarks include downtown streetscape improvements, which make areas more human-scaled and walkable (for example, in Bennington and St. Albans City), sidewalk upgrades (for example, in Hardwick and Thetford), and major trail projects (for example, the Lamoille Valley Rail Trail and Cross Vermont Trail). During the study period, approximately \$6.8 million of the \$23 million in earmarks went to portions of the Lamoille Valley Rail Trail, and nearly \$5.35 million went to a trail project in South Hero.

- The changes in the Transportation Alternatives formula are reducing the amount of money available for walking and biking projects¹⁰ by an estimated \$1 million/year, if the FY16 and FY17 awards are used as a guide. In FY20, however, 100% of TA awards

8 Act 38 of 2017: <https://legislature.vermont.gov/Documents/2018/Docs/ACTS/ACT038/ACT038%20As%20Enacted.pdf>

9 <https://legislature.vermont.gov/Documents/2016/WorkGroups/House%20Transportation/Municipal%20Assistance%20Bureau/W~Sue%20Scribner~What%27s%20New%20for%20the%20>

Bicycle%20and%20Pedestrian%20Program%20in%20SFY17~1-28-2016.pdf

10 <https://vtrans.vermont.gov/highway/local-projects/transport-alt>

(\$2.12 million) went to bike/ped projects, which is positive, but also shows that the demand for this funding for bike/ped projects is real.

Findings and Conclusions: Public Transit

The public transit budget in Vermont includes capital and operating funds for urban and rural routes, door-to-door services to help older Vermonters and those with disabilities meet essential needs, and the GoVermont! Program to connect people with ride options.

Table 5: Public Transit Funding

Fiscal Year	State Funding	Federal Funding	Total Funding
2013	\$7,482,900	\$18,155,896	\$25,638,796
2014	\$7,528,574	\$21,041,654	\$28,570,228
2015	\$8,473,293	\$21,373,628	\$29,846,921
2016	\$7,669,114	\$19,452,921	\$27,122,035
2017	\$7,928,915	\$23,244,783	\$31,173,698
2018	\$7,995,199	\$24,176,958	\$32,132,157
2019	\$7,795,281	\$21,224,948	\$29,020,229

Source: VTrans annual Transportation Programs

- While federal support for transit varied, state support for public transit increased slightly, from \$7,482,900 in 2013 to \$7,995,281 in 2019.
- Vermont fares well on transit investments when compared to other states on a per-capita basis, and deserves some credit for using funds flexibly. For example, it has augmented its Federal Transit Administration funds¹¹ with both state and federal highway funds. According to VTrans, non-transit funds account for approximately 60% of the public transit budget in a normal year. At the same time, having a high per capita number relative to nearby states should not keep Vermont from considering additional investment, since there are still gaps in meeting people’s needs.

Table 6: Road Capacity Increases

Fiscal Year	Expenditures*	Total spending on Roads and Bridges as defined by this report	Percent calculated with the report’s definition of “Roads and Bridges”
2013	\$7,028,314	\$421,923,341	1.7%
2014	\$11,114,497	\$435,169,294	2.6%
2015	\$6,855,250	\$438,850,037	1.6%
2016	\$725,891	\$391,239,323	0.2%
2017	\$336,242	\$397,976,054	0.1%

*Please note that “expenditures” are total expenditures, including project engineering and right of way.

- Between 0.1% and 2.6% of the Roads and Bridges budget was spent on roadway capacity increases for vehicles. Capacity expansion includes new roadways and additional travel lanes. According to VTrans, all of the capacity expansion between FY2013 and FY2017 went toward the Morrisville Bypass / Truck Route – about \$26 million over the study period. (Data for FY18 and FY19 was not obtained.)
- As an overall percentage of the budget, roadway spending decreased over the study period.
- VTrans reported that rather than capacity expansion, the Agency is concentrating on bringing existing highways to current standards – for example, by replacing old concrete roads. Upcoming capacity projects include the Crescent Connector in Essex Junction and the Champlain Parkway in Burlington. While these are new capacity, the Crescent Connector can be considered a smart growth project since it opens up land for infill within a village. This project, which is projected to reduce congestion significantly, is one of the alternatives to the cancelled Circumferential Highway project that would have opened up land for sprawl development. The Champlain Parkway will include a number of amenities including a separated multi-use lane, enhanced crossings for people walking and biking, and space for transit stops.

Rail, Park And Rides, and Multi Modal Centers

Park and rides, rail, and multi-modal facilities can be complementary investments for promoting transportation choices and smart growth. Park and rides give people a place from which to take transit or carpool, often to a compact center. Rail can be used for passengers,

11 More specifically, the state has used the FTA’s so-called “Section 5310 funds,” which supports the Elderly Individuals and Individuals with Disabilities Program.

Table 7 – Rail, Park and Rides and Multi-Modal Centers

Percentage spent on other transportation spending	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Rail	4.2%	5.4%	5.5%	5.7%	5.6%	6.1%	4.9%
Park and Rides	.6%	.6%	.4%	.4%	.4%	.6%	.6%
Multimodal centers	.3%	.2%	.4%	.3%	.5%	.4%	0%

Calculated as a percent of the total VTrans budget minus bike/ped earmarks.

lessening parking demand in downtowns, and for freight, reducing noise and traffic on state routes that also serve as main streets. Multi-modal facilities (transit centers) improve the user experience.

Recommendations

- During the study period (FY13-FY19), several of VTrans’s leaders have created space to innovate with new programs, like the Better Connections program. They have also supported better and more regular integration of walking and biking infrastructure into projects. Continued VTrans leadership will be needed to sustain these gains and foster additional innovation.

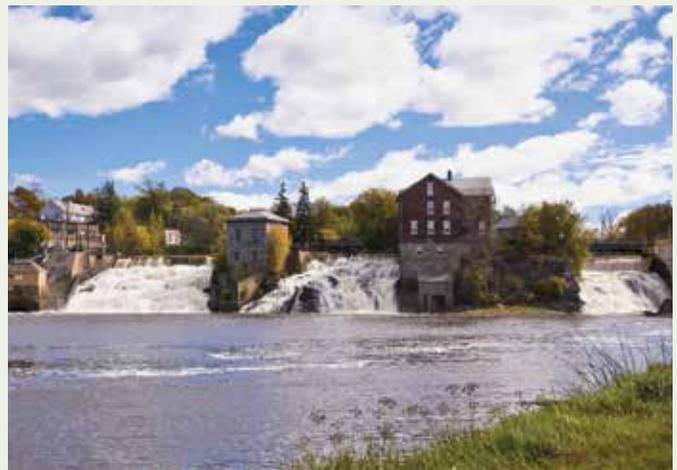
- Expand funding for the state-funded small scale bike-ped grant program. Evaluate it to see whether the 50% match requirement limits participation among towns of different sizes or different parts of the state.
- VTrans should encourage Complete Streets adoption and implementation by providing informational workshops and technical assistance opportunities at the local and regional levels. Complete Streets implementation would also be strengthened by establishing statewide goals for Complete Streets adoption, and then measuring progress by collecting, monitoring, and publically reporting data from state

Better Connections Grant Program

Better Connections is a joint program of the Agency of Transportation (VTrans) and the Agency of Commerce and Community Development (ACCD), that helps create thriving, livable places with diverse transportation choices in Vermont. Municipalities annually compete for approximately \$300,000 in projects funds. The program provides assistance to communities to develop action-oriented plans and lay out a strategic implementation plan for both short-term and long-term public and private investments. For example, in 2016, the grant supported the development of the Chester Village Center Master Plan, which brought together diverse local groups to envision an economically vibrant village. In addition to helping build community capacity, a key part of the plan was identifying transportation connections within the village as well as to nearby recreation assets.

In 2018, the partnership expanded to include funding from the Agency of Natural Resources Clean Water Fund and the Vermont Department of Health to support projects that improve water quality or

accelerate the implementation of projects that support public health. The interagency program has resulted in holistic plans that communities can turn into action, has also built stronger partnerships between four state agencies, and has been lauded for being a program that enables efficient, integrated planning that includes public participation.¹²



¹² Better Connections Program Evaluation, ReGeneration Resources, July 2020. <https://vtrans.vermont.gov/sites/aot/files/planning/documents/scbc/BetterConnectionsEvaluationReport2020.pdf>

and municipally managed transportation projects. This would allow VTrans to identify barriers and solutions to Complete Streets adoption.

- With the passage of a key funding source for clean water in 2019, the Legislature should revisit the Transportation Alternatives allocation policy that currently requires \$1.1 million of the TA funding to be put toward water quality projects after FY2022. While the TA funds may be used for environmental needs, they are also one of a few sources of funding for improving walking and biking infrastructure. The ability to maximize use of TA funds for this purpose should be restored, or the \$1.1 million figure reconsidered, and the Legislature should continue its work to make available sustainable, dedicated, long-term funding sources for clean water for non-Lake Champlain TMDL projects.
- Continue the positive trend of minimizing the focus on capacity expanding projects, particularly on bypasses like in Morrisville and Bennington, which are costly and can undermine historic downtowns and villages. VTrans and Legislators should proceed extremely cautiously, thoroughly studying both the land use and transportation implications of any future bypass projects, to ensure that bypasses don't enable sprawl or harm existing centers.
- In March of 2015 VTrans published a work plan, Revising the VT State Standards (VSS), recognizing that to carry out its mission in the context of 21st century economic and demographic realities, many of the Agency's standards and approaches for planning, designing, constructing, maintaining and operating highway facilities need to be updated to meet and balance a variety of needs and goals for the state transportation network. VTrans should commit to and fund the completion of this project.
- As we continue investment in recreational trails – an important resource for free recreation, economic development, and wellness – we should ensure these investments connect to villages and downtowns, and support mobility as well as recreation. VTrans should fund planning and construction for connecting trails, through the Better Connections program or another dedicated source.

Downtown Transportation Fund

The Downtown Transportation Fund, established in 1999, awards grants to Vermont's 23 designated downtowns for capital improvements to transportation infrastructure. The program has funded streetscape improvements, wayfinding, parking facilities, and street lighting, among other projects. From 1999 to 2020, the program awarded 136 grants to 23 communities – over \$11 million in awards leveraging \$49 million in other investment.¹³ This targeted program is a critical piece of Vermont's downtown reinvestment efforts, since it improves the safety, livability, and function of these areas.



Bethel Revitalization Initiative

- Increase Downtown Transportation Funds. Once they are increased, allow them to be used in designated villages that have completed the Better Connections Program.
- We will need leadership within state government to ensure that the potentially disruptive technologies emerging today, like autonomous vehicles, can be harnessed to increase mobility, especially by ensuring all Vermonters can benefit from these technologies. One approach would be Universal Mobility as a Service, which expands offerings to customers with a single platform to efficiently identify all available transportation options, compare cost, schedule a ride, and even pay for a trip. When aligned with a commitment to livable communities, this provides a framework to harness change for a more equitable and sustainable transportation future.

¹³ <https://accd.vermont.gov/sites/accdnew/files/documents/CD/CPR/CPR-DTF-Annual-Report.pdf>

Sewer Grants and Loans

Overview

The Vermont Agency of Natural Resources (ANR) contributes both state and federal funds to aid municipalities with water and sewer projects. Funding sources include the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund. In addition, funding for sewer and water projects is available via USDA Rural Development (the Water and Waste Disposal Loan and Grant Program), Community Development Block Grants, and the Northern Borders Regional Commission. This report looks at awards made from the Clean Water State Revolving Fund from FY13-FY17.

Smart Growth Connection

The existence and location of water and sewer facilities makes land more attractive for development, and allows higher densities and a greater mix of land uses in the area served. Water and sewer projects promote smart growth when they serve downtown areas and support compact development and a mix of uses. They foster sprawl when they are used to serve outlying areas, often along highways, where development is spread out and automobile dependent. Pressure to expand sewer capacity and serve outlying areas can mean there is less funding to maintain existing facilities, which leads to a higher risk of sewage spills and more pollution. Keeping our existing facilities working well, and promoting infill instead of extending sewer lines to serve outlying development, promotes smart growth and reduces pollution. It also supports the fiscal health of the locality since new revenue from infill supports the existing infrastructure.

Clean Water State Revolving Fund

The CWSRF funds a wide variety of planning, construction, and design projects, including wastewater treatment facility construction and upgrades, Combined Sewer Overflow abatement, community decentralized wastewater systems, and watershed projects.¹ There is

also a loan program for natural resources projects that allows these projects to be added to larger projects, which then receive a discounted administrative fee over the life of the loan that effectively pays for the natural resource project.²

With the passage of Act 185³ in 2018, private entities became eligible to apply for loans, through the Vermont Economic Development Authority, for clean water projects. Per the Act, privately owned clean water projects may not be prioritized above municipal projects, loans to privately owned clean water projects are capped at 20% of the funds identified in the state's annual Intended Use Plan, and the program ends on June 30, 2023, unless extended by the legislature.

Locational Criteria

To determine eligibility for clean water funding, each year the Secretary of the Agency of Natural Resources creates a priority list of projects and seeks public input on the draft list.⁴ Funding is provided based on how the project fares under a priority system that weighs public benefits and costs.⁵

Since 2002, whether a sewer project contributes to sprawl or has controls in place to address sprawl impacts – the so-called “sewer rule” – is part of this evaluation. In addition, demonstrating that a project will serve a smart growth area, unless there are health or safety issues outside such areas, has been a threshold requirement for funding since 2002. This is reviewed during the application process – by engineering professionals in the Water Investment Division for most projects, and by planning and engineering professionals at ANR for larger projects.

During the study period, these locational criteria – which are implemented through Chapter 2 of the Department of Environmental Conservation's Environmental Protection Rules⁶ – were improved in one regard, which was a clarification that projects outside “designated centers,”

1 <https://dec.vermont.gov/water-investment/water-financing/cwsrf>

2 <https://dec.vermont.gov/water-investment/water-financing/cwsrf/WISPr>

3 <https://legislature.vermont.gov/Documents/2018/Docs/ACTS/ACT185/ACT185%20As%20Enacted.pdf>

4 24 VSA §4758

5 10 VSA §1628

6 <https://dec.vermont.gov/laws>

What About Other Funding Sources?

USDA Rural Development, Community Development Block Grants (CDBG), and the Northern Borders Regional Commission (NBRC) are all sources of funding for water and wastewater extensions. USDA has loan and grant programs; CDBG and NRBC offer grants. Grants are understandably highly sought after, compared to loan programs, and can be used as part of a funding package to reduce overall loan costs. These funding sources are not subject to the sewer rule, and have few, if any, smart growth criteria of their own.

rather than locally-defined growth areas, needed to be analyzed for possible sprawl impacts.

Another change between 2014 and 2017 is a rule update that deletes capacity increases at existing facilities as a trigger for the review process that ensures protections are in place to minimize sprawl. However, sewer line extensions remain a trigger for this review.

Findings and Conclusions

Study period: FY13-17

Total projects: 89

Total investment: \$85,874,861⁷

- Over the four-year period covering FY13 to FY17, three sewer projects, totaling \$1,376,227, expanded sewer capacity or extended sewer lines, and have the potential to contribute to sprawl. Seventy five sewer projects, totaling \$80,112, 429, refurbished existing systems or added new treatment and did not contribute to sprawl. (Planning and design projects were not included.)
- Projects included refurbishments at existing facilities, in both smart growth areas, as well as refurbishments at pre-existing facilities, such as pump stations, that serve locations further from community centers. There were some service expansions to address public health needs (such as Mallet's Bay in Colchester, or to the compactly settled Mountain View Mobile Home Park in Hinesburg).
- Projects also included extensions to serve existing exurban developments whose private septic systems (sometimes individual, sometimes shared) had failed. While this may have remedied public health needs

or water quality issues, it is also a reminder that once development is in place, even with its own system, local officials are ultimately responsible for public health, and this can create pressure to extend infrastructure ensure that public health is maintained. This can mean that local and state taxpayers become responsible for the costly expansion and maintenance of poorly planned development.

- The sewer rule is well-crafted, and has maintained its integrity despite changes in 2014 and 2017. It appears that during the study period the rule may have helped hold CWSRF projects to a high standard regarding serving centers and preventing scattered development.
- The Clean Water State Revolving Fund is only one funding source for wastewater projects. Other significant sources, such as USDA Rural Development and CDBG, do not have locational criteria that are as specific or aligned with state planning goals, and have not been researched for this report.

Recommendations

- As a prerequisite to receiving funding, municipalities should have a sewer and water policy that demonstrates what, where, and how sewer and water service can be allocated. This should include a map on where sewer and water extensions are allowed. This policy should be reviewed, for example, by regional planning commissions or an appropriate state agency, to determine whether it advances smart growth goals.
- ANR's application of the sewer rule would be aided if there were common understandings, generated through a thorough public process, about what types of areas were not suitable for sewer line extensions, for example, through a regional planning process.
- Monitor the implementation of Act 185 to understand how and if the CLSRF is used by private entities, and how the locations of projects compare to public projects. Track the uptake of natural resource projects as part of other wastewater projects.
- It is impossible to know the extent to which the sewer rule analysis required to obtain CWSRF funds discourages communities from using these funds, and if it motivates municipalities and others to seek other sources of funding, but anecdotal evidence suggests this may be happening. It is also possible that recent low interest rates have lowered demand for these funds, making locally-funded projects – which do

⁷ Due to limitations on the information available, determinations about whether a project supported sprawl or not were based on the best information available, including DEC Intended Use Plans, a spreadsheet generated by DEC staff, and research into news reports,

press releases, and local meeting notes regarding projects. In addition, investment amounts are approximate, and, as values from the category "total disbursed," may reflect investments made in years outside the study period.

not need to adhere to state or federal grant or loan requirements – more viable. Though beyond the scope of this report, it is important to better understand the extent to which other funding sources – such as USDA Rural Development Funds, Community Development Block Grants, Northern Borders Regional Commission Grants, and Bond Bank lending – fund infrastructure that enables land consumptive, auto-dependent development that fragments Vermont’s resources. This should be studied and better understood.

- **Recovery recommendation:** As the state and the Department of Environmental Conservation consider how to prioritize clean water spending using funds received from the American Rescue Plan Act (ARPA), any funding awards made should ensure that investments do not enable or support sprawl development. To accomplish this, the requirements of the Municipal Pollution Control Priority System (sewer rule) should be applied to all funding set aside for applicable clean water projects.
- **Recovery recommendation:** Additionally, while the Intended Use Plan and Priority Project List focuses on projects that address an environmental mitigation need – which makes sense, given that the CWSRF comes from EPA Clean Water Funding – these lists do not necessarily place a strong value on the community development opportunities that could be realized with infrastructure investment. In collaboration with stakeholders from within and outside of state government, develop a ranking system for distribution of ARPA funds that gives greater priority to factors including smart growth locations, areas with unmet housing need or where housing costs are misaligned with area median income, active community development efforts, etc.

Village Wastewater Solutions Initiative

State and local officials have been working for years to find wastewater solutions that work for Vermont’s smaller villages – places in need of housing and economic development, but hindered by old and inadequate onsite systems. Collaboration on this issue took off in 2018, with a cross-agency effort, which also involved USDA Rural Development and housing and wastewater consultants, known as the Village Wastewater Solutions Initiative. The group has worked to provide technical assistance to rural villages and help pilot drinking water and wastewater projects that work in the rural context.

For example, a project in the villages of Wolcott, East Burke, and West Burke involves hiring a coordinator to help each community’s wastewater committees with planning and visioning around wastewater needs. This is to be followed by preliminary engineering to help both state permitting programs and local officials better understand how to implement these small-scale projects. This cross-agency effort is a positive step for ensuring that there is room for learning, innovation, and serving multiple goals with wastewater investments.