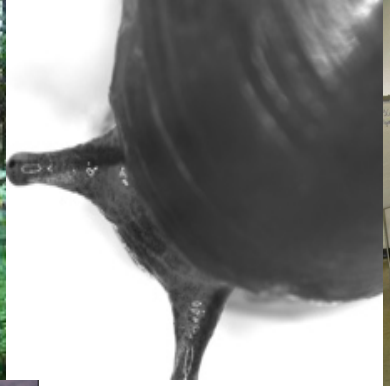
Department of Environmental Conservation

Fiscal Year 2015

Performance Outcomes and Measures

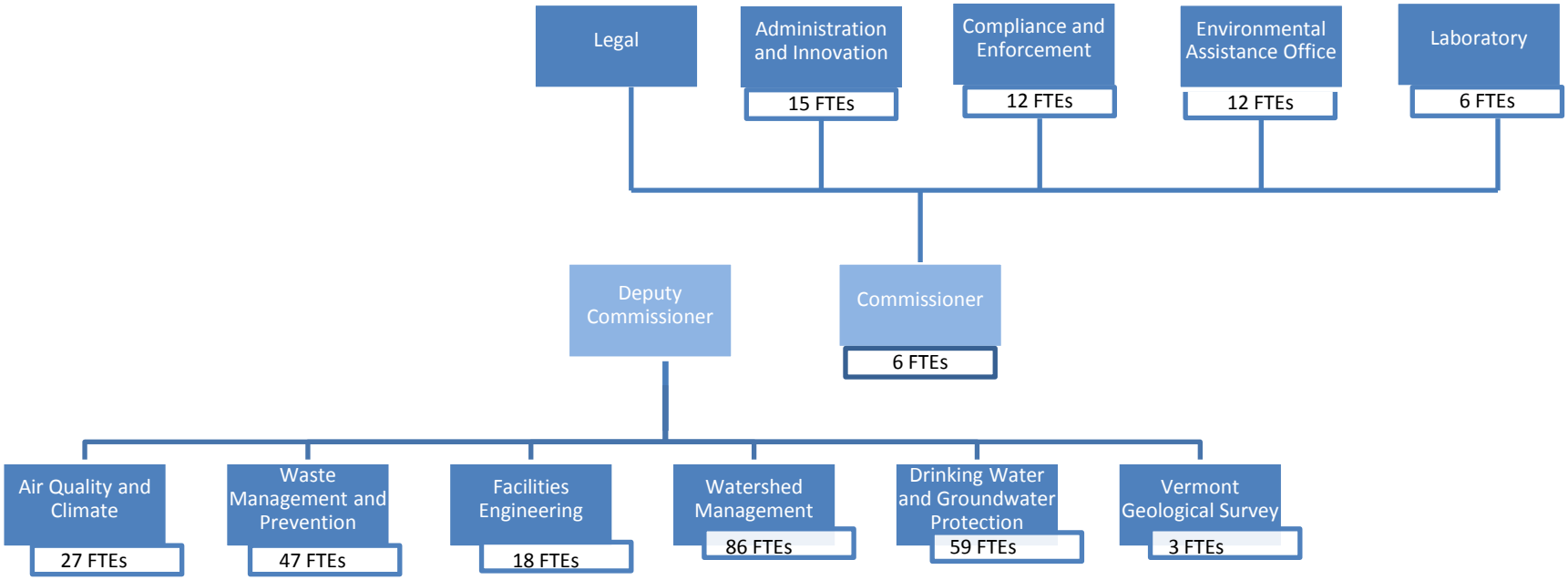

Department of Environmental Conservation

Fiscal Year 2015
Performance Outcomes and Measures



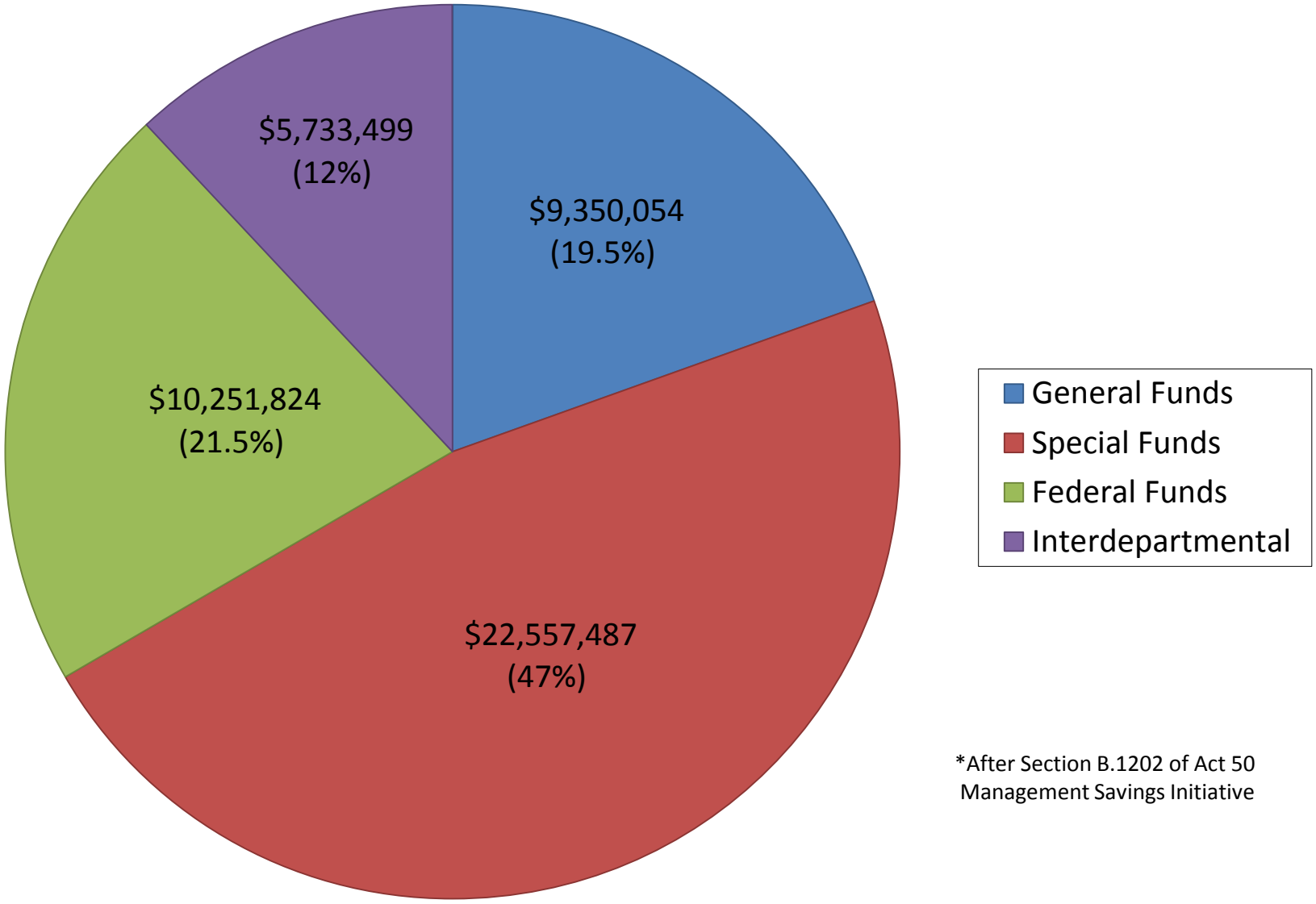


Department of Environmental Conservation



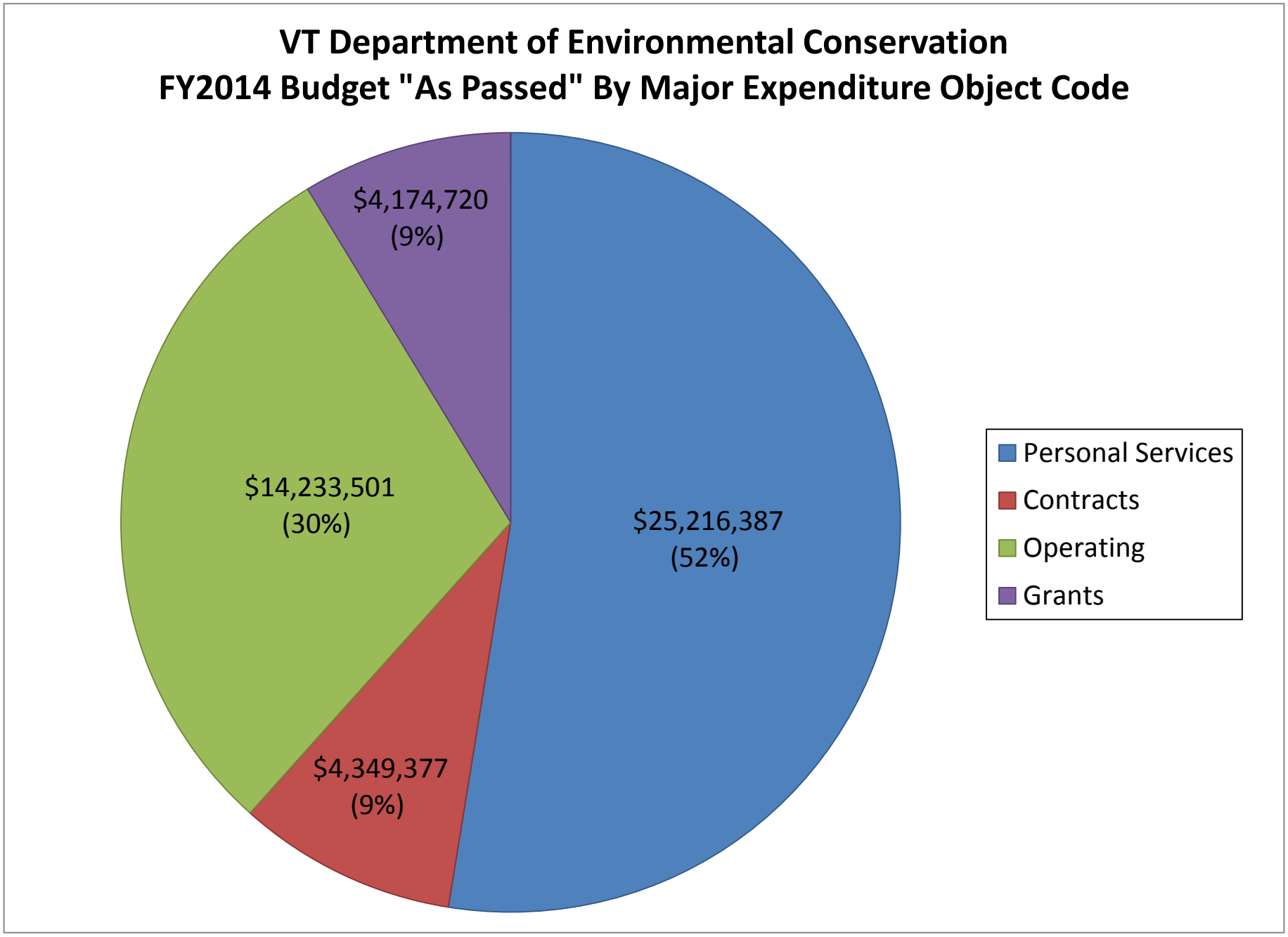
Total (FY14) Full Time Equivalent (FTEs) Employees:
291

VT Department of Environmental Conservation
FY14 Budget Appropriated* by Major Funding Source

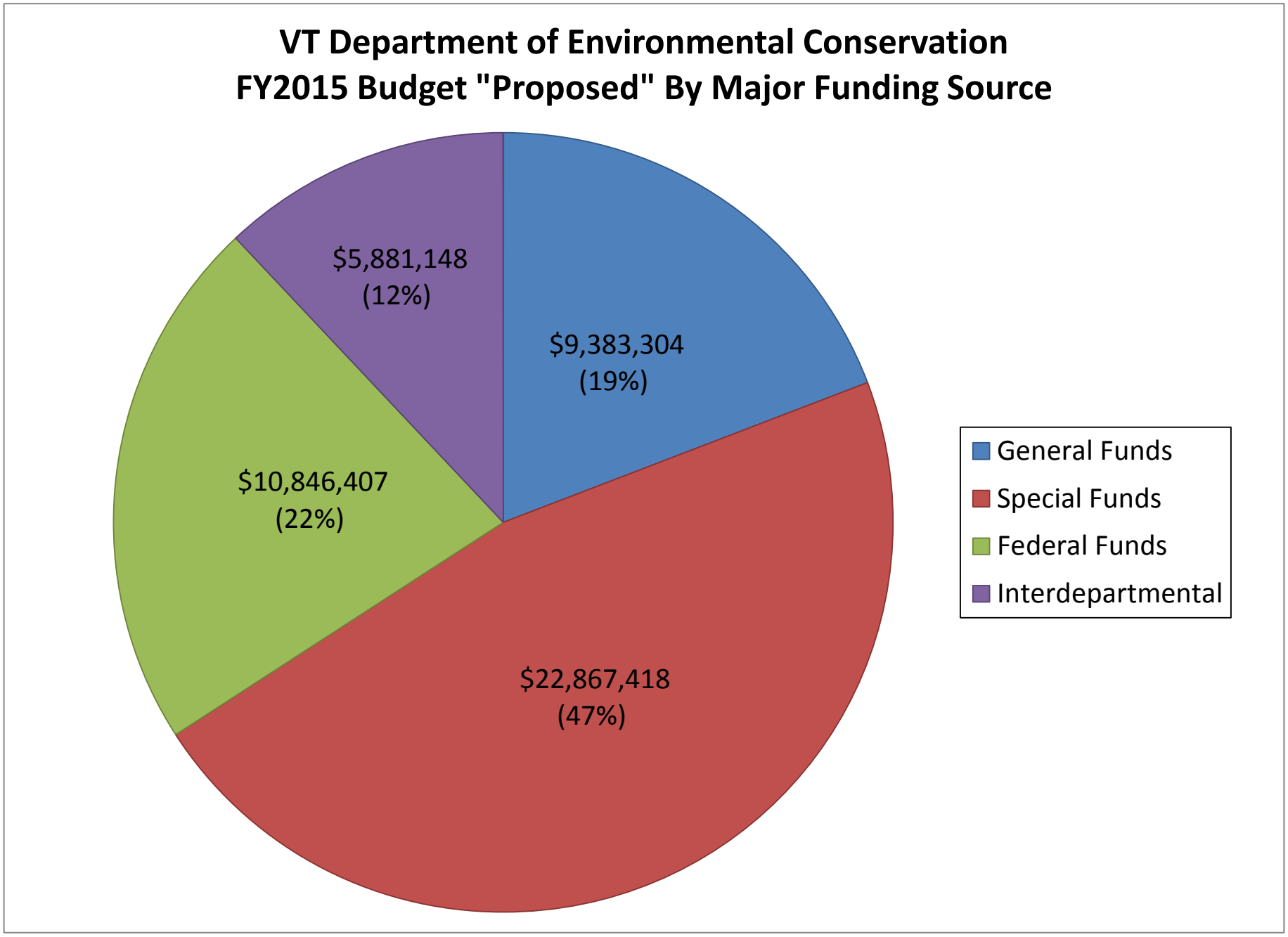


*After Section B.1202 of Act 50
Management Savings Initiative

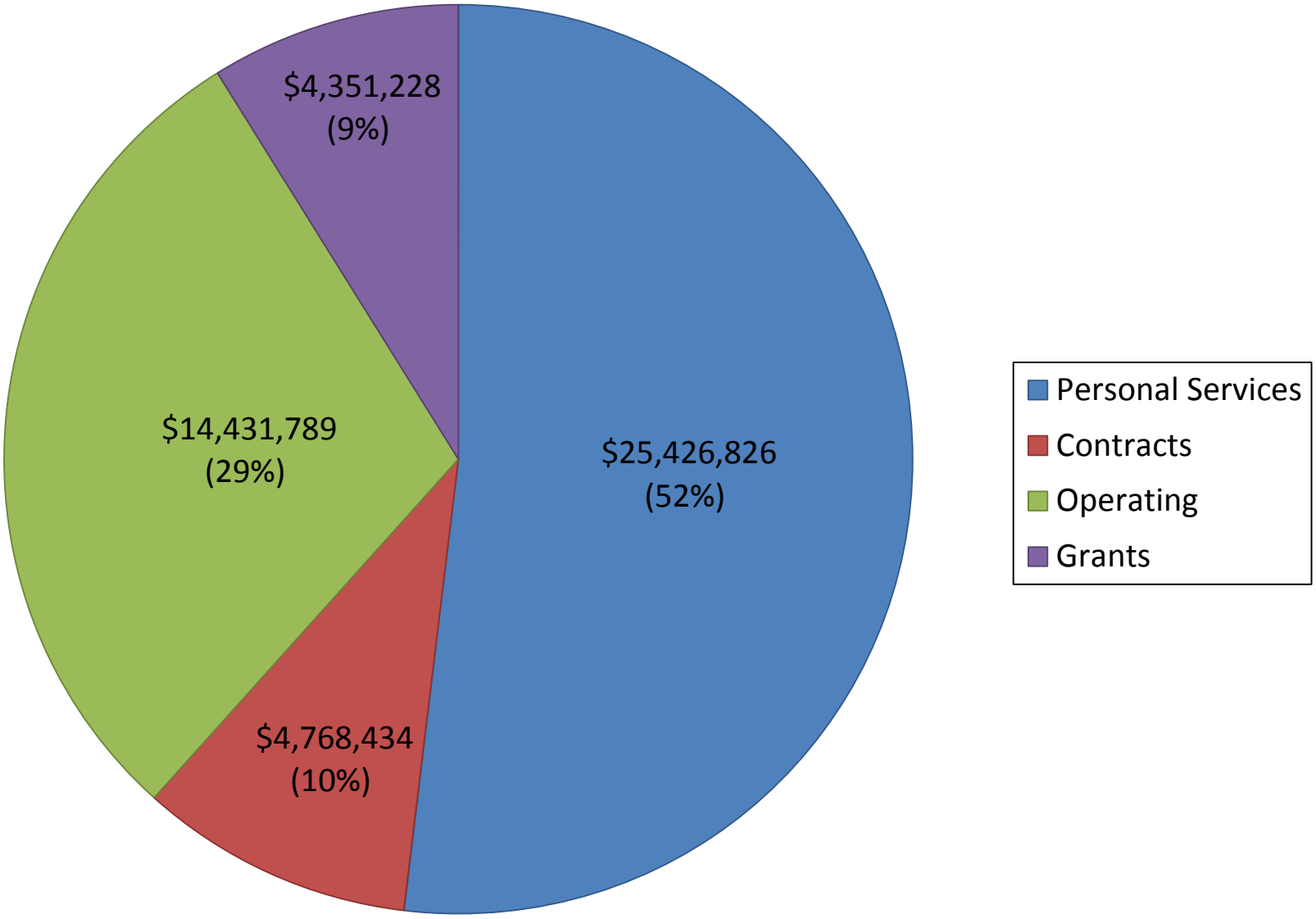
VT Department of Environmental Conservation
FY2014 Budget "As Passed" By Major Expenditure Object Code



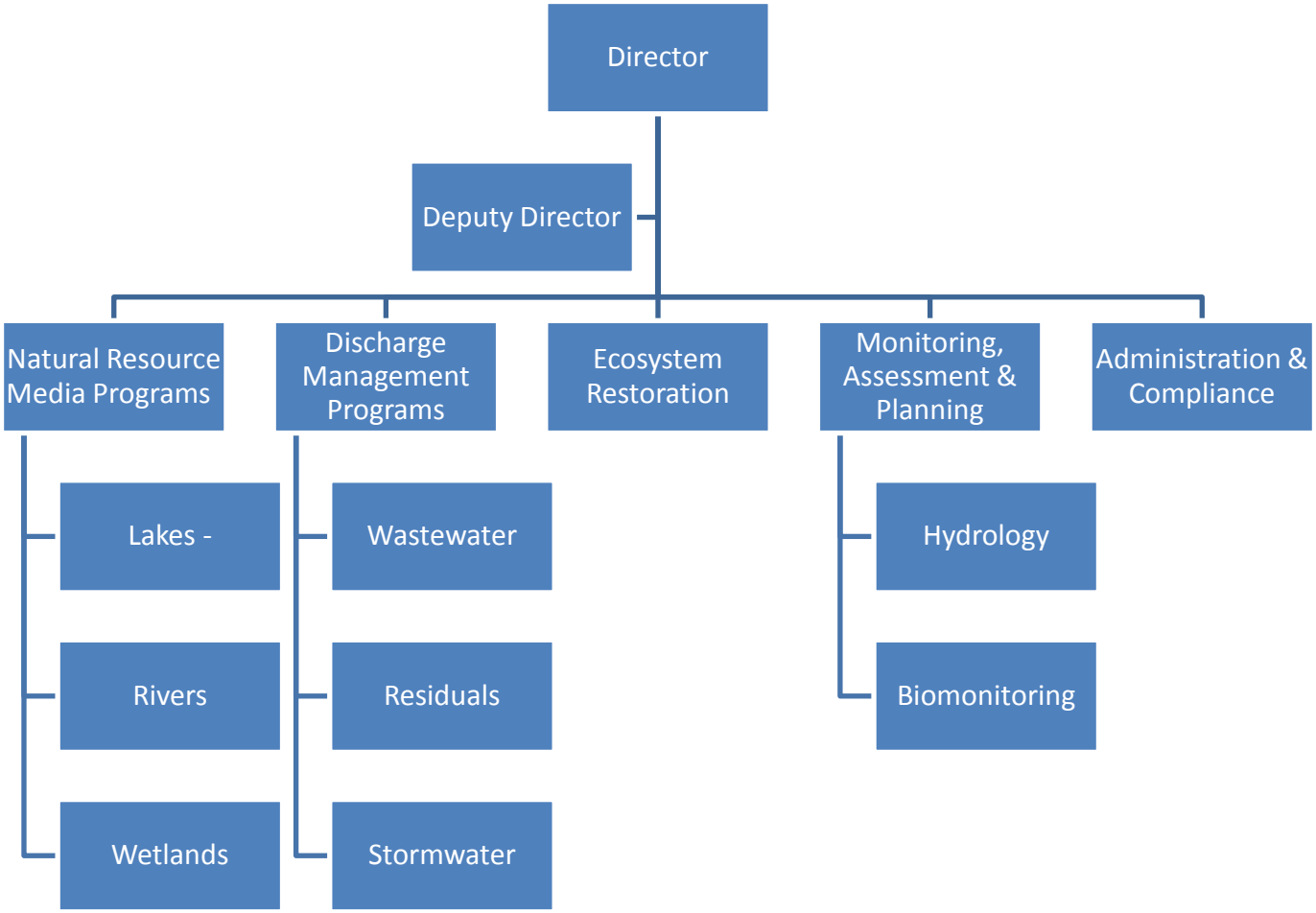
VT Department of Environmental Conservation
FY2015 Budget "Proposed" By Major Funding Source



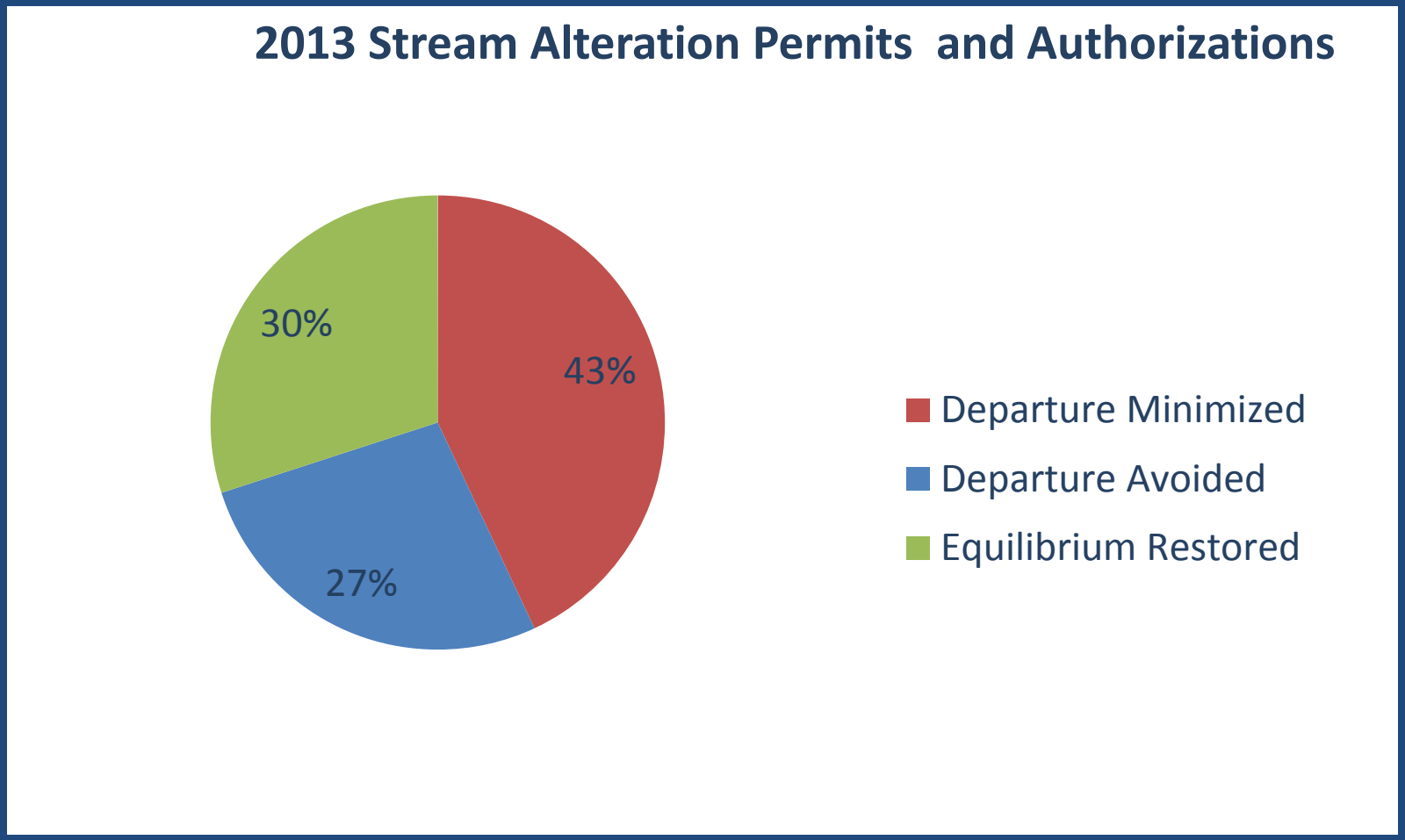
VT Department of Environmental Conservation
FY2015 Budget "Proposed" By Major Expenditure Object Code



Watershed Management Division Organizational Structure



DEC River Engineering working to reduce emergency measures and restore the natural stream processes that mitigate flood damage



DEC River Engineers:

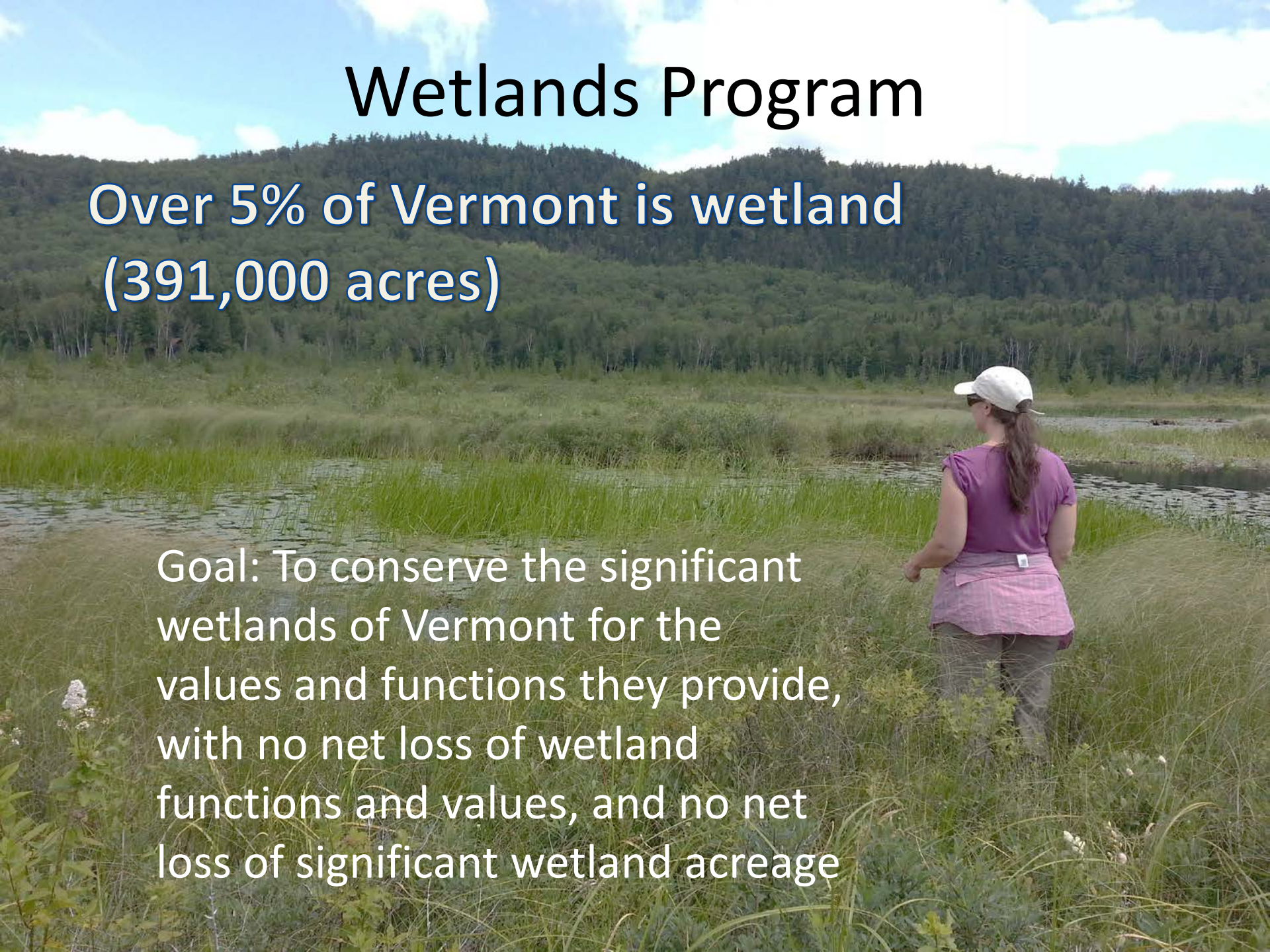
- Technically assist ~800-1000 project per year
- Permit ~500 projects per year

FEMA Public Assistance Projects from 1999 through 2013

Roaring Branch Floodplain Restoration

Bennington, VT

Wetlands Program



Over 5% of Vermont is wetland (391,000 acres)

Goal: To conserve the significant wetlands of Vermont for the values and functions they provide, with no net loss of wetland functions and values, and no net loss of significant wetland acreage

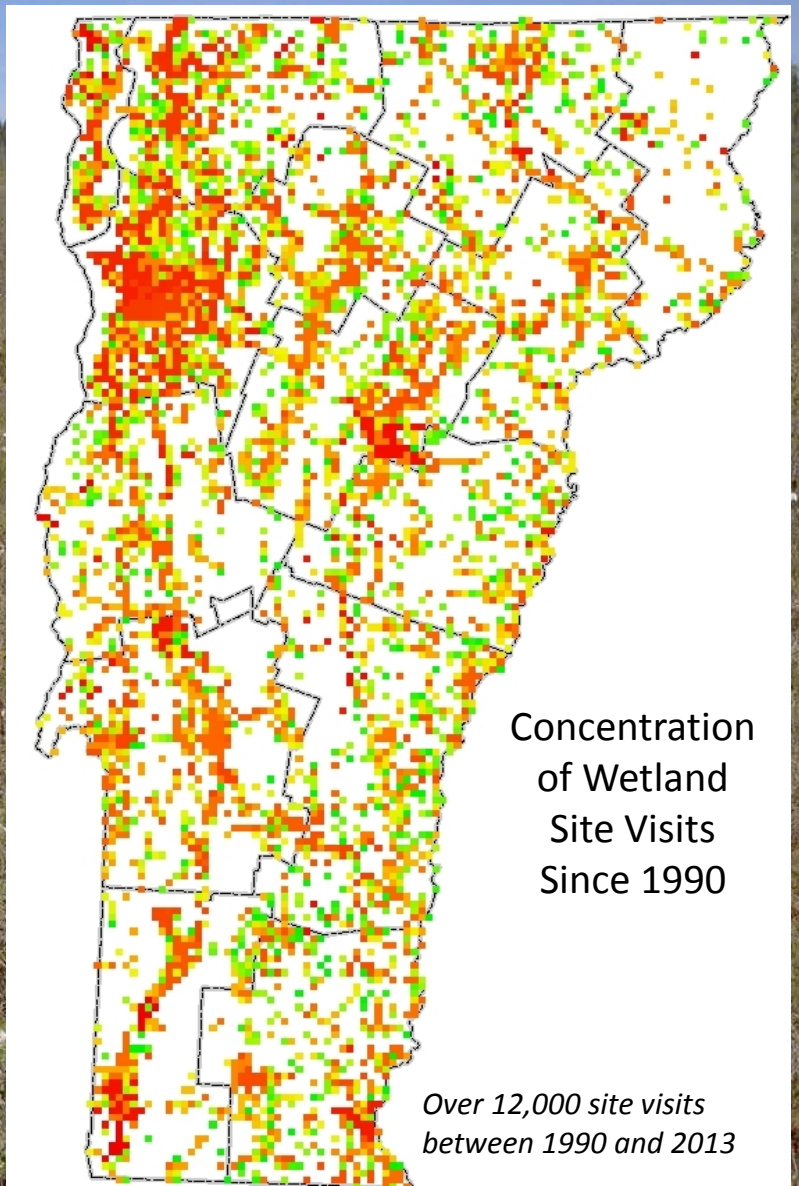
Wetlands Program

Number of site visits = avoidance and minimization of wetland impacts

- Over 600 site visits in 2013

No permits issued unless applicant demonstrated no loss of wetland function or value.

- 86 permits issued in 2013



VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION

Stormwater Management Program

The Watershed Management Division's Stormwater Management Program regulates stormwater runoff from construction activities, new impervious surfaces, industrial activities, concentrated animal feeding operations, large municipalities, and impervious surfaces in stormwater impaired watersheds.

Regulatory Programs and Thresholds Over Time

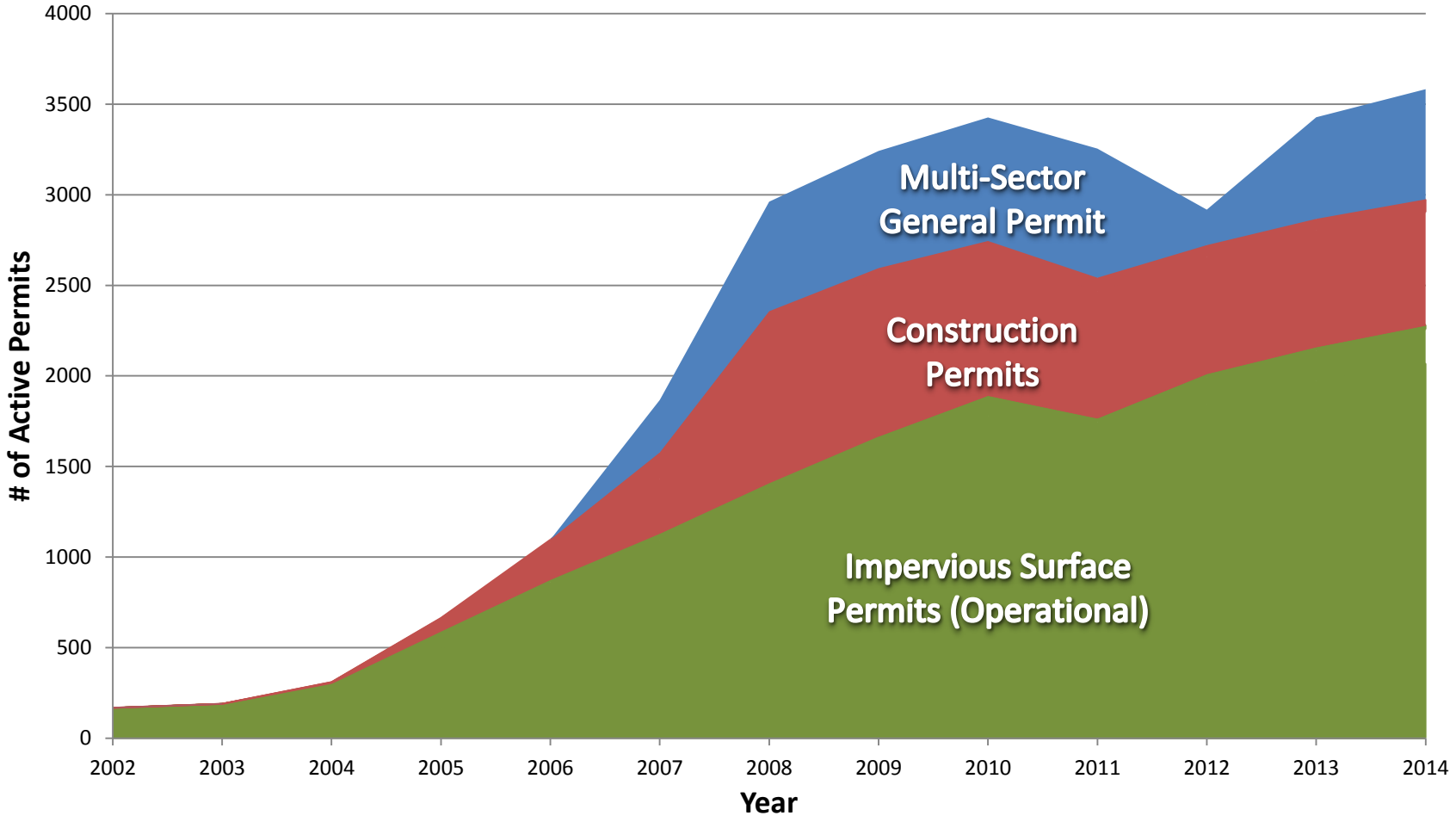
1980	First state impervious surface regulation	
1997	State impervious surface permit amended	2 acres of impervious
2003	First Construction General Permit (CGP)	5 acres of disturbance
2003	Municipal Separate Storm Sewer System (MS4) Permit	Census designated municipalities (within Chittenden Co.)
2005	State impervious surface permit renewed	1 acre of impervious
2006	CGP amended	1 acre of disturbance
2006	Multi-Sector General Permit (MSGP)	Categories of industrial activity
2009	Residual Designation Authority (RDA) permit	Properties in stormwater impaired watersheds
2012	MS4 with stormwater TMDL implementation	Expanded to St. Albans & Rutland
2013	Concentrated Animal Feeding Operations (CAFO)	Medium and Large farms

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION

Stormwater Management Program

Total Active Permits Over Time

The number of active permits has increased over the last several years due to introduction of new permit programs and the lowering of jurisdictional thresholds. Authorizations issued for Multi-Sector or Operational coverage remain active as long as the industrial activity or impervious surface remains, so the number of these permits generally increase from year to year.

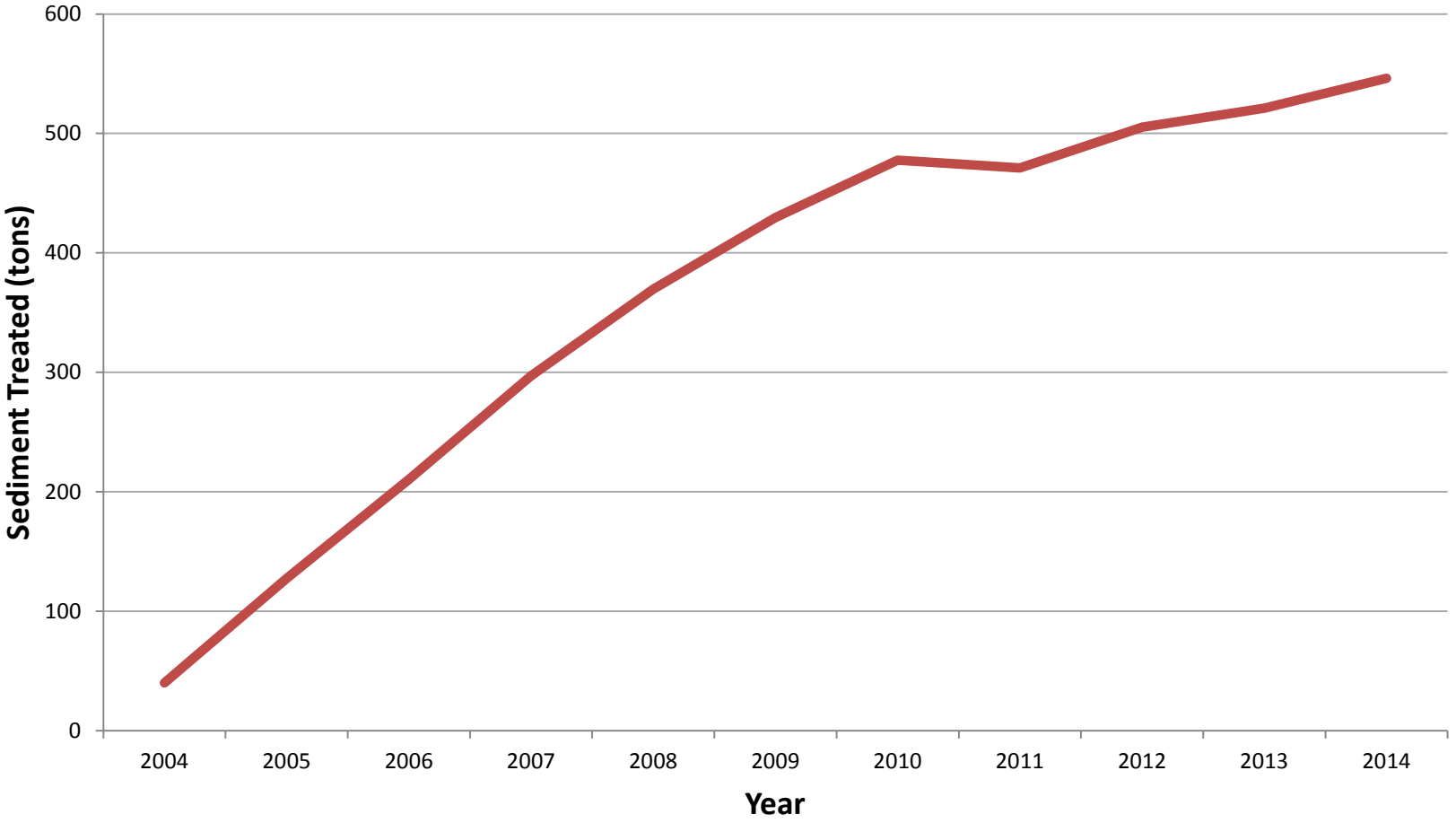


VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION

Stormwater Management Program

Sediment in urban runoff degrades aquatic habitat and carries attached pollutants and nutrients, such as phosphorus. By requiring treatment of runoff from impervious surfaces, the state stormwater program prevents an increasing amount of sediment from impacting our water resources every year.

Annual Sediment Removal Resulting from the State Permit Program



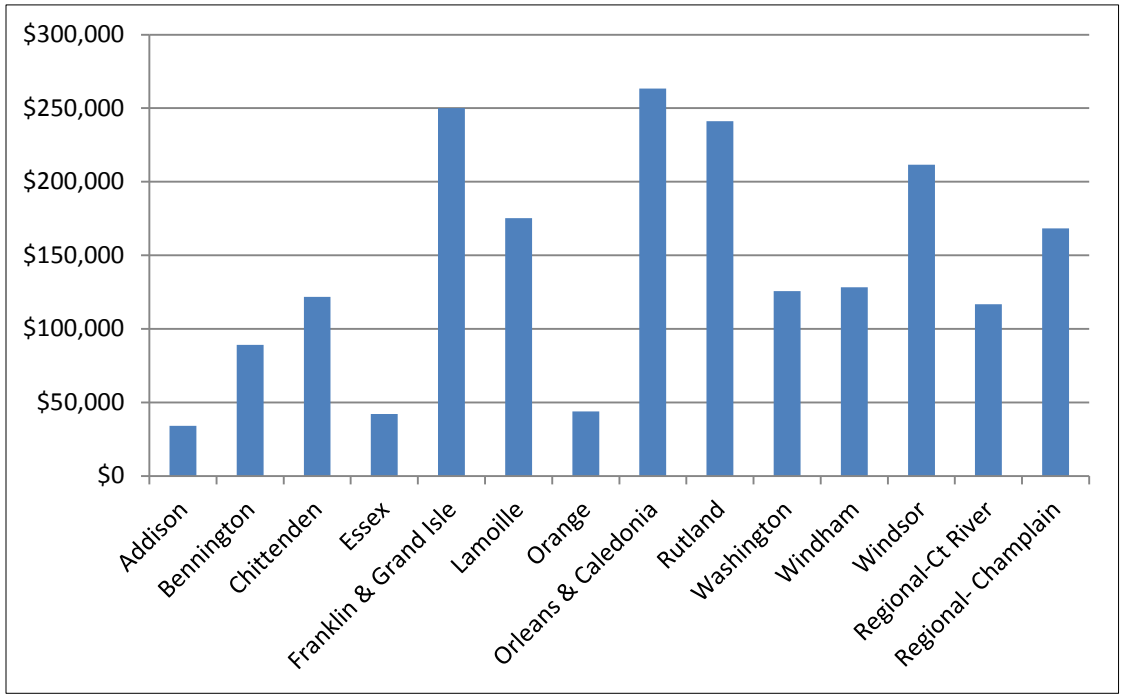
Ecosystem Restoration Program

Provides grants to municipalities and organizations
Targets polluted runoff & erosion - the leading cause of water quality degradation

Fiscal Year 2014 Grant Awards

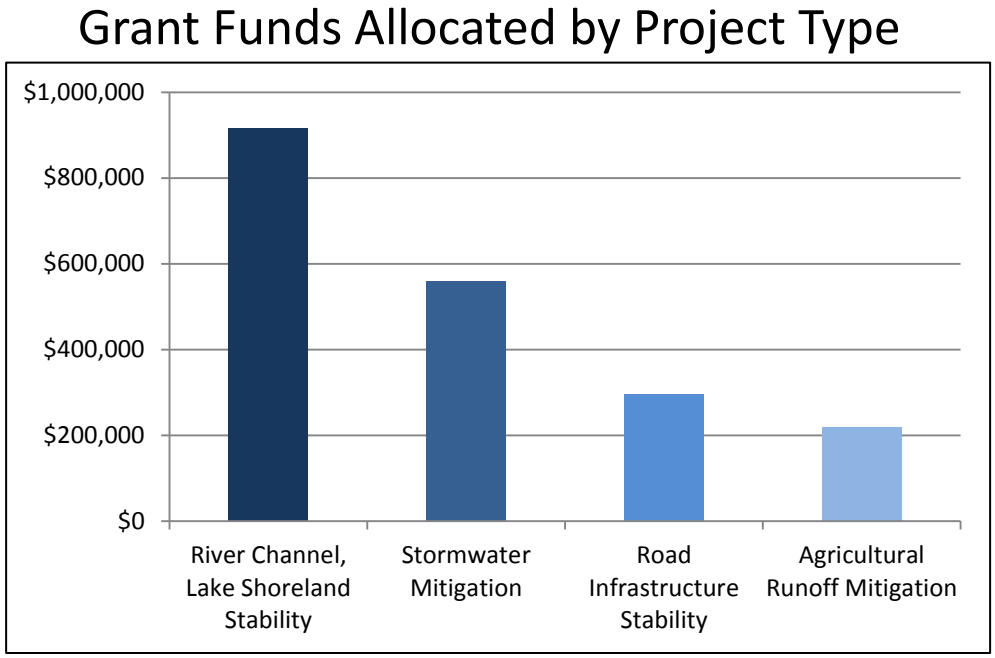
- Applying Tactical Basin Planning to target high priority projects
- 64 grants awarded
- Over $2 million in grant funds allocated across the State

Grant Funds Allocated by County or Regionally



Ecosystem Restoration Program

Fiscal Year 2014 Grant Awards (Continued)



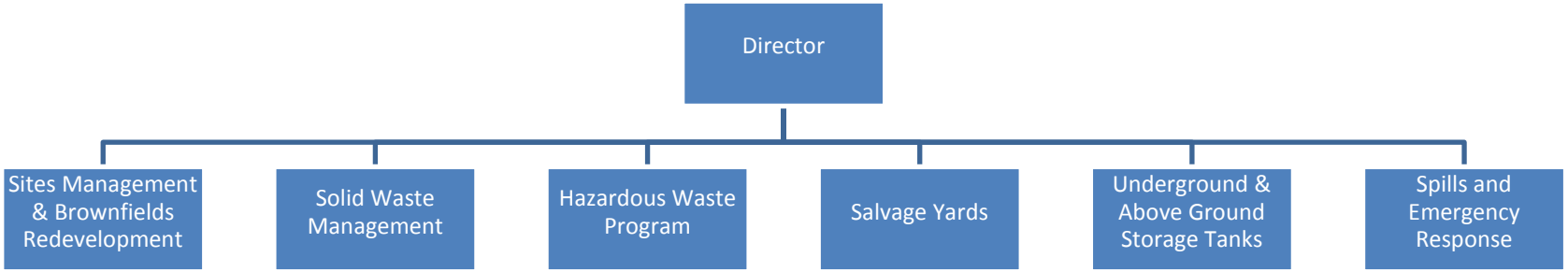
Improving road drainage, Randolph

Mitigating stormwater runoff, Hardwick

Restoring vegetated buffer, Woodstock

Waste Management and Prevention Division

Organizational Structure

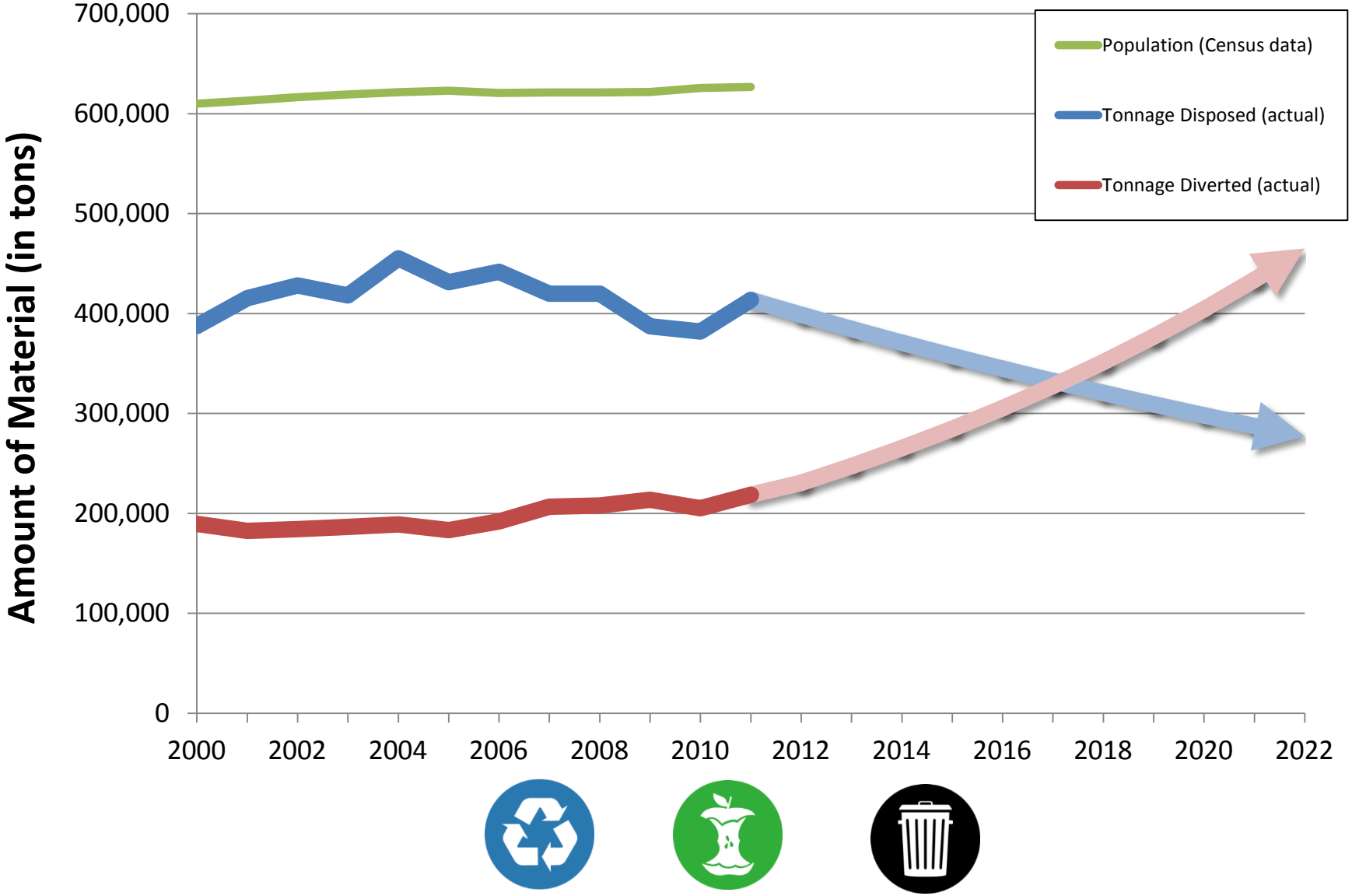


Change our view from “waste” to…

Materials Management

Materials Disposal and Diversion Vermont

Past, present and future estimates

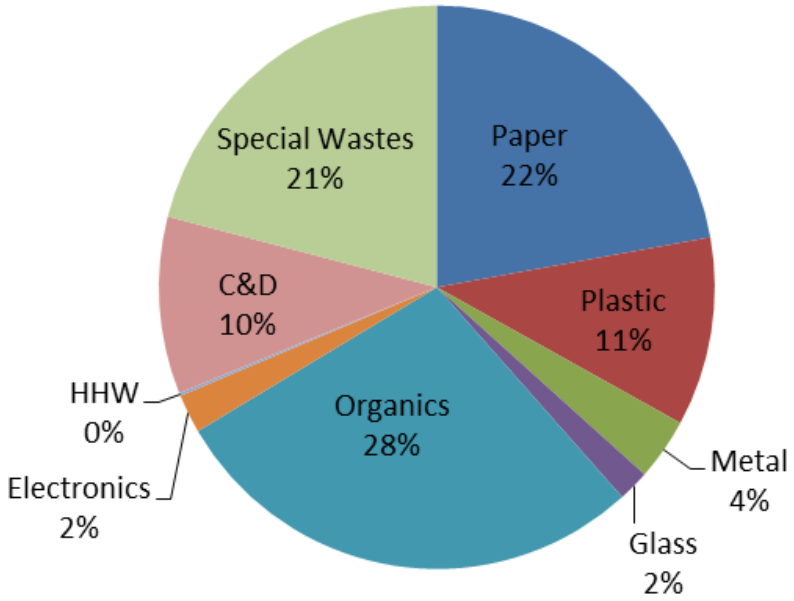


*__Diversion__ refers to materials that are recycled or composted. Waste prevention and re-use is not currently tracked by ANR.

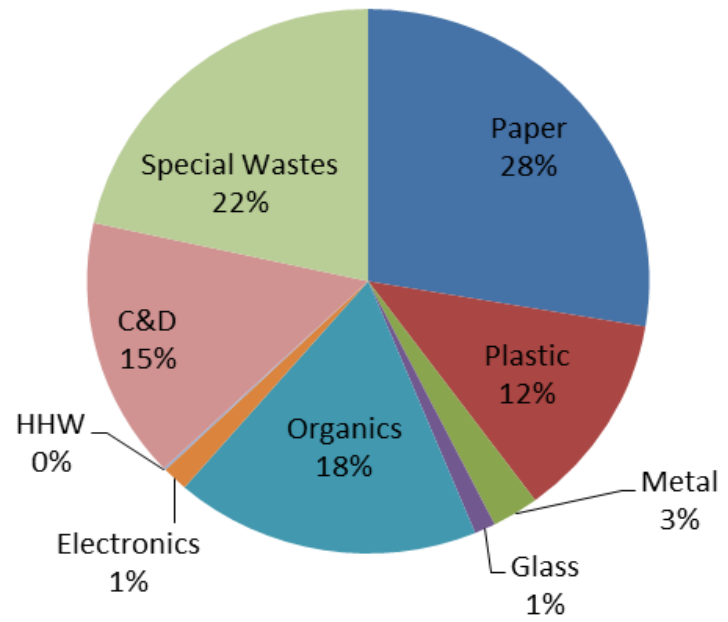
Current Disposal Rate

2013 Waste Composition Study

Residential



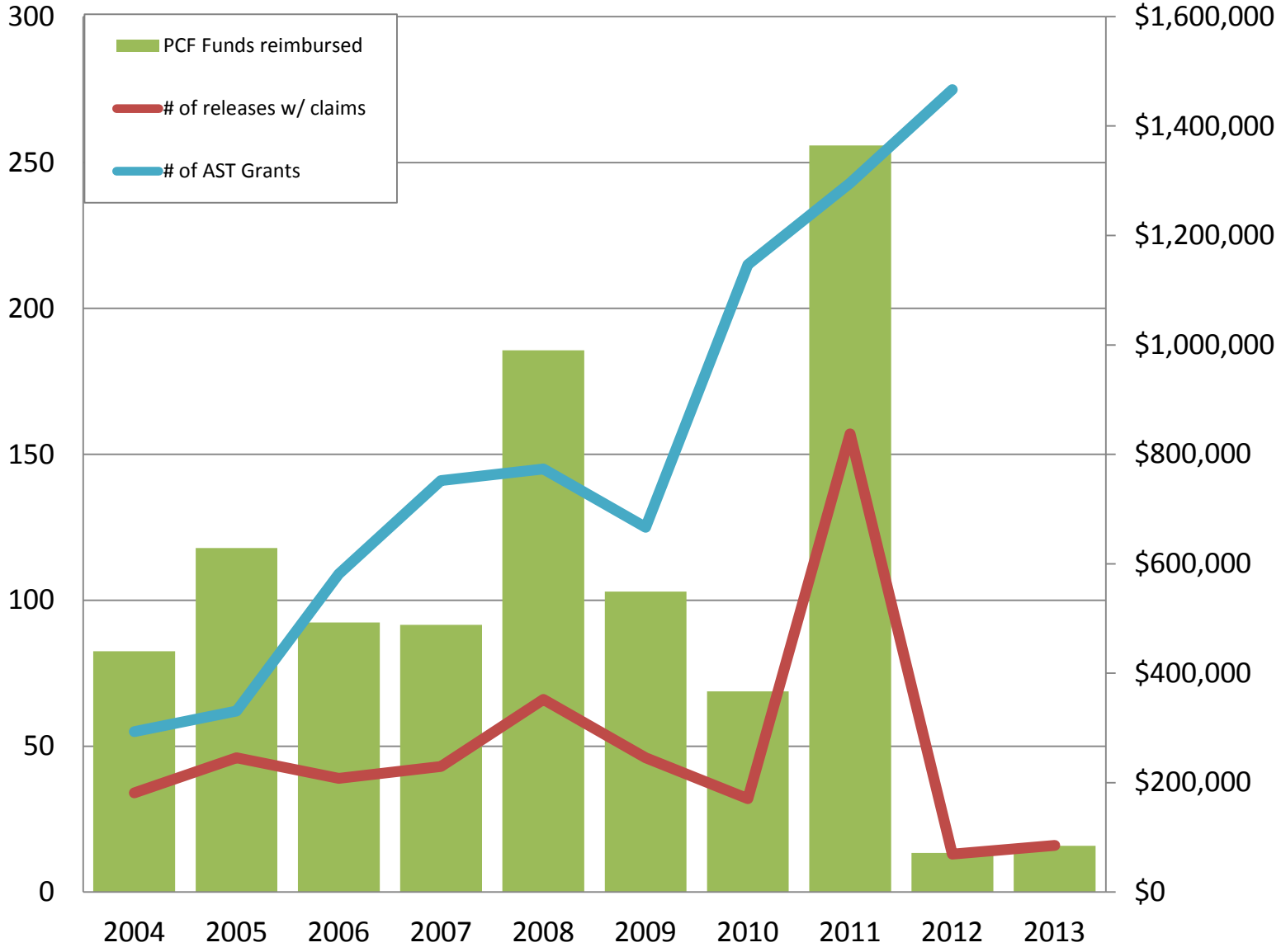
Industrial, Commercial and Institutional



Measure of Success:

Above ground storage heating oil tank (AST) releases and annual clean up costs are decreasing

AST Releases, Petroleum Cleanup Fund Claims, and Tank Replacement Grants



Brownfields Development Program leverages funding from other sources

EPA Assessment

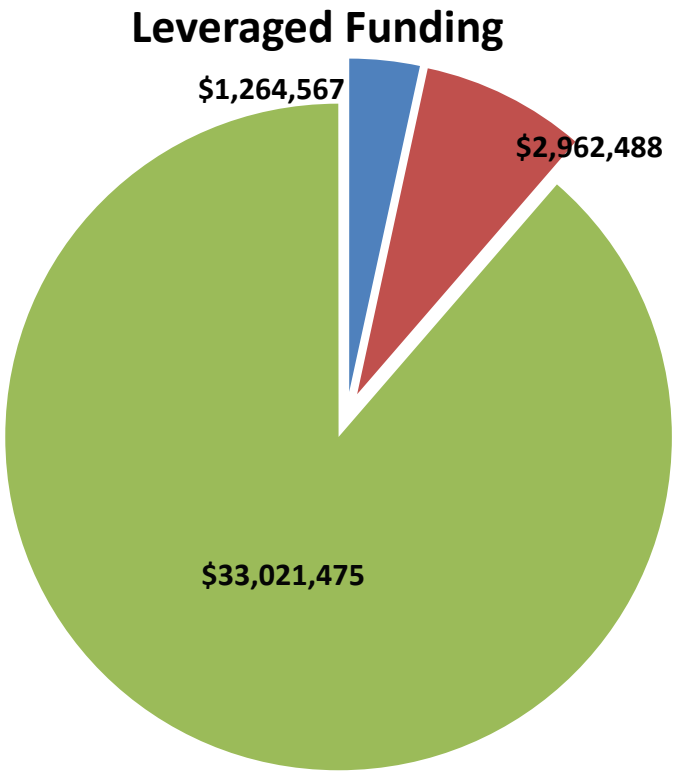
Federal money used for site assessments – Phase 1, Phase 2, and Corrective Action Plans

EPA Cleanup

Federal money used for implementation of Corrective Action Plan

Leveraged Funding

All funding allocated for total project redevelopment (examples include: Community Development block grants, HUD, private funding (loans)etc..

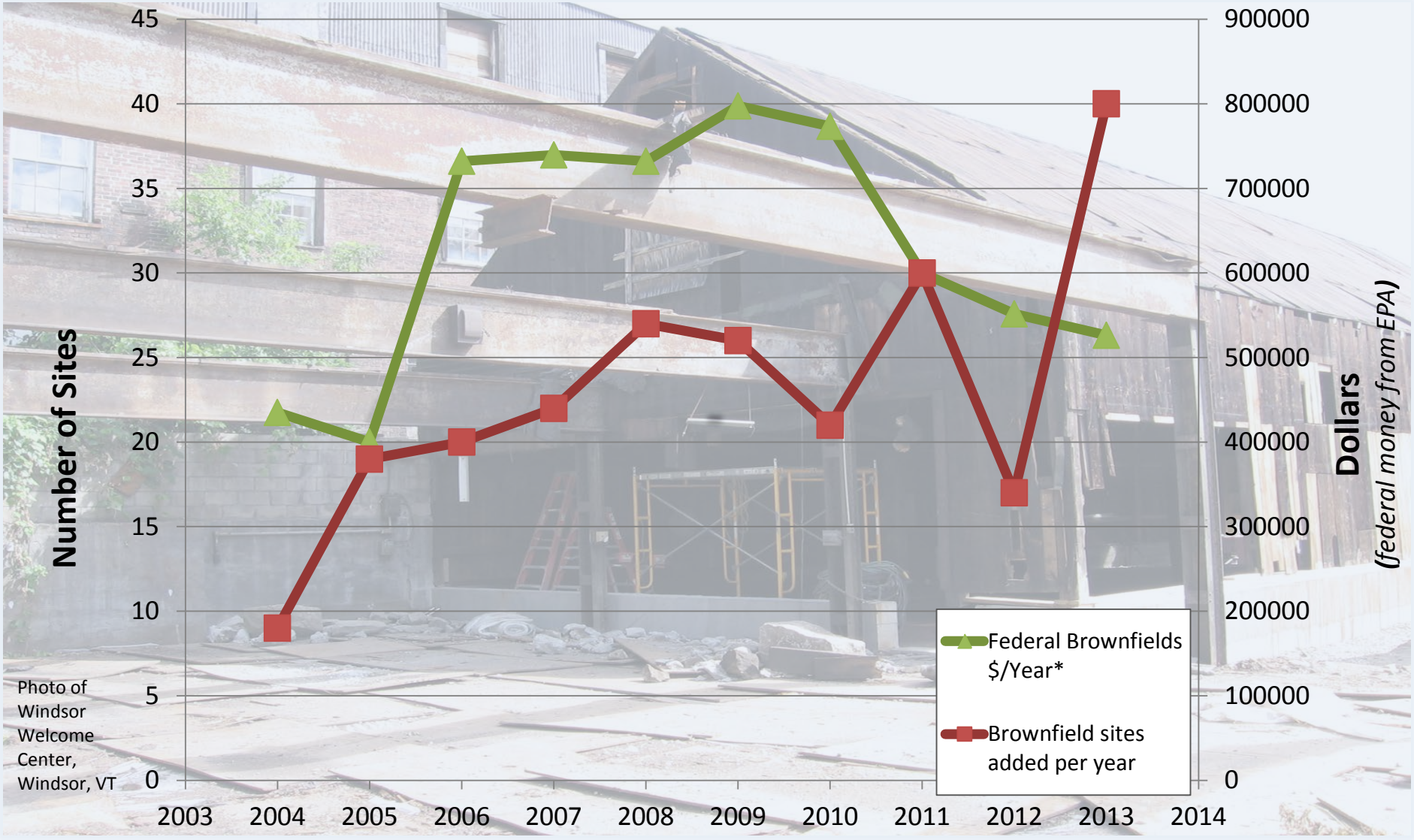


This chart represents data from 63 Sites out of 244 total Brownfields sites in Vermont. Data source is an EPA database

BROWNFIELD Site *means* real property, the expansion, redevelopment, or reuse of which may be complicated by the release or threatened release of a hazardous material".

BROWNFIELD Development *promotes*: Positive Environmental Outcomes, Downtown Development, Job Creation, Increased Property Tax Revenue, Private Investment and much more!

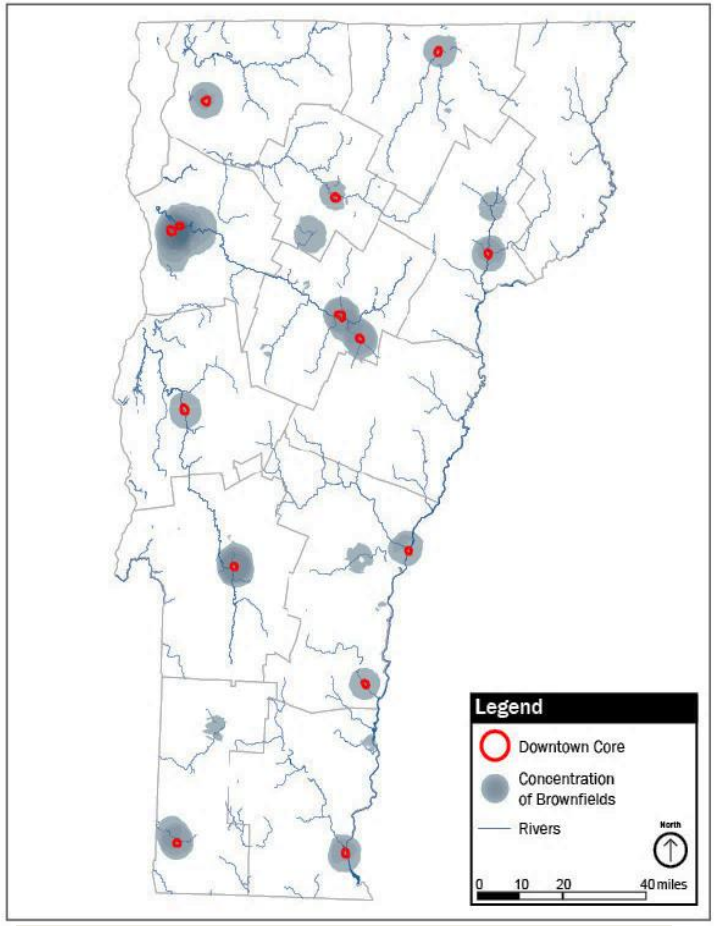
Funding Gap: Increasing number of Brownfields sites per year with decreasing federal funding



*Money/year represents EPA money awarded to all applicants in Vermont (VTDEC, ACCD, RPC, Municipal, Non-profits)

Brownfields Program:

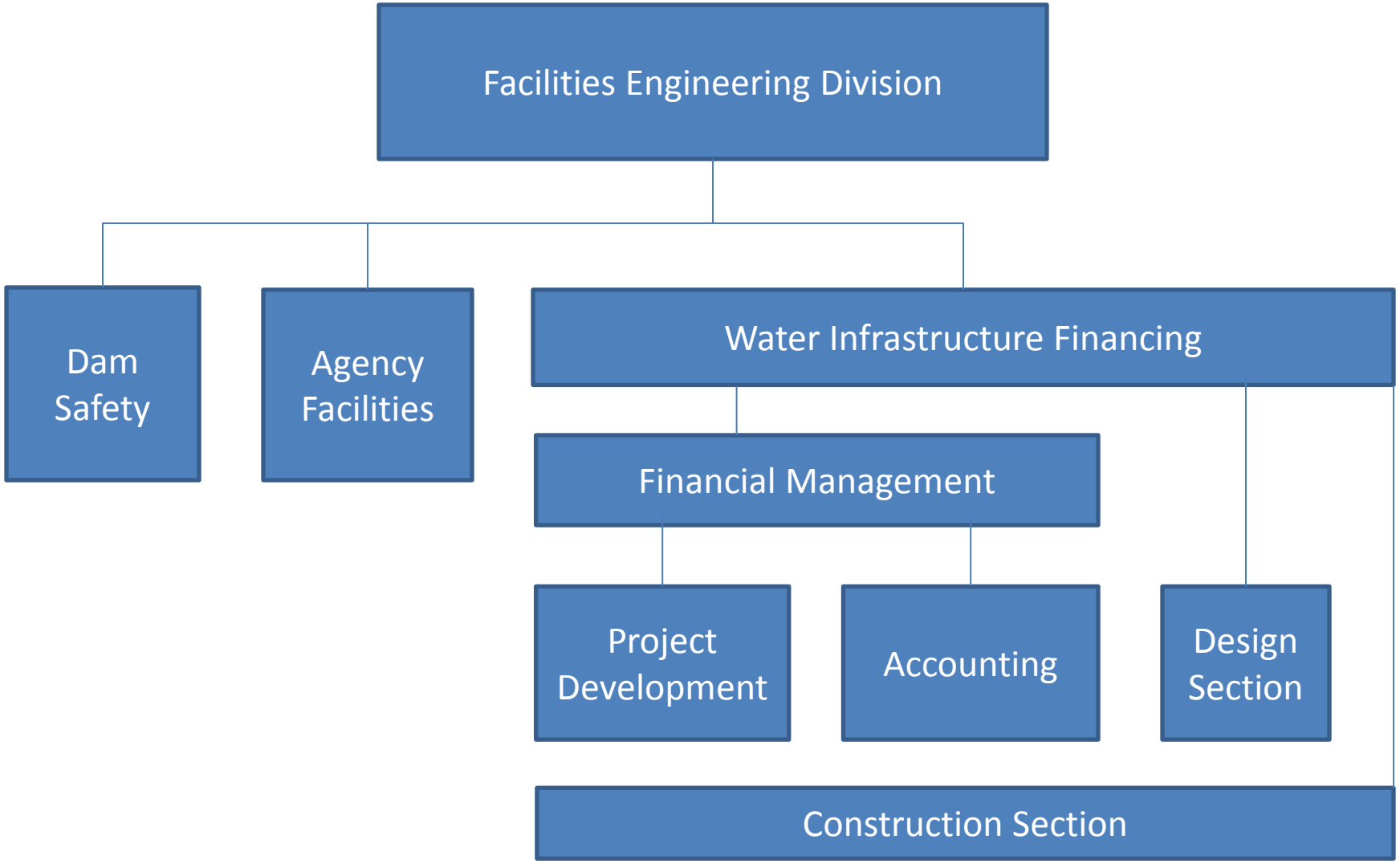
Environmental Protection, Economic Growth and Redevelopment



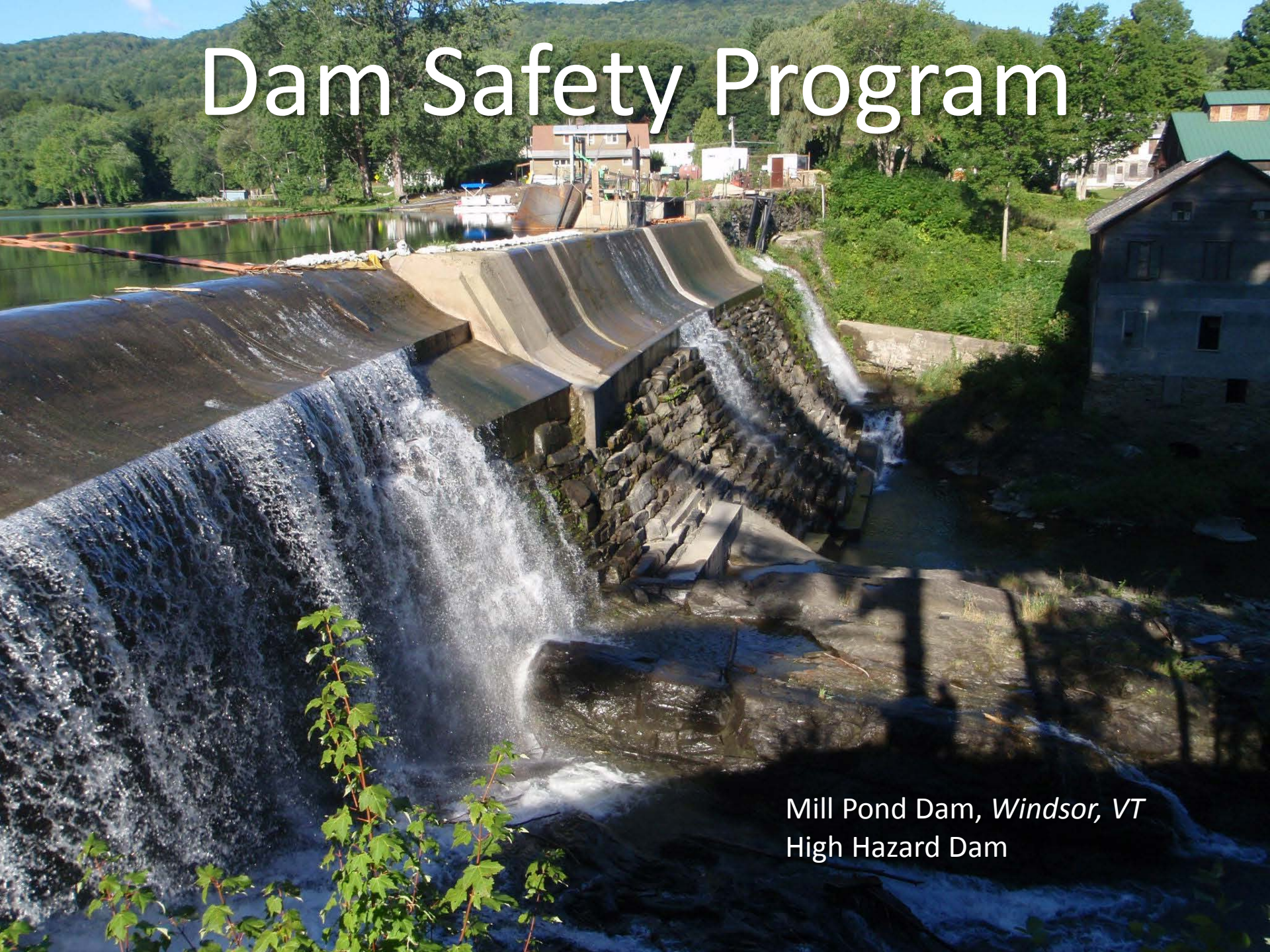
Downtown Cores, Rivers& High Concentrations of Brownfields (2012)

City Place, Barre City

Facilities Engineering Division



Dam Safety Program

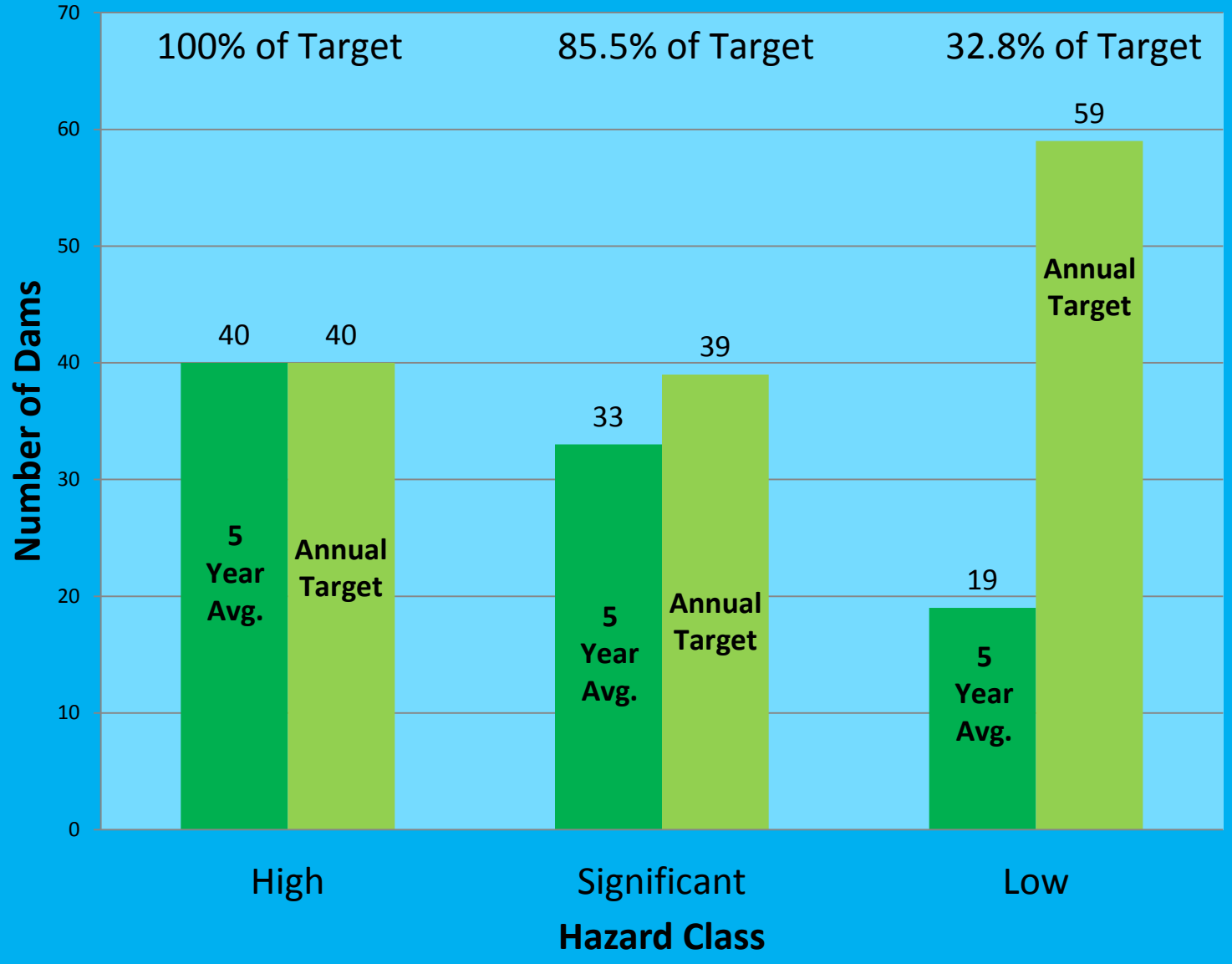


Mill Pond Dam, *Windsor, VT*
High Hazard Dam

Vermont Dam Safety Program:

5 Year Average Inspections vs. Target Inspections

2009-2013



Hazard Class Key

Potential Loss of Life

HIGH = More than a few

SIGNIFICANT = Few

LOW = None Expected

Potential Economic Loss

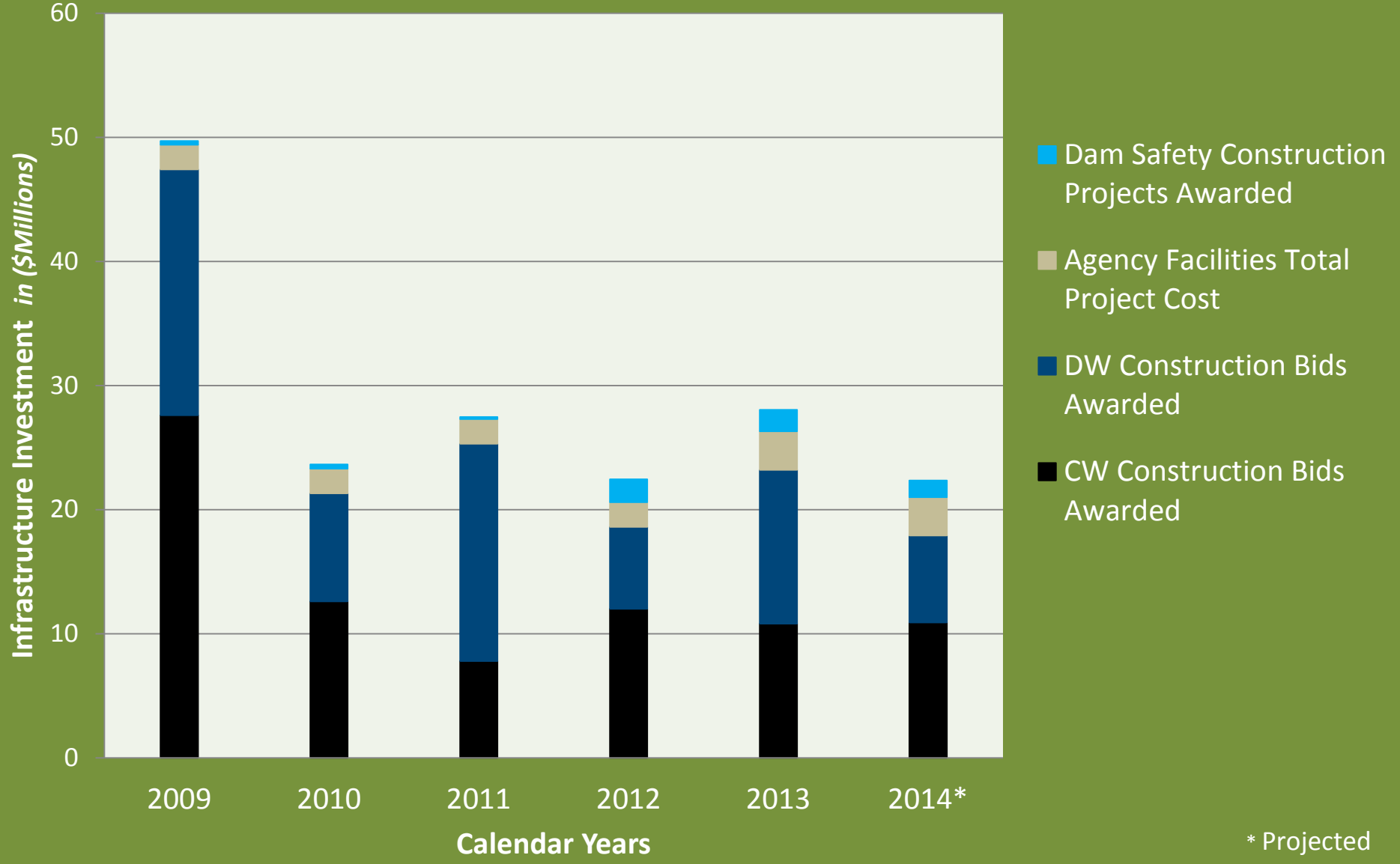
HIGH = Excessive

SIGNIFICANT = Appreciable

LOW = Minimal

Facilities Engineering Division:

Annual Infrastructure Investment 2009-2014*



* Projected


Before
Significant Hazard Dam
Dufresne Pond Dam, Batten Kill
~*Manchester, VT*
2006 5 10


After
No Hazard
Batten Kill Restored, Dufresne Pond Dam Removal
Fall 2013

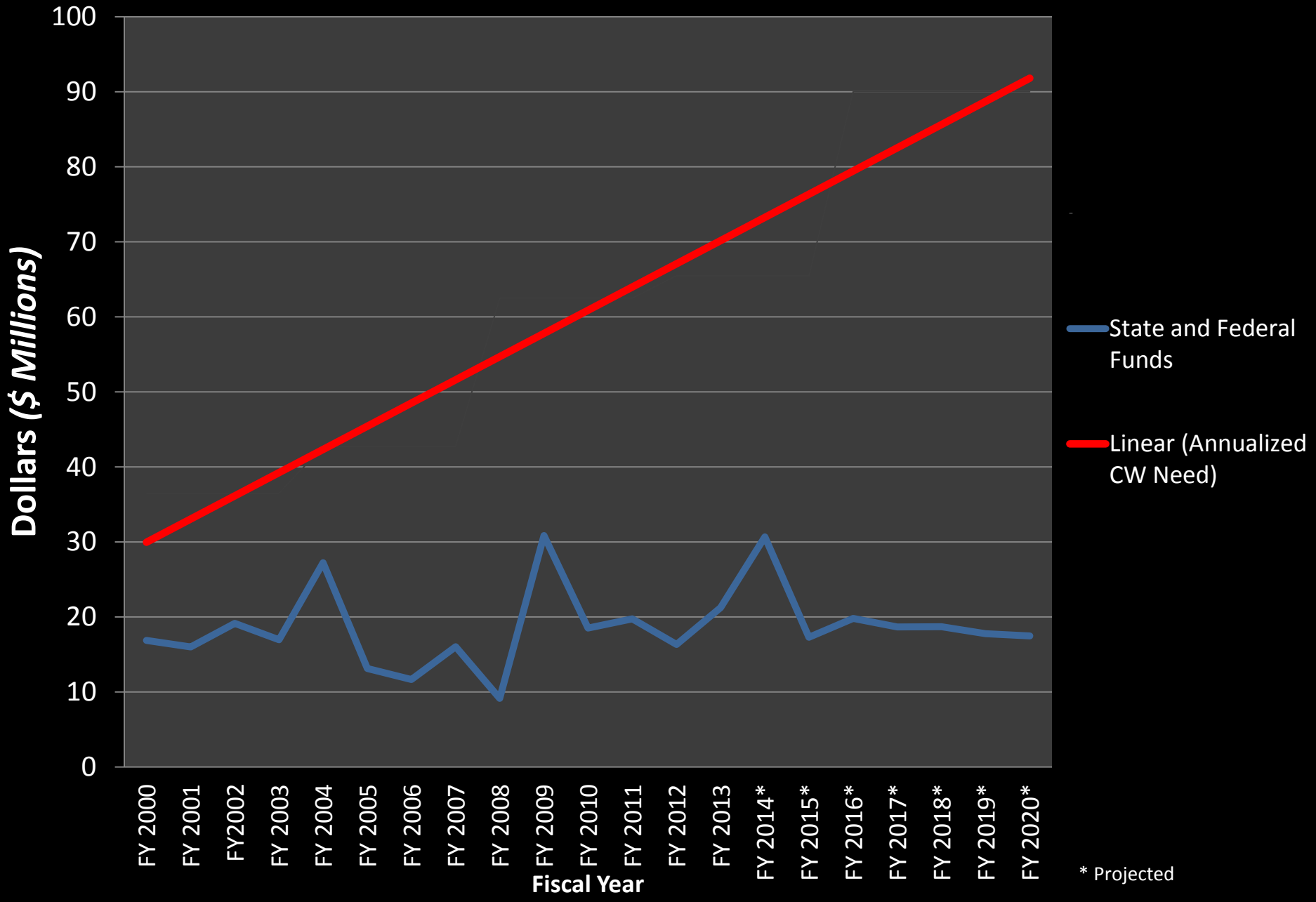
Clean Water State Project Financing

Wastewater Treatment Facility Secondary Lagoon
~Swanton, VT, 2013

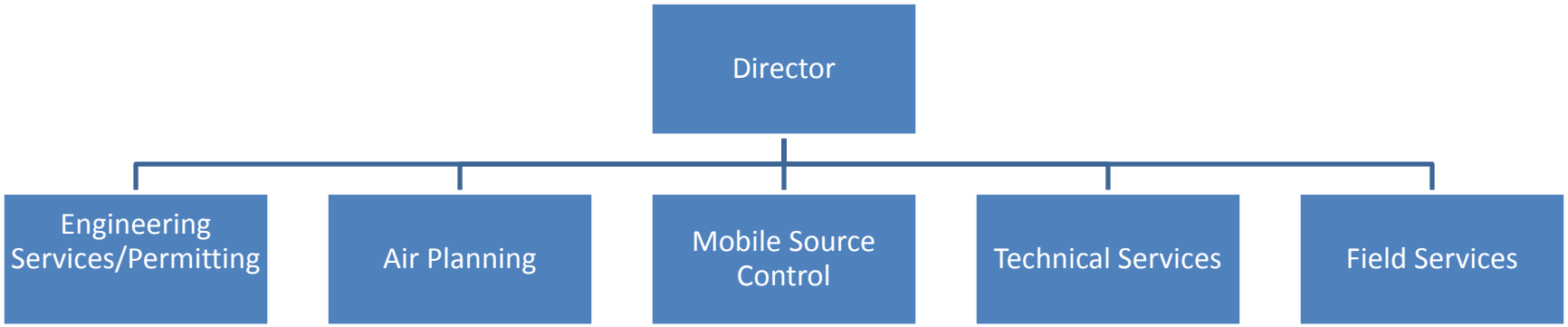
Burlington Vermont

Clean Water State Project Financing:

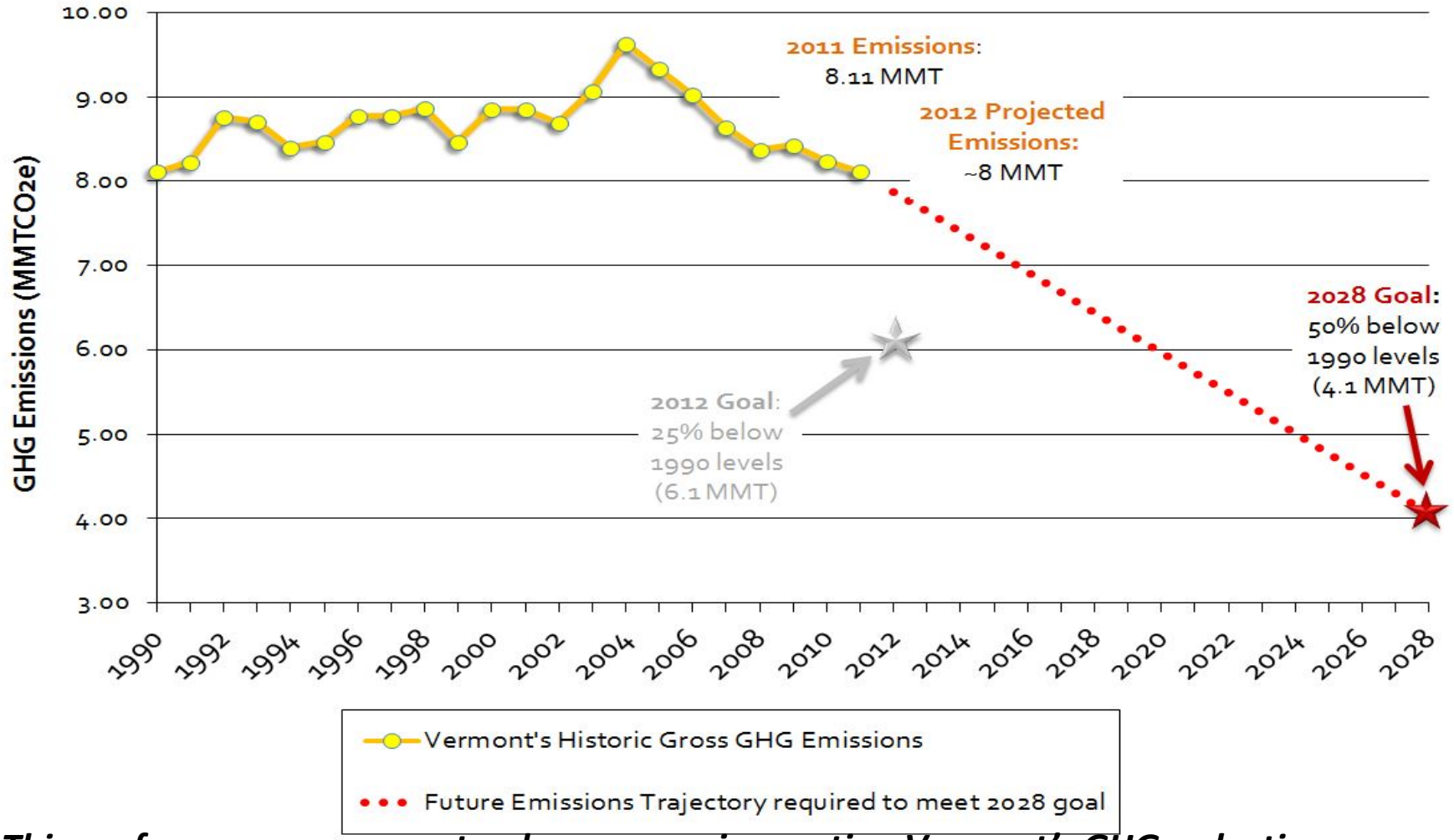
Loans and Grants



Air Quality and Climate Division



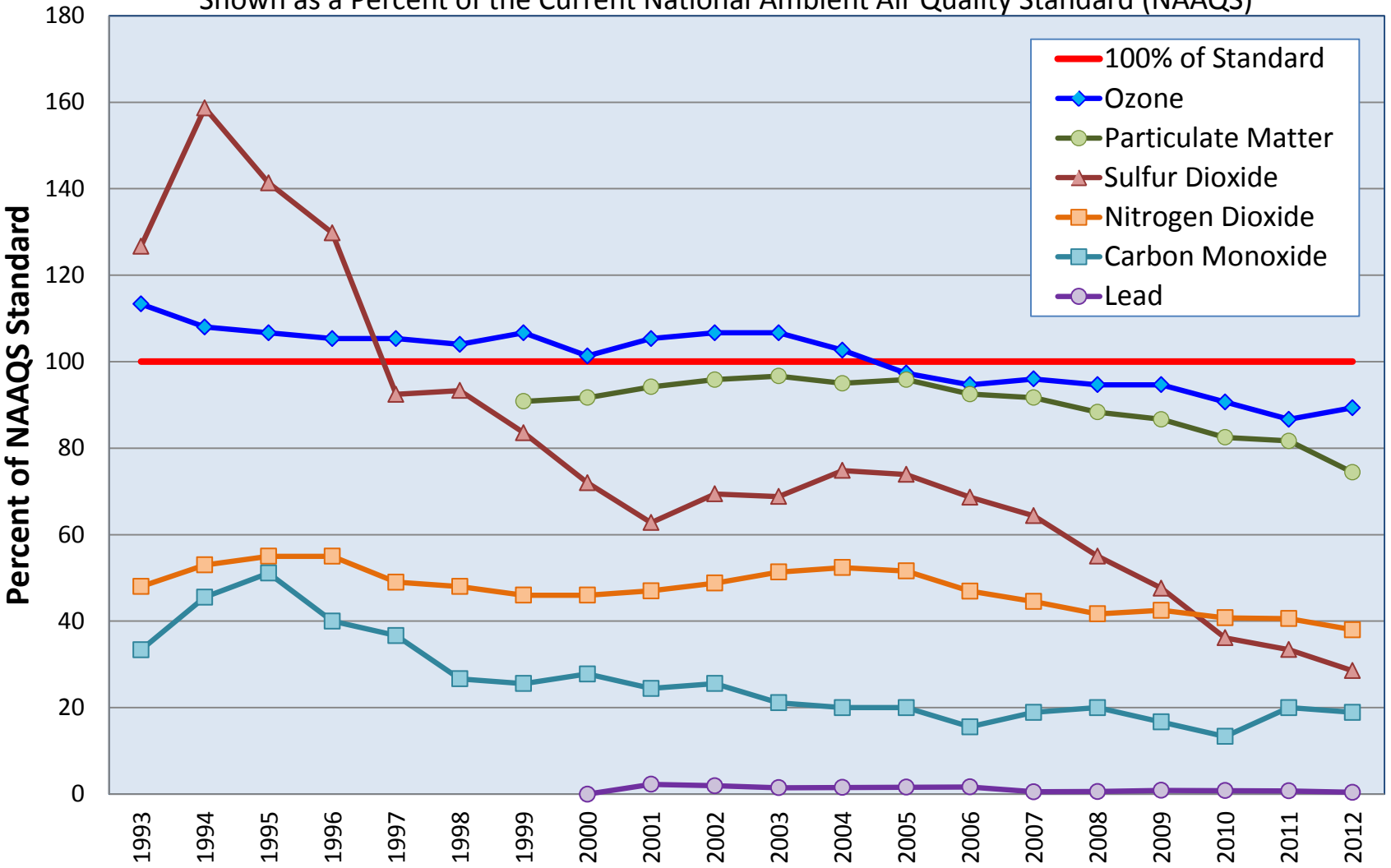
Total Vermont Gross Greenhouse Gas (GHG) Emissions 1990-2011



This performance measure tracks progress in meeting Vermont's GHG reduction goals. Vermont did not achieve its 2012 goal of reducing GHG emissions to 25% below 1990 levels. Vermont now must focus on reducing GHG emissions to 50% below 1990 levels by 2028 as set forth by state statute.

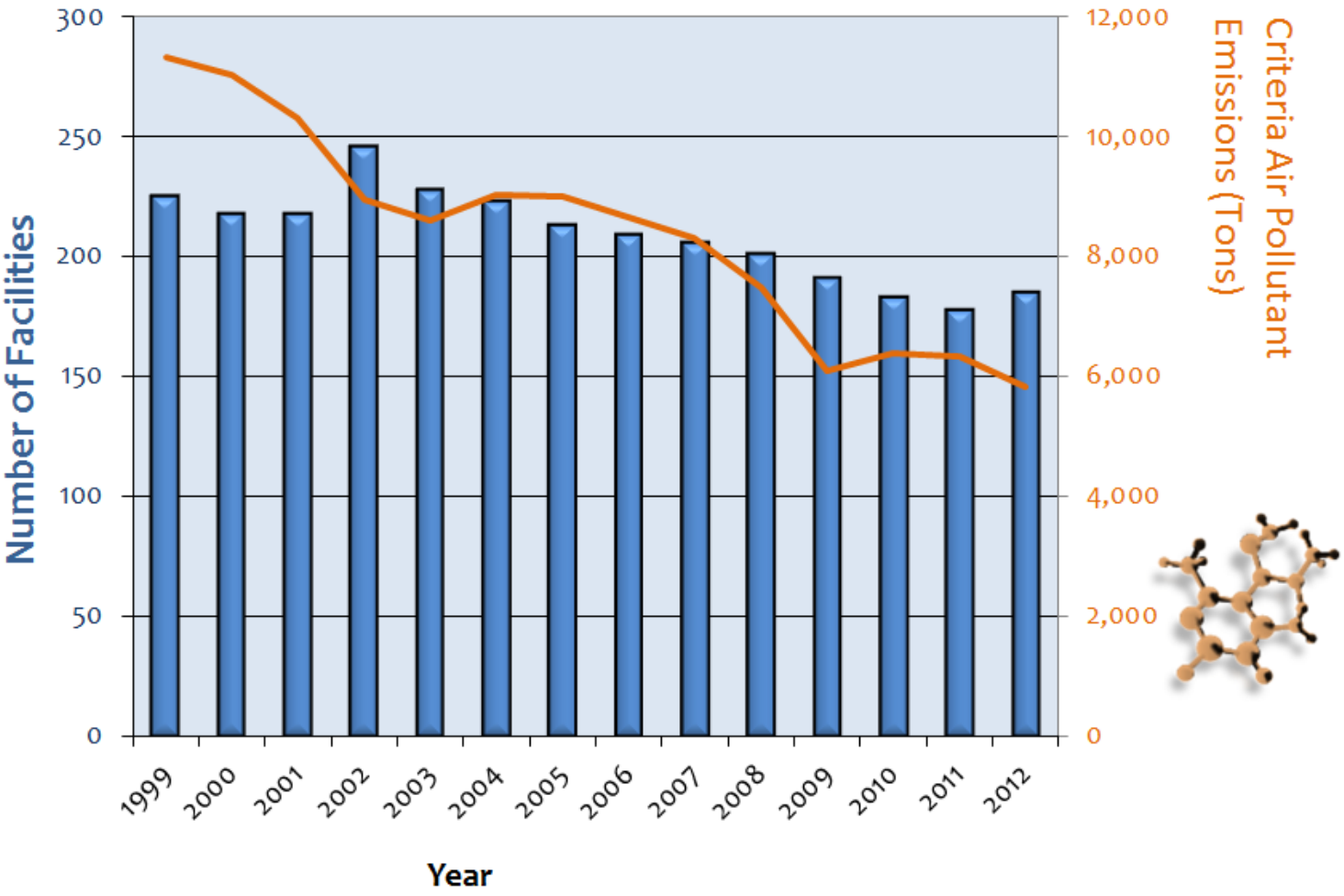
Ambient Air Quality Trends for Criteria Pollutants in Vermont

Shown as a Percent of the Current National Ambient Air Quality Standard (NAAQS)



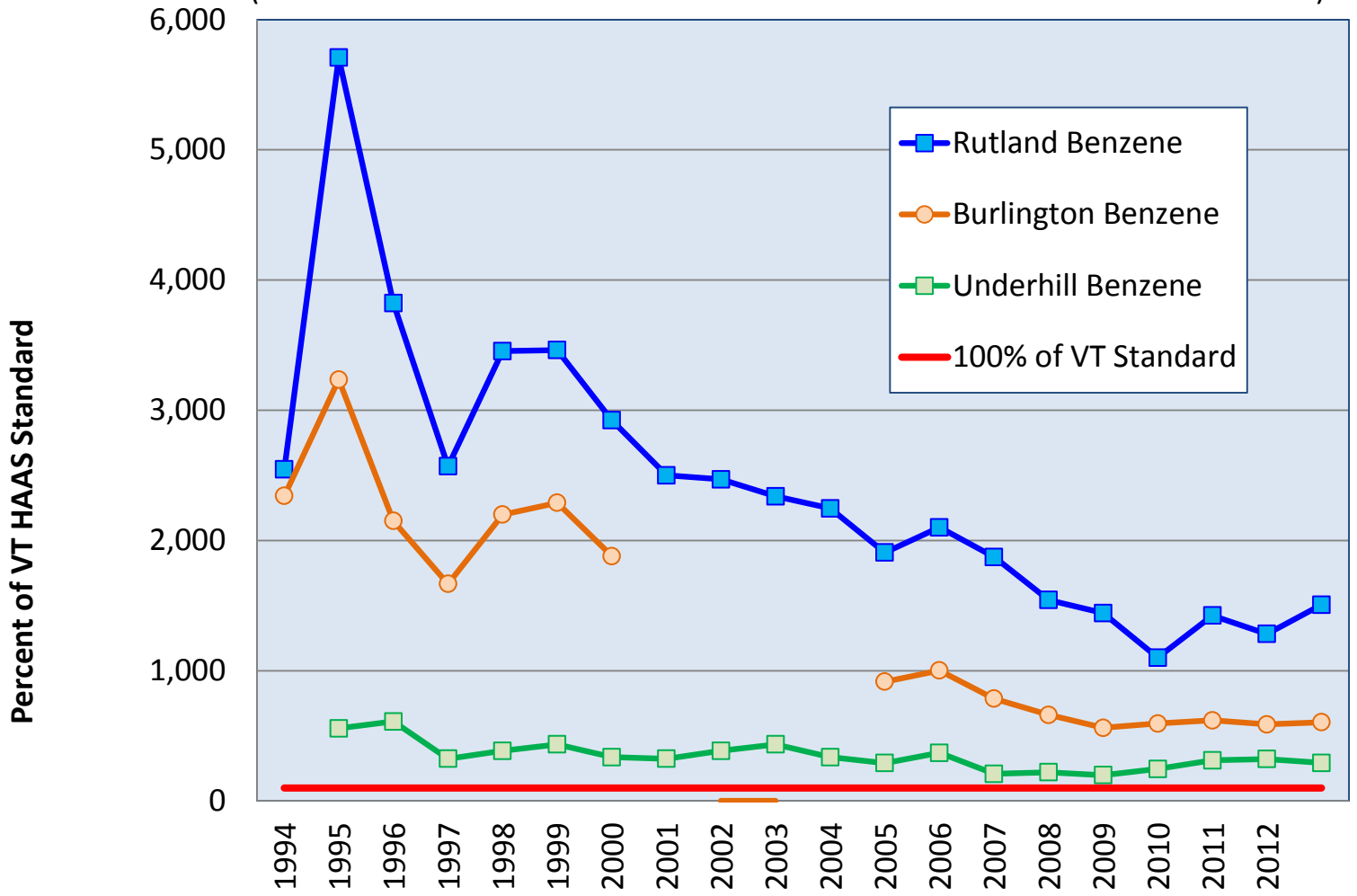
This performance measure indicates that Vermont's measured ambient air concentrations for the six "criteria" pollutants have generally been declining over time, and all of Vermont is currently "in attainment" with EPA's NAAQS.

Number of Registered Stationary Sources in Vermont and Associated Emissions of Criteria Air Pollutants

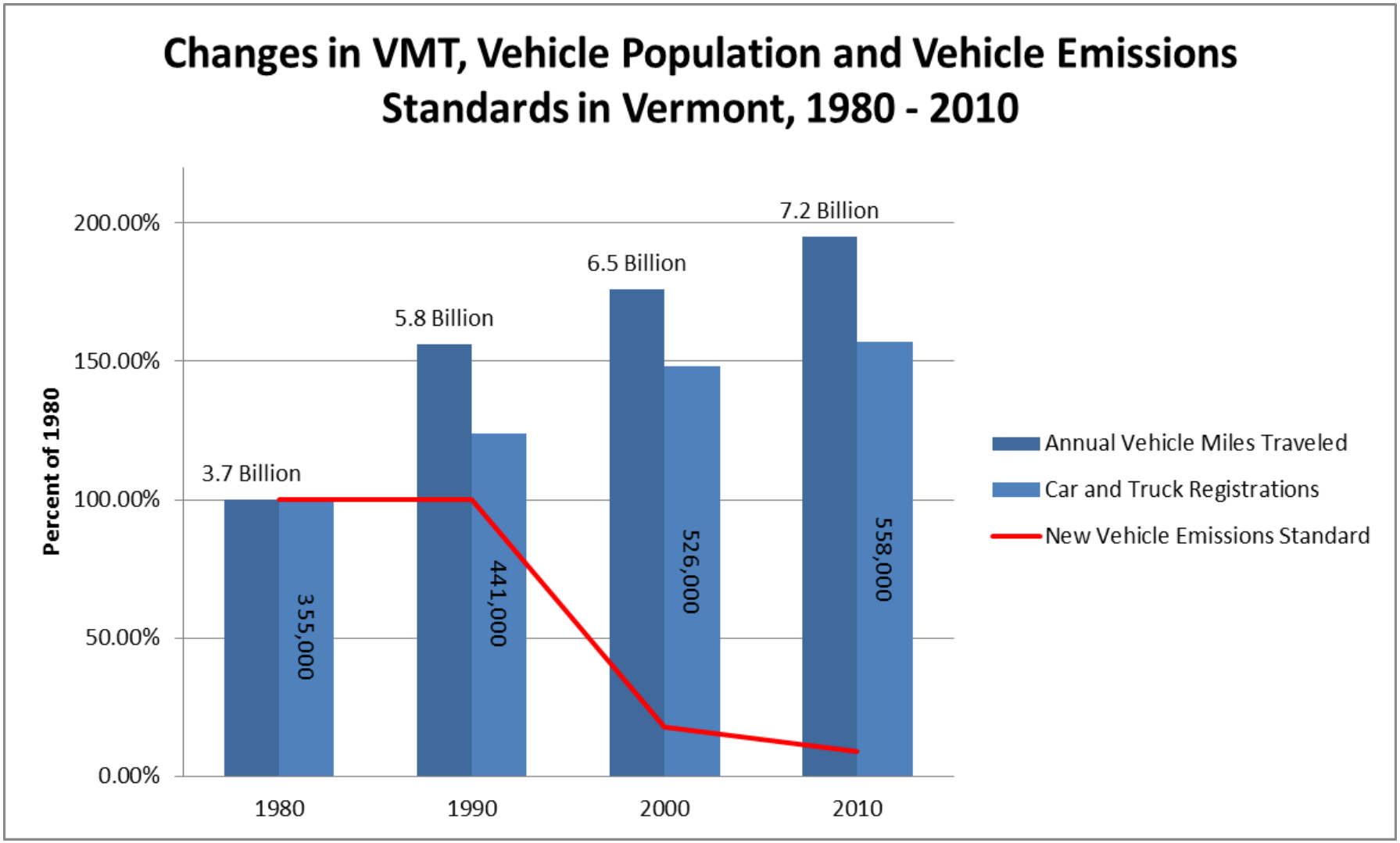


Ambient Air Quality Trends for Benzene in Vermont

(Shown as a Percent of Current VT Hazardous Ambient Air Standard – VT HAAS)



While ambient air concentrations of many hazardous air contaminants have declined in VT over time, benzene remains well above VT's standards. The difference between the urban sites in Rutland and Burlington and the rural site in Underhill indicates that local sources (e.g., motor vehicle exhaust, refueling, and residential wood burning) are primarily responsible for VT's benzene levels.



Motor vehicles are the largest source of air pollution in Vermont. Decreasing motor vehicle emission standards help to offset increases in VMT and vehicle population in Vermont. The AQCD also supports efforts to ensure emission control systems are properly maintained and repaired.


Past 1996 Visibility
Current 2012 Visibility
Future 2064 Visibility

Decreasing Sulfate + Nitrate Pollution in Lye Brook (Red Line, Left-hand Scale)
&
Improving Visibility Conditions in Lye Brook (Blue Line, Right-hand Scale)