

BREE Municipal Survey

Dr. Richard Clark
PTAC Meeting
Burlington, Vermont
May 24, 2018



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Survey Design. BREE Vermont Municipal Survey on Stormwater Management

WHAT: NSF-EPSCoR Basin Resilience to Extreme Events (BREE) survey on stormwater management (first of two surveys), Online LimeSurvey, 63 questions

WHERE: State of Vermont municipalities

WHO: All municipal officials in Vermont (including, but not limited to, mayor, town manager, town clerk, select board chair/member, town/city council chair/member, public works director/employee, wastewater treatment director, town planner, town zoning administrator, city/town stormwater manager, town planning commission chair/member, and conservation commission chair)

WHEN: Disseminated Summer 2017 via Castleton Polling Institute, Data collection ends by November 2017, Data Analysis Winter 2017-2018



Survey Questions and Intended Use

- **Capacity & Connectivity** → feeding into the Governance Network Model
- **Decision-making processes** (who decides within local government)
- **Town preparedness** (adoption of SMP, ordinances, & flood hazard mitigation plans)
- **Individual knowledge/awareness**
- **Town Resources**
 - Funding – sought and received
 - Practices in use to address stormwater in town
 - Practices that may be adopted
- **Assessment of drainage infrastructure designs** (aesthetics & maintainability)
- **An inventory of general maintenance practices** – whether performed in-house or contracted out



Final Valid Response

	Count	Percent	
Number of total all respondents	240	25%	of sample frame
Number of <u>valid</u> respondents	198	21%	of sample frame
Number of municipalities covered	136	55%	of VT municipalities
Number of counties covered	14	100%	of VT counties
Number of municipalities in Champlain basin	74	64%	of municipalities in the basin



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Representativeness of the data, regions

COUNTY	MUNICIPALITIES IN COUNTY	INDIVIDUAL RESPONDENTS	MUNICIPALITIES REPRESENTED IN SURVEY	PERCENT REPRESENTED
ADDISON	23	24	14	61%
BENNINGTON	16	7	7	44%
CALEDONIA	17	13	8	47%
CHITTENDEN	18	21	11	61%
ESSEX	13	3	3	23%
FRANKLIN	16	16	10	63%
GRAND ISLE	5	3	2	40%
LAMOILLE	11	11	6	55%
ORANGE	17	12	8	47%
ORLEANS	20	16	11	55%
RUTLAND	28	20	16	57%
WASHINGTON	20	16	13	65%
WINDHAM	21	18	12	57%
WINDSOR	24	18	15	63%
TOTAL	249	198	136	55%



Representativeness of the data, size

MUNICIPALITY SIZE	PERCENT OF MUNICIPALITIES IN VERMONT	PERCENT REPRESENTED IN SURVEY
LESS THAN 2,500	71%	63%
2,500 TO 10,000	26%	34%
GREATER THAN 10,000	3%	4%



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Representativeness of the data, stormwater characteristics

MUNICIPALITY CHARACTERISTICS	PERCENT OF MUNICIPALITIES IN VERMONT	PERCENT REPRESENTED IN SURVEY
STORMWATER MASTER PLAN	22%	23%
BYLAWS/ORDINANCES ADDRESSING STORMWATER	25%	21%
MS4 DESIGNATION	5% (12)	7% (9)

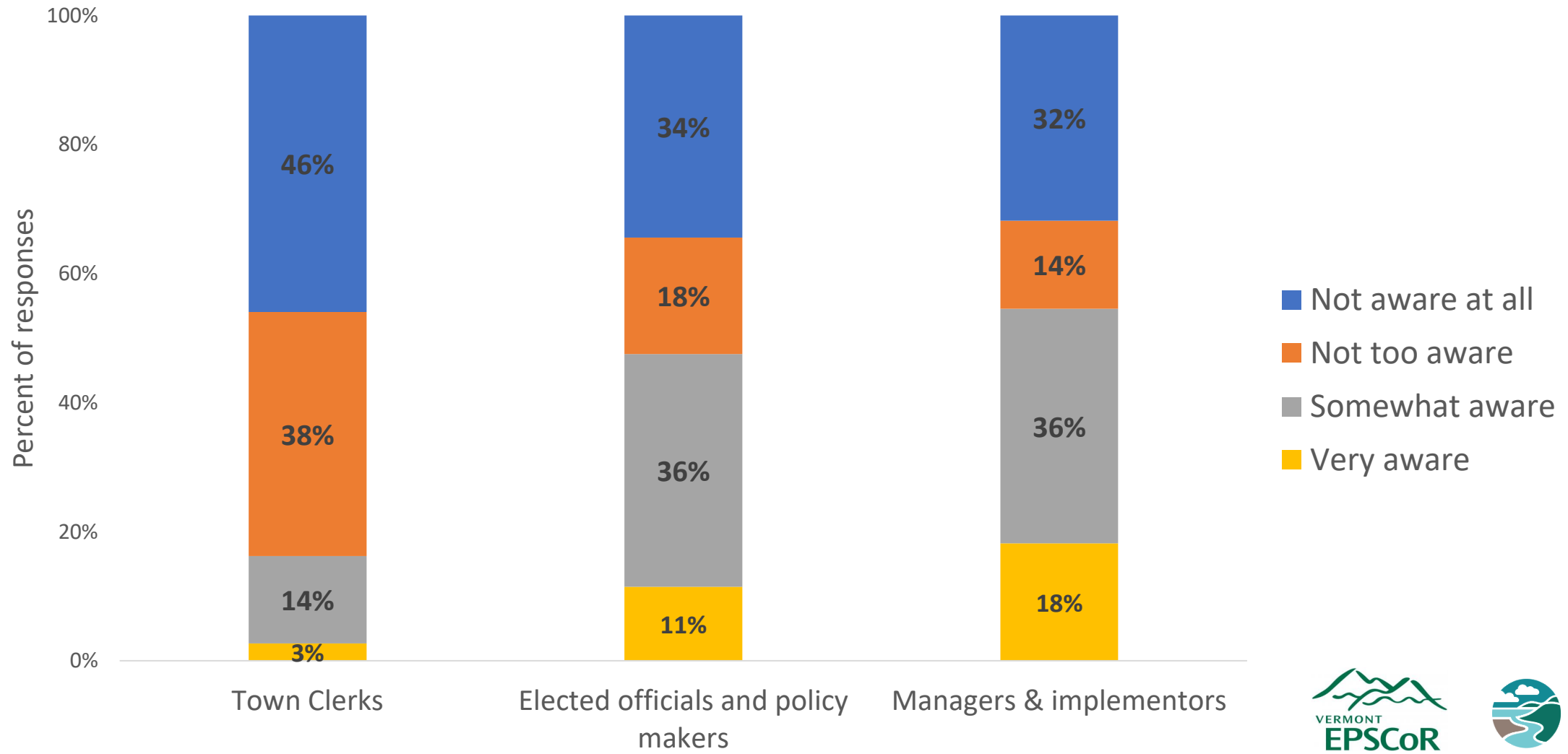


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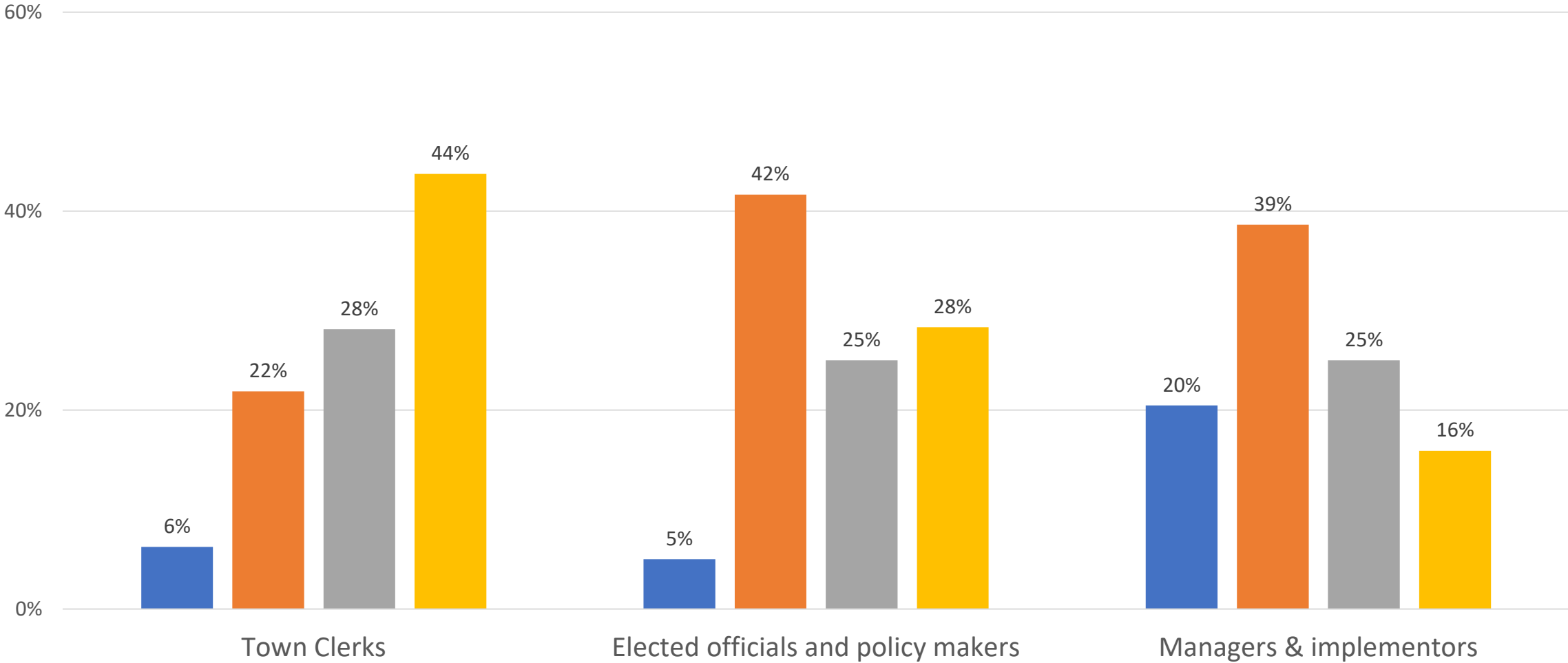
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Awareness of ANR's Tactical Basin Planning Process



Familiarity with the Clean Water Fund

Very familiar Somewhat familiar Not too familiar Not at all familiar



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Respondents' views of barriers to data and/or data modeling

Verbatim responses

The Select Board members are volunteers so it is difficult for them to spend more time than they already do to examine data. The Highway crew does not have access to a computer at work.

The major challenges are that the technical expertise to generate models and compile data are expensive and require high degree of expertise. We often don't have that available within our city employees. Opportunities to use state and regional planning data and models is very helpful.

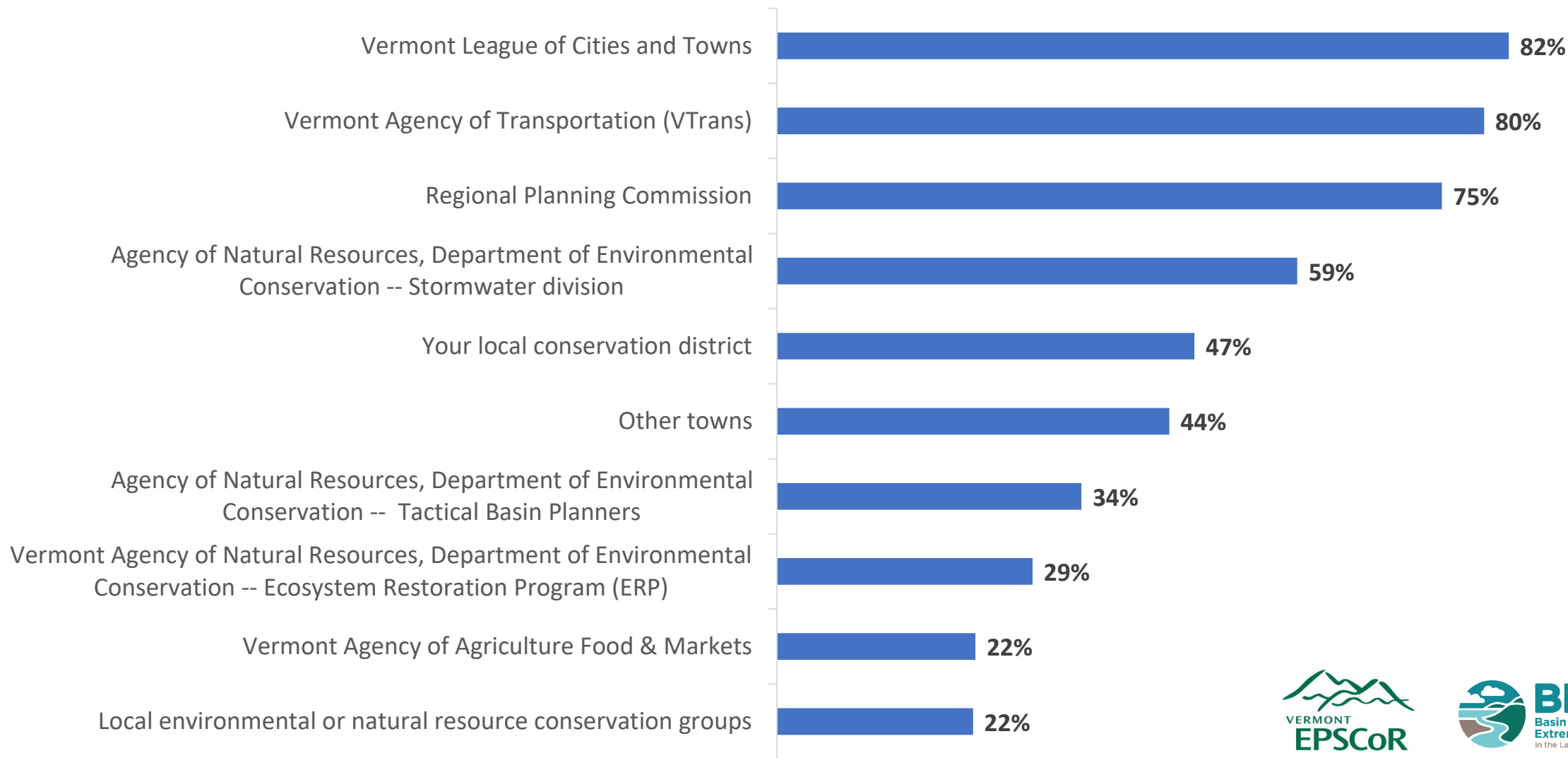
Respondents' concern about data relevance

Verbatim responses

The drawback of using models is that they don't fit all circumstances and most of the stormwater issues that affect a small community are site specific.

At the State level there are multiple water quality models which all achieve different results and do not overlap. Either make one model to "rule them all", make their outputs overlap, or write up so description of each and make it as easy as possible to stumble through them all.

With whom does the municipality share information?

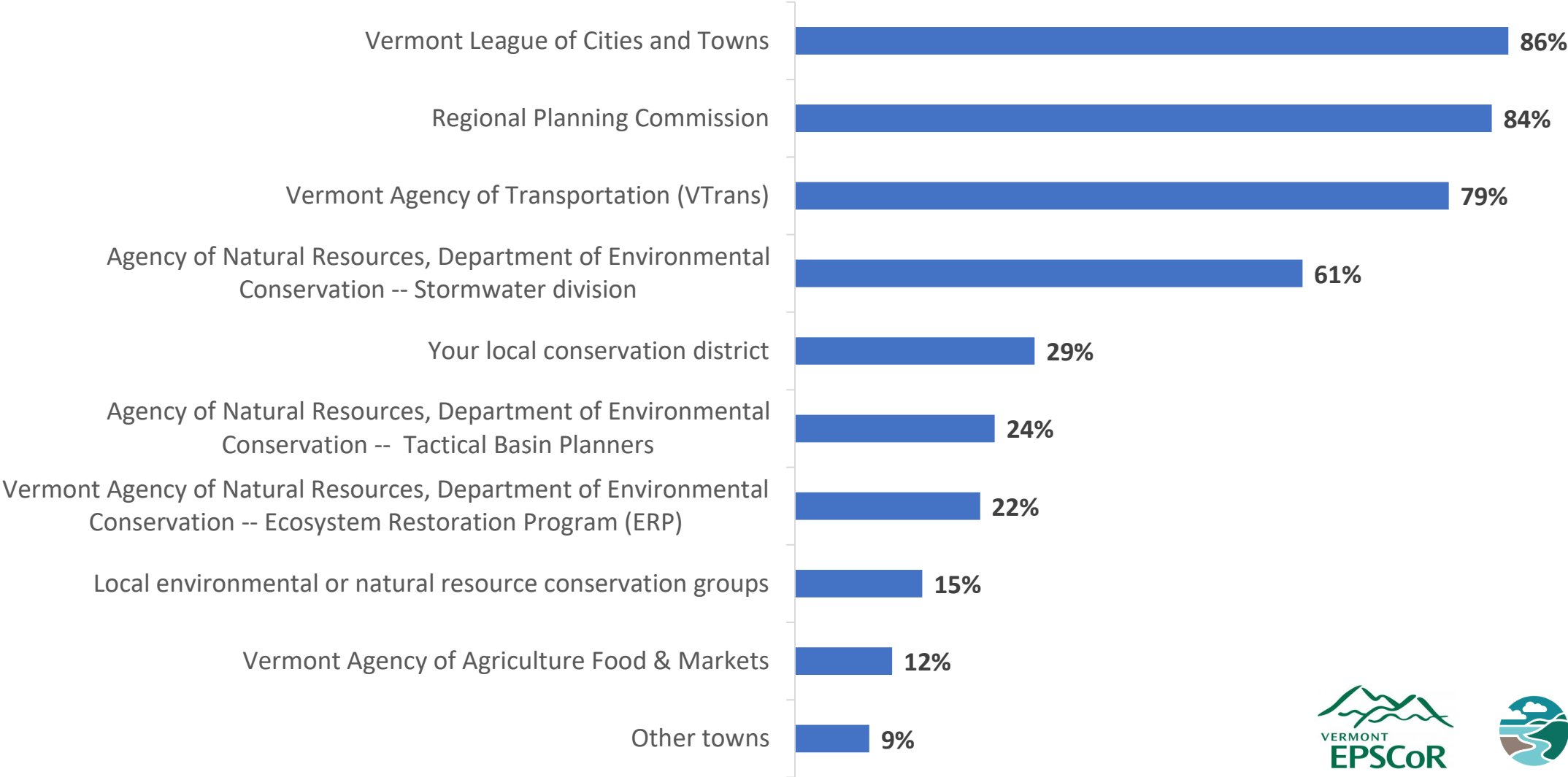


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From whom does the municipality receive technical assistance?

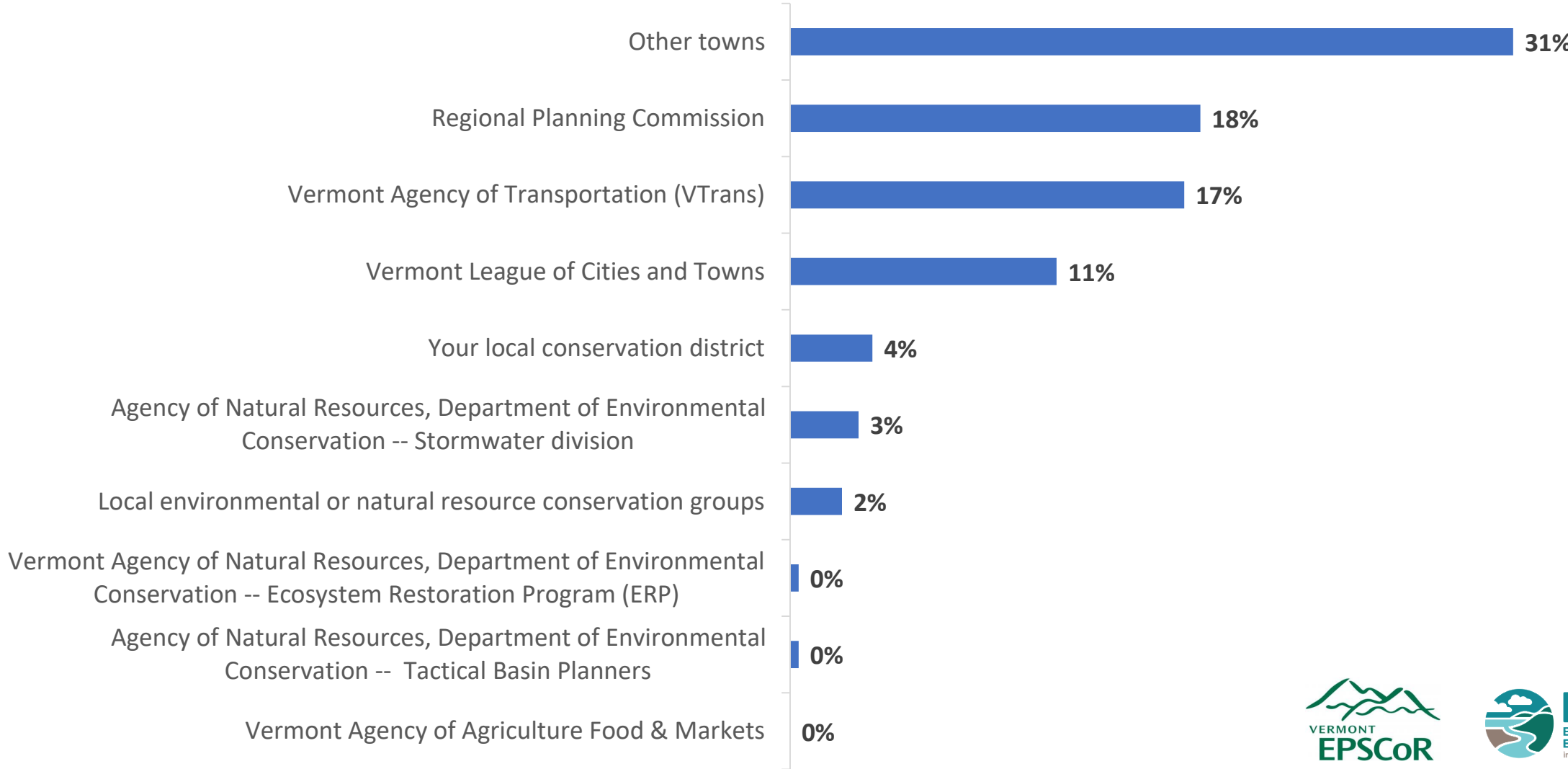


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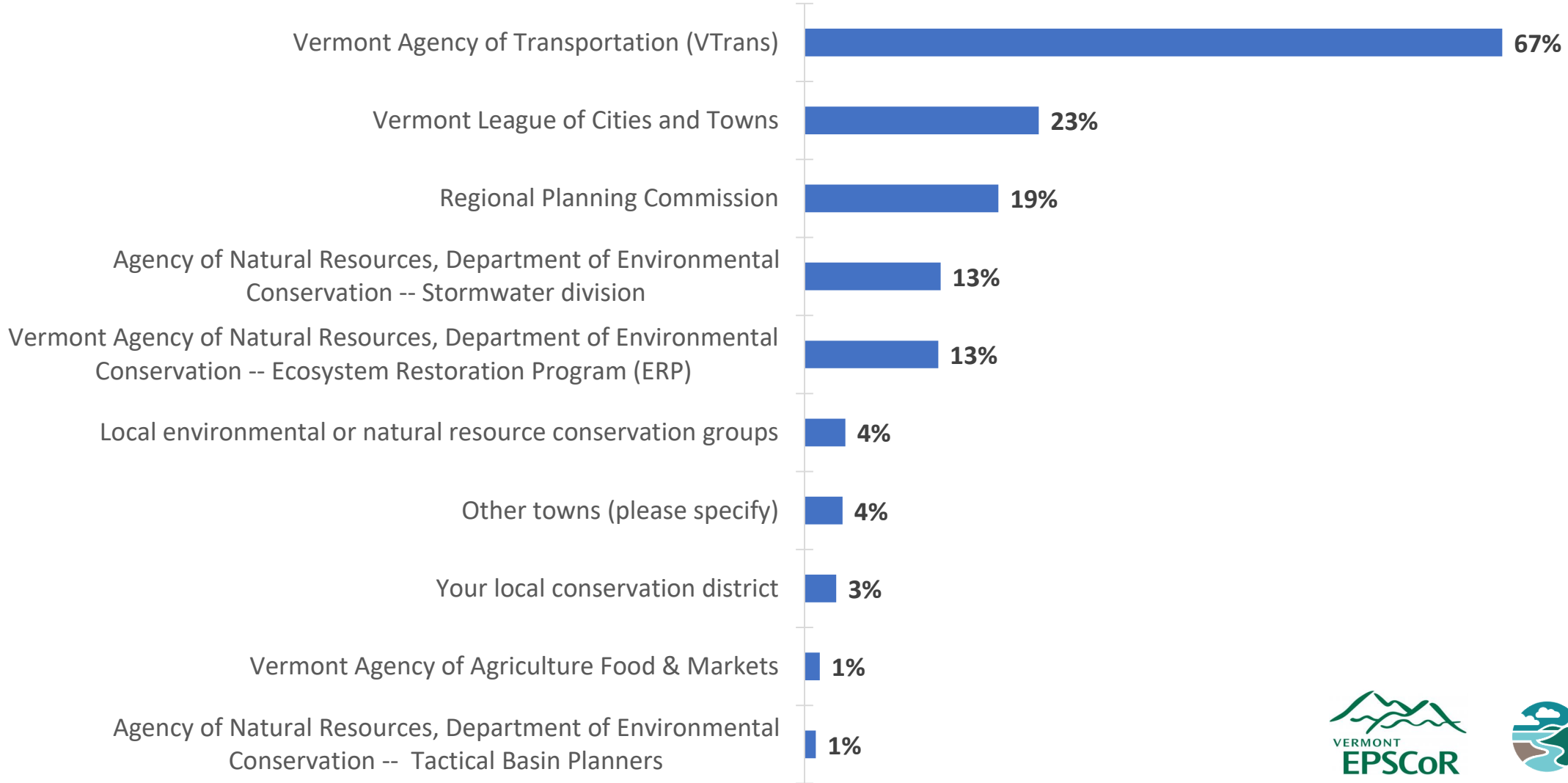


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With whom does the municipality share human/physical assets?



From whom does the municipality receive monetary support?

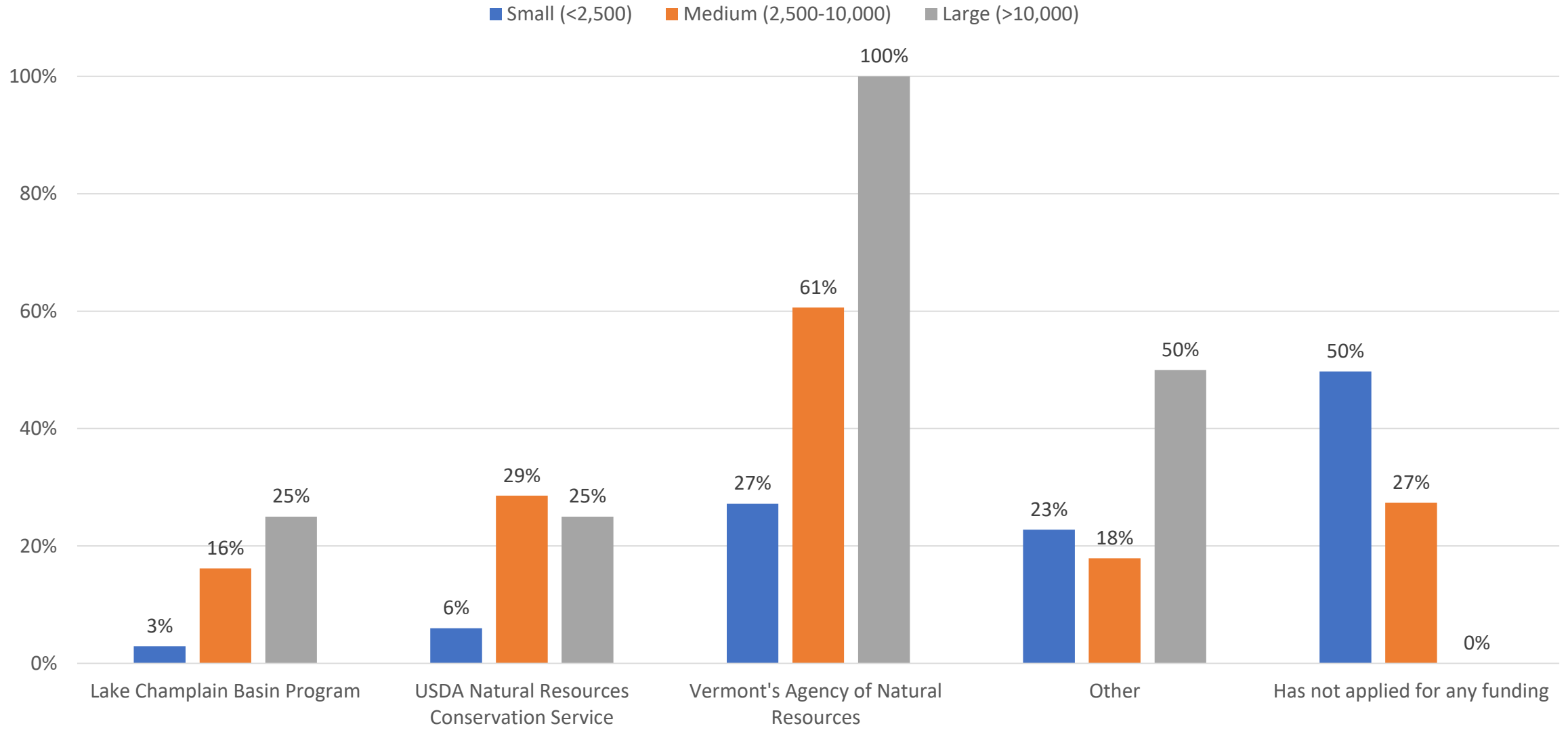


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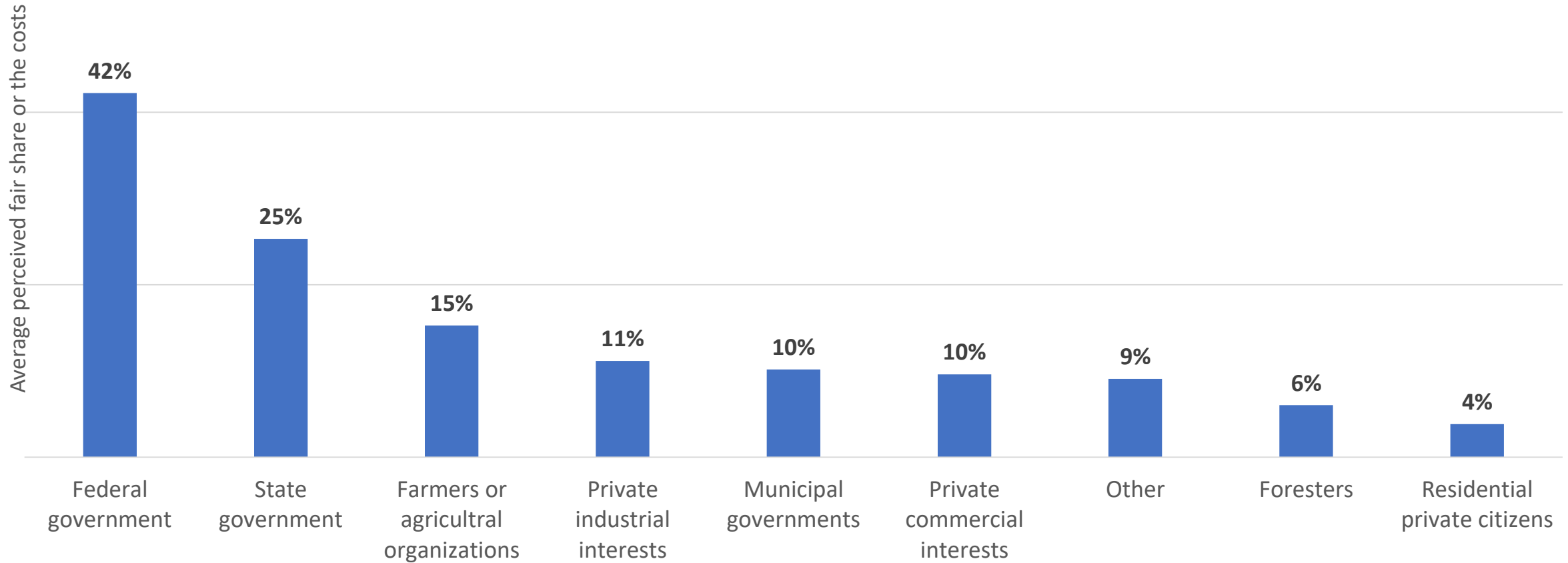


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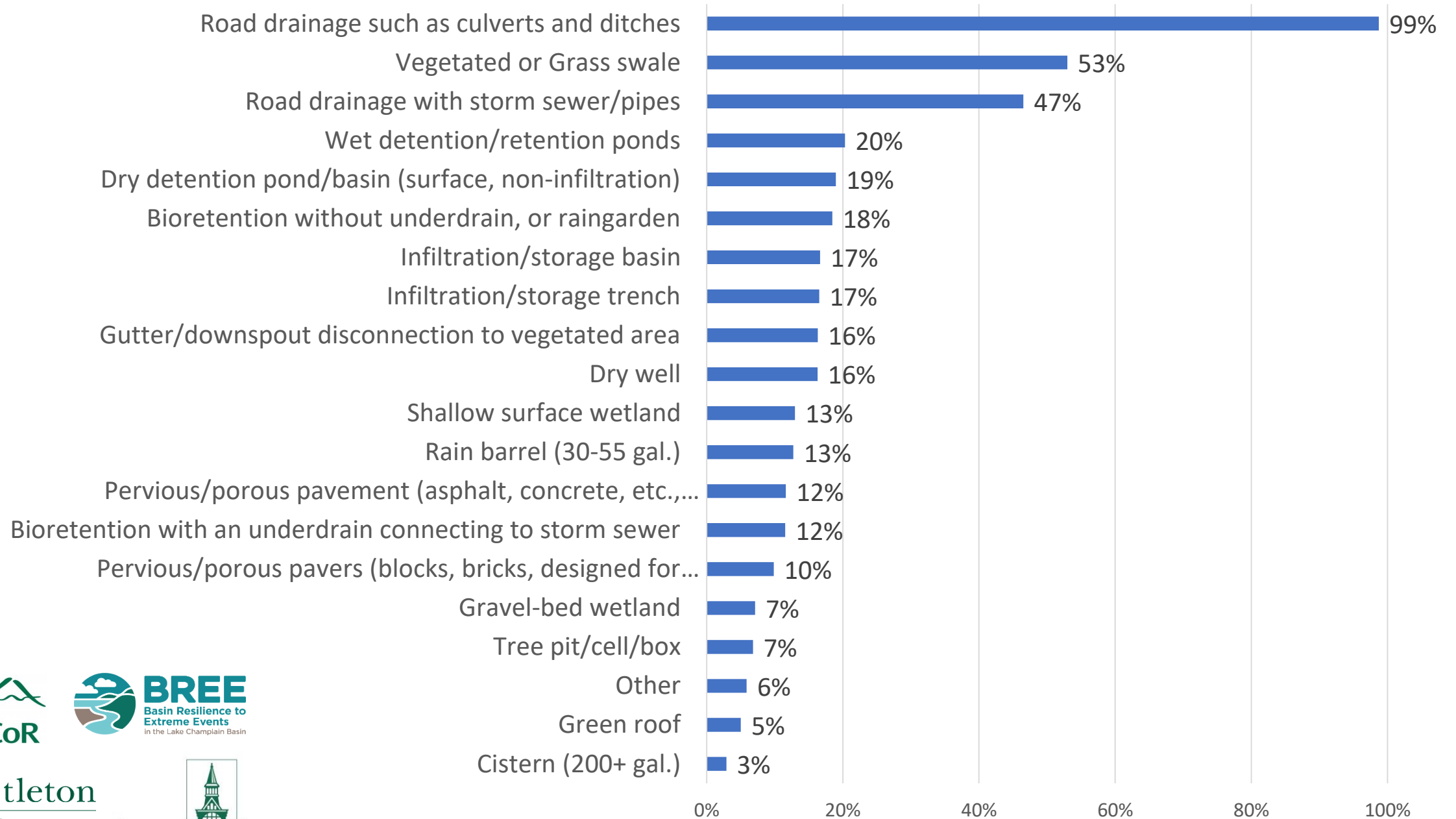
Places to which municipalities have applied for funding, by size



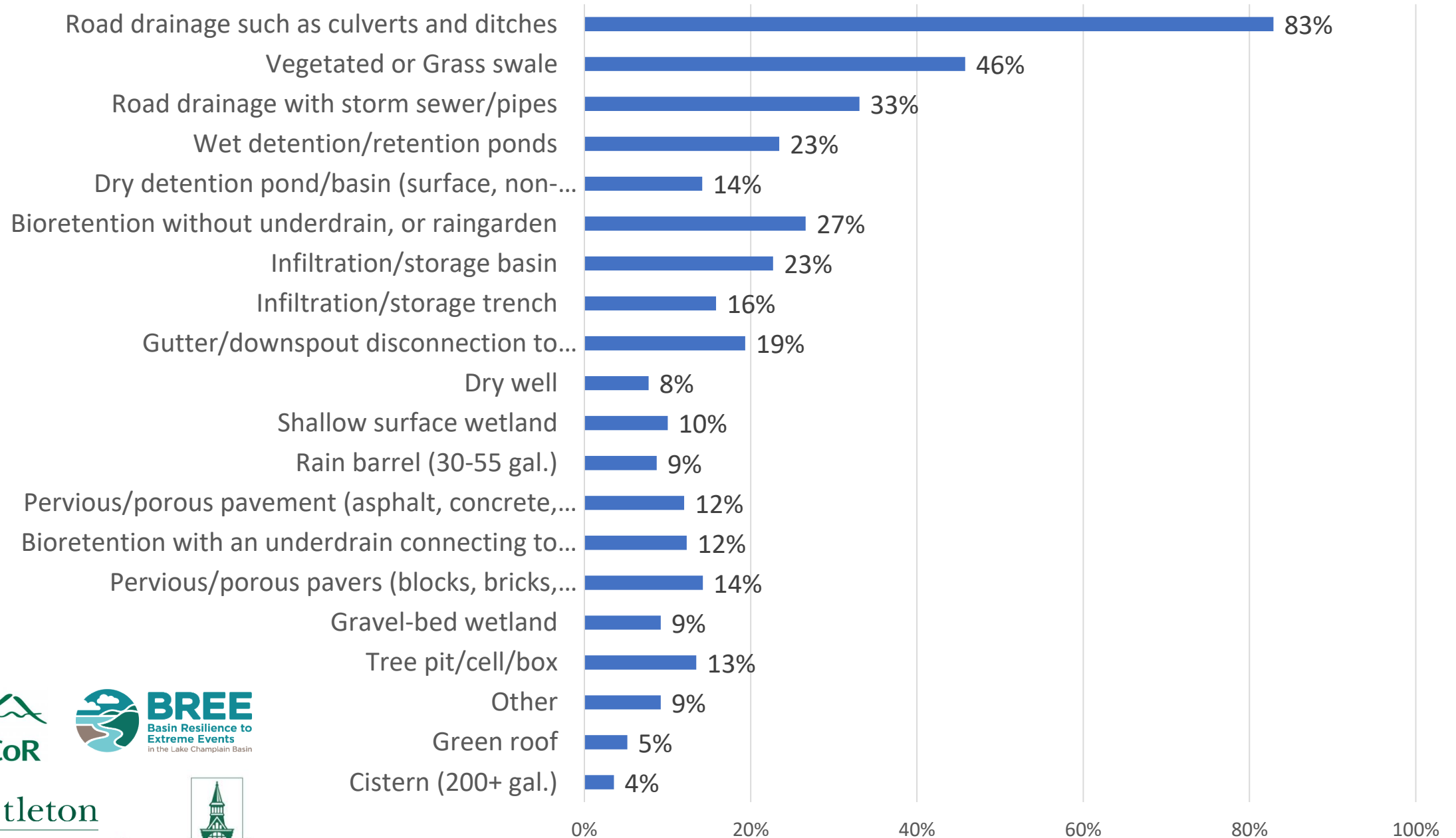
Respondents' perceptions of the fair cost share for addressing "impaired waters" in Vermont



Current town practices in effect to address stormwater



Practices towns are likely to implement to address stormwater



Concluding thoughts

- Town clerks and small municipalities are less aware of resources available to address stormwater and water quality issues
- Town clerks are more likely to have been the respondent in the smallest towns
- Small municipalities lack the resources to apply for funding or to use data and models
- Towns are addressing stormwater issues in the best ways they know and are limited in thinking about new ways
- Information is needed to make towns aware of federal and state resources for addressing stormwater issues

Next steps

- Data feeds models where appropriate
- Holly Greenleaf will produce analysis for drainage infrastructure options based on both aesthetic preferences and the perception of maintainability
- Policy brief ...
 - detailing the overall survey findings
 - means for improving connectivity and preparedness at the local level
 - ways for addressing stormwater issues at the local level with limited resources