

**From:** Ross, Chuck [Chuck.Ross@vermont.gov]  
**Sent:** Wednesday, February 20, 2013 6:30 AM  
**To:** Mears, David; Miller, Elizabeth  
**CC:** Porter, Louis; Spaulding, Jeb; Markowitz, Deb; Minter, Sue; Miller, Lawrence; Mackay, Noelle; Berry, Patrick; Snyder, Michael; Johnson, Justin; DiPietro, Laura; Leland, Jim; LaClair, Jolinda  
**Subject:** RE: Need a list  
**Attachments:** 2013-02-20\_Water\_Quality\_Memo\_to\_Liz\_Miller[1].docx

Liz, David et al,

We at VAAFMM will augment this document very soon. It is very good and comprehensive, thank you David.

By way of general message I spoke to this issue at the WCAX press event with the Cabinet yesterday morning where I said the following:

In spite of the head lines the Shumlin Administration has in fact included new monies and efforts to address water quality. In fact VAAFMM has raised fees on pesticides, fertilizers and feed which raises approximately 250K. these funds will provide two staff, one for enforcement and policy and the other for inspecting small farm operations and will have additional resources to contract out for further technical assistance with small farms. Its important to recognize that heretofore, small farms have only been inspected as a result of complaints and there are over 800 small farm cow operations.

This work represents an unheralded and unprecedented level of cooperation and coordination between the VAAFMM and ANR/DEC. These efforts have also resulted in the Shumlin Administration drawing down over 4 million dollars of extra federal level support, above and beyond the normal allocations of state and federal money. These funds are aimed at addressing water quality issues from research to targeting to on the ground expenditures.

These efforts represent a whole new level of effort and coordination on the part of the state as led by the Governor. It has attracted the attention of EPA and the USDA at the highest levels as evolving examples of new and effective efforts to address water quality issues that confront states and communities across the country. The very administrators of the federal regulations with which states must comply are looking at Vermont as a prospective model for other parts of the country. More importantly, Governor Shumlin and his team have formulated this effort in these difficult financial times to address this most important issue to advance the interests and desires of Vermont and Vermonters.

Laura and Jim,

Can you add to the memo David has written and offer edits to my message above as needed. Laura I believe you have already written a document itemizing many of the new initiatives and resources you and others have worked to bring to VT over the last two years.

thanks

chuck

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From: Mears, David  
Sent: Wednesday, February 20, 2013 3:25 AM  
To: Miller, Elizabeth  
Cc: Porter, Louis; Spaulding, Jeb; Ross, Chuck; Markowitz, Deb; Minter, Sue; Miller, Lawrence; Mackay, Noelle; Berry, Patrick; Snyder, Michael; Johnson, Justin  
Subject: RE: Need a list

Liz: I put together the attached memorandum with eye towards the possibility that it may become a public document. I realize it is probably more than you need but it is still just a fraction of the work we have been doing. Hopefully, you can pull what you need from this memo. Please let me know if you need more information or detail (or less) and I can revise. David

David K. Mears, Commissioner  
Vermont Department of Environmental Conservation

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From: Miller, Elizabeth  
Sent: Tuesday, February 19, 2013 2:01 PM  
To: Ross, Chuck; Mears, David  
Cc: Porter, Louis; Spaulding, Jeb  
Subject: Need a list

Of items already underway or that we have proposed for purposes broadly of improving water quality, and paragraph on why the TMDL and the MS4 provisions have to be completed before we can move to the next step in policy...? We expect to need this soon to respond to some of the things going on across the street.

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To: Liz Miller  
From: David Mears  
CC: Deb Markowitz, Justin Johnson, Jeb Spaulding Sue Allen, Louis Porter  
Date: February 20, 2013  
Re: Major Water Quality Initiatives

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A possible message that the Governor could provide in response to questions about this Administration's vision for clean water is as follows:

We are at a moment when Vermont is poised to recover its role as a leader in the nation in terms of our programs for addressing water quality. We are blessed with a community of citizens, businesses, farmers, and advocates who share a deep appreciation for the value of our great lakes and rivers, our cherished streams and ponds, to our economy and the quality of our lives.

The Lake Champlain TMDL presents one critical and highly visible opportunity to make important strides in this regard. There are also many other ways in which the state's water quality programs are evolving in ways that take advantage of our learning over the past four decades since the passage of the major state and federal clean water laws to develop the next generation of solutions so that we can reverse the declining trends in our state's waters.

I am pleased that there is an active conversation happening across the state, and in the statehouse, about what it will take to cement in place the necessary strategies to recover our waters. With a concerted effort by all Vermonters and support from the legislature, we can make this happen using strategic and reasonably affordable investments.

The following is a rough list of the highlights of the water quality programs underway at the state level that this Administration and Governor Shumlin can be justifiably proud. Much of this work is done collaboratively with other state agencies, primarily AAFM, VTrans and ACCD. We have also strengthened state relationships with federal agencies, primarily EPA, US Fish and Wildlife, and the USDA Natural Resources Conservation Service. Further, we are improving our partnerships with regional planning commissions, local watershed groups, conservation districts, and statewide environmental non-government organizations such as VNRC and CLF. Finally, we are actively working with local communities, businesses and developers and farmers to developed shared ideas for responding to the challenges of cleaning up our waters. There is no segment of Vermont's economy or landscape that we do not intersect with in the course of this work.

I. **Major Initiatives Underway:**

- **Water Quality Funding Report:** While we are not yet ready as a state to make a decision about the precise investments that we can and should make for the greatest returns in terms of water quality, the report that DEC produced this winter in response to Act 138 was a big step towards helping the state make an informed decision about how to fund and make these investments. This report took six months of intensive and collaborative effort and involved input from AAFM, VTrans, and ACCD, local governments, and an array of interest groups. The report does not shy away from the hard choices that we face in order to make meaningful progress.
  
- **Lake Champlain Total Maximum Daily Load:** We are working closely with the United States EPA on the science and modeling work that will be used to determine the targets for phosphorus reduction that we must achieve in order to restore the water quality of Lake Champlain. This modeling work will be complete in the spring and will lead to an intensive public conversation with the Vermont public about the ways we can achieve those targets. We have already developed an outline of those options which include a focus on reducing polluted runoff from agriculture, urban and suburban communities, and gravel roads, while ensuring that we update our wastewater treatment systems over time to use the latest and most effective treatment technologies. Once we have obtained public input on these options, we will develop a set of proposals that will meet the federal and state goals and requirements for meeting the phosphorus targets. We will then prepare a package of investments in capacity and authority necessary to implement those proposals for the Governor and the legislature to consider. We will be required to present a final plan to EPA shortly after the close of the 2014 legislature.

It would not have made sense to present a package of requests for authority or funding to the Governor or Vermont legislature this year as we have significant remaining technical, scientific and policy work in order to be able to present a fully developed set of proposals.

- **Municipal Separate Storm Sewer System Permit:** This recently issued and innovative stormwater permit is an example of how Vermont is leading the nation in water quality protection. This permit challenges the larger communities in the Lake Champlain basin to address polluted stormwater runoff through putting in place infrastructure that will capture stormwater and allow it to infiltrate back into the ground. The permit also gives communities time (up to twenty years) and flexibility to plan for the necessary investments to achieve the ambitious goals of this permit. We are already exploring ways to expand this approach across the state. Unfortunately, this permit has been challenged in court and it therefore it may take time to resolve the conflicts that have arisen.

## II. Other Significant Steps to Protect Water Quality:

Green Infrastructure Executive Order and Working Group: Governor Shumin signed an executive order last year directing state agencies to work together to find ways that the state can model good low-impact development and green infrastructure practices. The goal of this effort will be to put in place practices that reduce polluted runoff from state buildings and other infrastructure.

Strengthening DEC's organizational capacity through reorganization, strategic investment and improved coordination: The department reorganized to consolidate all water quality related programs in one division including wetlands, rivers, lakes and ponds, wastewater permitting, monitoring and assessment and ecosystem restoration grants. This is part of a new department statewide water quality strategy launched two years ago to ensure that watershed plans are developed in consultation with the communities in those basins to establish coordinated water quality efforts. We have also made strategic investments to increase staffing in the areas of wetlands protection, stormwater permitting, green infrastructure promotion, river engineers, transportation and agriculture liaisons, and floodplain coordinators. All of this additional investment in capacity and coordination is providing greater water quality at a reasonable cost using existing resources.

Flood resilience work: Following the 2011 floods, the department realized that we were underestimating one of the most significant forms of water pollution in the form of sedimentation from streambank and shoreline erosion. We have a significant number of initiatives underway including a major rulemaking effort to put in place more effective stream alteration standards, and an effort to launch a new program to help communities reduce the risk of flood damage through better river and floodplain management. These efforts will also reduce water pollution.

Clean Water Act Delegation: Vermont has had the authority to implement the federal Clean Water Act since the early 1970's and was one of the first states to receive this authority. Under the prior state administration, the Conservation Law Foundation filed a petition with EPA to remove this authority or to "de-delegate" Vermont. After two years of intensive negotiations and significant efforts to address the issues in the petition, we have a draft agreement resolving this conflict which is now waiting approval from EPA headquarters. Specific achievements necessary to get to this result include improving the public transparency of our enforcement program, issuance of a new draft farm feedlot permit, and a host of other improvements to address deficiencies in Vermont's programs.

Wastewater Treatment Investments: The Administration's current budget proposal includes substantial funding for an upgrade to the Waterbury wastewater treatment plant to allow this plant to remove phosphorus. The Waterbury plant is the last major treatment facility in the Lake Champlain basin without advanced phosphorus removal capacity. Further, the Administrations' budget fully funds the state match for the federal Clean Water Act state revolving fund. This allows the state to obtain five dollars for every state dollar we spend, and allows us to provide low interest loans to communities for investments in their wastewater treatment plants and stormwater infrastructure.

### III. Work With Other State Agencies:

Some of the most significant work to protect the state's water quality is not being done by DEC but is being achieved by our sister state agencies: AAFM, VTrans and ACCD and our sister departments FPR and DFW.

#### Agriculture:

- Agriculture working group: DEC and AAFM are sponsoring a facilitated discussion among a group of farmers and other stakeholders for the purpose of developing new and better practices for reducing pollution from farms.
- Coordination with state and federal partners in on-farm technical assistance and funding: DEC and AAFM are coordinating with the USDA Natural Resources Conservation Service, UVM Agricultural Extension and Conservation Districts to provide coordinated and strategic technical assistance to farmers to help with water quality practices on farms.
- Funding for small and mid-size farm technical assistance and regulation: The Administration's budget includes an important investment in AAFM's ability to assist and regulate small to mid-size farms by adding two additional staff to work in this area.
- Targeted farm practices in Franklin County to critical source areas: Following the release of an important study in Franklin County showing the greatest impacts on water quality, AAFM partnered with the USDA to get funding to farmers to target pollution control practices in these areas.
- Strategic enforcement initiative with AAFM, Attorney General and DEC: All three agencies are coordinating to ensure a strategic and robust enforcement response to address farm pollution where the farmers are unwilling to work with us to address sources of pollution on their farms.

#### Transportation:

- Better backroads: VTrans and DEC coordinated in this creative effort to move an existing program from a small non-profit organization to be housed within VTrans to increase the reach of the program and to overcome constraints on federal funding. This program provides technical assistance to local governments to help them better design and construct their gravel roads and ditches to reduce polluted runoff.
- Road and bridge standards: VTrans and DEC have collaborated on updating a set of standards that protect roads and bridges from washing out during floods, increase the likelihood the towns will be compensated by FEMA for the full cost of replacing properly designed roads and bridges, and which will also reduce water pollution. These standards have just been released to towns and VTrans is working closely with them to help them adopt and implement these standards.
- Stream alteration program coordination: The work that VTrans and DEC have done together to better manage the relationship between road infrastructure and stream systems has been ground-breaking. The state is now a leader nationally in this area and we are working to help

local governments realize the benefits of designing transportation infrastructure with stream dynamics in mind.

- Working to make the state transportation system a model for best practices to reduce polluted runoff from roads: VTTrans and DEC are working actively to develop policies and regulatory mechanisms that are suitable for controlling polluted stormwater runoff from transportation systems. Our shared goal is to make Vermont's state highways models for all roads in the state.

#### ACCD:

- Reducing sprawl: All of the work that ACCD does to promote investment in housing and development in downtowns and village centers, giving Vermonters greater options to live in walkable, livable communities has a major benefit to water quality. Concentrating development in these areas reduces sprawling, paved areas across the landscape, and protects assets like floodplains, wetlands and forests that provide significant water quality benefits.
- Wastewater Treatment for Small Village Centers: As part of an overall effort to reduce sprawl and encourage infill development, ACCD has convened a working group of staff and experts from both DEC and ACCD to develop policies that allow smaller communities to develop small-scale innovative wastewater systems. The inability to develop these systems is often a significant barrier to new development in these smaller communities that lack large-scale centralized wastewater treatment facilities.

#### Forest, Parks and Recreation:

- Working forests: Keeping a strong forest economy in Vermont ensures that we will retain our forests which are one of our most critical assets in protecting our state's waters. Healthy, well-managed forests capture rainfall and infiltrate it into the ground, protect our headwaters and streams, shade and cool our streams, rivers, lakes and ponds, and so contribute to better water quality across the landscape.
- Improved accepted management practices: FPR is in the process of updating and strengthening its recommended and required practices for timber harvesting to reduce water pollution from logging roads and other practices associated with logging. FPR has a long and demonstrated record of ensuring that these practices are implemented so this will be a meaningful change.

#### Fish and Wildlife:

- Fish and wildlife habitat: One of the most significant reasons for protecting water quality is to ensure that we have healthy fisheries. These fisheries are, in turn, important indicators of the ecological health of our waters because they depend upon a diverse and rich array of insects, crustaceans, amphibians, plants and other aquatic life. Similarly, riparian habitat along our river and lake shorelines is critical to our wildlife and the presence of wildlife is a good indicator ecological health of these watersheds. The work that DFW does to ensure that these values are addressed in all state decisions is a critical and foundational component of the state's work to protect water quality. In the past two years, under Secretary Markowitz's leadership, Fish and Wildlife and DEC are partnering more effectively for this purpose.