

Laura Bozarth

From: Laura Bozarth
Sent: Monday, February 06, 2017 9:17 AM
To: Laura Bozarth
Cc: HOUSE_NATURAL_FISH_WILDLIFE
Subject: FW: today's learning session

Dear committee members,

Please see email below from constituent James Maroney.

-----Original Message-----

From: William Bowden [mailto:Breck.Bowden@uvm.edu]
Sent: Friday, February 3, 2017 5:35 PM
Subject: RE: today's learning session

James: It was good to chat with you yesterday. I enjoyed reading your summary. My 'cake' analogy was intended to illustrate in a crude way how the balance of nutrients controls biological production. It had nothing to with a justification for how much P farmers put on their fields. I think it is abundantly clear that the reason too much P runs off into Lake Champlain is that we import more P into Vermont (fertilizer, feed) than we export, either in products (milk, cheese) or naturally (burial, hydrologic export). The decision to regulate or tax this import isn't a scientific one, it's societal. Frankly, until we do, I doubt much will change.

Breck

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Breck Bowden
Work: 802-656-2513
Cell: 802-238-0929
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-----Original Message-----

From: James H. Maroney, Jr. [mailto:maroney.james@gmail.com]
Sent: Thursday, February 02, 2017 8:07 PM
Subject: today's learning session

Dear Breck, Chris, Brian and Eric:

I am so pleased to have attended today's learning session on phosphorus pollution. I was apprehensive that we were going to get a recitation of the program I have heard dozens of times before but your presentations were all extremely informative and brief, a perfect formula for success!

Breck, I liked your metaphor that if one hopes to make a cake but does not have all the necessary ingredients for making a cake, one will not get a cake. I wondered if you were leading up to saying that phosphorus is an essential ingredient in growing food and of course it is. But the metaphor does not justify the Vermont dairy farmer's application of +/- 6,000 tons of phosphorus annually to Vermont farmland.

First, the phosphorus component in NPK fertilizer is water soluble ammonium polyphosphate because in that form it is readily available to crops. But because crops take up only 50% of what is applied, water soluble ammonium

polyphosphate is also readily available to run off into the lake. Rock phosphate, on the other hand, weatherizes slowly, slowly, slowly, which means plants get just what they need but very very little runs off into the lake.

Second, The national milk supply is at 220B lbs of which 10% or 22 B lbs is surplus. Conventional Vermont farmers apply NPK to land along our rivers and streams in order to grow corn to feed cows to induce them to make three times more milk than they would on grass. Vermont agriculture is approximately 75-80% (by sales) conventional dairy and yet Vermont dairy makes barely 1% of the national supply. The other portion of Vermont's agricultural production (5%) accounts for no measurable part of the nation's supply of meat, fruit, fiber, vegetables or fish. In truth, were Vermont agriculture to cease operations entirely tomorrow, no one would starve. Vermont farming does not need to apply any NPK fertilizer.

Third, Vermont consumers spend approximately 93-96% of their grocery money for food made in other states. Vermont does not, in other words, farm to produce food: it farms for appearances. I do not say we should not farm; I say if we insist on farming, why must we pollute the lake to do it? We don't need Vermont conventional farming to eat.

Chris, I was delighted that you reminded us of Ben Franklin's adage that an ounce of prevention is worth a pound of cure. Put another way, Ben is suggesting that prevention has a sixteen fold advantage over cure. One of the cures you proposed, turning phosphorus into a resource, implies that after dairy farms put it in the lake, we can take it out. But in addition to being monstrously expensive and inherently inefficient, this contradicts Ben's adage. The most efficient way to "clean up the lake" is to stop putting it in, sixteen times more efficient.

Brian, your presentation describing the economic benefits of a clean lake is compelling. But perhaps you might consider adding the opportunity costs of farming conventionally. Since the late 1970s, the state has been spending (actually foregoing) \$70/80M/year in tax revenues, which largely apply to conventional dairy farmers, the proximate cause of half the problem. Were the state to shift the \$35M/year that Act 64 is projected to cost to converting the dairy industry to organic, the state's production of milk would drop by 50% (some farms are too large to comply with the standards) and the cost of producing it would rise by 25%. But for those who convert, gross revenues would triple. Vermont agricultural land values would increase, and concomitantly a boost to the appearance of Vermont's "working landscape," the one that tourists come here to see. Dairy farmers would be converted from tax beneficiaries to taxpayers and lake pollution would be cut by half into the bargain, making further state expenditures to "clean up the lake" unnecessary.

Eric, I made reference in my comments to a study you conducted a few years back in which you said that the lake can absorb about 500 tons of nutrients, but today it is taking in about 817 tons, or 317 or 35% too many, of which 200 or roughly 65% must come from agriculture. 65% of 35% is about 24%. Act 64 has no provision to require Vermont conventional dairy to reduce production by 24%; it actually has no provision to require Vermont dairy to reduce production by any amount and no provision to require conventional dairy to stop importing 40,000 tons of phosphorus into the watershed. Mr. Deens' refusal to answer my question is a pretty good indication that he knows the law is not just deficient in this important regard but useless. I wonder if it might cause you all to wonder why we are still trying to solve this problem for fifty years and counting, defending an industry that is responsible for half the problem, one that costs the state \$70/80 in lost revenue, one that is the strongest driver of rural economic decay and one that really has no rational reason other than habit to continue.

James H. Maroney, Jr.
1033 Bullock Road
Leicester, VT 05733
Cell: (802) 236-7431