Comments by James H. Maroney, Jr. delivered to the Citizens' Advisory Committee of the Lake Chaplain Basin Program, December 14, 2020

I am extremely pleased that CAC is exploring the **Future and Economic Sustainability of Dairy Farming in Vermont**, and I am very pleased to be asked for my views on that topic. My views are not directed at any farmer in particular but at conventional dairy farming in general.

That said, we need to be certain we understand the meaning of the word *sustainability*. *Economic* sustainability means that a concern has achieved and can sustain positive cash flow. *Ecological* sustainability requires that the production of goods and services not overtake the carrying capacity of ecosystems, *i.e.*, not compromise nature's ability to regenerate utilized resources. The distinction between the two is important to this discussion; if dairy farmers want to work all day every day and lose money that is their own affair. But if their *process* is polluting our water and our atmosphere, they are infringing our shared rights and they must stop.

Economic sustainability or positive cash flow can be achieved, as the oil industry achieves it, by drilling up oil from deep in the earth, refining and selling it to people who burn it to generate electricity and power their cars and trucks. The process puts a lot of money in the pockets of oil producers. But burning fossil fuel, as we all surely know by now, externalizes its wastes into the environment and once so disposed the oil industry wants nothing more to do with them. By importing nutrients into the watershed to coerce cows to produce three or four times more milk than they would on a diet of grass a few conventional dairy farmers have managed positive cash flow. But *all* conventional dairy farms, large and small, entail externalities, and once disposed the industry are not, as industry apologists would have us believe, limited to manure run-off; they comprise most perniciously over production, which drives milk prices down, which drives farm attrition up, which drives broad-based rural economic decay, which drives legislators to call for new taxpayer-funded support programs for "struggling dairy farmers."

These opinions should not be controversial; they are well supported by the data. It is time for the State of Vermont to acknowledge that the conventional farming modality entails externalities, not by accident but by design. It is time to acknowledge that taxing Vermonters to fund programs that are intentionally inadequate to boost production or reduce its wastes borders on malfeasance. It is time for Vermont state officials from the very top on down to acknowledge that conventional Vermont milk has in the simplest economic terms a negative value. How can an industry that reliably loses \$100M from operations every year and bleeds the taxpayers for support be "the backbone of our rural economy?"

Dairy is not, as its apologists are constantly reminding us, the only contributor to lake pollution in Vermont: inadequately designed or antiquated wastewater treatment plants contribute about 4%; storm water run-off contributes about 46% and "agriculture," a euphemism for conventional dairy, contributes another 46%. But one of these things is not like the others. The first two are unavoidable: it is not going to stop raining and we are not going to stop driving or going to the bathroom. These two influences can only be remedied by huge expenditures of the taxpayers' money and it is well documented that huge expenditures to improve infrastructure yield but meager results. By contrast, conventional dairy farming is not unavoidable but voluntary:

according to Farm to Plate Vermonters import 90% of their food from out-of-state. We do not, in other words, farm in Vermont because we need to eat; we farm for appearances. This means that it makes no sense to farm *conventionally* in Vermont especially when the most conspicuous consequences are not food but lake pollution, farm attrition and the allocation of \$1.3B/year for a spate of programs intended on their faces to "save agriculture and protect the lake" and more especially when those programs are empirically achieving neither. These observations are exceedingly well supported by the data. And yet for six-decades Vermont's agricultural policy has been predicated on the notion that lake pollution is caused incidentally on *some* conventional dairy farms, not systemically on them *all*. This absurdity stands not only in open defiance of the data, it stands at the heart of the state's \$3B, sixty-year failure to meet its water quality standards.

The remedy for this fiscal incongruity is for the state to withdraw all support from the conventional modality as soon as possible and redirect those resources to converting the entire Vermont dairy industry to organic. Converting Vermont dairy to organic would be only the first step in a state-supported reform of the industry. The second would be to organize Vermont farmers into a new organic coop and the third would be to market and grow demand for their products. As Buckminster Fuller once said: "To change something, build a new model that makes the existing model obsolete." In other words, these steps must be paired with a simultaneous, top-to-bottom change in Vermont's agricultural and water quality policies. The state is justified in taking this step because it has a duty long deferred to meet its water quality standards and a relatively new obligation to curtail its contributions to global warming; conventional dairy is a significant contributor to both. The state has given conventional farmers more than enough time and way more than enough money to change their business model and the data tell us they have done little more than evade their responsibility while doing business as usual. The importation of 40,000 tons/year of artificial fertilizer and 600,000 tons/year of conventional grain for the production of milk that has no economic value must stop. The roadmap for achieving reform in three years can be found at this link:

https://www.dropbox.com/s/en10pwdsabo7nxb/Remedy%2C%20The%20Dec2020.docx?dl=0

Reforming Vermont's agricultural and water quality laws must begin by repealing the ag titles in Act 64, specifically the Required Agricultural Practices Rules, which were patently not written to clean up the lake but to shield Vermont conventional dairy from policies that would. In their place, the legislature must redirect half, or \$350M of the \$700M now allocated in Act 64 to improving water quality from all three sources, to pay its +/-425 remaining small and medium conventional dairy farmers to convert to organic. I do not for a moment underestimate the social, economic and political obstacles to such a change. But failing to do this and hoping none of what I have been saying is true means hoping a buyer will be found willing to pay \$30/cwt for 2.1B lbs of conventional Vermont milk when the same product is available everywhere for \$15/cwt. It means hoping that after another twenty years and another \$350M gone, conventional dairy's contribution to lake pollution will not somehow be the same, its product and revenue stream will somehow not be the same, the number of active Vermont dairy farms will not have shrunk to fewer than 100, all milking in excess of 1,000 cows, all importing increasing amounts of high phosphorus feed supplements, all applying increasing amounts of NPK fertilizer to more and more corn land along our rivers and streams, all housing more than one cow for every three acres under management on which that cow's feed is harvested and her manure is spread. It means

hoping for a miracle, but hope is not a plan. To paraphrase Secretary of State George Schultz, "In planning for change be certain your plans are just and equip the stakeholders for success." In sum, Vermont must enact Green New Deal legislation setting out drastic measures to cut GHG emissions across the economy from electricity generation to transportation to agriculture. In the process, it will create jobs and boost the economy.

Before closing I find it necessary to comment on a recent report from the Vermont Dairy and Water Collaborative, a distinguished group made up of people drawn from the agricultural and land conservation communities. The group's mission statement says "excellent water quality is a critical part of Vermont's quality of life and farming plays a major role in Vermont's economy and a healthy working landscape...farm stewardship practices are a critical pathway to improving water quality. From this perspective, farm viability is essential." Forgive me but this is circular reasoning. I agree that water quality is essential to Vermont, that farming is an important land use activity and that farm stewardship practices are a critical pathway to improving water quality. But because, as I have shown, farming exerts a negative pull on the Vermont economy, the effort to draw an equivalency between water quality and farming is indefensible. Attaining our water quality standards is absolute not relative. And attaining them is not only dependent upon first reforming conventional dairy, we could most expeditiously attain them by discontinuing farming altogether. Clearly no one wants to do that. But again, to attain our clean water standards it is imperative that we explore ways to adapt the exigencies of farming to the attainment of our water quality standards. And forgive me once again: because the report is foremost an affirmation of the status quo, it fails to mention organic agriculture as an alternative. Worse, it proposes paying conventional Vermont dairy farmers for eco-services even as they continue to produce commodity milk and in spite of the two 800 lb gorillas in the room: (one) to make conventional dairy farming viable a buyer must be found willing to pay above \$20/cwt for Vermont milk when the same product can be purchased elsewhere for \$15/cwt and (two) paying Vermont conventional farmers a premium without ending the importation of nutrients and the over supplying of milk markets will only drive milk prices further down and embolden farmers to put on more capacity with which to make even more, putting us all right back where we are today, with an industry that is ecologically and economically unsustainable.

The economics of converting the Vermont dairy industry to organic comprising an explication of these very concerns can be found in my letter to Governor Scott of January 26, 2019, at this link:

https://www.dropbox.com/s/mmndmacaw29zxk8/Scott%20Phil%20reinvigorate%20agriculture. docx?dl=0