

Thomas Weiss  
P. O. Box 512  
Montpelier, Vermont 05601  
February 16, 2023

Senate Committee on Economic Development, Housing and General Affairs  
House Committee on General and Housing  
State House  
Montpelier, Vermont

I am Thomas Weiss, a civil engineer who lives on 1/6 of an acre. On that 1/6 acre I grow my own organic vegetables that last the whole year. My professional experience includes planning and design of water and sewer systems, permitting, and environmental reviews.

As you are aware, a housing bill does not and cannot stand alone. Any housing bill should be compatible with other bills and provisions that support sustainable housing; food security, child care, on-site treatment of wastewater, reducing Vermont's carbon footprint, and more.

Today, I present six recommendations for your consideration.

**1. Require that new housing does not add to greenhouse gas emissions.** This is an example of compatibility with other bills. Senate Natural Resources and Energy is working on S.5 which is intended to reduce greenhouse gas emissions from thermal loads (jargon for: heating, air conditioning, and hot water). The most effective way for new housing to meet greenhouse gas emission requirements is to make new housing real zero. (Real zero is jargon for no greenhouse emissions. "Net zero" is not as effective as "real zero". That is because "net zero" allows new greenhouse gas emissions while pretending through sleight-of-hand that emissions are being reduced elsewhere.)

Vermont's existing energy codes are inadequate to meet our greenhouse gas emissions goals. Yet Senate Economic Development, Housing, and General Affairs has just put into their draft 7.2 that municipalities may not require anything that reduces thermal loads more than the residential stretch code and the Commercial Building Energy Standards.

The Department of Public Service is revising both of our energy standards (residential buildings and commercial buildings). The codes are based on the 2021 international energy conservation code. Development on that code began around 2018 and its contents had to be agreed to by a committee. By the time our energy standards are revised, they will already be out of date by three or four years. We need our energy standards to anticipate the future. Our standards should not be less than best available practices. The RBES and CBES that will be adopted are less than best available practices.

**2. Retain existing Act 250 jurisdiction over priority housing projects.** Perhaps 80,000 to 100,000 people could reside in 40,000 units, representing a 15% increase in population. That potential growth exceeds that of Vermont's two highest growth decades, 1960 to 1980. These are the decade whose growth led to Act 250 and the decade during which Act 250 became established. Permitting for these 40,000 units needs to be comprehensive and robust. Act 250 does that. Other permits (zoning and State) do not provide a comprehensive review. And collectively these other permits do not address many of the Act 250 criteria.

Act 250 has almost no effect on the duration of the pre-development phase. I looked into this in 2022. I looked at a total of 64 housing projects that had applied for an Act 250 permit in the years 2017 through 2021. The Natural Resources Board provided this list to SNRE early in 2022. The list had

- 5 applications that were decided by the district co-ordinator (administrative amendments)
- 48 applications that were decided without a hearing (minor application in Act 250 jargon)
- 11 applications that were decided after hearings (major application in Act 250 jargon)

The duration between Act 250 application and Act 250 permit is often determined by how long it takes an applicant to get other permits and to resolve issues with other agencies. Act 250 needs to evaluate those documents for compliance with the Act 250 criteria. The median time between receipt of the last document and issuing a permit is six days. Depending on other simultaneous actions, the pre-development phase might not be shortened at all. Those last documents were from ANR, historic preservation, municipalities, AOT, and the applicant itself.

**3. Expand Act 250 jurisdiction outside the chapter 76A designations.** One of the goals of chapter 117 is to "plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside." (24 V.S.A. §4302(c)(1)).

Housing bills often focus on getting more housing into the compact centers. The bills do nothing to reduce pressure on the rural countryside. Bills that address only the compact centers appear to be based on the misguided assumption that these measures to increase housing in the compact centers will end pressure to convert farms and forests to housing. There will still be many individuals and families who will not want to live in the compact centers. Living in the rural countryside is one of the attractions of living in Vermont. The bill needs to provide balance by increasing protections outside the compact centers.

Housing being built in the rural countryside already has led to significant habitat loss, forest fragmentation, and other negative results. The projection of 40,000 units is something like a quadrupling of the rate of recent housing construction. Even if 30,000 of the units go into the compact centers, that means the rest, 10,000 new units, will be built in the rural countryside. That means no reduction of the pressure on the rural countryside.

**4. Retain State oversight over connections to municipal water and wastewater systems.** During the summer of 2021, I looked into the effect of the Wastewater System and Potable Water Supply Permits (WW permits) on housing projects. These are issued by the regional engineers at the Department of Environmental Conservation's regional offices. My investigation shows that the WW permits are not a barrier for housing that connects to municipal water and sewer systems. Eliminating the WW permits in these cases typically will not shorten the pre-development period, will not make housing affordable, and will lose the benefits provided by the State's oversight.

I looked at 16 housing projects in Montpelier, Northfield, Brattleboro, and Montpelier. The median permit fee per unit of these projects was \$175. The maximum was \$750 (4 units added to 9 existing units). Total fees were \$270 to \$3,000. The information needed for the WW permit is needed by other permits and for the project design itself. The only time involved in the WW application is to transfer already available information to the application and some time to co-ordinate with the regional engineer assigned to the project. This should amount to no more than a few hours of time. It is inappropriate to allocate the cost of developing the information to the WW permit. Even if the WW permit is eliminated, the cost of developing that information is not eliminated.

I looked into the timing of the WW permit compared to the timing of other permits needed for a project. Other approvals that may be required are: allocation of capacity (15 projects); zoning permit (15), building permit (8), connection permit (3), Act 250 permit (3), flood permit (1), and public works permit (1). Developers determine the order and timing of applications for these various approvals. The WW permit was the last to be received on 8 projects. One project was abandoned after the permit was issued. One was for a lot subdivision and the lot had not been sold many months later. The WW permit application was withdrawn on one project. That leaves five permits where the time between last permit and the WW permit might have been caused by the applicants' choices on timing (delay not caused by the WW program) or they might have been caused by the WW permit process. I did not have enough information to determine which.

The WW permit program has value.

- - The regional engineer found two errors in one application: The design flow and allocation were too low; and the water and sewer services were designed to be too close to each other. It was easier to correct before the permit was issued than to redesign on site after the start of construction.
- It provides a single repository at the State for wastewater permits throughout Vermont.

**5. Prevent the isolation distances of water and sewer systems from encroaching on a neighbor's property where municipal water and sewer are not available.** There are proposals to allow two units with one ADU each everywhere housing is allowed.

On-site wastewater treatment requires isolation zones in order to function properly and to protect public health. These isolation zones restrict what can be done inside them. Existing rules allow isolation zones to extend onto a neighbor's property and there is little the neighbor can do about it.

The rules for Wastewater System and Potable Water Supply Permits (WW permits) allows an isolation zone to encroach on a neighbor's property. There is no compensation to the neighbor. The only requirement is to send the neighbor a form that says, in effect: "The isolation zone for my on-site system will extend into your property. This notice gives you a chance to talk to me before the permit is issued. If I decide to make no changes, you cannot stop the WW permit." The notice indicates that the neighboring landowner can build in the isolation zone. The notice doesn't point out that the isolation zone inhibits other uses on the neighbor's property. If the neighbor builds a cellar in the isolation zone, there is a potential for leachate entering the cellar. The neighbor might not want to plant a vegetable garden or fruit trees in the isolation zone.

**6. Provide access to sunlight for gardens.** Food security is of concern at all times. Problems of food security increase during periods of economic travail, recently the COVID pandemic. One way to improve food security is for housing to provide access on site to land and sunlight for the residents.

A housing bill should integrate sustainability and food security. This can be done by requiring each lot to have an area set aside for gardening space with access to sunlight. The gardening space should be large enough to allow residents to grow a significant portion of their own fruits and vegetables. New lots and new construction would need to preserve access to sunlight on its lot and on neighboring lots. Dimensional standards, setbacks, and orientation need to allow sunlight onto the garden spaces and onto neighboring properties.

I ask that you find these recommendations persuasive and that you incorporate them into any bill on housing.

Sincerely,  
Thomas Weiss