TOWN OF WEATHERSFIELD

LAND USE ADMINISTRATOR'S OFFICE

(802)674-2626 P.O. BOX 550 ASCUTNEY, VT 05030 landuse@weathersfield.org

Planning Commission Agenda

Martin Memorial Hall – 5259 Route 5, Ascutney, Vermont 05030

Monday, 13 July 2020 – 7:00 PM

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1. Call to order
2. Agenda Review – 13 July 2020
3. Comments from the Chair and Land Use Administrator
4. Comments from Citizens regarding items not on this agenda
6. Approval of Meeting Minutes – 8 June 2020; 22 June 2020
7. Discussion of manmade structures and property aesthetics.
8. Zoning Bylaw Updates
   (a) Conservation of Natural Resources bylaw - Riparian buffers, Aquafer protection
   (b) Changes to zoning map
   (c) Status spreadsheet review
9. Discussion of Items for Future Agendas
10. Adjourn

The next regularly scheduled meeting of the Planning Commission will be **Monday, July 27, 2020 - 7 PM**, Martin Memorial Hall.

For Remote Access, the public may join this meeting from your computer, tablet or smartphone on GoToMeeting.

https://global.gotomeeting.com/join/723244149

You can also dial in using your phone.

United States: +1 (571) 317-3122
Access Code: 723-244-149

Planning Commission
Martin Memorial Hall
5259 Route 5, Ascutney VT
DRAFT of Planning Commission Meeting Minutes
Monday June 8, 2020 7:00PM

Planning Commission Members Present:
Paul Tillman
Michael Todd
Howard Beach
Fred Kowalik
Tyler Harwell
Chris Whidden, Zoning Administrator
Brandon Gulnick, Town Manager

Online attendees: Nikita Lenahan, David Fuller

1.) Call to Order by Chair, Paul Tillman at 7:00 pm

2.) Agenda Review – June 8, 2020
No changes to agenda

3.) Comments from the Chair and Land Use Administrator:

Paul Tillman turned the meeting over to the Town Manager to read the following statement:

"On Friday, March 13, 2020 Governor Phil Scott issued an executive order to declare a state of emergency in Vermont in response to COVID-19. On March 30th the Governor suspended certain provisions of the Open Meeting Law. Open Meeting Law Requirements under Act 92 include the following:

Whenever a public body holds a remote meeting, it must:

1) Use technology that allows the public to attend by electronic means;

2) Allow the public to access the meeting by telephone whenever feasible;

3) Include and post information on how the public can access the meeting electronically; and

4) Record their meetings, if it is a meeting of a legislative body, unless circumstances make it impossible for them to do so.

Over the past month the Town has made a good faith attempt to adapt to COVID-19 and provide Weathersfield residents access to meetings. We purchased a new laptop outfitted

with a web cam and microphone we thought would work well for virtual meetings, however, I received several complaints that board members could not be heard and it was difficult to converse back and forth. Last week Mike Todd and I tried diligently to improve this by setting up external microphones, but we were unable to make it work.

We have many important projects were working on and hearings that need to take place. It's imperative that the public have access to these meetings to give input on the subject.

One important hearing that was scheduled to take place tonight was to hear public comments on the adoption of proposed Zoning Bylaw amendments submitted by petition exempting fire processing. To improve our virtual capability we ordered an enhanced camera and speaker phone that provides access for any resident wishing to attend meetings virtually. We are now well equipped to hold this hearing and future virtual meetings to conduct town business. With that said, our Land Use Administrator, Chris Whidden, warned the Public Hearing to hear public comments on the adoption of proposed Zoning Bylaw amendments submitted by Petition exempting fire processing on June 22, 2020 at 7:00PM.

I want to welcome comment from Weathersfield residents on this topic and others as we move forward with our new system to hold adequate public meetings.

Thank you,"

Brandon Gulnick

Discussion was had regarding having the meetings available on SAPA and the best way to do that, whether they record our live feed or if we record the meeting with the new technology and send it to SAPA for them to upload. Brandon Gulnick will review with SAPA.

Paul Tillman asked about the status of the Reed hearing.

Chris Whidden said that the hearing has been warned for June 22, 2020 at both Post Offices, the Town website and has been sent via certified mail to all parties. Brandon Gulnick also noted that it will be posted in the bulletin board at Town Hall on 6/9/20 once the bulletin board has been installed.

4.) Comments from Citizens regarding items not on this agenda:

Nikita Lenihan made a comment "Having the meeting on the 22nd is well and good, but all comments need to be addressed, you can't pick and choose."

5.) Approval of Meeting minutes from May 11, 2020 and May 26, 2020 meetings –

May 11, 2020 Meeting Minutes (Corrected)
Michael Todd made the motion to approve the corrected minutes

Planning Commission
Martin Memorial Hall
5259 Route 5, Ascutney VT
DRAFT of Planning Commission Meeting Minutes
Monday June 22, 2020 6:45 PM

Planning Commission Members Present:
Paul Tillman
Fred Kowalik
Howard Beach
Tyler Harwell
Chris Whidden, Zoning Administrator
Brandon Gulnick, Town Manager

Online attendees: Nikita Lenahan, Caller One (unidentified)

Attendees: Ralph Meima, Douglas Reed, Dillin Reed, Nancy Reed, Colin Tindall, Robin Tindall, Ethan McNaughton, Michelle McLaughlin, Luke McLaughlin

1.) Call to Order by Chair, Paul Tillman at 6:47 pm

2.) Agenda Review – June 22, 2020

Paul Tillman moved item #5 "Bylaw Petition Hearing re: logging on parcels > 25 acres to item #3 on the agenda so the remaining agenda will now be as follows:

#3 Bylaw Petition Hearing re: logging on parcels > 25 acres
#4 Comments from the Chair and Land Use Administrator
#5 Comments from Citizens regarding items not on this agenda
#6 Approval of Meeting Minutes – June 8, 2020
#7 Discussion of unnatural structures and property aesthetics
#8 Zoning Bylaws Updates

a.) Conservation of Natural Resources bylaw- Riparian buffers, Aquafer protection
b.) Changes to zoning map
c.) Review and approval of Definitions
d.) Status spreadsheet review

#9 Discussion of Items for Future Agendas

#10 Adjourn

No discussion on agenda change.

3.) Paul Tillman called the public hearing to order for the petition that the planning commission has for wood processing. Paul Tillman read the notice of public hearing:

NOTICE OF PUBLIC HEARING

In accordance with the provisions of 24 V.S.A. §§ 4441(d) and 4444, of the Vermont Statutes Annotated, and in consideration of the stay at home guidelines in STATE OF VERMONT EXECUTIVE DEPARTMENT ADDENDUM 6 TO EXECUTIVE ORDER 01-20 with respect to the timing of a public hearing, the Planning Commission for the Town of Weathersfield, Vermont, will hold a public hearing on Monday, June 22, 2020, at 7:00 P.M., in the Weathersfield Town Office, at 5259 Route 5 in Ascutney, Vermont, to hear public comments on the adoption of proposed Zoning Bylaw amendment submitted by petition exempting fire processing as specified in the proposed amendment.

Statement of Purpose

A group of registered voters of the Town of Weathersfield have submitted a petition to amend the Zoning Bylaws that would have the effect of exempting firewood processing facilities of any size and in any district provided that the processing takes place on parcels of 25 acres or more.

Geographic Areas Affected

The entire Town of Weathersfield is affected by this amendment.

Sections Headings

The proposed Zoning Bylaw amendments would add a new Section 4.2.6 Processing of Firewood and add a definition for Processing of Firewood.

Persons wishing to be heard may do so in person, be represented by an agent, or may file written comments with the Planning Commission prior to the hearing.

Dated at Town of Weathersfield, Windsor County, State of Vermont, this 4th day of June, 2020.

Paul Tillman, Chair
Weathersfield Planning Commission

Paul Tillman asked Chris Whidden, Zoning Administrator if he received any written documents or anything prior to this from anybody that wanted to comment.

Chris Whidden received a letter from Willis Wood that stated the following:

Dear Planning Commissioners-

I think there is a need to conditionally permit more firewood processing locations in Weathersfield. We strive to have a working forestry and agricultural landscape in town. We want to have a community where we are more than a bedroom community for upper

valley commuters, but where there are real and necessary jobs close to home.

However, I do not think the present petition to amend the zoning by-laws to permit firewood processing is a good idea. I believe that making such a use a conditional use, rather than a permitted use, would be a much better way to address the issue.
An example in our existing zoning by-laws that is in some ways similar to firewood processing is 7.10, Extraction of Earth Resources. While many of the conditions there do not apply, several seem similar to me. For example:

"f) No stationary power-activated crushing or sorting machinery or equipment shall be located within 300 feet of any occupied building without written and filed consent of the abutter…

j) The hours, frequency and duration of operation of the facility shall not unduly affect the character of the immediate neighborhood area.

k) The operation shall not … create excessive dust, traffic, vibration, or noise at the site or in areas of close proximity to the site."

I do not mean that a conditional firewood processing permit would contain the exact wording above, just that any permit should be conditioned on its location and effect on the neighborhood, not just on the lot size that it is situated on.

In full disclosure, I am a member, and presently chair, of the Weathersfield Zoning Board of Adjustment, but both my advocacy for more conditionally permitted firewood processing and my reluctance to make it a permitted use with no conditions attached are my personal opinions, not those of the board.

Sincerely,

Willis Wood

Paul Tillman read the petition that was received

I. "The following shall be added to Section 4.2.6:
4.2.6 Processing of Firewood

No provision of these bylaws shall have the effect of regulating the processing of firewood (as defined in Section 8) in any district, provided that the processing takes place on parcels of 25 acres or more.

II. The following shall be added to Section 8 definitions:
Processing of Firewood: the storage, cutting, splitting, processing, packaging, distribution and sales of firewood of commercial value whether the processing occurs at the site where the product was harvested or at a site that is not the harvest site."

Paul Tillman reiterated that the Planning Commission has no authority to change anything in the petition with the exception of a spelling or grammatical error. As stated in the petition, this will go forward to the Select Board to be heard.

The meeting was opened up to the public for comments.

Doug Reed "First question, if you do a petition and get 5% of the votes, why isn't the petition allowed to do what it states and that's to go to a Town vote? It wasn't written up to go in front of the Planning Commission, it wasn't written up to go in front of the Select Board, it was written up to go in front of the people of the Town. That's 10% of the Town's signatures, from opposite ends of the Town."

Michael Todd "Can I deal with that first Doug? We're required by law to do this. We can't change anything and we have to forward this. What the law states is 24 V.S.A §4441(B) "A proposed amendment or repeal prepared by a person by a person or body other than the planning commission shall be submitted in writing along with any supporting documents to the planning commission."

It has to come to us first, it is State law. That's not our rules, it's not something we are making up.

"The planning commission may then proceed under this subchapter as if the amendment or repeal has been prepared by the commission."

Just like we had written this by law. It's handled the same way, but we can't make any changes to it because it's a petition the language has to stay exactly the same way you presented it. So, that's where we are.

"However, if the proposed amendment or repeal of a bylaw is supported by a petition signed by not less than 5 percent of the voters of the municipality, the commission shall correct any technical deficiency and shall, without otherwise changing the amendment or repeal, promptly proceed in accordance with subsections c through g of this section, as if it has been prepared by the commission."

Which is what we are going to do now.

Doug Reed "It was a waste of time to get 5% of the votes to sit here, fight about it and it's going to do nothing."

Michael Todd "No Doug, it's going to go in front of the voters."

Doug Reed "The next one is going to Superior Court to make the Town put it to a vote."

Paul Tillman "As you know there's multiple things going on, all we're working on is this petition right here that you got signed. Following the procedure of the law that comes before us and we act upon it as if we wrote it, which is to have this public hearing. As you heard Mike say and from the last one we did, there is nothing we can change on this. So there is not going to be any argument, there is not going to be any dispute on how this goes forward. This is going to forward to the Select Board, which is the standard procedure of how the State works the law. There might be debate here about what people think or whatever, but there is nothing that is going to change on this."

Doug Reed "Yeah, but it isn't going to be allowed to do what it is written to do. It has to go to a vote to the Town's people."

Paul Tillman "So let me go one step further, once this leaves here with a recommendation from the Planning Commission, it goes to the Select Board."

Michael Todd "The Select Board has one, possibly two hearings and there probably ought to be a Town Meeting specifically dedicated to this petition and then it will be on the ballot. That's what will happen."

Paul Tillman "This is the process we have to go through to get it to the next step of the way it goes."

Doug Reed "The next note, whoever prepared your notes on that, stating that it affects all of Town, it only affects a small portion of Town actually. If you count up how many lots in Weathersfield are under 25 acres, there are going to be a lot more than lots that are over 25 acres and I wasn't able to get the exact numbers because the Town Office has been closed, but did some research into it and you'll find it was a small percentage of Town that petition could affect."

Paul Tillman "Ok, but as far as 25 acres, which the petition does affect is not located in just one section of Town. That's why it's worded that way. If we looked at it, you'd probably find that up in the left-hand corner, the southwest corner, the northwest corner there would be people that owned 25 acres here and there. So, percentage wise, overall, I hear what you're saying, but as a definition of where this affects this is not written to say east side of wherever or road. It's encompassing the Town." "Is there anything else you would like to particularly say on this?"

Doug Reed "Not at this time just that the Town hasn't been very good timewise on anything. Posting anything on it, it's been absolutely ridiculous through the whole thing and now you've got Willis (Wood) coming back with this. If you remember 2 years ago, I had it front of the Zoning Board trying to get a conditional use permit and they didn't want to hear any part of that."

Paul Tillman "Willis has the right, just like anyone in Town…"

Doug Reed "He was also sitting on the Board, but now things have changed. I mean we're talking about something that was legal as far as anybody was concerned for years because of the way it was written up in the Weathersfield handbook. I was exempt. That was what all the other Zoning Commissioners felt. Until now."

Paul Tillman "For right now, for all intents and purposes, this isn't a discussion about whether it's wrong, it's right, the Town did this, the Town did that. There is a petition in front of us, which we have to go through the formalities of this public hearing and then move it on to the Select Board."

Michael Todd "Chris, 24 V.S.A §4441, do you have the criteria c through g available?

Chris Whidden "I can pull it up."

Paul Tillman "24 V.S.A §4441 (c) states "When considering an amendment to a bylaw, the planning commission shall prepare and approve a written report on the proposal. A single report may be prepared so as to satisfy the requirements of this subsection concerning bylaw amendments and subsection 4384 (c) of this title concerning plan amendments. The Department of Housing and Community Development shall provide all municipalities with a form for this report. The report shall provide a brief explanation of the proposed bylaw, amendment, or repeal and shall include a statement of purpose as required for notice under section 4444 of this title, and shall include findings regarding how the proposal:

1.) Conforms with or furthers the goals and policies contained in the municipal plan, including the effect of the proposal on the availability of safe and affordable housing.
2.) Is compatible with the proposed future land uses and densities of the municipal plan.
3.) Carries out, as applicable, any specific proposals for any planned community facilities.

Please see "Planning Commission Reporting Form for Municipal Bylaw Amendments" that was originally provided by Jason Rasmusson in 6-22-2020 packet.

Paul Tillman opened the floor up to comments from citizens on the Reed petition.

*The beginning of Ethan McNaughton's comments were cut off due to an interruption in recording. I have requested a follow up email regarding his comments.

"...the best thing to explore is to have an industrial district, to have a commercial district and then making a conditional use if you want to try to expand outside of those districts to make sure if you are going to put it here, and I don't think it makes a lot of sense, in general but if you are not going to make it unsafe for everyone else and ruin their ability to use their property then we'll let you do it and this does not have any of those safe guards."

Michael Todd "What I am about to say is more of a promotion for what we are doing here right now, later on tonight we're going to start talking about these maps. This is the future land use map that's already been adopted with the 2027 Town Plan. Future land use plan means, what are you going to do? What's your future land use map going to be? That's exactly what you just finished on was where do you want these things?

Doug Reed "I have one for the Town Manager, are we going to shut down on the roads in Weathersfield that kids live on to commercial vehicles now?"

Brandon Gulnick "All roads?"

Doug Reed "Must be, can't have them drive by kids at a bus stop. That affects every road. I've heard that more than once and now I want an answer. It isn't just my trucks that are on the road."

Brandon Gulnick "This gentleman just gave his point of view and many people have different points of view. He has the right to be heard, that's why he's here tonight."

Doug Reed "For 2 years all I heard was it was a deer yard. If it was a deer yard are, we going to fence them in?

Paul Tillman "One of the things we do Doug is, along with everything else on certain items in town is screening. It's not necessarily screening the whole lot in."

Doug Reed "Not according to the paperwork I've gotten from the town."

Paul Tillman "We are strictly here for this particular petition."

Nancy Reed "A lot has been said about daycare. I'm retired, I have my grandchildren now, both of these people sent their children to my house knowing full well that processor was up there. Has it bothered me? No. I'm just down over the bank. Has it bothered any of my children in all the years that I had kids? Never did we ever have a complaint. We walk right up the road. The closest call I've ever had was last year when that had that run out on our road. I almost ran over a little girl that came out from behind a band that was half way out in the road."

Paul Tillman "Again, I don't want to keep harping on this, but this hearing is not about traffic on that road, what has happened or close calls."

Robin Tindall "First I want it entered into the record that I agree with everything that Ethan said. I would like to summarize by saying that I believe that the proposed amendment is overly broad. That is also based on what Ethan was saying that the purpose of zoning is that there are specific land uses and specific land types that are good for different things and it benefits all of us to have those specifics that the town works hard putting into place that's been part of the Weathersfield Town Plan in 2017 just 3 years ago through the zoning that already exists. A lot of thought goes into knowing the very specific nature of the town and its uses so having something so overly broad sort of wipes away all of that work and all of the purpose that's behind it. I guess my other point is that the zoning benefits all of us. So, an example with a paved road vs a dirt road. Our tax money goes, we see with the grader and the culvert repair, our tax money that all of us have to pay in, it goes up every year, that goes to keeping those roads in repair. If we have a paved road that serves many businesses, it's an economy of scale and it's good for the people that have to maintain the trucks that are from those businesses and it's good for the town in terms of not putting ware and tare on a road that wasn't meant or built for in the first place to have. That goes around to the natural conservation district as well. The purpose of that is to have residences in concert with conservation areas. We can have a healthy deer population; we can have people coming in from out of state to do their hunting here because we have a good deer population. We can have residences and property values can be stable or rising because people want to live here. People want to get out of the cities, people want to come to Vermont and buy a house or move here. They want it to be a safe area. So again, compatible uses. An area where it's for biking and running and walking your dog and an area where we all need gas. We come here and we have 2 gas stations and we can buy our milk and we can do those things in compatible areas. So it's really good for all of us as tax payers to keep those things in place and benefits all of our property values and keeps all of our taxes a little bit lower."

Colin Tindall "I echo many of the comments from Willis Wood, Ethan and my wife, Robin and I just have my perspective. When we moved in, we chose Weathersfield as a quiet corner of Vermont. Just today I took a drive up to Graves Road and Baltimore and remarked what a quiet corner of Vermont it was. Just so happens that is the same place Mr. Reed lives. Yet, with this particular petition, there is no doubt it would adversely affect our quiet corner of Vermont that has long been deemed as such. Which has also been incorporated into the new Town Plan. I very much too support any and all business enterprises that give meaningful, livable wage jobs that attract people to our town, but it has to be done in a lawful and considerate manner. And balancing out interests of lots of differences within the town. In this case, this particular petition would turn our road into virtual logging camp with processing going through all the time. We have children on the road, we have people from all over town that come to our road. It is known as a fun place to recreate. I watch Greg Brown run up the town road trying to get into shape. I see Steve Aikenhead, I see all of these people come in recreating. We have the run for Laura once a year on the road. It's known far and wide as such. The broad language of this would not really apply to the rest of town, but would be a means to an end for Mr. Reed to continue doing things that he is already in violation of. I would just ask the members of the committee to take that into account in their deliberations."

Michelle McLaughlin "I just want to say that I have been living in Weathersfield for 50 years now and I have done nothing but watch small business get pushed out for 50 years. I've seen

farms get shut down, I see retail space that sits empty. I see other places in Perkinsville that filed to get a car fixing up place that were told wasn't zoned right, but yet 2 houses down, what are they doing? Fixing cars. You don't have certain zoned places for people to have their businesses for 1. For 2, like they said, people are flocking up here to this town, to this area right now. If we can't give them the means to make money in the town they live in, they're not going to stay. They're going to go and the people who live here are also going to go and we're going to go to another town and run our businesses and we're going to make taxes for another town and not the town that we live in. There is nothing for small business in this town. I've been trying to find a place for my small business in this town for years."

Brandon Gulnick "The Select Board did appoint a representative from the Select Board to economic development which is Michael Todd. He and I have been having those discussions about responsible businesses in the Town of Weathersfield."

Luke McLaughlin "I just want to reiterate what my wife said. It's more and more, I've watched this case develop. I've heard arguments from both sides of this and I hear what this board says about wanting to embrace small business. I just wonder how embracing this town is going to be towards small business when one who has a small business established gets a new neighbor who doesn't like what he's already doing and squeezes them out. I came here from somewhere else, but not to make here like where I came from. I watch how all this knit picking and hen pecking and all this complaining going on, just how embracing is this town going to be for small business? I have my doubts. I, myself, wanted to have a small, home-based business run out of out building. I was told that's not possible because it's not attached to your house. I'm talking a small building, smaller than the 30% that my house has to be for an "in house" small business. But because it wasn't attached, I couldn't do it. I'm talking about a craft; I couldn't do a craft on my own property. That craft could have been great for business revenue for this town. My neighbors had no problems with what I wanted to do, again we've got a cupcake business that because of COVID, and knee jerk reactions, we lost it. What are we going to do? Can we do something to save our business from home. I'm going to have to go somewhere else because my hometown doesn't want to make conditions so I can sell cupcakes."

Paul Tillman "I can't personally comment on this."

Luke McLaughlin "What this has to do with all of this is that he has an established business long standing. No body had a problem with it until the ball started rolling on what all of this is. Where did it come from? To Doug, it came out of left field."

Todd Hindinger "I just had one question about the procedure as you take this forward. You said that in your report to the Select Board you can include recommendations. So, I assume you are going to include the stuff from Jason Rasmussen and the public comments? What wasn't clear to me was if we're having a hearing, we're having an interesting dialogue and it's informing everybody, but it wasn't clear if you were going to take that and package it up, think about it and write some comments for the Select Board to consider or if we were going to delete the stuff from Rasmussen, delete the public comments and just take the petition as is and forward as is to the Select Board. So, are you going to do recommendations or no?"

Michael Todd "The statute, regardless of whether we create a bylaw or if it's requested through petition or other has to follow the statute. Which means we have to issue a report. That's what Jason did, he prepared this report. This is the report that will probably have a motion on here shortly to accept and approve and forward to the Select Board."

Paul Tillman "What we will do, after we close the public hearing, as Chair I will accept any motions to send this forward as is, with amendments, or whatever it could be or could not be depending on how the motion goes."

Paul Tillman closed the public hearing at 8:17 pm.

Michael Todd made a motion to accept the Planning Commission reporting form municipal bylaw amendments dated March 25, 2020, date should be updated to June 22, 2020 and forward this and the petition to the Select Board for the next step.

Howard Beach 2nd

Discussion – Michael Todd asked that the public's comments be included to the Select Board.

Vote- unanimous

4.) Comments from the Chair and Land Use Administrator

No comments from the Chair or Land Use Administrator

5.) Comments from Citizens regarding items not on this agenda:

Ralph Meima came to thank the Planning Commission for working with Green Lantern Solar.

6.) Approval of Meeting Minutes – June 8, 2020 Minutes were not included in packet as they were not received prior to packet being mailed.

Michael Todd made a motion to table the minutes until next meeting.
Howard Beach – 2nd
Vote – unanimous

7.) Discussion of unnatural structures and property aesthetics - Tabled

Discussion – change "unnatural to manmade", Paul to contact Julia Lloyd-Wright

8.) Zoning Bylaw Updates:

a. Conservation of Natural Resources bylaw- Riparian buffers, Aquafer protection – Tabled
b. Changes to Zoning Map – Tabled
c. Evaluation of and possible changes to definitions in zoning bylaws –
   Michael Todd made a motion to accept Article 7 definitions as presented
   Howard Beach – 2nd
   Vote - unanimous
d. Status Spreadsheet Review – up to date

9.) Discussion of items for future agendas – Tabled

10.)Adjourn

Howard Beach made a motion to adjourn the meeting at 8:45 PM
Fred Kowalik 2nd
Vote – unanimous

Meeting adjourned at 8:45 PM

Next Planning Commission Meeting is scheduled for Monday July 13, 2020 at 7:00 pm at Martin Memorial Hall.

Respectfully,
Chauncie Tillman
Recording Secretary

TOWN OF WOODSTOCK SUPPORTING PLAN STANDARDS FOR THE PROTECTION OF SCENIC BYWAYS AND VISTAS & THE SITING OF SOLAR ENERGY FACILITES

WOODSTOCK RESOURCES, VALUES & PUBLIC INTERESTS

OPEN SPACE & TRADITIONAL DEVELOPMENT PATTERN

The Town and Village of Woodstock Comprehensive Plan, 2014 (hereinafter "Town Plan") states in its Scenic Statement that "the scenic rural character, so vital to our lifestyles, consists of a great variety of features. Densely settled areas provide focal points of human activity, clearly defined within the space beyond. This space provides fields, mixed forests and wetlands which are linked together by brooks, rivers, and both paved and unpaved roads. Distant views of Ascutney, Killington, and the Green Mountains contrast with a foreground of open and wooded ridgelines and valley floors. The scenic corridor of the Ottauquechee River provides a second visual focal point. Scattered cemeteries, historic bridges, farmscapes, and stone walls give us a perspective on our rich heritage . . . For residents of the small farms and private homes, the beauty and function of this landscape is an integral part of their lives."

"The Town Plan also recognizes the "prime importance of the role that open space plays in the quality of life and character of Woodstock. The value and contribution of open space in Woodstock flow not only from its open fields and meadows, but also from its wooded hillsides, forests, stream corridors and other natural vistas." Town Plan, p. 77.

As a result, the Town Plan concludes that "[p]rotecting and maintaining Woodstock's open spaces is vital to the community's economic, social and environmental future. Maintaining the economic base provided by both tourism and agriculture in the Town requires a generous resource of scenic beauty in the countryside, in the Village, and in the areas adjacent to the Village and hamlets of Woodstock. The primary threats to the rural character of the town and its open spaces are natural reforestation of previously farmed fields, and development, both residential and commercial, that is insensitive to the agrarian heritage and pastoral aesthetics that have historically defined the unique attributes of Woodstock." Id.

SCENIC BYWAYS LINKING TOWN CENTERS

"U.S. Route 4 (a major East-West artery) and State Routes 12 and 106, are well-traveled corridors leading to and from Woodstock. Currently the character of these roads varies from residential and commercial development to relatively sparsely populated open spaces. Recent years have seen increased development along these

routes that pass directly through the center of Woodstock Village and the Town's hamlets. Resulting loss of scenic differentiation between the Village and hamlets and the rural countryside that surrounds them could unduly impact the aesthetic and environmental quality of the entire town." Id.

The Town Plan therefore directs that Woodstock should establish clear definition of commercial and open space zones along Routes 4, 12, and 106 which should include provisions for scenic vistas, preservation of agricultural lands, river corridor conservation zones, and creative use of setback requirements to create a clear "greenway" through which travelers to Woodstock would move. Id.

WETLANDS AND SENSTIVE ECOLOGICAL AREAS

The Town Plan recognizes that wetlands are one of the earth's most productive ecosystems. They provide travel corridors and critical habitat for wildlife, including food, cover, breeding and nesting grounds. Wetlands often lie at the headwaters of rivers and streams and help maintain flow during periods of drought. Wetlands provide open space and aesthetic qualities in addition to recreational and educational opportunities. Town Plan, p. 71.

Only 0.8 % of Windsor County is covered by wetlands, the lowest of any county in Vermont. Woodstock has relatively few wetland areas. The numerous small wetlands scattered throughout Woodstock provide functions and values that maintain the ecological integrity of our natural environment and provide many other benefits to our community. The Town Plan regards the protection of these limited, life-sustaining resources and wildlife access to them as critical to preserving the biodiversity of Woodstock's fauna and flora. Moreover, many of Woodstock's wetlands provide temporary storage of flood waters, thereby decreasing adverse effects on downstream communities and habitats while reducing the severity of flooding within our own town. They also recharge groundwater and improve water quality by retaining sediments, nutrients, and pollutants that otherwise contaminate surface waters. Accordingly, ground-mounted solar arrays are not compatible with wetlands and ought not to be located within or close to them or other sensitive natural areas, such as vernal pools. Id.

ADVENT AND GROWTH OF SOLAR DEVELOPMENT PROJECTS

The contribution of solar energy to Woodstock's total energy supply is growing. More structures are being sited, oriented and designed to incorporate passive solar construction techniques for space heating and natural lighting. Passive solar building design and solar thermal heating systems can significantly increase energy efficiencies and reduce costs. Until recently, the upfront costs of solar photovoltaic (PV) systems

were generally too costly for the average homeowner, but emerging technologies and state, federal and utility incentives have made grid connected net-metered PV systems more affordable.

Technological advances, including the incorporation of photovoltaic components in roofing and siding materials, may make solar power an even more viable source of electricity in the near future.

The scale and siting of some proposed and/or existing solar installations in Woodstock and other Vermont communities, have raised concerns about the impacts that such facilities can have on the town's residential neighborhoods, its historic village and hamlet area, its scenic byways, and its scenic, natural, agricultural, and historic resources, such as the Marsh Billings Rockefeller National Park, the Billings Farm, U. S. Route 4 and the Scenic Ridgetop Overlay District. Woodstock's scenic character is defined by traditional, compact townscapes and open rural landscapes. Woodstock residents are proud of this character and the Town benefits from the tourism it attracts. The Town's scenic landscapes can be affected by energy-related facilities and activities. Energy-related facilities can significantly change the aesthetic character of the Town's landscapes. In particular, large, ground-mounted solar array projects raise concerns, which the Town Plan identifies as in need of Town attention when reviewing applications for development along these corridors:

1. Loss of scenic vistas and open wooded hillsides;
2. Loss of the scenic differentiation between town and countryside;
3. Loss of natural habitats along stream/river corridors;
4. Loss of prime agricultural lands and flood plains;

Woodstock has previoulsy acted to protect it historical, agricultural, open space, and scenic resources. Woodstock established a Scenic Ridgeline District in 1992 in response to the adverse visual, impacts of development on the scenic qualities of the Town's prominent ridges and hillsides, which, contribute significantly to the Town's aesthetic identity. Large, ground-mounted solar arrays are incompatible with the scenic and open space values that the Scenic Ridgeline District was designed to protect. The Town Plan recommends that the Woodstock take steps restrict inappropriate development within the Scenic Ridgeline District. Town Plan, p. 79.

Woodstock has also created two Design Review Districts (Village and South Woodstock) the primary purpose of which is to preserve and protect the historic character of the village. The Town Plan recognizes that alternative energy projects, such as solar arrays, present a particular conflict with historic structures and land use patterns. As a result, the Town Plan places the primary interest of its energy policy within the Design Review District upon energy conservation and proper

insulation/weatherization techniques before considering energy production devices. The Town Plan directs that alternative energy development within the Design Review District should focus on geothermal and recognizes that alternative energy devices, such as ground-mounted and roof top solar arrays do not fit the historic character of structure or neighborhood. Accordingly, the Town Plan instructs that solar arrays in the Design Review District should be located in private areas and out of the public view. Town Plan, p, 36-37.

DEVELOPMENT OF MUNICIPAL SUPPORTING PLAN

As a result, the Select Board has developed these Supporting Plan Standards for the Protection of Scenic Byways and Vistas & the Siting of Solar Facilities ("the Standards") as a supporting plan pursuant to 24 V.S.A. §4432. Woodstock will support the siting of appropriately scaled renewable energy resources in the Town, villages, and hamlets that avoid or minimize impacts to areas of high public value. Toward these ends, the Town will seek opportunities for early involvement in the planning / permitting process including Act 250 proceedings and proceedings before the Public Service Board, in order to avoid and mitigate potential impacts of development along Woodstock's Scenic Byways and solar facility development, while promoting new installations in appropriate locations.

The Town Selectboard will participate in Act 250 hearings and PSB hearings for renewable energy projects which require a Certificate of Public Good) proposed to be located in Woodstock. The Town will also assess potential impacts to areas of high public value from net metering 6 projects and will participate in PSB proceedings if warranted.

Woodstock intends the policies and maps referenced herein to articulate clear written community standards for use in Act 250 and PSB §248 proceedings. In Act 250 proceedings and those before the PSB, the Town will utilize these Standards in support of the Town's posiiton with respect to development along designated scenic byways and with respect to renewable energy projects.

Electricity generation and transmission systems powered by solar energy are regulated by the Public Service Board (PSB) under 30 V.S.A. Section 248 (Section 248 PSB proceedings). These include net metered distributed energy installations, as well more commercial, utility-scale generation, transmission and distribution facilities. The Woodstock Planning Commission, the Two Rivers Ottauquechee Regional Commission, and the Woodstock Selectboard will receive notice of a Certificate of Public Good (CPG) application for a proposed solar facility in Woodstock Town. In determining whether to provide a proposed solar project with a CPG, the PSB must give due consideration to the recommendations of the municipal and regional planning commissions, the Woodstock Selectboard, and the land conservation measures contained in the

Woodstock Town Plan.

See 30 V.S.A. §248(b)(1).

The PSB must also determine whether a proposed solar facility will have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. §1424a(d) (outstanding resource waters) and the Act 250 criteria set forth in 10 V.S.A. §6086(a)(1) through (8) and 9(K).

See 30 V.S.A. §248(b)(5).

To determine whether the proposed solar energy facility would have an adverse impact on the considerations set forth identified in §248(b) (5) above, PSB Rule 5.108(A) requires the PSB to conduct the so-called "Quechee analysis" to assess whether a proposed solar project would have an adverse impact by virtue of being "out of character with its surroundings," and if so, whether the adverse impact qualifies as "undue." Rule 5.108(A). The PSB therefore must consider "the nature of the project's surroundings, the compatibility of the project's design with those surroundings, the suitability of the project's colors and materials with the immediate environment, the visibility of the project, and the impact of the project on open space." Rule 5.108(A)(1).

A solar project's location, size, and visibility, together with the context of the surrounding land uses, will be relevant in the PSB's consideration of whether the proposed project would have an undue adverse impact. Among other things, the Quechee analysis requires the PSB to consider whether the proposed project would violate a "clear written community standard".

Therefore, the effective participation of Woodstock in the PSB's review process requires the development of specific community standards in order to ensure that local conservation and development objectives are considered and weighed by the PSB in its review of a CPG application for a solar energy facility. Toward that end, the Woodstock Select Board has developed the following specific community standards for the siting and development of a solar energy facility in Woodstock Town.

WOODSTOCK COMMUNITY STANDARDS REGARDING SCENIC BYWAYS AND VISTAS AND THE SITING OF SOLAR ENERGY FACILITIES

I. A. PURPOSE

The purpose of these community standards is to promote the development of renewable energy resources and energy facilities in Woodstock Town, while limiting the adverse impacts of such development on public health, safety and welfare, the town's historic

and planned pattern of development, environmentally sensitive areas, and our most highly-valued natural, cultural and scenic resources – consistent with related development, resource protection and land conservation policies included elsewhere in this plan. These policies should also be considered in undertaking municipal solar energy projects and programs, in enacting or updating the town's bylaws to address renewable energy development, and in the review of new or upgraded energy facilities and systems by the town and in§ 248 PSB proceedings.

B. General Standards for Energy Projects

Woodstock will consider supporting the following types of energy development, in order of priority:

1. Increased system capacity through state, utility and municipally-supported energy efficiency and conservation programs.

2. Individual and group net-metered renewable energy projects, community-based projects, and other small-scale distributed renewable energy systems serving individual users, in appropriate, context-sensitive locations.

3. In-place upgrades of existing facilities, including existing transmission lines, distribution lines and substations as needed to serve the town and region.

4. New community-scale energy facilities, including new transmission and distribution lines, substations, hydro dams, wind and solar farms, co-generation facilities and biomass plants that are designed to meet the expected needs of Woodstock Town.

To the extent physically and functionally feasible, existing utility systems, including transmission lines, distribution lines and substations, shall be upgraded or expanded on site or within existing utility corridors before new facilities or corridors are considered.

C. Public Health and Safety Standards and Use Classification

A small net-metered or off-grid solar energy project, including a solar array, system intended solely to serve only an individual residence or business, should be considered an accessory structure allowed in all land use in which structures are allowed by zoning bylaws.

D. Setbacks

Except for transmission and distribution lines and utility connections, all energy facilities including substations, commercial, utility and net-metered generation facilities and accessory structures – must meet minimum setback requirements for the land use district(s) in which they are located. In addition:

1. Building-mounted solar panels must meet the minimum setback requirements of the Town bylaws for the building on which the panels are to be mounted. The installation of a net-metered or similar off-grid energy system on a nonconforming structure will not constitute an increase in the degree or amount of nonconformance under town bylaws.

2. Renewable energy facility setback distances from property lines, or from occupied structures in existence at the time of application, should be increased as necessary to mitigate identified aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. § 1424a(d) (outstanding resource waters) and the Act 250 criteria set forth in 10 V.S.A. §6086(a)(1) through (8) and 9(K), and nuisances or adverse impacts upon adjoining property owners.

E. Access

New energy generation facilities shall be sited in a manner that avoids or, to the greatest extent physically feasible, minimizes the need for new and extended access roads and utility corridors.

1. Facility access should be provided from existing access roads where physically feasible, and access roads and utility corridors should be shared to minimize site disturbance, resource fragmentation, the creation of additional edge habitat, and the introduction and spread of invasive exotic species.

2. dentified impacts to public highways from facility construction, operation and maintenance, including highway improvements required to accommodate the facility, shall be mitigated by the developer.

3. Public access to generation and transmission facilities, including substations, must be restricted as necessary to protect public health and safety.

4. Noise generated by any energy facility, including wind energy systems, shall not exceed the lesser of (a) 45dB(A) as measured at any property line, or (b) 5 dB(A)

above the ambient sound level, except during a short-term event such as a utility outage or a severe wind storm.

F. Signs

Energy generation facilities and structures shall not be used for display or advertising purposes. Signs, except for owner and manufacturer identifications and safety warnings that do not exceed one square foot, are prohibited on all structures.

1. Substation lighting should be the minimum necessary for site monitoring and security, should be cast downward, and must not result in light trespass or glare on adjoining properties.

G. Decommissioning and Abandonment

Generation facility permits or certificates must include provisions for system abandonment, decommissioning and site restoration including, for larger systems > 100 kW, required sureties for facility removal and site restoration.

II. SOLAR ENERGY FACILITY SITING STANDARDS

A. Site Designation and Siting Standards

1. Sites planned for or intended to accommodate solar energy facility development, including the location of existing and planned commercial and net-metered generation facilities and utility corridors, are to be shown on site development and subdivision plans reviewed by the town.

2. Solar energy facilities and accessory structures are to be designed and constructed of materials, colors, and textures that blend into the surrounding natural or built environment to the extent feasible.

3. The solar energy facility shall not extend above the background horizon line.

4. The solar energy facility shall be screened from view through the use of existing topography, structures, vegetation or strategically placed tree, shrub and ground cover plantings that do not block distant views.

5. Onsite mitigation – e.g., through facility clustering, relocation, buffering and permanent conservation easements – is preferred. Off-site mitigation measures should be required where on-site mitigation is not physically feasible.

B. **Setbacks**

1. Ground-mounted solar energy facilities with a generation capacity from 0 MW to .5MW shall be located at least 50 feet from any property line and at least 50 feet from any public highway.

2. Ground-mounted solar energy facilities with a generation capacity from .5 MW to 1 MW shall be located at least 100 feet from any property line and at least 100 feet from any public highway.

3. Ground-mounted solar energy facilities with a generation capacity from 1 MW to 1.5 MW or more shall be located at least 150 feet from any property line and at least 150 feet from any public highway.

4. Ground-mounted solar energy facilities with a generation capacity from 1.5 MW to 2 or greater MW shall be located at least 200 feet from any property line and at least 200 feet from any public highway.

5. Ground-mounted solar arrays shall not be located within 1,000 feet of the boundary of the Village Design Review District, the South Woodstock Design Review District, and Taftsville, unless topographic features of the landscape or existing vegetative screening preclude observation of the solar arrays from the relevant protected district or hamlet.

6. Ground-mounted solar arrays shall not be located within 250 feet of the boundary of a public cemetery in Woodstock, unless topographic features of the landscape or existing vegetative screening preclude observation of the solar arrays from the cemetery.

C. **Hazard Areas**

With the exception of transmission and distribution lines, ground-mounted solar energy facilities that are not attached to existing or permitted structures shall not be located in:

1. Special Flood Hazard Areas (SFHAs), including floodways and floodway fringes identified on Flood Insurance Rate Maps (FIRMs) for the town. Any allowed facility shall not be located within these areas must meet minimum National

Flood Insurance Program (NFIP) requirements, as reviewed and permitted by the municipality or the state.

2. Shall not be located in fluvial erosion hazard areas as identified on Woodstock FEMA maps.

3. Shall not be located on steep slopes, with natural (pre-development) grades in excess of 15%.

D. **Conservation/Open Space Areas**

Ground-mounted solar energy facilites with a generation capacity of greater than 100 kW are to be sited to avoid, where physically feasible, or to otherwise minimizeencroachment and mitigate, the adverse impacts of facility development on:

1. Significant wildlife habitat, including without limitation, deer wintering areas, core habitat areas, and travel and migratory corridors, as identified from state inventories and data sets, local inventories, and site investigations associated with facility development.

2. Grounted-mounted solar arrays shall not be located on the following land identified on the Town Plan's 2014 Critical Areas Map: swamps, flood plains, forest fens (yellow shaded areas), wetlands (Class II and Class III), and vernal pools. The setback for a ground-mounted solar energy facility from surface waters and wetlands shall be 75 feet. The setback for a ground-mounted solar energy facility from vernal pools shall be 50 feet.

E. **Agricultural Land/Open Space**

Ground-mounted solar energy facilities with a generation capacity of greater than 100 kW , transmission and distribution lines, accessory structures and access roads are to be located on nonagricultural land or along field edges to avoid fragmentation of, and to minimize and mitigate adverse impacts to agricultural land and open fields.

1. Ground-mounted solar energy facilites shall not be located on primary agricultural soils as mapped by the USDA Natural Resource Conservation Service in order to preserve such lands for agricultural use.

F. **Designated Scenic Areas**

Ground-mounted solar energy facilities sited within or as viewed from scenic areas shall not create a significant physical, visual, audible, or historically incongruous or

incompatible intrusion into these areas. New facilities, including generation facilities greater than 100 kW substations and transmission lines, are specifically prohibited within or as viewed from these areas unless significant associated impacts can be avoided, for example through facility siting, screening or line burial.

G. Designated Woodstock Town Historic Districts and Other Historically-Significant Properties

Ground-mounted solar energy facilities shall not be located within any area designated on the National Register of Historic Places.

1. Ground-mounted solar energy facilities shall not be located within 500 feet of a building designated as a historic building. Ground-mounted solar arrays shall not be located within 500 feet of the boundaries of the Marsh Billings Rockefeller National Park and/or, the Billings Farm. These standards may be relaxed if topographic features of the landscape and/or existing vegetative screening preclude observation of the solar arrays from these protected properties and/or the buildings located thereon.

2. The installation of solar energy facilites on historic buildings or on buildings within the any area hamlet or Village designated on the National Register of Historic Places shall be done in accordance with current Secretary of the Interior's Standards for Rehabilitation.

3. The historic character of listed properties and structures shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

4. Ground installations, to the extent functionally feasible, shall be installed in locations that minimize their visibility, such as a side or rear yard, and be screened from view of public rights-ofway and adjoining properties.

5. Roof or building-mounted systems may be placed on new construction, non-historic buildings and additions.

6. Solar panels and other roof- or wall-mounted structures shall not be placed on primary building facades, including street-facing walls or roofs, unless there is no other suitable location on the site or structure.

7. Roof or building-mounted systems on a historic building shall not physically damage the structure, alter its character-defining features, including existing roof lines or dormers, nor obstruct significant architectural features such as overlaying

windows or architectural detailing. Attachment points must be minimized and allow for future system removal.

8. Roof-mounted installations shall be placed below and behind parapet walls and dormers, on rear-facing roofs, where feasible. Panels are to be mounted flush with and at the same angle as the existing roof surface and, on flat roofs, set back from the roof edge to minimize visibility.

III. GOALS

A. Promote sustainable development in Woodstock by reinforcing traditional land use patterns and municipal development policies, maximizing energy conservation through weatherization of existing structures and appropriate siting of new development, encouraging appropriate development and use of renewable energy resources, protecting natural and cultural resources.

B. Ensure the long-term availability of safe, reliable and affordable energy supplies to meet the needs of the town and neighboring communities.

C. Reduce municipal energy consumption and costs, community reliance on fossil fuels and foreign oil supplies, and greenhouse gas emissions that contribute to climate change through increased energy and fuel efficiency, energy conservation, and active transition to alternative fuels and renewable energy sources.

D. Sustainably develop Woodstock Town's renewable energy resources and local distributed energy generation capacity – including municipal and community generation and supporting smart grid technology – consistent with adopted plan policies and community energy facility and siting standards.

E. Avoid or minimize the adverse impacts of energy development on public health, safety and welfare, the town's historic and planned pattern of development, environmentally sensitive areas, and Woodstock Town's most highly valued natural, cultural and scenic resources, consistent with adopted plan policies and community standards for energy development, resource protection and land conservation.

IV. WOODSTOCK COMMUNITY STANDARDS REGARDING SCENIC BYWAYS

The purpose of these standards is to protect the scenic resources and traditional development pattern along the corridors between the village centers and hamlets. U.S. Route 4 is hereby designated as a scenic byway. The boundaries of this scenic byway shall extend 1,000 feet from the highway right of way, or to the Woodstock town line,

whichever is less ('the scenic byway buffer"). This scenic highway buffer shall be measured from the edge of the public highway's right of way.

A. Within this scenic byway, construction or expansion of any structure must be compliant with the permitted or conditional uses set forth in the applicable zoning bylaws for the district, which shall be augmented by the following standards.

1. For properties with an existing conservation easement (as of the effective date of these regulations) or a building envelope(s) established by the Planning Commission, construction or expansion of any structures allowed as a permitted use in the underlying zoning district shall be a permitted use, unless a driveway or road is proposed that is to be located outside of the approved building envelope or an approved driveway or road location, in which case the use will be reviewed as a Conditional Use. The applicant shall, to the greatest extent possible, consider and implement the standards set forth below in connection with such permitted use.

2. Construction of new principal and accessory structures or the expansion of existing structures may be approved by the Development Review Board subject to conditional use review and findings that the proposed construction or expansion will have no undue adverse effect on the scenic resources of the area and to the greatest extent possible, the standards below are met.

   (a) Structures are sited so that they do not protrude above a ridgeline.

   (b) Structures are sited in wooded areas or on field edges.

   (c) Structures are sited in such a way that agricultural resources are not fragmented or otherwise impacted.

   (d) New structures are sited in proximity to existing structures.

   (e) Existing vegetation is retained and supplemented with new plantings compatible with existing vegetation to screen structures and minimize impacts on views from U.S. Route 4.

   (f) New driveways, roads and parking areas are sited away from open fields, follow existing contours to minimize the visual impact of cut and fill, are screened from U.S. Route 4 and sited in such a way that agricultural resources are not fragmented or otherwise impacted.

(g) Ground-mounted solar arrays shall not be located within the scenic byway buffer unless topographic features of the landscape and/ or existing vegetative screening preclude observation of the solar arrays from motorists, bicyclists, and/or pedestrians on the public highway.

651332.1

Town of Woodstock Supporting Plan Standards for the Protection of Scenic Byways and Vistas & the Siting of Solar Facilities adopted by the Select Board of the Town of Woodstock at a special meeting duly warned and held on the 9th day of June, 2015

Margaretta Howe, Chair

Preston Bristow

John Doten

Bruce Gould

Bob Holt

WITNESS:

Philip B. Swanson,
Municipal Manager

FAHEY SCHULTZ BURZYCH RHODES PLC
YOUR TOWNSHIP ATTORNEYS

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Township Law E-Letter

Does Your Township Need a Solar Ordinance?

In an effort to promote renewable energy within Michigan, the Legislature passed Public Act 342 in 2016. This Act amended Michigan's Clean and Renewable Energy and Waste Reduction Act, originally passed in 2008. The Amendment promoted growth in Michigan's renewable energy industry. Wind farms were developed throughout the state. More recently, townships are seeing a trend in solar farm projects. Although many Michigan townships have addressed wind farms with local police power or zoning regulations, very few townships have developed ordinances regulating solar farms. This E-Letter explores the reasons to consider adopting a solar ordinance, as well as a number of specific provisions that should be considered when doing so.

What Has Caused a Growth in Renewable Energy?

The recent growth of renewable energy in Michigan is at least partially due to Public Act 295 of 2008 and Public Act 342 of 2016. The 2008 Act required Michigan's energy providers to maintain at least 10% of their energy portfolio from renewable energy sources, including wind energy, geothermal energy, and solar energy. The 2016 Act increases this requirement, mandating that an energy provider's portfolio be 12.5% renewable energy by 2019, with a later increase to 15% in 2021. The ultimate goal of the 2016 Act is to have 35% of Michigan's electric needs met through energy waste reduction and renewable energy by 2025. To meet these requirements, utility companies have undertaken a rapid expansion in developing Michigan's renewable energy sources, including solar power.

What Is A Solar Ordinance?

A solar ordinance is an extensive amendment to a township's existing ordinances. In general, a solar ordinance is a comprehensive regulation of a solar energy within the township, including what types of solar energy systems are permitted, where they may be located, and what limitations apply to them. A well-drafted solar ordinance will protect a township's interests while also ensuring that it does not run into exclusionary zoning issues. A solar ordinance will also establish review procedures for solar projects, as well as the framework that will be used when applying for this type of project. Depending on whether a township has zoning, a solar ordinance can be a standalone ordinance or incorporated into a township's zoning ordinance.

Does a Township Need A Solar Ordinance?

The renewable energy industry has grown rapidly since 2008, and is likely to continue to grow given the increased requirements of Public Act 342. As energy providers are required to rely more extensively on renewable energy, it is highly likely that many Michigan townships will face increased interest, and possibly even pressure, to approve renewable energy projects. Having a solar ordinance in place, even if your township has not been approached, will allow you to respond to these requests in a way that will help to avoid future legal challenges and prevent your township from rushing to adopt an ordinance after the fact.

How Can A Solar Ordinance Benefit My Township?

A well-drafted solar ordinance will do the following:

- Promotes sustainable energy production;
- Increases a township's tax base;
- Promotes jobs growth;

- Encourages the rental or sale of unused or underused land;
- Ensures that solar energy production is harmonious with surrounding land uses and the township in general; and
- Lessens the chance of nuisance issues arising in the future.

What Are The Disadvantages Of A Solar Ordinance?

There is little downside to a well-drafted solar ordinance. A poorly-prepared ordinance, on the other hand, can discourage economic development, overlook the needs of surrounding land owners, lead to issues related to glare or other visual distractions, and, if the ordinance completely bans solar development, lead to exclusionary zoning challenges. Most, if not all of these concerns can be addressed by a well-written and comprehensive solar ordinance.

What Types of Systems are Regulated by a Solar Ordinance?

In general, a solar ordinance will regulate photovoltaic devices, which are a system of components designed to capture and process solar energy. When multiple photovoltaic devices are connected together they become a solar array, which provides a single output of energy from multiple devices. A solar ordinance should also regulate structures associated with these devices, including transmission lines, substations, and maintenance buildings.

Typically, a solar ordinance will regulate larger systems different than smaller systems. Because the definition of a photovoltaic device is broad, it contains anything from a single solar roof panel on a resident's home to a much larger panel connected to a multi-acre solar array. Naturally, the regulations that apply to a personal-use solar array are not well suited to large, commercial solar arrays, and the reverse is also true. Thus, a good solar ordinance will regulate these systems differently, with more extensive regulations on larger arrays. This is typically accomplished by allowing certain small-scale solar energy systems to be accessory or permitted uses in all of a township's zoning districts, subject only to administrative site-plan review by a township's zoning administrator. Large, utility-grade, commercial solar arrays, on the other hand, can be addressed as a special use and are regularly limited to only certain zoning districts. One of the key elements of a solar ordinance is that it provides appropriate regulations for each type of solar array, based on the scale of the proposed use.

What Terms Should be Included in a Solar Ordinance?

A good solar ordinance will be a complete statement of a township's regulation of solar energy production within its borders. Generally, a solar ordinance's requirements can be divided into the following categories:

1. *Dimensional*: These regulations deal with the physical location of solar energy structures within a certain parcel or parcels, as well as the relationship between those structures and neighboring properties. Examples of these regulations include restricting solar energy systems to certain zoning districts, and creating setbacks, height restrictions, lot-coverage restrictions, restrictions on access drives, screening requirements, and environmental requirements.

2. *Operational*: These regulations address the day-to-day operations of a solar energy system, and are designed to ensure that a system operates not only efficiently, but in a manner that is neither unsafe nor a nuisance. Examples of these regulations include glare restrictions, maintenance requirements, security requirements, signage limitations, noise limitations, and lighting restrictions.

3. *Administrative*. These regulations describe the process needed to establish a solar energy system, as well as ensuring that energy producers provide the township with the information it needs to ensure

compliance with the requirements of the ordinance. Examples of these regulations include permitting requirements, periodic inspections and reviews, the submission of quarterly reports, the requirement for regular meetings with township officials, the submission of written construction plans, and the submission of a decommissioning plan, agreement, and bond.

What Terms Should Not Be Included In A Solar Ordinance?

Other than a term specifically excluding the possibility of solar energy systems within a township, no specific terms are impermissible. It is important, however, that townships carefully consider balancing concerns about solar energy production with the interests of those residents who wish to see more solar energy within the township. An ordinance that is too restrictive will discourage the establishment of solar energy systems within a township, while an ordinance that is too permissive could lead to disputes between a solar energy producer and neighboring property owners. It is important that the terms of a solar ordinance fully consider the interests on both sides of the solar energy question, and to carefully balance these interests.

-- Stephen A. Delie

Fahey Schultz Burzych Rhodes PLC, Your Township Attorneys, is a Michigan law firm specializing in the representation of Michigan townships. Our lawyers have more than 150 years of experience in township law, and have represented more than 150 townships across the state of Michigan. This publication is intended for our clients and friends. This communication highlights specific areas of law, and is not legal advice. The reader should consult an attorney to determine how the information applies to any specific situation.

FAHEY SCHULTZ BURZYCH RHODES PLC
YOUR TOWNSHIP ATTORNEYS

TOWN OF BENNINGTON, VERMONT

ARTICLE 29. SCREENING OF SOLAR FACILITIES

(A) Purpose. In accordance with 24 V.S.A. Sec. 2291, this Civil Ordinance sets forth screening requirements for ground mounted solar electric generation facilities in excess of 15kW(AC) (solar facilities) located in the Town of Bennington. This Ordinance is intended to further the goal of preserving the scenic quality of Bennington consistent with the guidelines set forth in the report entitled "Town of Bennington Scenic Resource Inventory," dated December 2004 and with the goals and policies of the then current Bennington Town Plan. This Ordinance is further intended to ensure that solar facilities do not degrade the natural visual appeal of hillsides, ridgelines, or open fields, and do not encroach visually or otherwise aesthetically upon a natural or historic area or gateway or upon a stream, wetland, or other water resource.

(B) Screening Requirements.

1. All solar facilities shall be screened in accordance with the screening requirements set forth in this Ordinance. The screening requirements: a) are consistent with the screening requirements applied to commercial development in all zoning districts as set forth in the Town of Bennington Land Use and Development Regulations; and b) articulate reasonable aesthetic mitigation measures to harmonize a solar facility with its surroundings.

2. All solar facilities shall be sited and screened so that visual impacts of such facilities, including but not limited to, solar panels, transformers, utility poles, fencing, etc., are mitigated as viewed from public streets and thoroughfares, scenic viewpoints, and/or adjacent properties. The Town of Bennington Select Board shall determine screening requirements and associated site issues for each solar facility based upon the standards in this Ordinance. The Select Board may request recommendations from the Town of Bennington Planning Commission, or by other boards or advisory groups appointed by the Select Board.

3. Screening shall provide a year round visual screen, and shall occur on property owned or controlled by the owner and/or operator of the solar facility. A diversity of materials shall be used to create a diverse, naturalized screen rather than a large expanse of uninterrupted, uniform material. Materials may

include: trees and shrubs indigenous to the area, and berms, or a combination thereof, to achieve the objective of screening the site.

4. All screening shall be maintained to optimize screening at all times by the owner and/or operator of the solar facility until the solar facility is decommissioned and removed. Plantings that die or become diseased shall be replaced within six months of dying or becoming diseased.

(C) Recommendations to the Public Service Board. Pursuant to 24 V.S.A. Sec. 2291, the Town of Bennington may make recommendations to the Public Service Board applying the requirements of this Ordinance to a proposed solar facility. The Select Board is designated to make such recommendations.

(D) Condition of Certificate of Public Good. Pursuant to 24 V.S.A. Sec. 2291, the screening requirements of this Ordinance and the recommendations of the Town of Bennington shall be a condition of a certificate of public good issued under 30 V.S.A. Sec. 248 for a solar facility in Bennington.

THIS ORDINANCE IS HEREBY ADOPTED by the Select Board of the Town of Bennington this _____ day of _____, 2015 and shall, unless a petition is filed as provided by law, become effective upon the expiration of 60 days after said date.

Select Board
Town of Bennington, Vermont

_____	_____
Sharyn L. Brush	Donald A. Campbell
_____	_____
Jim Carroll	Justin J. Corcoran
_____	_____
Thomas H. Jacobs	Michael A. Keane
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John C. McFadden	

Vermont Is Currently Enacting Some Of The Most Restrictive Rules On Wind Energy In The US

July 16th, 2017 by **Guest Contributor**

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By Owen Agnew

A new rule says wind turbines can't be louder than a quiet library. It will stifle Vermont's wind industry. Conservationists love it.

Brian Champney can brag about his 450 acres of farmland, 250 dairy cows and—if the permits go through—exactly one wind turbine. He is as stereotypically Vermont as a Bernie Sanders tote bag or a freezer full of Ben and Jerry's. And, like many Vermonters, he is deeply worried about climate change.

"I think it's important for everybody to try to leave the earth a little bit better for the next generation. We just happen to have a pretty good chunk of land, and the wind blows," Champney said. "I think wind turbines should be part of the working landscape."

Not everyone agrees.

Vermont is considering some of the most restrictive rules on wind power in the country, even as it pushes for some of the biggest cuts to carbon emissions. In May, Vermont's Public Service Board proposed a new **rule** for wind projects that includes strict setback

requirements and noise limits.

Champney's turbine—the playfully named Dairy Air Wind project—will be evaluated under the previous rule, but had he waited a little longer to start the permitting process, his turbine wouldn't have stood a chance. "None of the projects that have been built in Vermont to date could meet this standard," said Olivia Campbell Andersen, executive director of **Renewable Energy Vermont**.

The updated rule will make it much harder for the state to hit its renewable energy targets. Vermont aims to build up to **750 megawatts** of wind power as part of a plan to source 100 percent of the state's electricity from renewables by 2050. There are **120 megawatts** of wind power currently installed—and that was under the old rule.

One plan for achieving 100 percent renewable power by 2050. Source: Vermont Department of Public Service

The new rule requires a setback distance of ten times the turbine height—so a 500-foot turbine would be set back nearly a mile. This is the most restrictive part of the rule, according to the **Vermont Environmental Research Associates**, a wind power consulting firm and one of the partners on the Dairy Air Wind project. The setback requirement will leave just 0.2 percent of the state available for wind power.

The new rule also sets noise limits for large wind turbines at 42 decibels during the day and 39 decibels at night. To put that in perspective, 40 decibels is about the volume of a refrigerator or a quiet library.

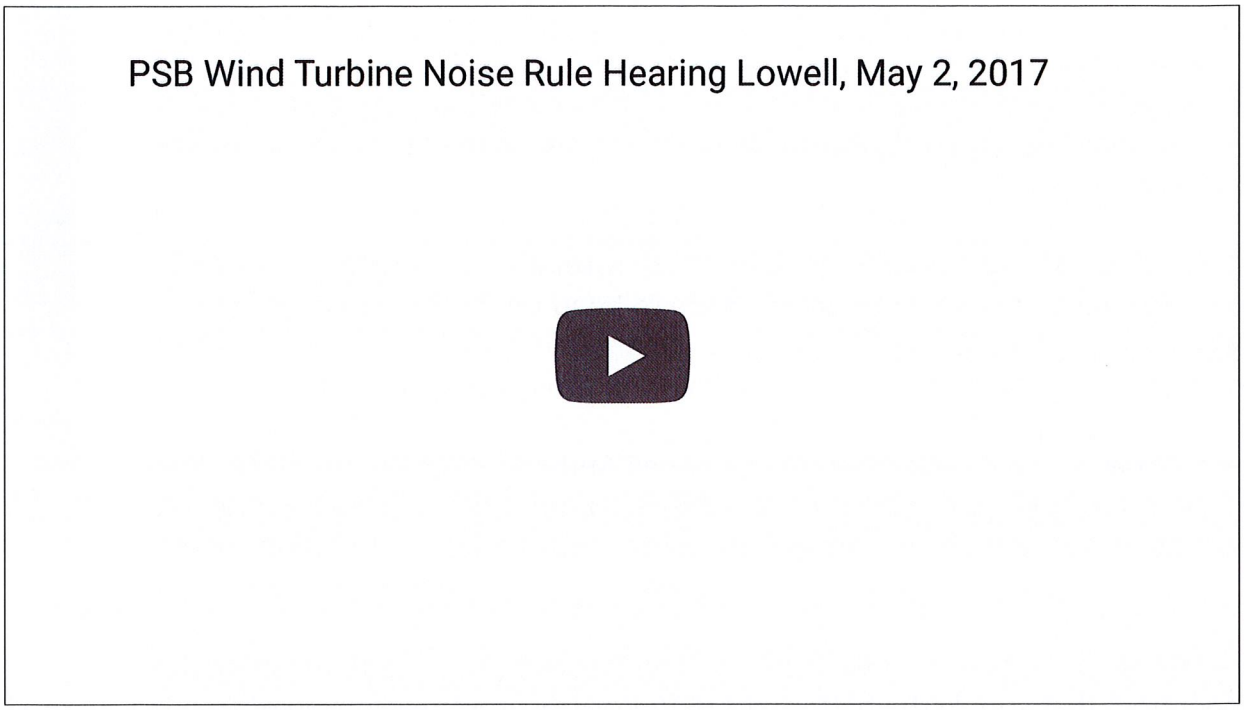
Speaking at a public hearing on the noise rule in Lowell, Vermont on May 2nd, Lowell resident Alden Warner used a decibel meter to measure the ambient noise in the room. "So I'd like to do a little experiment," Warner said. "I'm going to ask everybody to be totally, totally silent for five seconds when I give you the sign." The room hushed, and Warner held up the meter. Public Service Board member Sarah Hoffman read the measurement: 43.8 decibels.









Vermont is a wind power pioneer—the world's first one-megawatt turbine spun into action on a windy mountaintop called Grandpa's Knob in 1941. But, the recent surge of wind energy in the state has provoked a backlash. In 2013, some **69 percent** of Vermonters supported the construction of large wind turbines in their communities. By 2016, that number had dropped to just **56 percent**.

Environmentalists stand on both sides of the issue. Groups like Renewable Energy Vermont see wind power as an indispensable tool in the fight against climate change. Other groups, including Vermonters for a Clean Environment, say that wind turbines threaten mountain ecosystems. "In Vermont, our best response to climate change is to preserve these intact ecosystems and to preserve these mountains," said Annette Smith, executive director of **Vermonters for a Clean Environment**.

Smith claims that turbine noise can also cause health issues, including headaches, tinnitus, nausea, sleep deprivation and heart problems. "People are sick," Smith said. "Not only does this technology not belong in Vermont or on our mountains anywhere in New England, it doesn't belong anywhere near where people live."

The research would suggest otherwise. The Vermont Department of Public Health **reviewed** the scientific literature and found "there is no direct health effect from sound associated with wind turbine facilities." Researchers at MIT also conducted a **review** of the literature on turbine noise. They wrote that "no clear or consistent association is seen between noise from wind turbines and any reported disease or other indicator of harm to human health."

The research has made little difference to lawmakers. Last summer, the state legislature passed a bill requiring new noise rules for turbines. The state's Public Service

Board set the sound rule to be "protective of public health," and "reduce annoyance levels that some people might experience from turbine sounds." The proposed rule must now be approved by a legislative committee, which has twice delayed its decision. If finalized, wind advocates could fight the rule in court or push the legislature to revise it, but they face an uphill battle.

Governor Phil Scott (R), who wants to ban wind turbines on ridgelines, recently appointed environmental lawyer Anthony Roisman to head the Public Service Board. In an **interview** with the *Burlington Free Press*, Roisman said that he is "not a fan" of turbines on ridgelines. He has sued to stop several wind projects in Vermont.

Despite these setbacks, wind advocates like Campbell Andersen remain optimistic. She doesn't see the noise rule as a rebuke of the state's commitment to clean energy. "It more reflects the growing pains or struggle of doing the hard work of getting there," she said.

Vermont sources most of its electricity from the New England power grid, meaning the gas-fired generators that supply the better part of the state's power lie conveniently out of sight. Vermonters have never had to gaze upon their smokestacks or inhale their exhaust. Now, the state is developing clean, domestic sources of power, and locals are grappling with what that means for the landscape.

"Some people just don't like the sight of [wind turbines]. They think they're ugly," said Champney, when asked about the wind turbine he's building on his dairy farm. "But there are other people that do like them. It is my property, and I like them. I believe in renewable energy, and it works."

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STATE OF VERMONT
Agency of Natural Resources
Department of Environmental Conservation

Chapter 12
Of the Environmental Protection Rules: GROUNDWATER PROTECTION RULE AND STRATEGY

Emergency Rule: Adopted July 11, 2018

TABLE OF CONTENTS

SUBCHAPTER ONE - AUTHORITY, POLICY, PURPOSE, AND APPLICABILITY

12-101 Authority

This rule and strategy is adopted under the authority of 10 Vermont Statutes Annotated (V.S.A.) 1390-1394.

12-102 Policy

It is the policy of the State of Vermont that it shall protect its groundwater resources to maintain high quality drinking water. It shall manage its groundwater resources to minimize the risks of groundwater quality deterioration by limiting human activities that present unreasonable risks to the use classifications of groundwater in the vicinities of such activities. The state's groundwater policy shall be balanced with the need to maintain and promote a healthy and prosperous agricultural community.

12-103 Purpose and Applicability

10 V.S.A. 1390-1394 does not create any new permit programs for groundwater protection. The statute directs the Secretary to protect groundwater through existing regulatory programs and by the adoption of a strategy to assist in coordinating groundwater management statewide. This rule provides restrictions, prohibitions, standards, and criteria for groundwater protection that will be adopted, as appropriate, in Agency permit and regulatory programs that control activities which may affect groundwater. The Secretary shall amend all appropriate rules to conform to 10 V.S.A. 1390-1394 and this rule. These restrictions, prohibitions, standards, and criteria may be adopted by other state agencies or local governments with authority to manage activities that may affect groundwater.

12-104 Coordination

This Rule is not enforceable over activities outside the jurisdiction of the Agency of Natural Resources. State, federal and local agencies with the authority to manage activities that may affect groundwater are encouraged to adopt the restrictions, prohibitions, standards and criteria contained in this Rule as part of their own groundwater management programs. This Rule also provides a procedure for other agencies to request the Secretary's concurrence with their findings (see 12-505).

SUBCHAPTER TWO - DEFINITIONS

12-201 Definitions

Unless otherwise stated the following definitions apply throughout this rule.

(1) "Acceptable Activity" means an activity that the Secretary determines is not likely to cause substantial harm, or a loss of beneficial uses, to a particular class of groundwater. In determining if an activity is acceptable, the Secretary will consider:
- (a) the groundwater quality standards;
- (b) the nature and quantity of groundwater at risk;
- (c) the availability, cost and effectiveness of measures to mitigate risks;
- (d) the nature and quantity of risks that the activity may generate;
- (e) the expense and effectiveness of correcting the damage the risks may cause;
- (f) the consequences to the public interest should damage occur and be irremediable;
- (g) the economic, social and environmental value of existing activities;
- (h) the Vermont Water Quality Standards including the classification of surface waters; and
- (i) other factors relevant to designating appropriate groundwater classes or managing risks to groundwater quality.

(2) "Activity" means any source or potential source of a waste that is detected in or has a reasonable probability of entering groundwater.

(3) "Agency" means the Vermont Agency of Natural Resources.

(4) "Acceptable laboratory" means a laboratory that:
- (a) is certified, accredited or otherwise recognized by either the state in which it resides or by the Federal government for drinking water or environmental analysis in areas closely related to the kinds of monitoring required or permitted, or is acceptable to the Secretary;
- (b) has a field procedures plan; and
- (c) has a quality assurance/quality control program that may be reviewed by the Secretary.

(5) "Background groundwater quality" means the groundwater quality at or near a property that has not been affected by any activity on that property.

(6) "Beneficial uses" means those uses of groundwater included in each groundwater class.

(7) "Class I groundwater" means groundwater that has been classified by the Secretary and approved by the General Assembly, if required by 10 V.S.A. 1394(f), and that:

(a) is suitable for public water supply use;
(b) has uniformly excellent character;
(c) has no exposure to activities which pose a risk to its current or potential use as a public water supply source; and
(d) is in use as a public water supply source, or is determined by the Secretary to have a high probability for such use.

(8) "Class II groundwater" means groundwater that has been classified by the Secretary and that:
(a) is suitable for public water supply use;
(b) has uniformly excellent character;
(c) is exposed to activities which may pose a risk to its current or potential use as a public water supply source; and
(d) is in use as a public water supply source, or is determined by the Secretary to have a high probability for such use.

(9) "Class III groundwater" means groundwater that has been classified by the statute or reclassified by the Secretary and that is suitable as a source of water for individual domestic water supply, irrigation, agricultural use and general industrial and commercial use.

(10) "Class IV groundwater" means groundwater that has been classified by the Secretary and that is not suitable as a source of potable water but suitable for some agricultural, industrial and commercial use.

(11) "Design Management Zone" means a three-dimensional subsurface zone that the Secretary may utilize to manage regulated activities which may affect groundwater quality (see Figure 1 and 12-802).

(12) "Discharge" means the placing, depositing, emitting or release of any waste onto or beneath the land surface such that the waste, substance, or material reaches or is likely to reach groundwater.

(13) "Enforcement standard" means a numerical value expressing the detectable concentration of a substance in groundwater, the reaching or exceeding of which requires a response under Section 12-804 of this Rule.

(14) "Generally accepted methods" means methods for mapping groundwater areas and aquifers and for determining aquifer characteristics that are recognized by the U.S. Geological Survey, the U.S. Environmental Protection Agency or the National Groundwater Association.

(15) "Generally accepted statistical methods" means published statistical procedures that have been used by the scientific community to evaluate statistical trends in groundwater quality data.

(16) "Groundwater" means water below the land surface in a zone of saturation, but does not include surface waters within the meaning of 10 V.S.A. 1251 (13).

(17) "Groundwater quality standards" means those water quality standards and criteria listed in Appendix One of this Rule.

(18) "Groundwater Coordinating Committee" means the committee established by the Secretary which advises the Secretary on matters concerning groundwater.

(19) "High probability for use as a public water supply source" means:

(a) the Secretary has issued a Source Approval for a public water supply source in accordance with Chapter 21, Water Supply Rule, of the Environmental Protection Regulation and that the groundwater meets Class I or Class II criteria; or

(b) the Secretary finds on the basis of information available to him or her, that the need for a new municipal water supply source will be necessary and the Secretary has received a written petition from a Vermont municipal government requesting Class I or Class II designation to protect one or more groundwater areas and the petition contains:

(i) a copy of a duly adopted plan, bylaw, or ordinance providing local protection for the designated Class I or Class II area;

(ii) a map showing the general area or areas under the control of the municipal government in which that government proposes to develop a future public water supply source;

(iii) a projected maximum demand figure from a future public water supply source;

(iv) an estimated date for the construction of a new public water supply source and necessary appurtenances;

(v) a hydrogeologic study indicating that the area under consideration could reasonably meet the projected public water supply demand;

(vi) such other provisions as the Secretary deems necessary; or

(c) the Secretary finds on the basis of information available to him or her, that the need for a new municipal public water supply source will be necessary.

(20) "Indicator Parameter" means a groundwater quality characteristic which the Secretary may use to determine groundwater quality deterioration or improvement.

(21) "Non-potable groundwater" means groundwater which is not "potable groundwater" or which will not be "potable groundwater" for at least five years, or is scientifically predicted to become unsuitable as a source of "potable groundwater" within five years.

(22) "Potable groundwater" means groundwater free from impurities in amounts sufficient to cause disease or harmful physiological effects, and having biological, chemical, physical and radiological quality conforming to applicable standards of the Agency.

(23) "Preventive action level" means a numerical value expressing the detectable concentration of a substance in groundwater, the reaching or exceeding of which requires a response under Section 12-803 of this Rule.

(24) "Public Water Source Protection Area" or "SPA" means a surface or subsurface area from or through which contaminants are reasonably likely to reach a public water system source. A "SPA" is also known as a Wellhead Protection Area.

(25) "Public water supply" means a water supply system with fifteen or more connections or that serves an average of at least 25 individuals for at least sixty days per year.

(26) "Risk Advisory" means notification to the public by the Secretary pursuant to Subchapter Six of this Rule.

(27) "Secretary" means the Secretary of the Agency of Natural Resources or the Secretary's designee.

(28) "Substantial harm" means a deterioration of groundwater quality to a level that requires treatment to restore or maintain groundwater quality enforcement standards.

(29) "Unacceptable Activity" means an activity that the Secretary determines is likely to cause or causes substantial harm or a loss of beneficial uses to a particular class of groundwater. In determining if an activity is unacceptable, the Secretary will consider:

(a) the groundwater quality standards;
(b) the nature and quantity of groundwater at risk;
(c) the availability, cost and effectiveness of measures to mitigate risks;
(d) the nature and quantity of risks that the activity may generate;
(e) the expense and effectiveness of correcting the damage the risks may cause;
(f) the consequences to the public interest should damage occur and be irremediable;
(g) the economic, social and environmental value of existing activities;
(h) the Vermont Water Quality Standards including the classification of surface waters; and
(i) other factors relevant to designating appropriate groundwater classes or managing risks to groundwater quality.

(30) "Unacceptable risk" means an activity which is likely to cause or causes a groundwater quality condition that reaches or exceeds one or more of the groundwater quality enforcement standards.

(31) "US EPA" means the United States Environmental Protection Agency.

(32) "Waste" means effluent, sewage or any substance or material, liquid, gaseous, solid or radioactive, including heated liquids, whether or not harmful or deleterious to groundwater.

SUBCHAPTER THREE - A GROUNDWATER PROTECTION STRATEGY FOR VERMONT

12-301 Foreword

This Rule is the groundwater management and protection strategy for the State of Vermont and is adopted pursuant to the provisions of 10 V.S.A. 1390-1394. It replaces the Ground Water Protection Rule and Strategy which was effective on September 29, 1988.

The strategy rests on the principles and directives hereinafter stated, and sets forth the goals necessary to implement the policy established by the legislature in 10 V.S.A. 1390-1394. This strategy directs the activities of the Agency of Natural Resources in managing and protecting groundwater and serves as guidance to other state and local agencies in the development of groundwater protection programs. The Secretary may adopt joint policies with other agencies to expand groundwater protection efforts to cover activities by all state agencies which manage activities affecting groundwater.

12-302 Principles and Directives

The following principles and directives support and direct the Secretary's actions relating to groundwater.

(1) Principles

(a) Groundwater is of critical importance to the State of Vermont and must be actively protected and managed in order to protect public health and welfare.

(b) Each Class of groundwater has its appropriate, beneficial uses that must be protected. Protection should be accomplished by both limiting new activities based on potential risks to groundwater and by adherence to technical standards and criteria. Whenever and wherever possible, appropriate management practices rather than specific regulations will be utilized to protect the designated uses.

(c) The Secretary will identify and classify the geographical boundaries of Classes I, II, and IV groundwater areas.

(2) Directives

(a) The Secretary's groundwater classifications shall be presumed correct if, in establishing the geographical boundaries of each class of groundwater, he or she uses generally accepted methods of determining groundwater areas based on existing knowledge of surficial and bedrock geology and available hydrological

and hydrogeological data. The Secretary will also consider soils, topography, and past, present, and proposed uses of the land and groundwater resources in determining the appropriate boundaries of groundwater classification areas.

(b) Groundwater protection will be integrated within regulatory programs administered by the Secretary by amending appropriate rules to comply with 10 V.S.A. 1390-1394 and this Rule. When the Secretary revises a rule with respect to standards and criteria relating to groundwater protection, the standards and criteria revision will take into consideration the following items:

(i) the groundwater quality standards;
(ii) the nature and quantity of groundwater at risk;
(iii) the availability, cost and effectiveness of measures to mitigate risks;
(iv) the nature and quantity of risks that the activity may generate;
(v) the expense and effectiveness of correcting the damage the risks may cause;
(vi) the consequences to the public interest should damage occur and be irremediable;
(vii) the economic, social and environmental value of existing activities;
(viii) the Vermont Water Quality Standards including the classification of surface waters; and
(ix) other factors relevant to designating appropriate groundwater classes or managing risks to groundwater quality.

(c) This Rule will serve as guidance for federal, state, and local agencies that have authority over activities that may affect groundwater but are not regulated by the Secretary. Any of these agencies may propose a finding that an activity is an Acceptable or Unacceptable Activity to groundwater in accordance with 12-505.

(d) The Secretary may take any actions within the context of regulatory programs established in statutes or rules outside of this Rule, if those actions are necessary to protect public health and welfare or prevent a significant damaging effect on groundwater or surface water quality for present or future potable or non-potable uses, whether or not an enforcement standard and preventive action level for the waste has been adopted under this Rule.

(e) Nothing in this Rule authorizes a violation of the Vermont Water Quality Standards or the objectives of the Vermont Water Pollution Control Act.

(f) The Secretary shall develop a comprehensive groundwater management program to protect the quality of groundwater resources by:

(i) developing a strategy for the management and protection of the state's groundwater resources;
(ii) continuing studies and investigations of groundwater in the state;
(iii) cooperating with other government agencies in collecting and compiling

data on the quantity and quality of groundwater and location of aquifers;

(iv) identifying and mapping groundwater currently used as public water supply sources and groundwater determined by the Secretary as potential public water supply sources;

(v) providing technical assistance to municipal officials and other public bodies in the development of regional or municipal plans or bylaws, the purpose of which is the protection of groundwater resources;

(vi) classifying groundwater resources according to the provisions of 10 VSA, Chapter 48, and adopting technical criteria and standards for the management of activities that may pose a risk to their beneficial uses;

(vii) integrating the groundwater management strategy with other regulatory programs administered by the Secretary;

(viii) developing public information and education materials; and

(ix) cooperating with federal agencies in the development of programs for protecting the quality and quantity of the groundwater resources.

12-303 Goals

The goals of the Secretary's actions relating to groundwater are:

(1) To implement the duties of the Secretary as defined in 10 V.S.A. 1390-1394;

(2) to continually update this Rule consistent with changing conditions in the state and emerging technology;

(3) to protect and manage groundwater resources to maintain high quality drinking water by minimizing the risks of groundwater quality deterioration consistent with the beneficial uses designated for each class and limiting or managing human activities which present unacceptable risks to these beneficial uses;

(4) to revise existing Agency rules and criteria governing activity design, location, and management practices as necessary to prevent groundwater quality from reaching or exceeding enforcement standards at compliance points;

(5) to develop and implement a program with adequate resources and flexibility to respond to rapidly expanding groundwater science and technology;

(6) to monitor groundwater resources as appropriate to detect risk to beneficial uses;

(7) to advise and warn the public of potentially non-potable groundwater and harmful conditions (a public risk advisory program);

(8) to develop criteria and standards for groundwater mapping ;

(9) to develop a statewide, comprehensive coordinated groundwater data management

program for the use of local, regional, state, and federal agencies and any interested party;

(10) to promote the use of global positioning systems (GPS) in conjunction with managing and utilizing groundwater information for inclusion in a statewide Geographical Information System (GIS); and

(11) to manage activities that may pose a risk to groundwater.

12-304 Class I Goals:

(1) To identify and classify Class I groundwater.

(2) To implement a coordinated protection program including the inventorying and assessment of potentially contaminating activities.

(3) To prohibit all human activities that presents a risk to groundwater quality.

12-305 Class II Goals:

(1) To identify and classify Class II groundwater.

(2) To maintain minimum risk for Class II groundwater.

(3) To manage Class II groundwater by issuing permits for activities regulated under existing authorities, monitoring groundwater quality and human activities, and taking appropriate actions as authorized by law to reduce or stabilize the risk when required.

12-306 Class III Goals:

(1) To maintain potable water quality for Class III groundwater by:

(a) issuing permits for activities regulated under existing authorities;
(b) monitoring groundwater quality as appropriate; and
(c) issuing Risk Advisories when appropriate.

12-307 Class IV Goals:

(1) To identify and classify Class IV groundwater.

(2) To manage activities for Class IV groundwater to insure Class III standards or better at the borders of Class IV area, and to improve of groundwater quality within Class IV areas.

(3) To require that all new activities show that the activity shall not cause the groundwater quality to reach or exceed the groundwater quality standards listed in Appendix One of this Rule within the Class IV area and that the activity shall not cause an increase in existing contaminant levels at the Class IV boundary.

12-308 Groundwater Risk Advisory Goals:

To issue Groundwater Risk Advisories for those situations in which the Secretary finds or expects to find potentially non-potable conditions in the state's groundwater resources.

SUBCHAPTER FOUR - PROCEDURES FOR CLASSIFICATION

12-401 Groundwater Classification

(1) As provided for in 10 VSA 1394(b), all groundwater of the state is classified as Class III, unless reclassified by the Secretary.

(2) The Secretary may on his or her own motion, or upon the submittal of a written petition from a state agency, a municipality, or twenty-five or more potentially affected persons classify or reclassify any groundwater of the state. Reclassification to a Class I or II may be done in conjunction with the Secretary's Source Approval of a Public Water System.

(3) The Secretary, upon the advice of the Groundwater Coordinating Committee, may adopt technical and other procedures necessary to implement these reclassifications. These may include procedures detailing the scientific processes required to delineate the physical boundaries of Class I, II, III, or IV groundwater areas.

(4) The Director of the Water Supply Division in coordination with the Groundwater Coordinating Committee is responsible for recommending groundwater classifications or reclassifications to the Secretary.

(5) Petitions for classification or reclassification of groundwater shall be submitted to the Director of the Water Supply Division for review.

(6) Any classification or reclassification decision issued by the Secretary may include conditions for the management of the classified groundwater area that shall apply to activities regulated by the Secretary.

12-402 Criteria and Procedures for Distribution of Classification Maps

The Secretary will publish and distribute maps for each groundwater classification to:

(a) the town clerk in the town or towns affected;
(b) the Agency regional office for the area affected;
(c) the owners and/or operators of any public water supplies affected;
(d) Well Drillers Advisory Board;
(e) the Vermont Center for Geographic Information;
(f) the appropriate Regional Planning Commission; and
(g) other interested parties as appropriate.

12-403 Class I, II, III, and IV Groundwater Reclassification Process

(1) In determining whether or not to reclassify groundwater as a Class I, II, III, or IV the Secretary shall consider the following:
   (a) the use or potential future use of the groundwater as a public water supply source;
   (b) the extent of activity which poses a risk to groundwater;
   (c) the current water quality of the groundwater;
   (d) the availability of the groundwater in quantities needed for beneficial use;
   (e) the consequences of its potential contamination and the availability of alternate sources of water;
   (f) the classification of adjacent surface waters;
   (g) the high probability for use as a public water supply source (Subchapter 12-201(18)).
      (i) Groundwater not presently in use as public water supply source may be reclassified as Class I or II, if it has a high probability for use as a public water supply source.
      (ii) Scientifically delineated SPAs for public water supplies may be adopted as a Class I or II, as appropriate;
   (h) other factors relevant to determine the maximum beneficial use of the groundwater.

(2) The Secretary will provide notice of any proposed reclassification by:
   (a) advertisement in newspapers of general circulation in the area of the proposed classification or reclassification;
   (b) written notice with the appropriate town clerk;
   (c) written notice to all potentially affected property owners of record, and other persons as appropriate, of the proposed classification or reclassification action;
   (d) written notice to the appropriate Regional Planning Commission; and
   (e) written notice to the Groundwater Coordinating Committee.

(3) The Secretary will provide a thirty day (30) comment period for each proposed reclassification action which shall start on the date that the notice is published in the newspaper.

(4) Upon the request of an interested person or upon the Secretary's motion, the Secretary will hold a public information meeting on any proposed reclassification. The public information meeting will be held in a location convenient to the users or potential users of the groundwater which is the subject of the public information meeting. The Secretary will provide notice of the date, time, and location of the public information meeting.

(5) Prior to the issuance of any final classification or reclassification decision, the Secretary shall consider all comments received during the public comment period and the public information meeting.

12-404 Statutory Requirements for Class I Reclassifications

(1) Submission to the Legislature for Approval

The Secretary shall follow the reclassification procedures in these rules for Class I reclassifications. However, pursuant to 10 V.S.A. 1394(f) any classification of Class I groundwater involving privately owned lands or a reclassification of Class I groundwater to another class shall be submitted by the Secretary to the Natural Resources Committees of both houses of the General Assembly within 15 days of the issuance of the decision order. Under 10 V.S.A. 1394 (f), any such classification or reclassification must be approved by an act of the General Assembly prior to becoming effective.

(2) Permanent Protection

Pursuant to statutory policy at 10 V.S.A. 1394(f), any Class I groundwater shall be permanently protected unless and until a reclassification is approved in accordance with Section 12-404(1).

12-405 Appeals

10 V.S.A. Chapter 48 is silent regarding appeals of reclassification decisions. However, in the opinion of the Secretary, any person aggrieved by a reclassification decision of the Secretary may appeal that decision under the Rules of Civil Procedure to the Superior Court of the county where the affected groundwaters are located.

SUBCHAPTER FIVE - MANAGEMENT OF GROUNDWATER AFTER CLASSIFICATION

Each of the classes of groundwater has designated beneficial uses and characteristics, the maintenance of which require specific management techniques. This Subchapter sets forth the management requirements for each class.

In general, groundwater will be managed by adhering to certain standards and criteria for groundwater quality, and by limiting risks by prohibiting or restricting new activities, as appropriate, within each class. Enforcement of these standards, criteria, prohibitions and restrictions will be accomplished through permitting and regulatory programs within the Agency of Natural Resources. This Rule is not enforceable over activities outside the jurisdiction of the Agency of Natural Resources.

As provided for in 10 VSA 1394, the Secretary may manage activities which constitute risks to the groundwater and which may be precluded. The criteria and standards for managing these activities are contained in Appendix One and Two.

Management of Class I Groundwater

(1) All Class I groundwater will be managed to assure compliance with the groundwater quality standards established in Appendix One of this Rule.

(2) Coordination

For activities that are not regulated by the Secretary, the Secretary will cooperate with federal, state, and local authorities to limit activities that may pose a risk to the groundwater.

(3) Permit Oversight

The Secretary will monitor proposed new construction and development within Class I groundwater areas by reviewing Act 250 and other appropriate permit applications to determine the level of risk to the groundwater.

(4) Management, Abatement, and Restoration

(a) The Secretary will cooperate in and encourage the management of land use activities within Class I areas to ensure no exposure to risk. When monitoring of water quality or other information demonstrates that deterioration has occurred, or that risk is imminent or increasing, the Secretary will cooperate in appropriate investigations to determine the probable cause or causes and act, as appropriate under his or her authority, to abate the deterioration and restore the groundwater

to its previous uniformly excellent quality.

(b) When the Secretary finds that a regulated activity causes or allows deterioration of the groundwater quality or poses unacceptable risk, the Secretary will take appropriate actions to reduce the risk up to and including cessation of discharges and remedial action. For activities not regulated by the Secretary, the Secretary will cooperate with the appropriate authority to reduce the risk.

(5) Report to the Legislature

Annually, the Secretary shall report to the General Assembly on the status of Class I groundwater. The report shall include data reflecting the quality of groundwater and land uses within existing Class I areas and shall propose, as necessary, new Class I areas for approval by the General Assembly.

Management of Class II Groundwater

(1) Prior to issuing any permits or approving any regulated activity in a Class II groundwater area:

(a) the applicant shall provide evidence, and the Secretary will make a finding that the activity:

(i) will not cause the groundwater quality to reach or exceed the primary enforcement standards at a compliance point;

(ii) will not cause the groundwater quality to reach or exceed the secondary enforcement standards or 110% of the secondary background groundwater quality established under 12-704, whichever is greater, at a compliance point; and

(iii) is not an Unacceptable Activity in Class II Groundwater (see 12-201(29)); or

(b) the activity is an Acceptable Activity in a Class II area (see Section 2 of Appendix Two).

(2) The Secretary will not issue permits for activities in a Class II area that are an Unacceptable Activity in a Class II area (see Section 2 of Appendix Two).

(3) Coordination

For activities which are not regulated by the Secretary, the Secretary will cooperate with federal, state, and local authorities to limit activities that may cause the groundwater quality to reach or exceed the groundwater standards at any compliance points.

(4) Permit Oversight

(a) The Secretary will monitor proposed new construction and development within

Class II groundwater areas by reviewing Act 250 and other appropriate permit applications to determine the level of risk to the groundwater.

(b) The Secretary may require groundwater quality monitoring for any permitted or regulated activity in a Class II groundwater area.

(5) Corrective and Restorative Actions

When the Secretary finds that a regulated activity poses an unacceptable risk, the Secretary will take or require appropriate actions to reduce the risk up to and including cessation of discharges and remedial action. For activities not regulated by the Secretary, the Secretary will cooperate with the appropriate authority to reduce the risk.

Management of Class III Groundwater

(1) Class III groundwater is the groundwater not otherwise classified as Class I, II or IV groundwater. It is generally protected by the Secretary's rules, guidelines and management practices which the Secretary presumes will reduce the potential for contamination.

(2) Prior to issuing any permits or approving any regulated activity in a Class III groundwater area:

(a) the applicant shall provide evidence, and the Secretary will make a finding that the activity:

(i) will not cause the groundwater quality to reach or exceed the primary enforcement standards at a compliance point;

(ii) it will not cause the groundwater quality to reach or exceed the secondary enforcement standards or 110% of the secondary background groundwater quality established under 12-704, whichever is greater, at a compliance point; and

(iii) is not an Unacceptable Activity in Class III Groundwater (see 12-201(29)); or

(b) the activity is an Acceptable Activity in a Class III area (see Section 2 of Appendix Two).

(3) All activities regulated by the Secretary are presumed to have made the finding for Class III groundwater in 12-503(2), if the activity meets the Secretary's rules and regulations, and those rules and regulations have given due consideration to 12-302(2)(b).

(4) The Secretary will not issue permits for activities in a Class III area that are an Unacceptable Activity in a Class III area (see Section 3 of Appendix Two).

(5) Coordination

For activities that are not regulated by the Secretary, the Secretary will cooperate with federal, state, and local authorities to limit activities that may cause the groundwater quality to reach or exceed the groundwater standards at any compliance point.

(6) Permit Oversight

(a) The Secretary will monitor proposed new construction and development within Class III groundwater areas by reviewing Act 250 and other appropriate permit applications to determine the level of risk to the groundwater.

(b) The Secretary may require groundwater quality monitoring for any permitted or regulated activity in Class III groundwater.

(7) Corrective and Restorative Actions

When the Secretary finds that a regulated activity poses an unacceptable risk, the Secretary will take or require appropriate actions to reduce the risk up to and including cessation of discharges and remedial action. For activities not regulated by the Secretary, the Secretary will cooperate with the appropriate authority to reduce the risk.

Management of Class IV Groundwater

(1) Class IV groundwater is the groundwater associated with and found beneath Class IV groundwater areas that have been mapped and classified. It is not suitable as a source of potable water but may be suitable for some agricultural, industrial, and commercial uses.

(2) Class IV groundwaters will be managed to insure Class III standards or better at the border of the Class IV area and to improve the groundwater quality within the Class IV area.

(3) All new activities regulated or permitted by the Secretary in a Class IV groundwater area will be required to show that the activity would not cause the groundwater quality to reach or exceed the groundwater quality enforcement standards at the compliance points, and that the activity will not cause an increase in existing contaminant levels above enforcement standards at the Class IV boundary. Acceptable Activities for Class II and III areas in Appendix Two are also Acceptable Activities in Class IV areas provided they do not cause the contaminant plume associated with Class IV area to migrate.

(4) Coordination

For activities that are not regulated by the Secretary, the Secretary will cooperate with federal, state, and local authorities to limit activities that may cause the groundwater quality to reach or exceed the groundwater standards at the compliance points, and that the activity will not cause

an increase in existing contaminant levels above enforcement standards at the Class IV boundary.

(5) Monitoring

The Secretary will establish a program for groundwater quality monitoring within Class IV groundwater areas. The program will be updated as necessary to protect the public health, the Class IV areas, and adjacent groundwater.

(6) Permit Oversight

The Secretary will monitor proposed new construction and development within Class IV groundwater areas by reviewing Act 250 and other appropriate permit applications to determine the level of risk to the groundwater.

Findings of an Acceptable and Unacceptable Activity with Other Regulatory Agencies

(1) Requests from Other Agencies

The Secretary may adopt joint policies with other state agencies to expand groundwater protection efforts to all state agencies which manage activities affecting groundwater.

Federal, state, and local agencies with authority to regulate activities which may affect groundwater may propose a finding of Acceptable or Unacceptable Activity to groundwater for an activity or type of activity under their jurisdiction in a particular class of groundwater. When such findings are proposed to the Secretary for concurrence, the process listed in 12-505 (2) will be followed.

(2) Process

(a) An agency that submits a proposed finding to the Secretary for concurrence that an activity or type of activity is an Acceptable or Unacceptable Activity for a particular class of groundwater will provide the following information to the Groundwater Coordinating Committee:
  (i) a description of the activity;
  (ii) an analysis of the impact the activity would or would not have on groundwater quality and on the beneficial uses of the particular class of groundwater including:
    (A) the groundwater quality standards;
    (B) the nature and quantity of groundwater at risk;
    (C) the availability, cost and effectiveness of measures to mitigate risks;

(D) the nature and quantity of risks that the activity may generate;
(E) the expense and effectiveness of correcting the damage the risks may cause;
(F) the consequences to the public interest should damage occur and be irremediable;
(G) the economic, social and environmental value of existing activities;
(H) the Vermont Water Quality Standards including the classification of surface waters; and
(I) other factors relevant to designating appropriate groundwater classes or managing risks to groundwater quality.

(b) The Groundwater Coordinating Committee will review the submitted information based upon the above criteria. The Groundwater Coordinating Committee could choose to:
(i) forward a recommendation to the Secretary to make the finding as proposed;
(ii) request further information from the proposing agency; or
(iii) recommend that the proposing agency revise the request and resubmit the request.

(c) After receiving the recommendation of the Groundwater Coordinating Committee or upon his or her own motion, the Secretary may make a finding regarding activities that are not under the Secretary's jurisdiction.

(d) Any finding made through this process will be incorporated in the next revision of the Groundwater Protection Rule and Strategy.

Potential Public Water Supply Sources

The Secretary, after consultation with the Groundwater Coordinating Committee, shall establish a procedure for identifying and mapping groundwater determined by the Secretary as potential public water supply sources

SUBCHAPTER SIX - RISK ADVISORIES

12-601 Criteria and Procedures for Risk Advisories

(1) Issuance of Advisory

When the Secretary finds that events have caused, or are likely to cause, primary groundwater quality enforcement standards (Table 1 of Appendix One) to be reached or exceeded at any groundwater drinking water source or sources, the Secretary, in cooperation with the Commissioner of Health, shall issue a Risk Advisory of such conditions. The Risk Advisory shall include the following information:

(a) a brief description of the event or events that the Secretary has reason to believe are the cause, or are likely to be the cause, of the contamination;
(b) a description of the contaminants, the groundwater quality enforcement standard, and the concentrations of the contaminants;
(c) the location of the drinking water source or sources;
(d) an advisory not to consume the drinking water; and
(e) other information as appropriate.

(2) Distribution of the Advisory

(a) The Secretary shall distribute the information in the Risk Advisory in any manner reasonably calculated to give notice of the potential risk to the persons affected.

(b) Distribution may include notification to the following:
i) the town clerk and Health Officer in the town or towns affected;
ii) the Agency regional office for the area affected;
iii) the principal newspaper or newspapers for the area affected;
iv) the radio and television stations that broadcast to the affected area;
v) the regional planning or development commission or commissions serving the affected area;
vi) the Vermont Agency of Agriculture, the Vermont Department of Health, Department of Public Safety, and the Agencies of Commerce and Community Development, Human Services, and Transportation;
vii) any individuals the Secretary knows would be likely to consume the contaminated or potentially contaminated drinking water;
viii) the owners, operators, or both of any public water system using a groundwater source in the vicinity of the area affected;
ix) owners of properties likely to be affected;
x) Vermont Water Well Advisory Committee; and
xi) other interested parties, as appropriate.

(3) Risk Advisory Updates

The Secretary shall issue periodic updates, as appropriate. If the Secretary determines that a drinking water source or sources no longer reaches or exceeds the groundwater quality enforcement standards, the Secretary shall rescind the Risk Advisory and provide notice of the rescission in the same manner as was used for the Risk Advisory.

(4) The Commissioner of Health has separate and distinct authority to issue Risk Advisories in situations that he or she determines to pose a risk to public health and welfare.

SUB-CHAPTER SEVEN - STANDARDS AND CRITERIA FOR GROUNDWATER PROTECTION

Applicability

(1) This Rule establishes groundwater quality enforcement standards, Preventive Action Levels (PALs), and Indicator Parameters. They are contained in Appendix One of this Rule. The groundwater quality enforcement standards, PALs and Indicator Parameters apply to all permit and regulatory programs administered by the Secretary that may affect groundwater. The rules governing activities managed by these programs will be revised to incorporate them as appropriate. In addition to these standards, certain regulated activities have sighting and testing standards for the purpose of protecting groundwater quality and quantity. The relevant rules and regulations regarding a specific activity should be consulted.

(2) These standards and Preventive Action Levels may serve as recommended guidelines for local governments and other state agencies which have programs or interest in groundwater protection.

(3) The primary and secondary groundwater quality enforcement standards given in Table 1 and Table 2 of Appendix One are intended to identify a broad range of chemical constituents, the presence of which could pose a risk to the beneficial uses of that class of groundwater.

(4) Preventive Action Levels are considered as an early warning mechanism of potential groundwater quality degradation. Section 12-803 details the responses when a Preventive Action Level is reached or exceeded.

(5) The Secretary will consider the need for and may require groundwater quality monitoring as part of Agency permitting and regulatory programs. The monitoring data may be used to determine actions necessary to prevent or remediate conditions where the groundwater quality reaches or exceeds the enforcement standards in Appendix One.

(6) Sampling and analysis of all constituents in Appendix One is costly and the Secretary will exercise his or her best judgment in the administration of permit and regulatory programs conducted under his or her authority to minimize the cost of sampling and analysis to reasonably assure compliance for those substances likely to be present in the waste to be discharged. In pursuit of this end:

(a) The Secretary may require an applicant, seeking approval for the disposal of sludge, septage, domestic sanitary sewage, industrial or other waste, or any combination thereof, to analyze a representative sample of the substance for any of the constituents listed in Tables 1 and 2 of Appendix One. The Secretary may, based on this sample result, limit sampling and monitoring requirements to only those constituents detected. The Secretary may require the applicant to

periodically resample the waste to be disposed of and to adjust subsequent sampling and monitoring requirements to those substances detected.

(b) The Secretary may include in a permit or certificate of compliance, acknowledgment that the Secretary may require the permittee to expand sampling and analytical requirements of a permit or certificate when in the Secretary's judgment there is a possibility that groundwater contamination may have occurred or is about to occur; and

(c) The Secretary may require, as part of any preventive action plan within a permit document, that the permittee automatically increase the frequency of sampling and analysis, the number of sampling points, and the number of constituents to be analyzed when preventive action levels are reached or exceeded.

Primary Groundwater Quality Standards

(1) The Secretary, hereby adopts, the Primary Groundwater Quality Enforcement Standards contained in Table 1 in Appendix One of this Rule upon consideration of available drinking water quality standards information. The following drinking water quality standards information was and will be used in adopting primary groundwater quality standards:

(a) United States Environmental Protection Agency Maximum Contaminant Levels (MCL) for drinking water; and

(b) in cases where a US EPA MCL has not been adopted, the Vermont Health Advisory established by the Vermont Department of Health for the Primary Groundwater Enforcement Standard.

(2) If a Groundwater Quality Enforcement Standard does not exist for a specific substance, and the Secretary in cooperation with the Department of Health determines a standard is needed, until the Secretary is able to adopt a Groundwater Quality Enforcement Standard by rule, the Secretary may use an Interim Groundwater Quality Enforcement Standard. This shall be determined in the same fashion as specified in 12-702 (1)(a) and (b).

(3) If the Secretary uses an Interim Groundwater Quality Standard, the Secretary will adopt this standard by rule the next time the Rule is revised.

(4) For all substances that have carcinogenic, mutagenic, or teratogenic properties or interactive effects, the preventive action level is 10% of the enforcement standard. The preventive action level for all other listed substances is 50% of the enforcement standard. In situations where the preventive action level established in Appendix One is below the detection limit, the preventive action level shall be re-established at the detection limit.

Secondary Groundwater Quality Standards

The Secretary, upon consideration of available secondary drinking water quality standards information as published by the US EPA, hereby adopts the Secondary Groundwater Quality Standards contained in Table 2 in Appendix One.

Establishing Background Groundwater Quality

The Secretary may determine that it is necessary to establish background groundwater quality for an activity regulated by the Secretary. Background groundwater quality may be established by sampling one or more monitoring points at locations and depths sufficient to yield samples that are representative of background groundwater quality at or near the activity. In determining background groundwater quality, the Secretary may require as many groundwater samples as are necessary.

Indicator Parameters

(1) The Secretary may require monitoring of the groundwater quality characteristics in Table 3 of Appendix One. These groundwater characteristics are Indicator Parameters.

(2) The Secretary may determine that changes in the values of the Indicator Parameters may be an indicator of possible groundwater quality degradation.

(3) The Maximum Acceptable Change in the values of the Indicator Parameters are established in Table 3.

(4) If a Maximum Acceptable Change identified in Table 3 is exceeded, the Secretary may require any of the responses under Section 12-803, Responses When a Preventive Action Level is Reached or Exceeded.

Determining if a Groundwater Quality Standard has been Reached or Exceeded

(1) If a preventive action level or an enforcement standard for a substance listed in Table 1 or 2 in Appendix One of this Rule, or a Maximum Acceptable Change for an Indicator Parameter is reached or exceeded at a compliance point, the Secretary may require a response in accordance with the rules promulgated under the Secretary's authority.

(2) In determining if an enforcement standard is reached or exceeded, the Secretary may utilize, or may require the use of generally accepted statistical methods which provide a statistical 95% level of confidence that the standard has or has not been reached or exceeded. If there are not enough data for a statistical analysis, the Secretary may choose to require more groundwater samples or to consider the existing laboratory analytical results as indicating that the groundwater quality reaches or exceeds the preventive action limit or enforcement standard. When sampling clearly indicates the Groundwater Enforcement Standards have been or will be met or exceeded, the Secretary may determine that the standard has been reached or exceeded without calculating a 95% confidence level.

(3) In determining if a change in the concentration of a substance has occurred, the Secretary may require the use of generally accepted statistical methods that show whether or not a statistically significant change in the concentration of the substance has occurred.

(4) The Secretary will determine acceptable analytical methods to be used to analyze groundwater quality. In determining the acceptable laboratory analytical method, the Secretary may consider the detection limits and practical quantification limits, the cost of available analytical methods, and the site benefits derived from using more expensive analytical methods. This determination may vary from site to site.

Monitoring and Laboratory Data Requirements

(1) When groundwater quality monitoring is required by a regulatory program or permit, all water quality samples except field analyses for pH, specific conductance, and temperature shall be analyzed by an acceptable laboratory. The results of the analysis shall be submitted to the Secretary. The samples shall be collected in accordance with methods approved or specified by the Secretary.

(2) The laboratory shall utilize the analytical methodology specified in the Secretary's rules or acceptable to the regulatory program. Where no analytical methodology is specified, the laboratory shall use an analytical methodology with a limit of detection and limit of quantification below the preventive action level. Where the limit of detection or limit of quantification is above the preventive action limit for that substance, the laboratory shall use the best available analytical methodology published by the EPA or acceptable to the Secretary to produce the lowest limit of detection and limit of quantification.

SUBCHAPTER EIGHT - MANAGING RISKS TO GROUNDWATER QUALITY

12- 801 Compliance Points

(1) Activities which may affect groundwater, and which are regulated by the Secretary, shall be designed to minimize the level of substances in groundwater and to not reach or exceed the primary and secondary groundwater quality enforcement standards at the following compliance point locations:

(a) any point of present use of groundwater as a source of potable water; and
(b) any point at or within the boundary of any Class I groundwater area; and either
(c) any point at the boundary of the property on which the activity is located; or
(d) any point within the property boundaries beyond the 3-dimensional Design Management Zone if one is established by the Secretary for a regulated activity. (See Section 12-802.)

(2) In order to assess the groundwater quality at an activity regulated by the Secretary, the Secretary may require groundwater monitoring as part of any regulatory or permit process.

12-802 Design Management Zones

(1) For activities regulated by the Secretary, the Secretary may determine it is necessary to require the owner or operator of an activity to develop a Design Management Zone. The purpose of the Design Management Zone is to create an area within a large parcel of land; the boundaries at which the groundwater quality standards included in Appendix One of this Rule must not be reached or exceeded.

(a) The Design Management Zone for activities which may affect groundwater, and are subject to regulation by the Secretary, shall be an area enclosed by vertical boundaries which extend from the land surface downward through all water saturated geological formations. The Design Management Zone may extend horizontally beyond the regulated activity or waste boundary, for example, as shown in Figure 1 but not beyond a distance greater than 1/3 of the total distance to a compliance point (as defined in 12-801 (1)) other than the boundary of the Design Management Zone itself.* The waste boundary shall be the outermost limit at which waste from an activity has been stored, applied or disposed of, or permitted or approved for storage, application or disposal. For solid or hazardous waste facilities regulated under 10 V.S.A., Chapter 159, the waste boundary shall include the horizontal space taken up by any liner, dike or other barrier to contain the waste.

*Note: The purpose of the 1/3 maximum allowable distance provision is to allow enough time for the Secretary to select the proper response and for the response to take effect before beneficial uses are affected.

(b) In issuing or reissuing a permit, license or approval, the Secretary may approve, modify, expand, or reduce a Design Management Zone at each regulated or proposed activity.

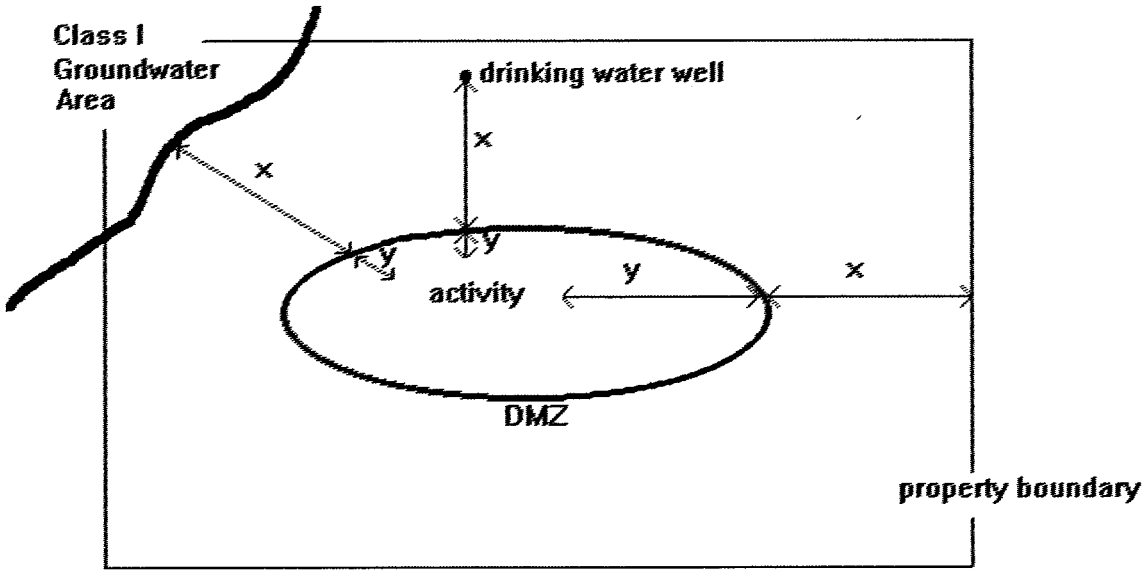
(c) The Secretary will consider the following factors in approving or modifying a Design Management Zone:

(i) Site topography;
(ii) Nature, thickness and permeability of unconsolidated materials;
(iii) Nature and permeability of bedrock;
(iv) Groundwater depth, flow direction and velocity;
(v) Waste volume, waste type and characteristics, including waste loading;
(vi) Contaminant mobility;
(vii) Distances to property boundary and surface waters;
(viii) Engineering design of the activity;
(ix) Life span of the activity;
(x) Present and anticipated use of land and groundwater;
(xi) Potential abatement options if an enforcement standard is reached or exceeded; and
(xii) Groundwater classification.

(2) The Secretary may require groundwater monitoring within a Design Management Zone to evaluate the fate and migration of substances and to help the Secretary determine if an enforcement standard has been or will be reached or exceeded at a compliance point.

(3) Design Management Zones are not intended for use in areas where the groundwater is already contaminated; but are intended for managing areas where new activities could affect groundwater quality.

Figure 1
EXAMPLE OF A DESIGN MANAGEMENT ZONE WITH
COMPLIANCE POINTS



x + y = the total distance from the activity to the compliance point
x must be greater than or equal to 2/3 of the total distance
y must be less than or equal to 1/3 of the total distance

NOT TO SCALE

Compliance Points for Enforcement Standards (see 12-801)

a) Any point of present use of groundwater as a source of potable water; and
b) any point at or within any Class I groundwater area; and either
c) any point at the boundary of the property on which an activity is located; or
d) any point within the property boundaries beyond the 3-dimensional Design Management Zone if one is established by the Secretary for a regulated activity.

12-803 Responses When a Preventive Action Level is Reached or Exceeded

(1) If groundwater monitoring indicates that the concentration of a waste in groundwater, including Indicator Parameters, for which monitoring was required by the Secretary, reaches or exceeds a preventive action level at a compliance point:

(a) The owner or operator of the activity shall notify the Secretary in writing in accordance with any deadlines in applicable statutes, rules, permits or plan approvals. Where no deadlines are imposed, the owner or operator shall notify the Secretary within five working days after receiving the results. The notification shall provide a preliminary analysis of the cause and significance of the concentration.

(b) Upon receipt of the notice under 12-803(1)(a), the Secretary will evaluate the information and if further information is required to make the assessment under 12-803(1) (c), may direct the owner or operator to prepare and submit a report by a specified deadline. The report shall assess the cause and significance of the increased concentration. The Secretary may require the regulated party to analyze and predict whether or not an enforcement standard will be reached or exceeded at a compliance point.

(c) The Secretary may assess the cause and significance of the concentration of the waste in determining the appropriate response measures. If a preventive action level is reached or exceeded at a monitoring point, the Secretary will determine whether the reaching or exceeding of the preventive action limit indicates the potential for an enforcement standard to be reached or exceeded at a compliance point. In addition to all other relevant information, the Secretary will consider the information submitted under 12-803(1)(a) and (b) and the following factors where applicable:

(i) Reliability of Sampling Data

As part of the review of the quality of the sampling data, the Secretary will evaluate the sampling procedures, precision and accuracy of the analytical test, size of the data set, and the quality control and quality assurance procedures used. If there is insufficient information to evaluate the reliability of the sampling data, the Secretary may require additional samples or other changes in the monitoring program at the activity.

(ii) Public Health, Welfare and Environmental Effects of the Substance

The Secretary shall consider the public health, welfare and environmental effects of the waste, including but not limited to its mobility in the subsurface, environmental fate, the risks considered when the standard

was adopted and whether it is carcinogenic, mutagenic, teratogenic or has interactive effects with other substances.

(iii) Performance of the Activity

The Secretary will consider whether the activity is performing as designed. The Secretary will consider the type, age and size of the activity; the type of design, if applicable; the operational history; and other factors related to performance of the activity as appropriate.

(vi) Other Known or Suspected Sources of the Substance in the Area

If other known or suspected sources are present in the vicinity of an activity of concern, the Secretary will evaluate the probability of contributions from other sources of the substance. The Secretary will consider, at a minimum, the number, size, type and age of nearby sources; the groundwater flow patterns; and the substances involved.

(v) Hydrogeologic Conditions

The Secretary will consider the geologic and groundwater conditions. This may include, but is not limited to, the following data: the nature, thickness and permeability of the unconsolidated materials; the nature and permeability of bedrock; the depth to the water table; groundwater flow gradients, both vertical and horizontal; the position of the activity within the groundwater flow system; and the present and potential groundwater use in the vicinity of the activity at which the groundwater quality standards are reached or exceeded. If there is insufficient hydrogeologic information, the Secretary may require additional information.

(2) Based on the evaluation of the report required under 12-803(1)(b) and the factors in 12-803(1)(c), the Secretary will specify the responses to be implemented by the owner or operator of the activity in order to prevent the groundwater quality from reaching or exceeding enforcement standards at a compliance point.

(3) The range of responses which the Secretary may take or may require the owner or operator to take if a preventive action level for a substance has been reached or exceeded, and the data indicate a probability that an enforcement standard will be reached or exceeded at a compliance point, may include, but are not limited to the following:

(a) No action;
(b) Sample wells or require sampling of wells;
(c) Require a change in the monitoring program, including increased monitoring;
(d) Require an investigation of the extent of groundwater contamination;
(e) Require a revision of the operational procedures at the activity;

(f) Require a change in the design or construction of the activity;
(g) Require an alternate method of waste treatment or disposal;
(h) Require prohibition or closure and abandonment of an activity;
(i) Require remedial action to renovate or restore groundwater quality;
(j) Revise rules or criteria on activity design, location or management practices; or
(k) Require other action as necessary to prevent the reaching or exceeding the groundwater quality enforcement standards at a compliance point.

(4) The Secretary may determine that no remedial action to restore groundwater quality is necessary if the enforcement standards will not be reached or exceeded at a compliance point as defined in 12-801.

(5) If the Secretary determines that the probable cause of reaching or exceeding a preventive action level for the substances listed in Appendix One is an activity over which the Secretary does not have statutory authority, the Secretary may:

(a) Notify the appropriate local, State, or Federal authorities of the factual evidence; and
(b) cooperate with the appropriate local, State, or Federal Authorities in determining appropriate action under 12-803(2).

12- 804 Responses When an Enforcement Standard is Reached or Exceeded

(1) Notification

When monitoring groundwater quality pursuant to this Rule or under other authorities of the Secretary, if the concentration of a substance in groundwater reaches or exceeds an enforcement standard the steps listed below will be followed:

(a) The owner or operator of the facility shall notify the Secretary in writing in accordance with applicable statutes, rules, permits or plan approvals. Where no deadlines are imposed, the owner or operator shall notify the Secretary within five working days of receiving the results. The notification shall provide a preliminary analysis of the cause and significance of the concentration of the substance(s) reaching or exceeding the groundwater quality enforcement standard.

(b) Upon receipt of the notice under 12- 804(1)(a), the Secretary will evaluate the information to determine if it is sufficient to make the assessment required under 12-804(1)(c). If further information is required to make this assessment, the Secretary may direct the owner or operator to conduct an investigation of the groundwater contamination and prepare and submit a report by a specified deadline. The report shall contain the information required to allow the Secretary

to make the assessment required by 12-804(1)(c). If the Secretary determines that the report is incomplete or incorrect, the Secretary may require the owner/operator to revise the report and resubmit it to the Secretary.

(c) The Secretary will assess the cause and significance of the increased concentration of the substance, will determine if the enforcement standards have or will be reached or exceeded at a compliance point, and may determine the source, fate and transport of the waste in the groundwater, in order to determine the appropriate action under applicable rules and regulations.

(2) Response

If the evaluation under 12-804(1) indicates that an enforcement standard has been reached or exceeded or will be reached or exceeded at a compliance point, the Secretary shall take action under applicable regulatory or statutory authority to achieve the goals listed in 12-804(3). These actions may include, but are not limited to:

(a) revision of the operational procedures at an activity;

(b) changing the design or construction of the activity;

(c) using an alternate method of waste treatment or disposal;

(d) closure and abandonment of an activity;

(e) remedial action to renovate or restore ground water quality;

(f) development of a system to contain the contamination within the compliance point locations; or

(g) allow natural attenuation of the contaminants in coordination with long term groundwater monitoring to track the contaminant or contaminants in the groundwater.

(3) Goals of Responding

The goals of responding under 12-804(2), are to manage groundwater consistent with its classification to prevent groundwater from reaching or exceeding an enforcement standard at a compliance point. If an enforcement standard has been reached or exceeded at a compliance point, the goal is to take appropriate action to return the groundwater quality to below enforcement standards, if possible.

(4) Determining a Response

In determining a response under 12-803(2) and in attempting to achieve the goals listed in 12-804(3), the Secretary should consider the following:

(i) Reliability of Sampling Data

As part of reviewing the quality of the sampling data, the Secretary will evaluate the sampling procedures, precision and accuracy of the analytical test, size of the data set, and the quality control and quality assurance procedures used. If there is insufficient information to evaluate the reliability of the sampling data, the Secretary may require additional samples or other changes in the monitoring program at the activity.

(ii) Public Health, Welfare and Environmental Effects of the Substance

The Secretary shall consider the public health, welfare and environmental effects of the waste, including but not limited to its mobility in the subsurface, environmental fate, the risks considered when the standard was adopted and whether it is carcinogenic, mutagenic, teratogenic or has interactive effects with other substances.

(iii) Performance of the Activity

The Secretary will consider whether the activity is performing as designed. The Secretary will consider the type, age and size of the activity; the type of design, if applicable; the operational history; and other factors related to performance of the activity as appropriate.

(vi) Other Known or Suspected Sources of the Substance in the Area

If other known or suspected sources are present in the vicinity of an activity of concern, the Secretary will evaluate the probability of contributions from other sources of the substance. The Secretary will consider, at a minimum, the number, size, type and age of nearby sources; the groundwater flow patterns; and the substances involved.

(v) Hydrogeologic Conditions

The Secretary will consider the geologic and groundwater conditions. This may include, but is not limited to the following data: the nature, thickness and permeability of the unconsolidated materials; the nature and permeability of bedrock; the depth to the water table; groundwater flow gradients, both vertical and horizontal; the position of the activity within the groundwater flow system; and the present and potential groundwater use in the vicinity of the activity at which the groundwater quality standards are reached or exceeded. If there is insufficient hydrogeologic information, the Secretary may require additional information.

(5) Non-regulated Activities

If an activity is not subject to regulation by the Secretary, and if the concentration of a substance in groundwater exceeds an enforcement standard, the Secretary may:

(a) notify the appropriate local, state, or Federal authorities of the factual evidence; and

(b) cooperate with the appropriate local, state, or Federal authorities in determining the appropriate action.

(6) Background Exceedences

In some cases, the background groundwater quality at an activity will naturally reach or exceed the enforcement standards in Appendix One. In these cases, the Secretary will not require the owner or operator of the activity to remediate the groundwater below the naturally occurring background groundwater quality.

APPENDIX ONE

Groundwater Quality Standards

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Acetone	700.0	350.0
Acifluorfen	1.0	0.1
Alachlor	2.0	0.7
Aldicarb	7.0	3.5
Aldicarb Sulfone	7.0	3.5
Aldicarb Sulfoxide	7.0	3.5
Aldrin	0.05	0.05
Alpha Particle Activity (Gross)	15 pCi/liter	5 pCi/liter
Ametryn	60.0	30.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Ammonium Sulfamate	2000.0	1000.0
Anthracene	2100.0	1050.0
Antimony	6.0	3.0
Arsenic	10.0	1.0
Asbestos	$7x10^6$ fibers/liter (>10 micron length)	$0.7X10^6$ fibers/liter (>10 micron length)
Atrazine	3.0	1.5
Azoxystrobin Technical	1476.0	147.6
Bacteria Total Coliform	Absent	Absent
Barium	2000.0	1000.0
Baygon	3.0	1.5

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Bendiocarb	3.0	1.5
Benefin	2100.0	1050.0
Benomyl	350.0	175.0
Bensulide	50.0	25.0
Bentazon	200.0	100.0
Benzene*	5.0	0.5
Benzo(a)pyrene	0.2	0.1
Beryllium	4.0	1.0
Beta Particle and Photon Radioactivity	4 millirems/yr	50 pCi/liter[1]

[1] The PAL has been established based upon the Safe Drinking Water Act monitoring requirements, not a percentage of the Enforcement Standard. Please see CFR 40 Section 141.16 and 141.26.

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Boron	600.0	300.0
Bromacil	90.0	45.0
Bromate	10.0	5.0
Bromochloromethane	90.0	9.0
Bromomethane	10.0	1.0
Bromoxynil	14.0	1.4
Butylate	350.0	175.0
Cadmium	5.0	2.5
Carbaryl	70.0	7.0
Carbofuran	40.0	20.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Carbon Tetrachloride*	5.0	0.5
Carboxin	700.0	70.0
Chloramben	100.0	50.0
Chloramines	70.0	35.0
Chlordane	2.0	0.44
Chlorite	1000.0	500.0
Chlorobenzene	100.0	50.0
Chloroisopropyl Ether(Bis-2)	300.0	150.0
Chloromethane	30.0	15.0
Chlorothalonil	1.5	0.15

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Chlorotoluene (ortho)	100.0	50.0
Chlorotoluene (para)	100.0	50.0
Chlorpyrifos	20.0	10.0
Chromium	100.0	50.0
Cimectacarb	1050.0	105.0
Clopyralid	330.0	165.0
Copper	1300.0	650.0
Cyanazine	1.0	0.5
Cyanide	200.0	100.0
Dacthal	7.0	0.7

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Dalapon	200.0	100.0
Dazomet	88.0	44.0
Di(2-ethylhexyl)adipate	400.0	200.0
Di(2-ethylhexyl)phthalate	6.0	3.0
Diazinon	0.6	0.3
Dibromochloropropane*	0.2	0.02
Dicamba	189.0	18.9
Dichlorobenzene (meta)	600.0	300.0
Dichlorobenzene (ortho)	600.0	300.0
Dichlorobenzene (para)	75.0	37.5

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Dichlorodifluoromethane	1000.0	500.0
Dichloroethane (1,1)	70.0	35
Dichloroethane (1,2)*	5.0	0.5
Dichloroethene (1,1)	7.0	0.7
Dichloroethene (cis-1,2)	70.0	35.0
Dichloroethene (trans-1,2)	100.0	50.0
Dichlorophenoxyacetic Acid (2,4)	70.0	7.0
Dichloroprop	140.0	14.0
Dichloropropane (1,2)*	5.0	0.5
Dichloropropene (1,3)	0.5	0.5

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Dieldrin	0.02	0.02
Dimethrin	2000.0	1000.0
Dinoseb	7.0	0.7
Dioxane (para)	20.0	20.0
Diphenamid	200.0	100.0
Diquat	20.0	10.0
Disulfoton	0.30	0.03
Diuron	10.0	5.0
Endothall	100.0	50.0
Endrin	2.0	1.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Ethofumesate	280.0	28.0
Ethoprop	1.0	0.1
Ethylbenzene	700.0	350.0
Ethylene Dibromide	0.05	0.01
Ethylene Glycol	7000.0	700.0
Ethylene Thiourea	5.0	5.0
Etridiazole	1.0	0.1
Fenamiphos	2.0	1.0
Fenarimol	630.5	315.25
Fluometuron	90.0	45.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Fluoranthene	280.0	140.0
Fluorenes	280.0	140.0
Fluoride	4000.0	2000.0
Flurprimidol	700.0	350.0
Flutolanil	1400.0	140.0
Fluvalinate	70.0	35.0
Fonofos	10.0	5.0
Formaldehyde	1000.0	100.0
Fosetyl-Al	2343.0	234.3
Glufosinate-ammonium	20.0	10.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Glyphosate	700.0	350.0
Haloacetic Acids (Total)	60.0	6.0
Halofenozide	46.0	23.0
Halosulfuron-methyl	990.0	495.0
Heptachlor	0.4	0.088
Heptachlor Epoxide	0.2	0.06
Hexachlorobenzene*	1.0	0.22
Hexochlorobutadiene	1.0	0.5
Hexachlorocyclopentadiene	50.0	25.0
Hexane (n)	420.0	210.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Hexazinone	200.0	100.0
Imidacloprid	93.0	9.3
Iprodione	280.0	140.0
Isophorone	100.0	50.0
Isoxaben	175.0	17.5
Lead	15.0	1.5
Lindane	0.2	0.1
Maleic Hydrazide	4000.0	400.0
Maneb	35.0	17.5
Manganese	840.0	420.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
MCPA	10.0	1.0
Mecoprop	35.0	3.5
Mercury	2.0	0.5
Metalaxyl	350.0	35.0
Methomyl	200.0	100.0
Methoxychlor	40.0	4.0
Methyl Ethyl Ketone	4200.0	2100.0
Methyl Isobutyl Ketone	560.0	280.0
Methyl Parathion	2.0	1.0
Methyl-tert-butyl Ether	40.0	20.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Methylene Chloride	5.0	0.5
Metolachlor	70.0	35.0
Metribuzin	32.5	16.25
Molybdenum	40.0	20.0
Myclobutanil	120.0	12.0
Naphthalene	20.0	10.0
Napropamide	70.0	35.0
Nickel	100.0	50.0
Nitrate	10000.0	5000.0
Nitrates + Nitrites (total)	10000.0	5000.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Nitrites	1000.0	500.0
Ortho-phenylphenol	18.0	9.0
Oxamyl	200.0	100.0
Paclobtrazol	455.0	45.5
Paraquat	30.0	3.0
Perfluorooctanesulfonic acid (PFOS) ***	0.02	0.01
Perfluorooctanoic acid (PFOA)***	0.02	0.01
Perfluorohexane sulfonic acid (PFHxS)***	0.02	0.01
perfluoroheptanoic acid (PFHpA)***	0.02	0.01
perfluorononanoic acid (PFNA)***	0.02	0.01

Pendimethalin	280.0	140.0
Pentachloronitrobenzene	6.0	3.0
Pentachlorophenol	1.0	0.3
Phenol	2100.0	210.0
Picloram	500.0	250.0
Polychlorinated Biphenyls	0.5	0.25
Prometon	100.0	50.0
Pronamide	50.0	25.0
Propamocarb hydrochloride	924.0	92.4
Propachlor	90.0	45.0
Propazine	10.0	5.0
Propham	100.0	50.0
Propiconazole	104.0	10.4

Propham	100.0	50.0
Quinclorac	369.0	184.5
Radium (Combined 226 + 228)	5 pCi/liter	0.5pCi/liter
Selenium	50.0	25.0
Simazine	4.0	2.0
Styrene	100.0	50.0
Tebuthiuron	500.0	250.0
Terbacil	90.0	45.0
Terbufos	0.9	0.45
Tetrachlorodibenzo-p-Dioxin (2,3,7,8)	0.00003	0.000011
Tetrachloroethane (1,1,1,2)	70.0	35.0
Tetrachloroethylene*	5.0	0.5

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Thallium	2.0	1.0
Thiophanate Methyl	560.0	280.0
Thiram	35.0	3.5
Toluene	1000.0	500.0
Toxaphene	3.0	2.2
Triadimefon	10.0	1.0
Trichlorfon	1.5	0.15
Trichlorobenzene (1,2,4)	70.0	35.0
Trichlorobenzene (1,3,5)	40.0	20.0
Trichloroethane (1,1,1)	200.0	100.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Trichloroethane (1,1,2)	5.0	2.5
Trichloroethylene	5.0	0.5
Trichlorofluoromethane	2100.0	1050.0
Trichlorophenoxyacetic Acid (2,4,5)	70.0	7.0
Trichlorophenoxypropionic (2,4,5)	50.0	25.0
Trichloropropane (1,2,3)	5.0	0.5
Triclopyr	487.0	243.5
Trifloxystrobin	410.0	205.0
Trifluralin	5.0	2.5
Trihalomethanes (Total) Comprised of Bromodichloromethane, Bromoform, Chloroform, and	80.0	8.0

TABLE 1
Primary Groundwater Quality Standards

Substance	Enforcement Standard (micrograms per liter (=ppb), except as noted)	Preventive Action Level** (micrograms per liter (=ppb), except as noted)
Dibromochloromethane.		
Trimethylbenzene (1,2,4)	5.0	2.5
Trimethylbenzene (1,3,5)	4.0	2.0
Uranium	20.0	2.0
Vinyl chloride*	2.0	0.5
Xylenes	10000.0	5000.0
Zineb	350.0	175.0

*Contaminants of special concern to the Department of Environmental Conservation and the Department of Health. Contact the Department of Environmental Conservation if these contaminants are found in a drinking water source for additional information concerning resampling and risk notification.

** Where the PAL is below the substance's detection limit, the PAL has been redefined at the detection limit.

*** For PFOA, PFOS, PFHxS, PFHpA, and PFNA, the standard of 0.02 ppb also applies to the sum of the listed per and poly fluorinated alkyl substances (e.g. if the PFOA concentration is 0.015 ppb and the PFOS concentration is 0.006 ppb then there is an exceedance of the standard).

TABLE 2
Secondary Groundwater Quality Standards

Substance	Enforcement Standard (milligrams per liter - except as noted	Preventive Action Level (milligrams per liter - except as noted)
Aluminum	0.2	0.1
Chloride	250	125
Color	15 color units	7.5 color units
Copper	1.0	0.5
Fluoride	2.0	1.0
Foaming Agents MBAS (Methylene-Blue Active Substances	0.5	0.25
Iron	0.3	0.15
Manganese	0.05	0.025
Odor	3 (Threshold Odor No.)	1.5 (Threshold Odor No.)
Silver	0.1	0.05
Sodium	250	125
Sulfate	250	125
Total Dissolved Solids (TDS)	500	250
Zinc	5	2.5

Note: An activity shall not cause the groundwater quality to reach or exceed the secondary enforcement standards or 110% of the secondary background groundwater quality standards established under 12-704, whichever is greater.

TABLE 3
Maximum Acceptable Change for Indicator Parameters

Parameter	Maximum Acceptable Change (mg/l - excepted as noted)
Alkalinity	100
Biochemical Oxygen Demand (BOD_5)	25
Chemical Oxygen Demand (COD)	25
Potassium	5
Sodium	10
Field Specific Conductance	100 micromhos/cm
pH	1 pH unit
Temperature	10EF (5.6EC) or 3 standard deviations
Total Hardness (as $CaCO_3$)	100
Total Organic Carbon (TOC)	1
Total Organic Halogen (TOX)	0.25

APPENDIX TWO

Acceptable and Unacceptable Activities

The following activities are those which the Secretary has determined are acceptable or unacceptable activities in specific groundwater classes. The Secretary may identify specific activities which are acceptable activities in a reclassification decision.

(1) Class I Groundwater Areas

All human activities in Class I groundwater areas are unacceptable activities except:

(a) Any activities approved or permitted by the Secretary which are necessary to operate and maintain a public water supply system;

(b) Outdoor recreational activities such as fishing, hiking, hunting, skiing, snowshoeing, trapping, and during periods of snow cover, snowmobiling; which do not cause or allow disposal of wastes or otherwise threaten groundwater quality. This subsection shall not be construed to permit the operation of all terrain vehicles or motorcycles.

(c) When consistent with Accepted Agricultural Practices (AAP), the low density pasturing of livestock, at a density not to exceed that approved by the Vermont Agency of Agriculture, the liming, mowing or clipping of pastures and maple sap collection;

(d) When consistent with Acceptable Management Practices (AMP), the harvesting of trees by the selection method for lumber, fiber, or fuel, and Christmas tree production from wild uncultivated stands; and

(e) Other activities identified by the Secretary in the classification decision.

(2) Class II Groundwater Areas

(a) Unacceptable Activities

(i) the construction of new or expanded use of unpermitted injection wells; unsewered floor drains; construction and demolition debris disposal facilities; municipal solid waste disposal facilities; hazardous waste disposal facilities;

(ii) new improperly constructed or protected wells;

(iii) the installation of new underground storage tanks not meeting the Agency's underground storage tank criteria pursuant to Chapter 8 of the Environmental Protection Rules;

(iv) any activity which results in discharges to the groundwater of any hazardous or radioactive waste.

(v) new subsurface ground water discharges of sewage from individual residences which do not meet the Secretary's sewage disposal rule criteria;

(vi) new stockpiles of highway deicing salt or salted sand piles;

(vii) new pit privies;

(viii) new junkyards; and

(ix) new commercial storage or mixing facilities for fertilizers, pesticides or other hazardous materials.

(b) Acceptable Activities:

The following activities are Acceptable Activities for Class II groundwater.

(i) Accepted Agricultural Practices insofar as they give due consideration to protecting groundwater quality, unless the Secretary, with the consent of the Commissioner of Agriculture, Food and Markets, finds that a specific practice has exceeded or threatens to exceed the groundwater quality enforcement standards in Appendix One;

(ii) Acceptable Management Practices (AMP) for forestry insofar as they give due consideration to protecting groundwater quality, unless the Secretary, in consultation with the Commissioner of Forests, Parks and Recreation, finds that a specific practice has exceeded or threatens to exceed the groundwater quality enforcement standards in Appendix One;

(iii) Activities which are permissible in Class I ground water areas as provided in Section 1 of Appendix Two; and

(iv) Treatment/disposal systems for sanitary wastewater that are 1000 gallons per day or less, when design, location, and construction standards meet the Secretary's sewage disposal rules.

(v) Replacement treatment/disposal systems for sanitary wastewater when

permitted by the Secretary when design, location and construction standards meet the Secretary's sewage disposal rules.

(3) Class III Groundwater

(a) Unacceptable Activities

Any activity which results in discharges to the groundwater of any hazardous or radioactive waste is prohibited in a Class III groundwater area.

(b) Acceptable Activities

The following activities are Acceptable Activities for Class III groundwater:

(i) Accepted Agricultural Practices insofar as they give due consideration to protecting groundwater quality unless the Secretary, with the consent of the Commissioner of Agriculture, Food, and Markets finds that a specific practice has exceeded or threatens to exceed the groundwater quality enforcement standards in Appendix One.

(ii) Acceptable Management Practices (AMP) for forestry insofar as they give due consideration to protecting groundwater quality, unless the Secretary, in consultation with the Commissioner of Forests, Parks and Recreation, finds that a specific practice has exceeded or threatens to exceed the groundwater quality enforcement standards in Appendix One;

(iii) Treatment/disposal systems for sanitary waste water only when design, location and construction standards meet the Secretary's sewage disposal rules.

(iv) The application of sewage treatment plant sludge, septage and dairy wastes for crop production and soil enhancement when:

(A) the activity is permitted by the Secretary;
(B) the adjacent groundwater quality is monitored for nitrate concentrations and other constituents as the Secretary may require in both upgradient and downgradient directions; and
(C) there is no evidence of exceeding the groundwater quality enforcement standards at any compliance point in Appendix One.

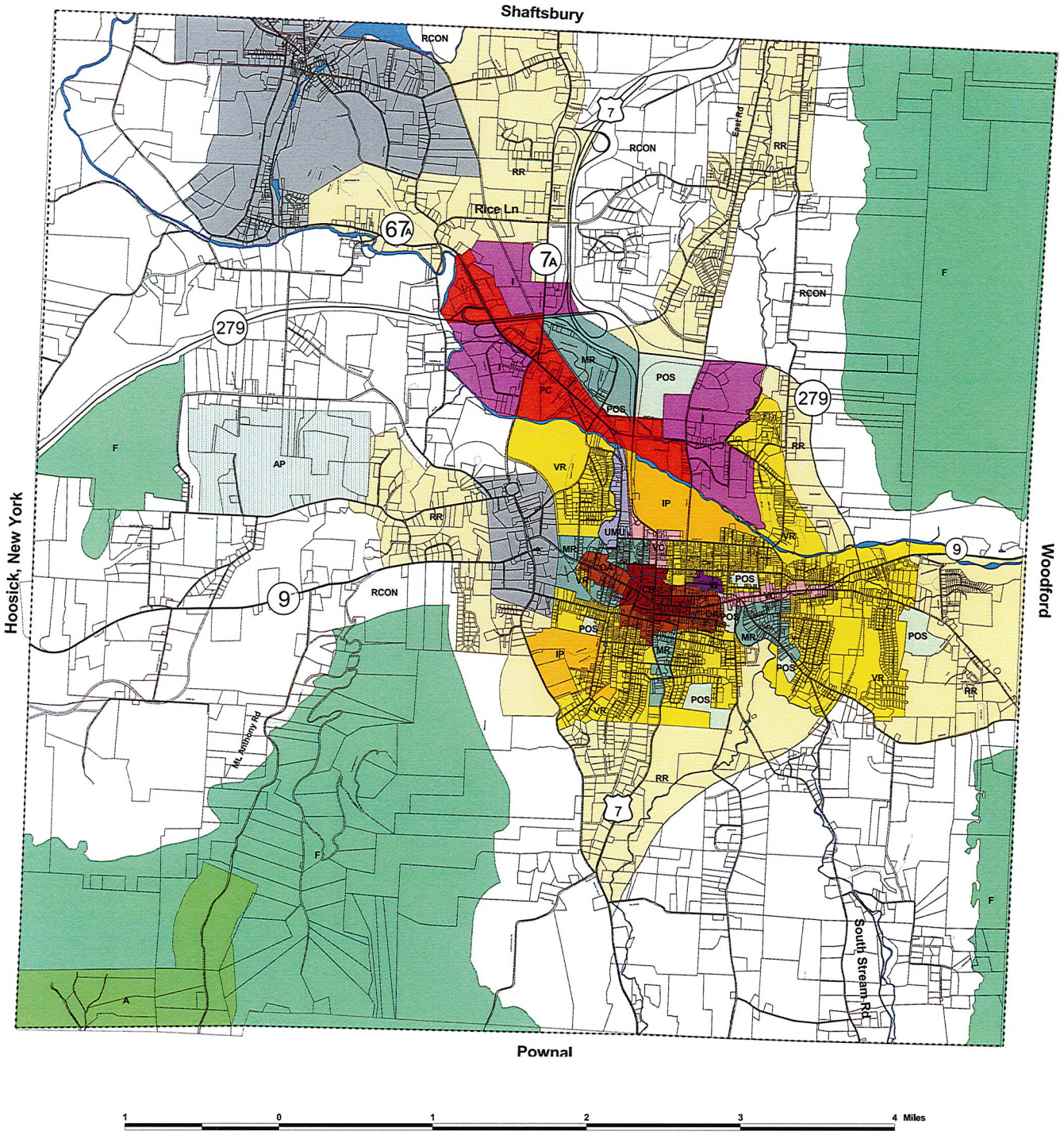
(v) Activities which are Acceptable Activities in Class I and II groundwater areas as provided Section 1 and 2 of Appendix Two.

(vi) Land surface or subsurface discharges of treated industrial type, non-sanitary waste waters when treatment achieves an effluent quality prior to discharge which does not reach or exceed any groundwater quality enforcement standard listed in Appendix One.

(4) Class IV Groundwater Areas

Acceptable and Unacceptable Activities for Class IV Groundwater will be based upon Section 12-504.

- End of Chapter 12 -



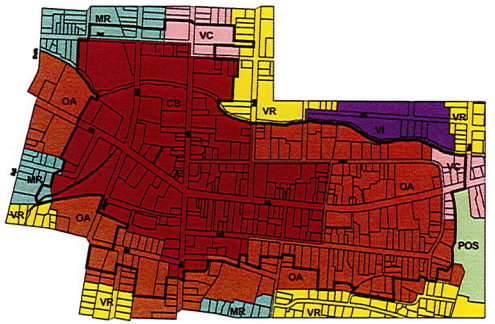
Map 3.2
LAND USE PLAN
Bennington, Vermont

Parcels.shp

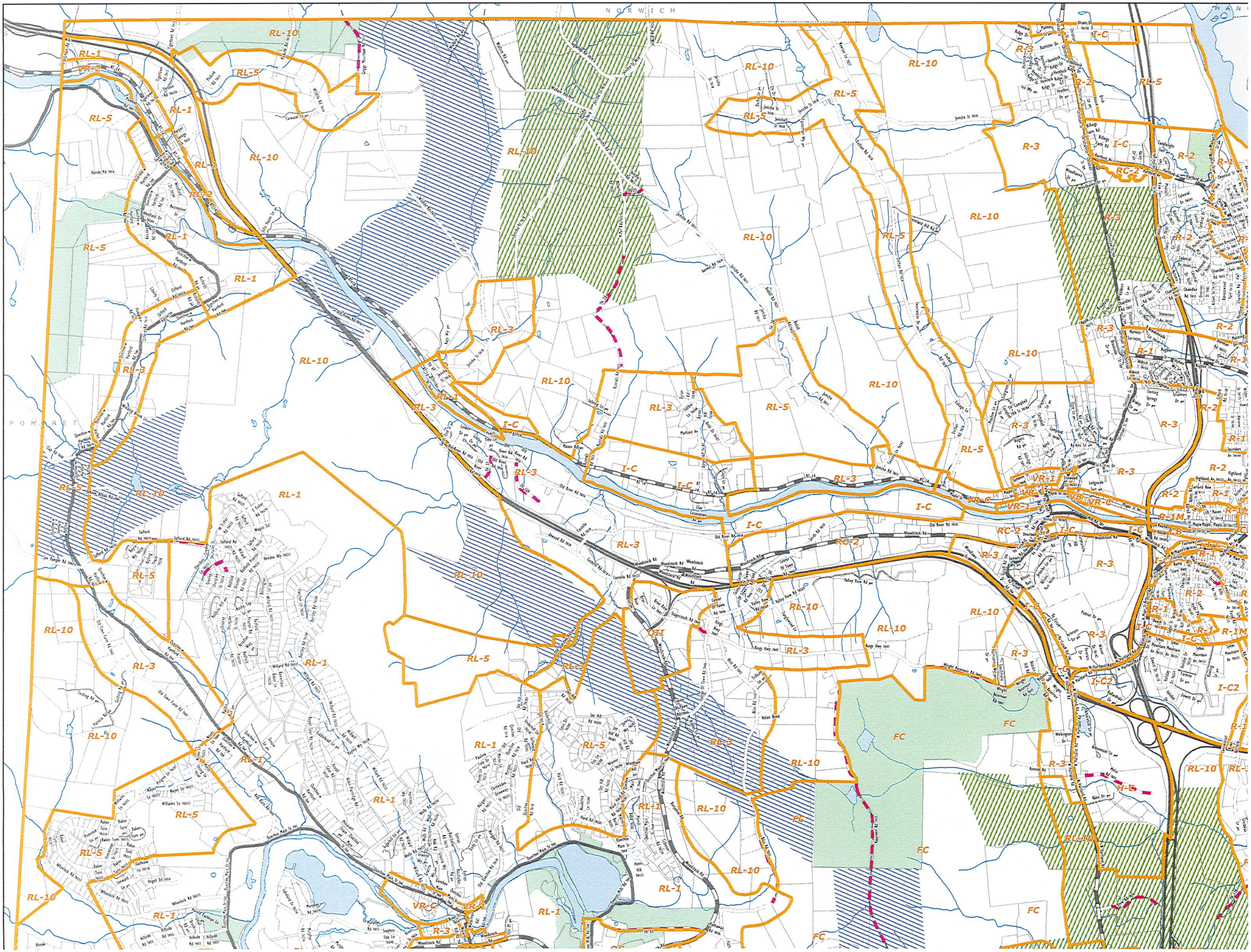
Land Use Districts

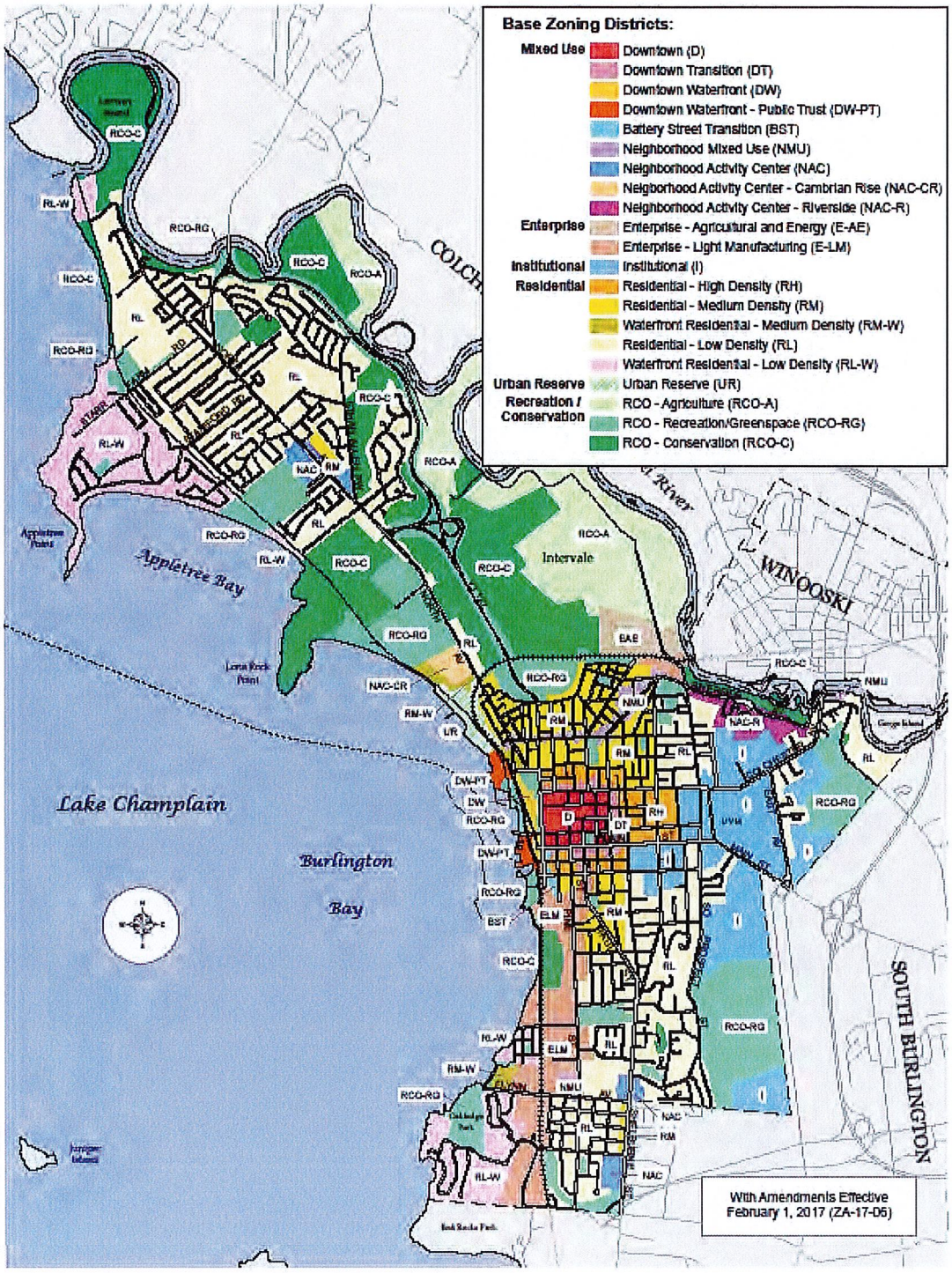
- Rural Conservation
- Rural Residential
- Village Residential
- Mix Residential
- Office and Apartment
- Institutional and Professional
- Village Commercial
- Planned Commercial
- Central Business
- Industrial
- Village Industrial
- Urban Mixed Use
- Agricultural
- Forest
- Public Open Space
- Planned Airport
- North Bennington
- Old Bennington

Downtown Improvement District Boundary



Map produced July 14, 2010 by
Bennington County Regional Commission
111 South Stret, Suite 203


NORWICH
POMFRET
RL-1
RL-3
RL-5
RL-10
RC-2
I-C
I-C2
R-1
R-2
R-3
VR-1
VR-C
FC
OH



Map 4.3.1-1 Base Zoning Districts

PART 4: BASE ZONING DISTRICT REGULATIONS

Bylaw update status as at 7/25/2019

Bylaw Section	Not done	Maybe done	Done	Unchanged?	Hearing done	Related Subdiv Reg	
1.1 Authority							
1.2 Purpose						120	
1.3 Application of Regulations							
1.4 Interpretation							
1.5 Adoption and Amendments; Effective Date							
1.6 Severability							
2.1 Introduction and Table of Districts and Uses							
2.2 Zoning Map and Interpretation							
2.3 Lot in Two Districts							
2.4 Expansion of Minimum Lot Size							Eliminated
2.5 Table of Districts and Uses							
2.5.1 Village (v) – Ascutney						320.8, 330.1(a)	Merge both into one village zone?
2.5.2 Village (V) – Perkinsville						320.8, 330.1(a)	Village done March 11; 0.3 ac; 12.5 ft s/b, 10 s/b front
2.5.3 Hamlet (H)						320.8, 330.1(b)	
2.5.4 Rural Residential (RR-1)						330.1(c)	
2.5.5 Rural Residential Reserve (RRR 3-5)						330.1(d)	
2.5.6 Conservation (C-10)						330.1(d)	
2.5.7 Highway Commercial (HC)						330.1(e)	
2.5.8 Industrial (I)						330.1(e)	
3.1 Required Frontage On, or Access To, Public Roads							
3.1.1 Driveways							
3.2 Conservation of Natural Resources						320, 120(6)	
3.2.1 Agricultural Zoning						Appx A Farmland, Prim. Soils	Final version to be considered August 12
3.2.2 Biological Natural Areas Survey, 1992						320.5	Keep - useful for State permit review process
3.2.3 Connecticut River							Finished December 10 (with River Corridors)
3.2.4 Habitat Areas						320.5, Appx A Wild Habitat	
3.2.5 Pond Construction							
3.2.7 Steep Slopes and High Elevation						320.4, Appx A	
3.2.8 Streambank Conservation						320.3	
3.2.9 Wetlands						320.3	
3.3 Damaged Structures							
3.4 Nonconformities							
3.4.1 Nonconforming Lots and Parcels							
3.4.1.1 Existing Small Lots							
3.4.1.2 Merger, any district							
3.4.2 Nonconforming Structures							
3.4.3 Nonconforming Uses							
3.5 Off-Street Parking							
3.5.1 General Standards							
3.5.2 Specific Standards							
3.5.3 Waivers							
3.6 Outdoor Lighting							
3.6.1 General Standards							
3.6.2 Home Business, Commercial and Industrial Uses							
3.6.3 Private Roadways							
3.7 Performance Standards							
3.7.2(a) Noise Pollution -> Unreasonable Noise							
3.7.2(b) Vibration							
3.7.2(c) Smoke, dust, odors, noxious gases							
3.7.2(d) Heat, cold, moisture, mist, fog, precip.							
3.7.2(e) Electromagnetic disturbances/signals							
3.7.2(f) Glare, light or reflection							
3.7.2(g) Liquid or solid wastes or refuse							
3.7.2(h) Fire, safety, explosive or other hazard							
TABLE: Permitted Noise Levels	To be eliminated per new "unreasonable noise" bylaw?						

3.8 Signs							
3.8.1 General Standards: Applicable in all Zoning Districts							
3.8.2 Home Occupation Signage							
3.8.3 Home Business Level 1 Signage							
3.8.4 Home Business Level 2 Signage							
3.8.5 Commercial / Industrial Signage							
4.1 Accessory Dwelling Unit							
4.1.1 Definitions							
4.1.2 General Standards							
4. Airport Uses							Overlay district map done & zoning modeled on Spring
4.2 Day Care Facilities							
4.2.1 Child Day Care							
4.2.2 Adult Day Care							
4.3 Extraction of Earth Resources							
4.4 Gasoline Station / Convenience Stores							
4.4.1 General Standards							
4.5 Home-Based Occupation and Home-Based Business							
4.51 Definitions and General Standards							
4.5.2 Home-Based Occupation							
4.5.3 Home-Based Business-Level 1							
4.5.4 Home-Based Business-Level 2							
4.6 Junkyards, Scrap Materials, Recycling Facilities, and Landfills (privately owned)							
4.7 Low and Moderate Income Housing							
4.8 Mobile Homes and Modular (or Prefabricated) Housing							
4.9 Mobile Home Parks							Looks OK but may want to review
4.10 Public Utility Substations							
4.11 Renewable Energy Production							
4.12 Seasonal Road Stands							No definition; State just introduced "Accessory on farm
4.13 Self-Storage Facility							
4.14 Storage of Flammable Liquids and Gases							
4.15 Subdivision of Lots							
4.16 Temporary Uses and Structures							
4.17 Travel Trailer Camping Areas							
4.18 Travel Trailers/Camping Vehicles							
4.19 Wireless Communication Facilities							
4.19.1 Wireless Communications Facilities							
4.19.2 Wireless Telecommunications Facilities							
4.20 Renewable Energy Systems							
4.20.1 Definitions							
4.2.2 Small-Scale Renewable Energy Systems							"Installations on historic structures or prime agricultur
4.2.3 Large-Scale Renewable Energy Systems							
4.2.4 General Standards							
5.1 Application Submission Requirements							
5.1.1 Permitted Uses							Dimensions of sketch plan 8.5 x 11?
5.1.2 Site Plan Review							
5.1.3 Conditional Use Review							
5.1.4 PUD Review						320.8	
5.1.5 Flood Permit Review							"Flood Hazard Area District" not defined
5.2 Permitted Use Review							
5.3 Site Plan Review						230, 240, 250, 310	
5.3.1 Compatibility with surrounding development							
5.3.2 Traffic access and circulation						370.7	
5.3.3 Protection of natural resources						320	1992 Biological Natural Areas
5.3.4 Storm water management and drainage						370.8, 360	
5.3.5 Landscaping and screening						310.5	
5.4 Conditional Use Review							
5.5 Combined Review							
5.6 Planned Unit Development						310.2, 210.4, 320.8	
5.6.1 Purpose							

5.6.2 Applicability							
5.6.3 PUD Review Procedures							
5.6.4 General Standards							
5.6.5 Standards for Residential PUDs							
5.6.6 Modification of Zoning Regulations							
5.6.7 Decisions							
5.6.8 Legal Requirements							
5.7 Flood Plains and Floodways							320.3, Appx A Floodplains
5.7.1 Statutory Authorization and Effect							320.3
5.7.2 Statement of Purpose							320.3
5.7.3 Other Provisions							320.3
5.7.4 Lands to Which these Regulations Apply							320.3
5.7.5 Development Review in Hazard Areas							320.3
5.7.6 Development Standards							320.3
5.7.7 Administration							320.3
5.7.8 Certificate of Occupancy							320.3
5.7.9 Enforcement and Penalties							320.3
6.1 Municipal Appointments							
6.1.1 Administrative Officer							410.1
6.1.2 Planning Commission							410.2 Should Planning Commission be given site plan review
6.1.3 Board of Adjustment							410.3
6.1.4 Advisory Commissions							
6.2 Permit Requirements							May want to add "Cert. of conformance" language her
6.2.1 Applicability							
6.2.2 Exemptions							
6.2.3 Limitations							
6.2.3 Issuance							
6.2.4 Effective Date							
6.2.5 Permit Notice Posting Requirement							
6.2.6 Permit Expiration							
6.3 Public Hearings							430.2
6.3.1 Public Notice							430.1
6.3.2 Hearings							430.2
6.3.3 Decisions							430.3
6.3.4 Recording Requirements							
6.4 Deed Restrictions							
6.5 Other Town Regulations							
6.6 Certificate of Conformance							
6.7 Certificate of Occupancy							
Ambiguity clause / interpretation in favor of applicant							Set forth on March 11 agenda
6.8 Appeals							450
6.8.1 Administrative Officer Actions							
6.8.2 Interested Persons							450.3
6.8.3 Notice of Appeal							
6.8.4 Appeals to Environmental Court							
6.9 Waivers							Setback waivers
6.9.1 Purpose							
6.9.2 Allowable Waivers							
6.9.3 Review Procedures							
6.9.4 Standard of Review							
6.9.5 Decisions and Conditions of Approval							
6.10 Variances							unchanged from past language
6.10.1 Variance Criteria							
6.10.2 Variances for Renewable Energy Structures							
6.10.3 Variances within the Flood Hazard Area							
6.11 Violations and Enforcement							440
6.11.1 Violations							
6.11.2 Notice of Violation							
6.11.3 Limitations on Enforcement							

Article 7: Definitions		
A Zone		flood related
Abandoned Structure		
Accessory Structure		
Accessory Use		
Affordable Housing		Maybe just reference statute here
Affordable Housing Development		Maybe just reference statute here
Agriculture Use		Maybe just reference statute here
Airport Uses		
Appropriate Municipal Panel		
Area of Special Flood Hazard		flood related
Athletic Courts		
Average Grade		
Background Noise		
Bankfull Width		
Base Flood		flood related
Base Flood Elevation		flood related
Basement		
Bed and Breakfast		
Boarding House		Should probably delete
Buffer		defined
Building		
Building or Structure Height (now separate)		
Cemetery		Does this need defining? Probably not.
Channel		
Common Plan of Development		
Community Non-profit		Replaces "Semi-public"
Contractor's Storage Yard		
Coverage		
Critical Facilities		defined, not referenced elsewhere in bylaws
Daytime Hours		
Decibel		
Development		defined
Development in the areas of special flood hazard		flood related
District, Zoning District		
Dwelling, Dwelling Unit		
Emitter		
Excessive Noise		Does this need updating to reflect new "unreasonable
Existing Small Lot		
Existing manufactured home park or subdivision		
Family		Probably should be deleted
Family Child Care Home		
Family Child Care Facility		
Farming		Probably should be deleted
Farming structure		Probably should be deleted
Fill		
FIRM		flood related
Flood		flood related
Flood Insurance Study		flood related
Floodway		flood related
Fluvial erosion		flood related
Fluvial Geomorphic Equilibrium		flood related
Formula Business		added July 31 per PC discussions: re: small enterprise
Frontage		
Functionally dependent use		Only defined, not used elsewhere
Gasoline/Service Station		
Group Home		
Guest House		Only defined, not used elsewhere
Hazardous Materials		
Highway-Commercial		
Historic Structure		
Home-Based Business		Redundant definition - already defined in section 4.5.2
Home-Based Occupation		Redundant definition - already defined in section 4.5.2
Impulse Noise		
Indoor Recreational Facility		
Industry		Not referenced anywhere in bylaws
Inn/Small hotel		
Insignificant Activities and/or Repairs		Anything else to add to this? Flood related
Junkyard		Update to match state definition of salvage yard?
Land Development		
Letter of Map Amendment		flood related
Light Industry		Defined, not used elsewhere in bylaws
Lot		
Lot Size		
Lowest Floor		flood related
Lumber Yard		
Manufactured Home (or Mobile Home)		"Designed for use with or without permanent chassis"
Manufactured Home Park or Subdivision		
Mean Sea Level		flood related

Medical Facility							
Minor Structure							
Mobile Home							
Mobile Home Park							
Modular (or Prefabricated) Housing							
Motel							
Multi-family Dwelling							
Municipal Land Use Permit							
New construction							flood related
New Manufactured Home Park or Subdivision							flood related
Nightclub or Bar							
Noise Zone							
Nonconforming Lots or Parcels							
Nonconforming Structure							
Nonconforming Use							
Nonconformity							
Non-highway Commercial							
Non-Residential							
Outdoor Recreation Facility							
Planned Residential Development						210.4	
Planned Unit Development						210.4	
Pre-existing							
Prime Agricultural Land						defined	Update to reflect whatever new "agricultural soils" byl
Public Water						defined	
Receptor							
Recreational Vehicle							
Regular High Water Mark							
Renewable Energy Resources							
Residential Care Home							Refers to people "unrelated" to home operator -- shou
Residential, Single-Family							Refers to "family" definition -- should this be changed?
Residential Structure							
Residential, Multi-Family							Refers to "family" definition -- should this be changed?
Residential, Two-Family							"A legitimate home occupation is optional"
River Corridor							
School							
Self-Storage Facility							
Setback							
Sign							
Small Enterprise							Added by PC
Small Office							Only reference: As permitted use in Industrial district
Sound Level Meter							Maybe delete; refers to specific ANSI standard
Special Flood Hazard Area							
Start of Construction							flood related
Stream							
Structure							
Structural Development							
Subdivision						defined	
Substantial damage							
Substantial improvement							
Telecommunications Facility							
Top of Bank							
Travel Trailer							flood related?
Use, Associated							
Use, Conditional							
Use, Permitted							
Variance							
Violation							flood related
Wetlands							Delete or replace with reference to statute / reference
Wireless Communications Facility							statutory?
Wireless Telecommunication Facility							statutory?