MEMORANDUM

To: Anne Capra, South Hadley Director of Planning and Conservation

From: Patty Gambarini, Pioneer Valley Planning Commission

Re: District Local Technical Assistance FY21 – Resource Based Water Supply Protection Strategy for Dry Brook Well

Date: December 30, 2021

Background----------

The Town of South Hadley Planning and Conservation Department requested District Local Technical Assistance from PVPC to help in developing a comprehensive strategy for protection of the District #2 public water supply recharge area (for wells 04G and 05G). Toward this aim, PVPC focused on four tasks: locate, review, and summarize key technical documents describing the nature of groundwater supply provided by the Dry Brook area; inventory and map the natural, scenic, and recreational assets and values of the Mount Holyoke Range; assess existing regulatory tools and other aspects of land ownership; compile a report, describing the major findings from previous tasks and specifically a discussion about the level of protections provided and limitations of existing regulatory mechanisms and recommendations.

Review of technical documents (and interviews)----------

Summary

As part of understanding protection issues and needs for the Dry Brook Wells water supply, PVPC reviewed 11 documents. Appendix A includes key information pulled from these documents that characterize groundwater supply and future plans articulated by the Town. Note that 5 of the documents reviewed (#3 through 7) stem from the North Pole Estates development proposal. PVPC combed these documents for any additional information that might be helpful to understanding supply from the Dry Brook well.

1. 2004 – USGS Delineation of Areas Contributing Water to the Dry Brook Public Supply Well, South Hadley, MA
2. 2003 - Source Water Assessment and Protection (SWAP) Report for South Hadley Fire District No. 2 (November 2003) Massachusetts Department of Environmental Protection.
3. October 23, 2019 - O'Reilly, Talbot & Okun Hydrogeological Assessment Study for North Pole Estates Subdivision

4. June 11, 2020 - Letter to South Hadley Planning Board from Mount Holyoke College Professor of Geology Al Werner on Dry Brook Hill
5. March 2, 2021 - Summary of Supplemental Hydrogeologic Analyses – McLane Environmental
6. March 8, 2021 – Comments and Observations by Stephen P. Garabedian, PhD, on the "Summary of Supplemental Hydrogeologic Analyses Proposed North Pole Estates Subdivision by McLane Environmental for Chicopee Concrete Services
7. March 17, 2021 – Weston & Sampson Summary of Peer Review of McLane Environmental Groundwater Modeling Efforts for the Proposed North Pole Estates Project
8. April 6, 2020 – Letter from MassDEP Drinking Water Program's Catherine Hamilton to Fire District #2 Superintendent Mark Aiken
9. May 2020 - Community Resilience Building Workshop Summary of Findings
10. December 2020 Draft - South Hadley Master Plan
11. 2019 - South Hadley Open Space & Recreation Plan

To further inform project work, PVPC worked with Planning and Conservation Director Anne Capra to conduct two interviews. One interview occurred on October 6, 2021 with District #2 Superintendent Mark Aiken and the second interview occurred on November 10, 2021 with State Geologist Stephen Mabee and Smith College Geologist Emeritus Robert Newton. PVPC conducted another separate interview with MassDEP's Catherine Skiba that included a few questions about South Hadley. Appendix B includes notes from all three interviews.

Highlights

Not much has changed in terms of modeling for the Dry Brook Wells since the 2004 USGS study other than analysis can be done so much more easily these days. The graphical interface has been enhanced and ease of analysis so much easier. (UMass Professor of Geoscienices Dave Boutt is the person to provide greater specifics on this as he does a lot of modeling.)

MassDEP has noted that South Hadley had unique help in defining the Zone II through the 2004 USGS study. Most Zone IIs in the region were defined through an analytical model (consideration of geology and extent of aquifer and some conceptual). With the USGS study in South Hadley, there was a numerical model (using ModFlow). The approach used the same criteria, but entailed a 3D numerical model, providing more exact results.

The areas most directly connected to supply at the Dry Brook well are:

- Dry Brook Hill area, where soils are most permeable (90% at lower pumping rates and 49% at higher pumping rates – qualified as "recharge and boundary flow") also with recharge rates decreased by 25%, the extent of the area increased south and east across Dry Brook Hill

- the Connecticut River beyond the extent of the confining bed where the aquifer is in hydraulic connection to the river (10% at lower pumping rates and 51% at higher pumping rates)

In its analysis, USGS also observed that Dry Brook itself had gains and losses in flow along its length, indicating a significant interaction between surface and ground water.

Another possible source of supply could be deep in bedrock. The geology of this area in the Connecticut River Valley is known for large bedrock fractures. Both State Geologist Stephen Mabee and Smith College Geologist Emeritus Robert Newton said that water supply could be moving in from far away through these fractures. As such, they had no recommendation to revise the boundaries of the water supply protection district.

The 2004 USGS mentions fractures associated with the various types of bedrock in the analysis. The bedrock section of the report also notes the following: "The northwest-southeast trending low in the bedrock surface that forms the gap in the Holyoke Range, through which the Connecticut River flows, extends between the west side of Dry Brook Hill and is most likely a fault or fracture zone." The 2019 Hydrogeological assessment prepared by O'Reilly Talbot & Okun for the North Pole Estates project proposed for Dry Brook Hill area summarizes, "The bedrock surface undulates and the Site is shown situated between two deep buried bedrock valleys, the Dry Brook valley to the north and the Elmer Brook valley to the South.

Professor Mabee noted that for another analysis that was done in another location, water from bedrock was the only way to account for 2MGD within the water budget. He suggested that isotopic analysis of water would be very helpful to better understanding sources of supply. This so-called "fingerprinting of water" can identify such things as an evaporative signal, indicating water is from the Connecticut River, or even whether the source was rainfall in a storm coming from the West or from the South/Caribbean. Such signals can remain present even after 5 years.

The 2002 SWAP report flagged several land use issues related to drinking water supply:

Non-conforming Zone 1
Sand and gravel mining
Residential land uses (septic systems, household hazardous materials, heating oil storage, stormwater)
Underground storage tanks (at least 1 UST located in Zone II area)*
Manure spreading
Comprehensive wellhead protection planning

* State data base does not show any USTs in Water Supply Protection District currently.

Fire District #2 Superintendent Mark Aiken noted that all buildings in the primary recharge area (Zone II) are on septic systems and it is not clear whether people understand the impacts their systems could have on drinking water supply.

Responding to modeling conducted under a supplemental hydrogeologic analysis by McClane Environmental, Dr. Stephen P. Garabedian notes in his March 2021 comments that a more likely worst-case scenario (beyond the modeled 95-gallon spill) could involve the possibility of a fully loaded fuel delivery truck spilling some 2,000 to 3,000 gallons. He writes, ""In the case of a 3,000 gallon spill the mass of the 'worst-case' contaminant, benzene, would be increased 30-fold to about 25 Kg. This size of spill would create a much larger plume, a much greater concentration of the contaminant, and a much greater likelihood of a longer-term loss of Dry Brook supply well as a source of potable water."

Recommendations

- Pursue isotopic analysis of drinking water to more fully understand sources of supply.

- For now, given some of the unknowns suggested in sources of supply for the Dry Brook wells, keep full extent of current Water Supply Protection Overlay District. As articulated in the Zoning Bylaw, this district is also intended to ensure integrity of future sources of supply.

- If there are future scenarios where there is a need for higher pumping rates, as described in the USGS study--where a far higher proportion of water comes from the Connecticut River—it seems important to explore whether that translates to lower water quality in the Dry Brook wells.

- Undertake an analysis to understand whether the Town be able to help District #2 to access sources of funding that could be key to providing more protection for supply and sources. Sources include grants from the Municipal Vulnerability Preparedness and Drinking Water Supply Protection programs.[**]

- Address land uses flagged in the SWAP report as part of an update to the Drinking Water Supply Protection District in the Zoning Bylaw.

- Collaborate with District #2 in getting the message out, perhaps through Board of Health, on the importance of septic system maintenance and the prohibition on use of certain

[**] MassDEP has indicated that Districts are eligible for State Revolving Loan funding. This may be another important source for ensuring long-term protection of supply.

chemicals to help safeguard the quality of drinking water supply. PVPC has some material from which to build or customize.

- Continue communication with Fire District #2 as it goes through process with MassDEP in renewing registration. New restrictions on withdrawals and conservation requirements could make finances even more constraining.

Inventory and map resources----------

Summary

PVPC prepared 5 maps identifying assets and values of the Mount Holyoke Range and surrounding area of the Dry Brook Wells:

- Recreational resources, showing permanently protected open space (with categorization of ownership), trails, Chapter 61, 61A and 61B lands, surface waters (rivers, lakes, ponds), FEMA flood zones, and wetlands.
- Zoning with location of Dry Brook Public Water Supply wells and associated Zones I, II, and Drinking Water Supply Protection zoning overlay, including inventory of parcels that shows ownership, size of parcel, whether developed/undeveloped
- Surficial geology
- Topography, showing slopes of 25% or more
- Natural and ecological resources with data layers to understand lands of highest value for conservation using the Nature's Network data set (this is based on index of ecological integrity, The Nature Conservancy's Resilient and Connected Landscapes model, and modeling for 30 representative species, which identify those lands and waters most important to keeping intact and connected)

At the Town's request, PVPC also provided a 6th map that denotes parcels in the Water Supply Protection District and whether the parcel is developed or vacant.

In working with the Nature's Network data set, PVPC staff conferred with UMass Department of Environmental Conservation Professor Scott Jackson as this is a new data set for PVPC in its work. Professor Jackson noted that South Hadley is fortunate to have Bill DeLuca serving on the Conservation Commission as he has played a major role in the development of Nature's Network and likely can offer more insights.

Appendix C includes the maps prepared for this project, as well as the inventory of parcels for the Zone II area.

Highlights

The Zone II area for the Dry Brook wells is based on the 2004 USGS modeling for 180 days of pumping at the wells with no recharge from precipitation. The Water Supply Protection Area is a boundary beyond the Zone II that is likely based on legacy water supplies at Lithia Springs and other locations. This Water Supply Overlay District is seen as being protective of current supply—given suggested unknowns—as well as future supply.

The area within the Water Supply Protection District is largely zoned Agricultural with some parts in the southeastern section of the District zoned for low density residential (A-1) and medium density residential (A-2). All of the Zone II area for the Dry Brook wells is zoned for Agricultural use. Description of the Agricultural Zone within the Zoning Bylaw appears complementary to the Water Supply Overlay District. The Agricultural Zone is described as follows:

> The purpose of this district is to promote agriculture, forestry, recreation, and land conservation, as well as compatible open space and rural uses, by siting development in a manner that preserves large contiguous tracts of open space and agricultural land. The preservation of scenic vistas of open land, forestland, the Mount Holyoke Range, the Mount Tom Range, and the Connecticut River in this district is a key aspect of maintaining South Hadley's desired scenic and rural identity.

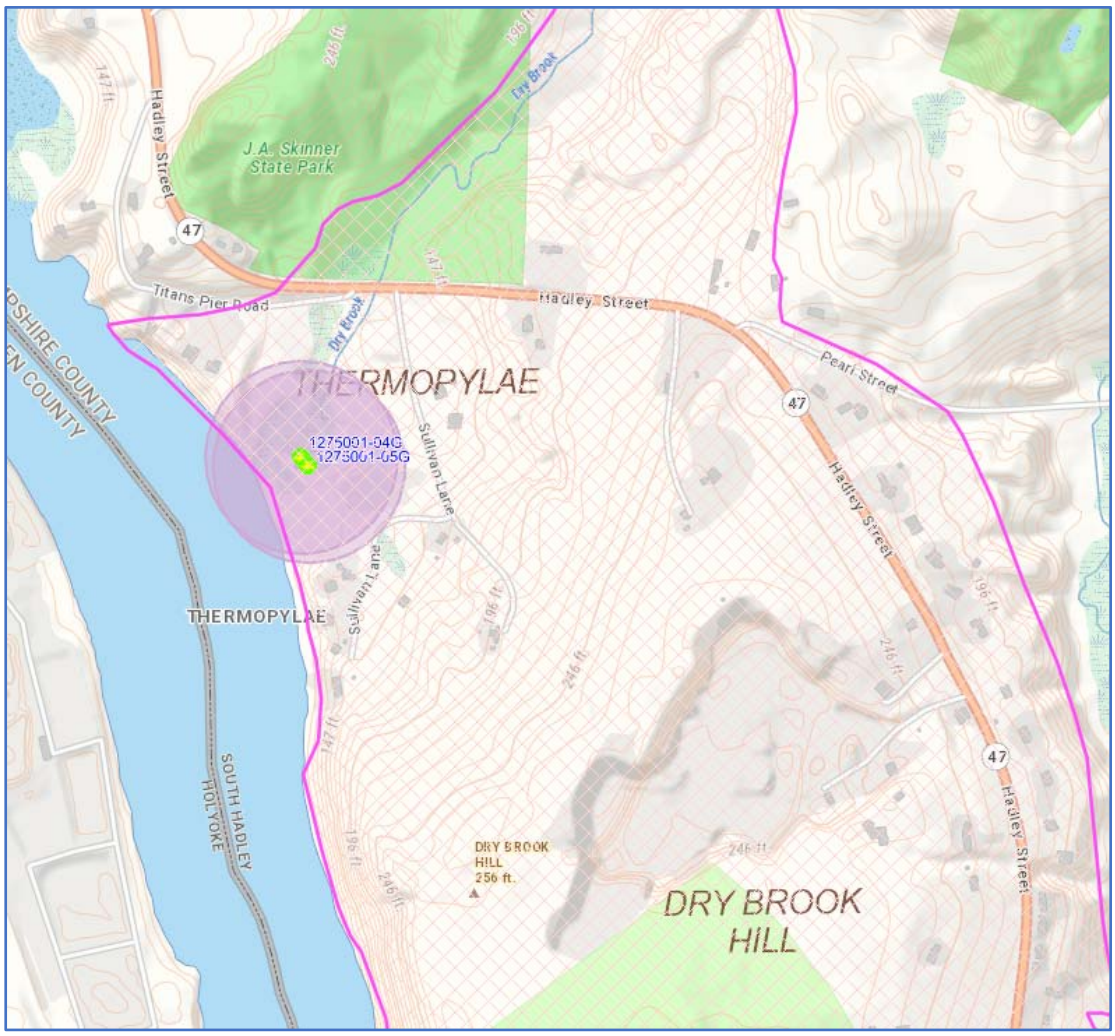
Within the Water Supply Protection District, there are large expanses of protected open space. These include properties held by MassDCR, the Town, and several private parcels with Conservation Restrictions.

Within the Water Supply Protection District, there are also numerous parcels enrolled in the Chapter 61A property tax break program for agricultural land, and a few additional parcels under Chapter 61 (for forestry) and Chapter 61B (for recreation). As the purpose of the Chapter 61 program overall is to help keep land undeveloped, landwners chooses to convert enrolled land to another use must offer the municipality has the right of first refusal. For more information on Chapter 61, see: https://masswoods.org/sites/masswoods.net/files/Ch61-v2.pdf

While some parts of the Zone II area for the Dry Brook wells are permanently protected through Town or state ownership or Conservation Restriction on private lands, the Dry Brook Hill area is not protected. The USGS study mentioned in the preceding section and the surficial geology map in Appendix C, both indicate that this is a key recharge area for the Dry Brook wells.

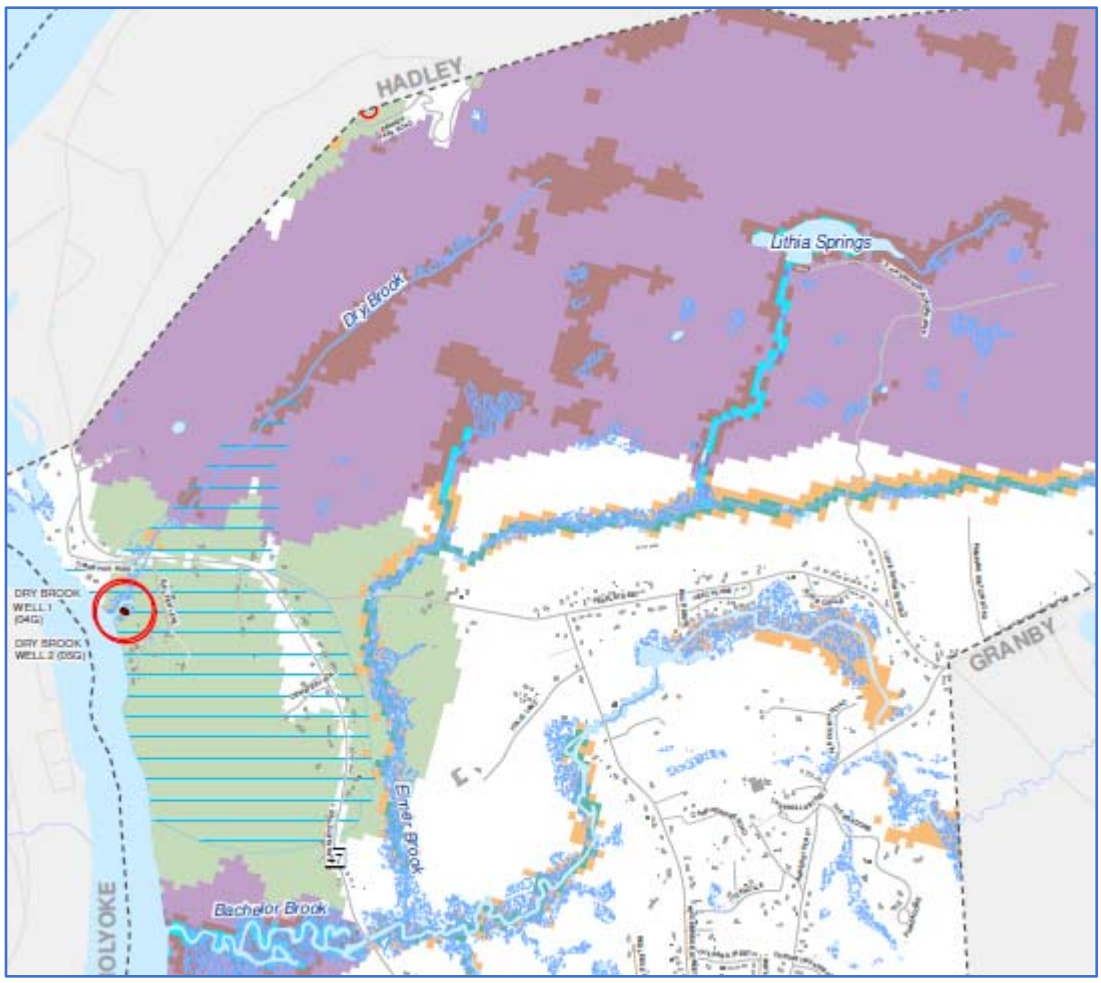
At its closest point, Route 47 is located within 1,800 feet of the Dry Brook wells and within 900 feet of the wells' Zone I areas. This point also coincides with where Route 47 crosses the waters of Dry Brook. (See Map A below.) Current available sources of information do not provide a clear understanding of what materials may be trucked along Route 47 in this location.

Dr. Garabedian's March 2021 comments, which highlight a worst-case scenario for a fuel spill in the Dry Brook Hill area, suggests that a more complete understanding of what materials may be traveling through the Zone II in such proximity to the Zone Is of the wells is important.



Map A: In the map above, Route 47 is shown in an orange line while the Dry Brook wells are indicated by green circles and their respective Zone I areas indicated with the purple shaded circles.
(*Source: MassGIS, MassMapper*)

The slopes of the Holyoke Range and the corridor of Bachelor Brook are core terrestrial areas while the Dry Brook Hill area serves as a terrestrial core to core connector. (See Map B below.) Connectors are areas that are important to maintaining species diversity that may not in and of themselves have ecological integrity but are yet critically important to connecting wildlife and even plant populations for long term survival. As a core area, Bachelor Brook has importance not only in its connection to the Holyoke Range, but also other flood plain forests along the Connecticut River.



Map B:

Nature's Network 2018

Core Areas and Connectors

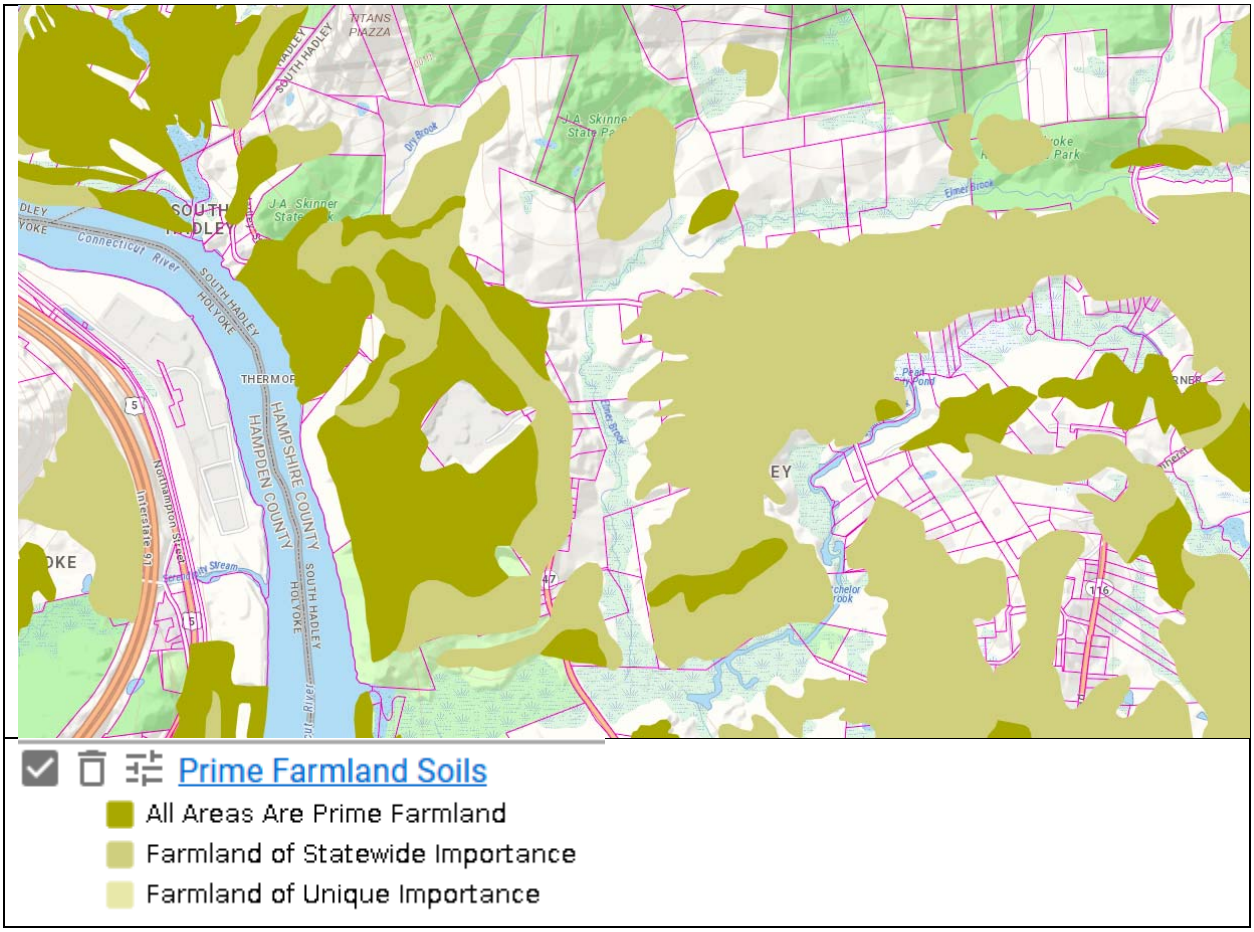
- Terrestrial, Aquatic, and Imperiled Species Overlap
- Terrestrial and Imperiled Species Overlap
- Terrestrial and Aquatic Overlap
- Aquatic and Imperiled Overlap
- Terrestrial
- Aquatic
- Imperiled Species
- Terrestrial Core to Core Connectors

Both Dry Brook and Elmer Brook are terrestrial core areas that also provide habitat for what Nature's Network classifies as "imperiled species" (identified by states, Endangered Species, and including species proposed for listing under the Endangered Species Act). A list of species is located within the following document: https://umassdsl.org/DSLdocs/DSL_documentation_species.pdf

The Zone II area for the Dry Brook wells overlaps with the Dry Brook core and imperiled species area.

Ecological resources in the Nature's Network mapping indicates that the bulk of lands with high ecological value for conservation planning are located in the north and western part of South Hadley. UMass Department of Environmental Conservation Professor Scott Jackson has noted that the values entered into the Nature's Network mapping are fairly coarse, given the 13 state partnership, and that more detail about conservation planning priorities within other parts of Town could be obtained by using the Index of Ecological Integrity, which for Massachusetts has many more metrics that could be useful.

The Water Supply Protection District also has areas with soils of importance for growing food as shown in the map clip from MassGIS Oliver below.



Recommendations

- Land protection efforts (either through CR, APR, or purchase as opportunities arise, especially as lands come out of the Chapter 61 program) ought to prioritize those lands that are both most hydrologically connected to the Dry Brook wells and offer ecological integrity over the long term. These include lands of the Zone II for the Dry Brook wells located south and west of Hadley Street, and north of Hadley Street. This recommendation is in alignment with objectives articulated within both the Town's 2020 Master Plan and 2019 Open Space & Recreation Plan.

- Developing the ability to respond to opportunities through availability of funding and collaborations is critically important. Consider convening a working group to include land protection partners and knowledgeable residents who can help the Town prioritize lands for protection, understand priorities for land protection among regional partners (including Friends of the Conte Refuge and Forever Farmland Initiative partners), identify where these interests overlap, and build needed capacity to respond as opportunities arise.

- Consider additional mapping, including an overlay that could further inform prioritization of lands for protection. A good addition would be the "probability of development layer" prepared by UMass as part of the Index of Ecological Integrity and based on a number of factors, including proximity to other development and roads, and favorable site characteristics for building.

- Explore with PVPC the possibility of a small study to collect truck and tanker truck traffic information along Route 47 that begins to provide a sense of whether there are materials of concern being transported along this travel route near the Dry Brook Wells.

- Consider hosting a series of informative events for landowners of larger parcels in the Drinking Water Supply Protection District focused on the future of their lands. The series could start with describing the importance of this area for supply protection and species viability as climate changes, but also help build understanding about choices landowners can make on the future of their lands that tie to their personal wishes. MassWoods has hosted a similar series for a wider audience and may be a good partner in this. See: https://masswoods.org/webinars

- Likewise, for the smaller, more residential properties in the Water Supply Protect District, it is important to inform property owners of the importance of proper septic system maintenance and landscaping activities that support healthy soils and reduce needs for fertilizers, and chemical control of insects and plants.

Existing regulatory tools----------

Summary

PVPC reviewed several existing regulatory tools to identify possible gaps in water supply protection. Review involved the *Zoning Bylaw*, particularly *Section 255-35 on Water Supply Protection District* (including Use Regulations Schedule for Water Supply Protection Overlay) and *255-84 on earth removal, extraction, and fill regulations*, as well as earth removal provisions in the *General Bylaw, Section 245*.

Appendix D includes a table comparing the earth removal stipulations across South Hadley's code, as well as track changes documents showing notes, questions, and recommendations within these elements of municipal code. Following are several important points for consideration.

Highlights

Of the numerous amendments proposed for November 20, 2019 Special Town Meeting for Section 255-35, only two appear to have been adopted. Several other proposed amendments are worth reconsidering.

Definitions within the Zoning Bylaw Section 255-10 need updates to better describe terms for Section 255-35.

Within the District Delineations part of Section 255-35, the breadth of language is good, but seems important to connect with terms that have been/are in use by MassDEP, including Zone I, Zone II, and Zone III.

In this same Section, Part C could be strengthened with a rewording in #2 to reduce the possibility of challenge to the delineation (as shown on mark-up) and to provide resolve where a boundary divides a lot or parcel with the following added language: "Where the boundary line of the Water Supply Protection District divides a lot or parcel, the requirements established by this overlay district shall apply to the entire lot or parcel."

On earth removal, following are some important notes, though there are more substantive comments in the table in Appendix D that compares language on Earth Removal across Zoning Bylaw Sections 255-35, and 255-84, and General Bylaw - Chapter 245:

- The various sections within Zoning Bylaw Section 255-35 that discuss earth removal (under permitted uses, prohibited uses, and restricted uses) are somewhat confusing. Best to set up earth removal as prohibition that includes specific exceptions.

- Currently, there seems to be a large allowance under exception of "Other Earth Removal" (as defined under 255-84) that could enable subdivision site improvements to remove up to the amount qualified as "Major Earth Removal," up to 5,000 cubic yards (also the set up for subdivisions in the General Bylaw Chapter 245 presents possibility of removing additional quantities if in *different* calendar year).

- Elaborations on earth removal within zoning bylaw Section 255-84 and Chapter 245 are problematic with lack of clarity and inconsistency. Perhaps the most problematic is consistency in depth to "historical high groundwater table" with references to 4 feet, 5 feet, and 10 feet across code.

- Terms for measure of groundwater level for excavation are not aligned between Zoning Bylaw sections 255-35 and 255-84. Section 255-35 uses "historical high groundwater table" and Section 255-84 uses "seasonal high water table."

Permitted, prohibited, and restricted uses section within Section 255-35 of the Zoning Bylaw includes duplications and there are several additions needed to prohibited uses in order to fully comply with requirements of 310CMR22.21(2) as noted in MassDEP's April 6, 2020 letter to District #2 Superintendent. Prohibited uses section also does not reference the Use Regulations Schedule within the Zoning Bylaw where there is much further elaboration of uses not allowed in the Water Supply Protection District. Restricted uses seems to be a catchall listing that includes some performance standards.

Under prohibited uses, the definition of very small quantity generator of hazardous waste in state law has changed to allow as much as 100 kilograms up from 20 kilograms.

Language on hazardous materials and liquid petroleum has some duplication and lack of clarity. For example, prohibition of waste oil facilities appears as an exception under both hazardous materials and liquid petroleum.

Section on replacement of underground storage tanks makes reference to certain sections in 527 CMR that do not seem to exist currently.

There is no prohibition on private wells or irrigation wells, which can present an opportunity for introduction of contaminants. And there do not seem to be standards for private or irrigation wells operating within the Water Supply Protection District. Fire District #2 Superintendent Mark Aiken has noted that property owners with private wells cannot also have FD#2 service connection. The one exception to this is for private irrigation wells, where the water line does not enter the foundation of a house.

There is no section on Performance Standards within Section 255-35 of the Zoning Bylaw.

Within the Use Regulations Schedule, there are several categories where there is no indication whether use is / is not permitted within Water Supply Protection District. The space is completely blank. These include uses for: Medical marijuana off-site dispensaries; Marijuana retailer; Marijuana testing facility; Gas to energy facilities; Medical marijuana treatment centers; Microbrewery; Craft marijuana cultivator cooperative; Marijuana cultivator; Marijuana product manufacturer; Marijuana testing facility; Research, development and manufacturing facilities of products that generate renewable or alternative energy. These are not allowed in most other districts.

Recommendations

- Develop a clear hierarchy within municipal code of where the reigning guidance and requirements will be on Earth Removal so that there is clarity and consistency. It may be that the General Bylaws are the best location for these requirements so that the Zoning Bylaw can then reference the General Bylaw section on Earth Removal and include only minimal information. Another approach could be to create a barebones General Bylaw that references Earth Removal Regulations that then elaborate on requirements and standards. Zoning Bylaw sections would reference the General Bylaw and accompanying regulations. This has been the recommended approach with stormwater management throughout the state. Town Counsel's input on set up within South Hadley's municipal code will be important.

- Consider references to "historical high groundwater table" in 255-35 and "seasonal high water table" in 255-84 and proximity to this table for excavation across South Hadley's code with some research and consultation with USGS or UMass geologists. Fuller understandings of the following are important:

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  - What proximity of excavation to groundwater table still provides adequate protection for drinking water supply? Ten feet may be a good measure, but it is not clear from where this new number derives. Some communities on the Cape are using this number now as well. Also, to better protect private sources of supply, it may be worth using this depth across Town, beyond the Water Supply Protection District.

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  - Is the "historical high groundwater table" measure still useful? New Hampshire in its 2015 model ordinance for groundwater protection is referencing "seasonal high water table" measure. Analysis of USGS groundwater wells in New England by UMass Professor David Boutt indicates, "Trends in aquifer storage when averaged over the 124 wells in the study region show an upward positive trend indicating that the water table

has risen over the last 40 years." Is there a technical difference between "historical" and "seasonal" in reflecting these trends? And what is best term to use and guidance for capturing these trends?

- Rework sections on permitted, prohibited, and restricted uses within Section 255-35 of the Zoning Bylaw and carefully consider language on hazardous materials and petroleum fuels. As recommended in Appendix D, some of the uses are better included as prohibitions with a few exceptions, rather than in permitted uses or restricted uses. Updates here are also important to comply with requirements of 310CMR22.21(2).

- Update section on underground storage tanks so CMR code is current (though it appears from the MA Office of Technical Assistance mapping "Massachusetts Toxics Users and Climate Vulnerability Factors" there are no underground storage tanks in South Hadley's Water Supply Protection District. The closest USTs are at Brunelles Marina and Orchards Golf Course, both located outside of the District.) In any case, note in some places there has been a push to get underground storage tanks (USTs) above ground, which makes good sense in a water supply protection area. It is far easier to ensure continued integrity of the tank structure and ensure containment of spills when it is above ground. At the same time, however, extremes in weather present other challenges for ensuring that tanks remain secure, especially with flood waters when tanks can float and disengage from connections.

- Explore whether to get more specific about requirements for home heating fuel storage. One example is from Brewster, which has the following in zoning for its overlay district:

  Storage of oil(s): the storage of oil(s) used for heating fuel, provided that the container used for such storage shall be located within an enclosed structure that is sufficient to preclude leakage of oil to the external environment and to afford routine access for visual inspection and shall be sheltered to prevent intrusion of precipitation

- Consider adding performance standards to better guide uses. A few of the recommendations made within the Zoning Bylaw Section 255-35 track changes document include:

  - Best practices in operation of irrigation wells so as to be protective of groundwater in the Water Supply Protection District, and especially the Zone II. These could include requirements for use or storage of certain substances from such wells, such as putting material under cover so as to avoid contaminating stormflows and locating material at certain minimum distances.

  - Prior to any land disturbing activities, all inactive wells on the property not in use or properly maintained at the time the plan is submitted, shall be considered abandoned

and must be sealed in accordance with Board of Health regulations (assuming that there are such provisions in Board of Health Regulations…if not, best to develop and adopt).

- Any earth removal activity allowed in the Water Supply Protection District must retain all topsoil on site in order to more effectively hold and recharge stormwater in this top layer of organic material, as well as ensure that any given site retains its capacity support the growth of vegetation (and avoiding the chronic need for fertilizers to re-vegetate site).

- Engage landowners on materials storage, especially near irrigation wells, perhaps as part of the program series recommended above for landowners. It may also be worthwhile to work with the Board of Health and Fire District #2 to understand how irrigation wells are permitted and which properties currently have irrigation wells and proximity to septic systems.

- Update the Use Regulations Schedule for: Medical marijuana off-site dispensaries; Marijuana retailer; Marijuana testing facility; Gas to energy facilities; Medical marijuana treatment centers; Microbrewery; Craft marijuana cultivator cooperative; Marijuana cultivator; Marijuana product manufacturer; Marijuana testing facility; Research, development and manufacturing facilities of products that generate renewable or alternative energy. Since these are not allowed in most other districts, seems important to complete schedule so that these uses are <u>not allowed</u> in Water Supply Protection District.

- Convene a working group to discuss and prepare updates for adoption to South Hadley's municipal code based on some of the amendments proposed for November 20, 2019 Special Town Meeting for Zoning Bylaw Section 255-35 that were not adopted, as well as recommendations included here in PVPC's work. At a minimum the permitted uses and prohibitions sections in Section 255-35 need to be updated to comply with requirements of 310CMR22.21(2).