

**SOUTH HADLEY PLANNING BOARD VIRTUAL PUBLIC HEARING
CONTINUANCE:**

Application for Definitive Plan and Stormwater Management Permit approval for proposed 'North Pole Estates' subdivision located at west side of Hadley Street (aka State Route 47) and along Sullivan Lane (Assessor's Map Number #54 as Parcels #15 & #20 and on Assessor's Map Number #56 as Parcels #20, #26, #42, #43, #43A, #104, #109, #112, and #121).

MINUTES OF JUNE 22, 2020

As Approved

Present: Brad Hutchison, Chair; Diane Mulvaney, Vice-Chair; Joanna Brown, Clerk; Melissa O'Brien; Member; Nate Therien, Member (not a voting member for this Public Hearing); Richard Harris, Director of Planning and Conservation; Anne Capra, Conservation Administrator/Planner; and Colleen Canning, Senior Clerk Planning and Conservation

Chair Hutchison called the Public Hearing continuance to order at 6:45 PM.

The applicant's representative, Jay Ouellette of Chicopee Concrete Services, was present at the virtual meeting along with his consultants; Rob Levesque and Filipe Cravo of R. Levesque Associates; Paul Furgal of McMahon Associates; and Attorney Michael Seidel.

Representatives of the third-party peer-review, Jim Riordan and Jeff Santacruce of Weston and Sampson, were present at the virtual meeting.

The Town's representative legal counsel, Attorney Brian Winner, was present at the virtual meeting.

Mr. Harris explained that the public hearing was continued to tonight to specifically consider the traffic assessment and the definitive subdivision plan itself. The previous hearing on June 15th considered the hydrological assessment and the stormwater management report. He anticipated that tonight's hearing would be continued to the July 13th meeting to consider the interactions between all components of the applications for development.

Rob Levesque inquired how the information would be reviewed. The peer-review consultant had prepared a slide show to present their findings. Following the presentation, the applicant would be given an opportunity to respond.

Jeff Santacruce overviewed his firm's review of the traffic assessment. The assessment was performed to reflect a 60 plus lot subdivision. However, the current application for development reflected a nine lot subdivision. The applicant provided updated site distance analysis for proposed driveways as requested in the peer-review. There was still a level of confusion regarding the location of the existing gravel operations driveway. Some documents list the existing gravel operations driveway as the proposed driveway for lot 8. However, other documents conflicted that information. As large trucks exit the development, they would be required to cross over the centerline. Therefore, he recommended that signs be installed to alert vehicles passing the location. The precise location of the gravel operation driveway needed to be

provided along with accompanying site distance information. He advised that plans should be updated to reflect vehicles stopped at 14.5 feet away from the exit at lot 8 and the northernmost access driveway.

Paul Furgal responded that the gravel driveway was identified and the site distance lines were found to exceed the requirements. He explained that the information regarding the stopped distance from the exit was gathered at a time when vegetation was dense. He recommended that the vegetation be maintained to allow for adequate site distance. Rob Levesque added that the lot 8 curb cut would be subject to DPW review. Mr. Harris responded that the lot was created through the Subdivision Plan, not through ANR, so it afforded the Planning Board review.

Member O'Brien inquired if the peer-reviewer received the clarification it needed during the course of discussion. Jeff Santacruce responded that there weren't concerns for traffic volume as the assessment was performed for a much larger development than now proposed. However, there were concerns within the proposed site plan that should be addressed.

Vice-Chair Mulvaney noted that the information was difficult to follow. She expressed concern with the operations plan as it was unclear if traffic relating to excavation activities, construction activities, and new residences was considered together or separately. She inquired if appropriate traffic practices were being used during the current excavation practices. Rob Levesque responded that there were no issues relating to traffic volumes currently on site. Paul Furgal noted that exiting trucks had a higher site range than sedans. Jeff Santacruce agreed that trucks had higher site range. However, trucks take a longer time to pull out of the driveway. The formula would need to be developed to find the adequate site distance. Rob Levesque responded that he would provide further information.

Clerk Brown noted that the applicant's traffic consultant used an old version of the highway capacity manual. She inquired what the differences were between this version and the updated version. Paul Furgal responded that he needed to research the answer to the question.

Clerk Brown inquired why a safer margin of site distance was not being proposed. The proposed site distance satisfied the minimum requirement but it did not reach the recommended distance. She added that trucks have parked on the shoulder of the road and that winter weather could create icy conditions. Paul Furgal responded that vegetation clearing could be performed to allow for greater site distance and that signs could be provided reiterating that parking in the shoulder is prohibited.

Clerk Brown inquired if stop signs would be installed. Mr. Harris responded that stop signs were often standard conditions for development at a major intersection. Considerations for appropriate traffic signage would be deferred to DPW.

Robert Pleasure, South Hadley resident, addressed the Board. He noted that there was a general bylaw which required an earth removal permit unless there was an exemption. Within that application, there were requirements to identify the number of trucks needed for earth removal and their truck routes. He inquired if the 9 lots were the only development proposed. If there were subsequent phases, earth removal information needed to be provided. Rob Levesque

responded that phasing was not proposed. This 9 lot subdivision was the only consideration before the Board. To his understanding, subdivision development would be exempt from the general earth removal bylaw.

Nate Therien addressed the Board. He explained that his question was related to the turning radius of exiting trucks. However, it was previously discussed that considerations for the turning radius would be further developed and considered at a future hearing.

Rudy Ternbach, South Hadley resident, addressed the Board. He inquired if construction activities would require a police detail. Rob Levesque responded that he did not believe a police detail would be required. However, the applicant would follow the requirements deemed necessary by the Town's safety officer.

Jessica Collins, South Hadley resident, addressed the Board. She inquired how the traffic volumes would affect traffic in other areas of Town such as the Town Field and the Village Commons. Rob Levesque responded that the truck routes were approved and maintained by DPW and MassDOT to allow for such travel. Jessica Collins noted that the initial application called for removal of about half a million cubic yards of material. She inquired how much material was now being proposed for removal. Rob Levesque responded that it was anticipated to be a similar volume.

Clerk Brown inquired about the size of the trucks that would haul off excavated material. Jay Ouellette responded that each truck accommodated about 18-24 cubic yards of material.

Jim Riordan presented his firm's peer review of the Definitive Subdivision Plan. He explained that the plan was generally consistent with *Chapter 360: Subdivision Regulations*. Construction of single-family homes was allowed by right under zoning. He noted differences between the preliminary plan and definitive plan. Open space restrictions were referenced within the Hydrological Assessment Report and the Development Statement but not within the Definitive Plan itself. Permitting through the Conservation Commission would be required for development of lots 13-28 as proposed within the preliminary. Requests for Determination of Applicability were received and acted upon by the Conservation Commission for delineations within certain areas of the site. The proposed topography of the site did not match existing conditions and considerations for use of fill material was not addressed. He added that construction staging and operation plan had not been provided. Additionally, the vegetation maintenance and tree cutting plan remained unresolved. There was no proposed protocol for testing of potential contaminants on site. He added that buyer notification should be provided identifying the lots as being within the Water Supply Protection District.

Clerk Brown noted that the presentation had an incorrect reference. She noted that the reference to '255-11E' appeared incorrect.

Rob Levesque responded to the review of the Definitive Subdivision Plan. He stated that the Definitive Subdivision Plan reflected a reduced work scope from the preliminary plan. The plan as proposed satisfied the requirements within zoning and under subdivision regulations. With the reduced work area, an open space restriction was no longer proposed. He reiterated that the

proposal before the Board was not a 'phase' of development but the entire proposal at this time. If the landowner wished to further development land, new applications would be submitted. Conservation permitting would not be required as lots 13-28 were not included within the Definitive Subdivision Plan. A construction staging and operation plan could be provided. The acreage of proposed vegetation and tree removal had been provided. He stated that only minimal fill material would be needed. There was the potential that some loam would be needed in certain areas. He added that there was no evidence of site contamination. As had been previously stated, the site was not used routinely as a shooting range. It was only used periodically by the police.

As the peer-reviewer's presentation was an overview of the material, Chair Hutchison noted that there were components within the peer-review of the Definitive Plan that were not addressed during the presentation. He advised that the next hearing continuation date could address issues identified in the review matrix. As the public hearing was approaching three hours, he advised the hearing be continued. Comments from members of the Board and the public could be considered at the continued meeting date.

Mr. Harris noted that written comments with interest to speak had been received through google form from Rudy Ternbach (Attached), Robert Pleasure (Attached) and Kathleen Davis (Attached). Additionally, others had submitted interest to speak. They would all be given an opportunity to address the Board at a future hearing.

Attorney Michael Seidel inquired if questions relating to particular documents could be addressed prior to the next Public Hearing date. Mr. Harris responded that the Board could not discuss the project outside of a public hearing. Attorney Seidel remarked that he could discuss the matter with Town Counsel.

Clerk Brown expressed concern for attorneys discussing the applications amongst themselves. She motioned to adjourn the meeting. Member Therein seconded the motion.

Mr. Harris noted that discussion amongst attorneys would not restrict the Board's ability to review.

Member Brown withdrew her motion as the meeting could not be adjourned until the Public Hearing was continued.

Chair Hutchison would work with Mr. Harris in developing the appropriate format for discussion and would reiterate the expectations to the applicant and the peer-review team.

Chair Hutchison inquired if there was a motion to continue the Public Hearing so considerations for the applications could continue.

Motion: Clerk Brown moved to continue the Public Hearing to July 13, 2020 at 6:45 PM. Vice-Chair Mulvaney seconded the motion. Four (4) out of four (4) voting members voted in favor of the motion by roll call.

The regular meeting reconvened at 9:56 PM.

Respectfully Submitted,
As Approved
Colleen Canning, Senior Clerk Planning and Conservation

Appendix

Document	Document Location
Hadley Street - North Pole Definitive Plan Peer Review 2020-03-05 Corrections Highlighted	Planning Documents
Hadley Street - North Pole Plan - Response to Peer Review 2020-03-16 - Traffic	Planning Documents
Hadley Street-North Pole Estates-Definitive Plan Submittal 2019-Review of Applicant Responses to Peer Review 2020-04-29	Planning Document
Hadley Street - North Pole Plan - Response to Peer Review 2020-06-12 - Traffic	Planning Documents
Google Chat Comments 2020-06-22 Meeting	Attached
Google Form submitted 2020-06-16 from Robert Pleasure	Attached
Google Form submitted 2020-06-16 from Kathleen Davis	Attached
Google Form submitted 2020-06-16 from Rudy Ternbach	Attached
E-mail submitted 2020-06-22 from Dr. Franz with attachments	Attached

01:10:53.967,01:10:56.967

Benny Woodard: Is there a meeting schedule that we can view? I'm curious when public q & a will begin

01:12:48.538,01:12:51.538

Benny Woodard: thanks

01:15:07.059,01:15:10.059

Robert Pleasure: I have one question about traffic. robert pleasure

01:21:02.787,01:21:05.787

Nate Therien: The peer review expressed concern re: turning ratio of trucks entering from the gravel road--that they will cross the center line. Has that been addressed?

01:23:48.599,01:23:51.599

R. Ternbach: Will one or more police officers be required for traffic control during construction?

01:36:00.964,01:36:03.964

Jessica Collins: What does the traffic study say about the volume of trucks and the impact to Rt. 47/Rt.116 intersection at the Village Common and Mt. Holyoke College pedestrian traffic; traffic calming measures?

01:36:04.374,01:36:07.374

Benny Woodard: It's ok to admit if you don't know the answer to something

01:38:22.369,01:38:25.369

Jessica Collins: What about the businesses at the Village Common (outside seating at Yarde Tavern) impacts? Was this part of the traffic study?

01:40:20.174,01:40:23.174

Jessica Collins: Town Field parking usage? High volumes of children and spectators at the fields especially in the fall - afternoons in particular. Was this also part of the traffic study?

02:15:27.565,02:15:30.565

Benny Woodard: When public question time arrives, I have a question in regards to compliance with zoning ByLaws as well as well as environmental impact/impact on the unfolding climate crisis.

02:43:47.796,02:43:50.796

Jessica Collins: Does the applicant still have a cease and desist order on areas of this property for mining with out an appropriate permit?

02:44:43.326,02:44:46.326

Richard Harris: Yes - but not on thje grandfathered portion

02:47:29.137,02:47:32.137

Benny Woodard: Please give us those details of vegetated acreage being cleared. It is extremely important

03:09:29.230,03:09:32.230

Benny Woodard: As a concerned resident of this town, every single thing that was said and addressed tonight is important. Every single line of every powerpoint needs to be addressed and I appreciate it.

03:11:08.108,03:11:11.108

Benny Woodard: Our wetlands and our zoning laws ARE NOT just lines on a powerpoint. They are an integral part of our lives and our communities. Please respect that.

03:15:37.369,03:15:40.369

Benny Woodard: Town members have questions too!! Our voices matter also!!!

03:17:57.543,03:18:00.543

Benny Woodard: ALL OF THE ISSUES MATTER

June 22, 2020 Public Hearing - North Pole Estates

This session of the Public Hearing will focus on the Applicant's Traffic Assessment Study and the Definitive Plan Submittal. Please note that the hearing will be held virtually online.

Email address *

Please note the Planning Board's Virtual Hearing Guidelines/Protocols posted at:
<https://southhadley.org/1043/Virtual-Public-Hearing-Guidelines> *

Check an acknowledgement that this was noted

Please State Your First and Last Name *

Robert Pleasure

Please State Your Street Address including City/State *

10 Jewett Lane, South Hadley, Massachusetts 01075

Do you wish to speak at the public hearing on June 22, 2020? *

Yes

No

You may also submit written comments and/or questions. Do you wish to submit written comments and/or questions at this time? *

Yes

No

Please state any comments or questions you wish to submit at this time.

Comment 1. The proposal violates South Hadley's General Bylaw 245

South Hadley General Bylaw, chapter 245 (Earth Removal Incidental to Construction Activities) limits earth removal from any agricultural, commercial, residential or commercial development to a reasonable and essential amount which is incidental to the primary principal end use to prevent cumulative damage to landscape, aquifer, and topography and related valuable and nonrenewable natural resources. Among the purposes regulated by the Town are:

"(1) To permit reasonable removal of earth for agriculture, residential business, and industrial uses, while also protecting the value of the land within the Town and without imposing undue risk to the general public.

(2) To limit earth removal from any agricultural, commercial, residential or commercial development to a reasonable and essential amount which is incidental to the primary principal end use.

(3) To require that earth removal operations are conducted in a manner that will cause the least stress and harm to the Town's natural resources.

(4) To prevent detriment to adjacent neighborhoods and abutting parcels from earth removal activities.

(5) To prevent cumulative damage to landscape, aquifer, topography, and related valuable and nonrenewable natural resources, while not unreasonably interfering with necessary, desirable, and creative land uses."

The Proposed Earth Removal is not "Incidental."

In our Counsel's Memorandum in Opposition which is in the Background Materials for this hearing and part of the record in this case, at pages 9-11, our Counsel discusses three cases decided by the Supreme Judicial Court of Massachusetts, beginning with the seminal decision in this area, *Old Colony Council-Boy Scouts of America v. Zoning Board of Appeals of Plymouth*, 574 N.E. 2d 1014, 1016 (1991). Counsel includes as well the cases *Harvard, Town of v. Maxant*, 360 Mass. 432, 438, 275 N.E. 2d 347 (1971) and *Henry v. Board of Appeals of Dunstable*, 418 Mass 841, 845, 64 N.E. 2d 1334 (1994).

We urge the Board's consideration of these decisions and the discussion of them by our Counsel in the Memorandum in Opposition which you have in the materials. For us as Town Residents, we have reached a common sense conclusion that the proposed massive earth removal is not merely incidental clearing activity associated with building some residential homes. It appears instead to be a continuation of an unsuccessful effort to obtain a special permit for an extensive expansion of a central component (earth removal) of its concrete services and integrated sand and gravel mining operation. The timeline for the proposed subdivision shows that the excavation dwarfs the residential development. The site already has an access road, yet the proposed excavation would drive a wide trench through Dry Brook Hill, an integral part of the

geology of the recharge zone, Zone 2 of the Water Supply Protection District. The excavated earth would not be used to fill on site but would be "exported," as stated by the Applicant and noted we think disapprovingly by the Peer Reviewer. It appears that rather than seeking to limit excavation to that which would be essential for the residential subdivision, the proposal, in our opinion, seeks to do the opposite and reform the contours of this agricultural and scenic land and vital recharge zone of the Water Supply Protection District to maximize the amount of earth removal for its primary business activity.

Comment 2: The proposed subdivision over an ongoing nonconforming use (sand and gravel mining) is contradictory and cannot be maintained simultaneously

Applicant seeks approval of a subdivision of parcels that it asserts is a "grandfathered" pre-existing non-conforming use. However, the subdivision, if approved, will alter the pre-existing non-conforming use and is thereby subject to the Special Permit Procedure required by Chapter 255-7 of the South Hadley Zoning Bylaws. Further, the Applicant asserts that it plans to maintain its existing sand and gravel mining operation in the same area that it is conducting subdivision development and planned housing construction. The proposed initial work on the project will be located at same coordinates of the asserted "grandfathered" sand and gravel mining operation. The conduct of both simultaneously, or the substitution of subdivision development over part of the are cannot help but alter the pre-existing non-conforming use. The Zoning Bylaws speak to this very proposal and require a special permit. If the Applicant were to be successful in its subdivision application, the proposed earth removal would alter its asserted grandfathered mining operation such that it could not comply with MGL 40A Section 5 or 6. Both provide that pre-existing nonconforming uses may only be extended or altered upon a finding by the special permit granting authority designated by a bylaw providing that such change, extension or alteration shall not be substantially more detrimental than the existing nonconforming use to the neighborhood. Moreover, Applicant has provided no evidence that its mining operation "grandfathered" in compliance with M.G.L., 40 A Section 5 or 6.

Other comments, questions, or information that the Board should be aware of?

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Check an acknowledgement that this was noted

Please State Your First and Last Name *

Kathleen Davis

Please State Your Street Address including City/State *

7 Saybrook Circle, South Hadley, MA 01075

Do you wish to speak at the public hearing on June 22, 2020? *

Yes

No

You may also submit written comments and/or questions. Do you wish to submit written comments and/or questions at this time? *

Yes

No

Please state any comments or questions you wish to submit at this time.

Good evening. We have organized as a group of concerned citizens—the Dry Brook Hill Aquifer Alliance—in order to collaborate and advance our common beliefs regarding the definitive plan for a subdivision over Dry Brook Hill. We have engaged legal representation who has framed these concerns in legal terms in the “memorandum of opposition” which you have received. We will highlight these points tonight.

We believe that the Planning Board has adequate information to disapprove this subdivision proposal and we are asking the Planning Board to do so.

1. The Proposed Subdivision Does Not Comply with South Hadley Subdivision Regulations, Design Standards, or duly enacted Bylaws.

The Application seeks approval of an unnecessary access road cutting through Dry Brook Hill, which is a “Natural” Heritage Landscape Feature. The proposed path of the trench through Dry Brook Hill is at the approximate steepest grade, at a width of approximately 50 feet, and a proposed grade that would, if approved, allow the removal of more than 474,000 cubic yards of earth. There is presently an existing road that has been utilized to provide access to the Applicant’s sand and gravel mining operation which is coextensive with the proposed house construction. There are alternate routes that do not require such massive earth removal. In addition, the major earth removal attending the planned deeply cut road through Dry Brook Hill has greater potential to cause contamination of the Dry Brook Hill Aquifer. Both Dry Brook Hill and its connected Aquifer are located in Zone II, the recharge zone, of the Water Supply Protection District.

Following is a relevant passage from the Design Standards in the South Hadley Subdivision Regulations :

§ 360-33 Open spaces and protection of natural features.

A. “Due regard shall be shown for all natural features such as large trees, watercourses, scenic points, historic spots and similar community assets, which, if preserved, will add to the attractiveness and value of the subdivision and the Town.”

Both Dry Brook Hill and the Dry Brook Aquifer are natural features, “...which, if preserved, will add to the attractiveness and value of the subdivision and the Town.” Id.

Dry Brook Aquifer is a community asset, which has been specifically identified in South Hadley’s Environmental Inventory and currently in the ongoing Master Plan Development. In the case of the Master Plan work, protection of the Aquifer has been given the highest priority. The recent peer review by Weston & Sampson examines whether the definitive plan conforms to the South Hadley Zoning Bylaw provisions applicable to the subject property. Here we refer to Agricultural Zoning Definition per Section 255-11.E “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."

The peer reviewers note that: "...the excavation of this site to match grade at the bottom of the extraction pit does not meet the definition of the purpose of the district. The proposed approach to grading does not promote agriculture, forestry, recreation, or land conservation. The proposed excavation appears to remove active agricultural fields, cut down a large forested area, and does not allow for recreation or land conservation. The project does not appear to site development in a manner that preserves large contiguous tracts of open space or agricultural land...While residential use is allowed by right in the agricultural zone, zoning requires preservation of the purpose of the district.....The application at preliminary [stage] offered approximately 23 acres of open space. The definitive plan has removed that open space and offers none. Open space is a defining element of Agricultural Zoning in South Hadley."

" Further, the applicant's materials do not appear to address vegetation maintenance, minimization of tree removal, management of erosion on steep slopes, or restoration of the gravel pit." Protected features are absent.

Lastly, the Design Standards note:
§ 360-33 Open spaces and protection of natural features.

A. "Before approval of a plan, the Planning Board may also, in proper cases, require the plan to show a park or parks suitably located for playground or recreation purposes or for providing light and air. The park or parks shall not be unreasonable in area in relation to the land being subdivided and to the prospective uses of such land. The Planning Board may, by appropriate endorsement on the plan, require that no building be erected upon such park or parks for a period of not more than three years without its approval."
The plan does not show any parks for recreation or for playgrounds, which should be offered.

In sum, the Town's Design Standards are not discretionary. Rather, they are intended to support significant architectural and landscape design features that help to define a distinctive character and quality of life in the Town. The Applicant has not shown due regard for the principal natural features of the proposed site, which are major community assets. Thus, the Application does not meet the Design Standards in the South Hadley Subdivision Regulations and should be rejected.

Other comments, questions, or information that the Board should be aware of?

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Check an acknowledgement that this was oted

Please State Your First and Last Name *

Rudy Ternbach

Please State Your Street Address including City/State *

118 Ferry St.

Do you wish to speak at the public hearing on June 22, 2020? *

Yes

No

You may also submit written comments and/or questions. Do you wish to submit written comments and/or questions at this time? *

Yes

No

Please state any comments or questions you wish to submit at this time.

Honorable members of the Planning Board, I refer you to the Planning Board Agenda Background Materials for its June 15, 2020 meeting. Specifically, I refer you to page three of the background materials showing a USGS satellite image of lot 43 and adjacent lots, and to Roman numeral V, on pages 12 and 13, of the Memorandum in Opposition submitted by the Dry Brook Aquifer Alliance which is also included in your background materials.

The Application is Incomplete and should not be approved by the Planning Board because it fails to address at least four requirements:

1. The Applicant has seemingly ignored compliance with The Forest Cutting Practices Act. From what we can tell, the proposed subdivision would not be exempt from this Act (M.G.L. CH 132, §. 40-46 ("the Act")). Specifically, "the Act" regulates commercial cutting of a volume of trees >25,000 board ft or 50 cords ... pursuant to an approved forest cutting plan. USGS satellite images which are easily available on-line for the public's use and for town planners and officials for their use in permitting, planning, and monitoring projects that have potential impacts on the natural environment, show the history of Lot 43 going back several decades and that over the years and continuing to the present, many acres that were wooded have been clear cut and this raises serious concerns about increased flooding hazards, hazards which were considered by a Town Committee with recommendations set forth in their 2016 draft report which included Sullivan Lane as one of the streets of concern.

2. The hydrology report is incomplete. While the Applicant's hydrogeologist did perform a routine data base search of federal and state environmental records, there is still a very real possibility that data gaps exist from the incompleteness of the activities. For example, the Application simply states that the Applicant is "unaware" of any unique wildlife or flora on the site. It is likely that within such a large assemblage of parcels of wooded land exists the habitat of a myriad of wildlife that would be displaced. The Application does not indicate that the U.S. Fish and Wildlife Service (or the designated State Agency) has been asked to review whether the proposed earth removal, forest clear cutting and/or construction will adversely affect endangered or threatened species or critical habitat. Therefore, at this point, the Town has no way of knowing whether the risk is acceptable. The National Wildlife Coordinating Group defines 'unacceptable risk' as a level of risk as determined by the risk management process which cannot be mitigated to an acceptable safe level of risk.

3. The application fails to provide several review documents. Applicant has requested that the Planning Board waive a several threshold review of documents, including a topographical map and a mylar (subdivision plan), which are essential to the Town's fully informed review of the Application. Thus denying The Town informed consent and forcing

its citizens to assume a blind risk.

4. The applicant fails to provide the Building Commissioner's approvals.

As a condition precedent to any subdivision approval, the General bylaws require Building Commission approval (including the excavation plans). It doesn't appear that has occurred.

CONCLUSION

We, the Dry Brook Aquifer Alliance, are convinced this Application poses serious material threats to the water supply for thousands of South Hadley's residents, and that irreparable harm would result from approving the Applicant's subdivision proposal. And, we believe, that any injury to the citizens of South Hadley would last for decades to come (for which there is no genuine remedy) and these facts clearly outweigh any potential harm to the Applicant. With all due respect, in light of the four deficiencies, we feel the Planning Board has a duty to use its authority to disapprove the entire application.

Other comments, questions, or information that the Board should be aware of?

none

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PB HEARINF Polar Estates 06/22/2020

2 messages

'Stephen Frantz' via SHPlanBoard <SHPlanBoard@southhadleyma.gov>

Mon, Jun 22, 2020 at 4:56 PM

Reply-To: Stephen Frantz

To: SHPlanBoard@southhadleyma.gov

Cc: Richard Harris <rharris@southhadleyma.gov>, Stephen Frantz

Thank you to the Members of the South Hadley Planning Board for this opportunity to speak against the Polar Estates development proposal. I am Dr. Stephen Frantz, Research Pathobiologist with Global Environmental Options, South Hadley (formerly: Dept. of Pathobiology, The Johns Hopkins University, Bloomberg School of Public Health; and Dept. of Environmental Health and Toxicology, School of Public Health, State University of New York).

This statement and two attached earlier statements to the PB are to be included as a comment for today's South Hadley (SH) Planning Board hearing on the proposed Polar Estates development (Application for Definitive Plan and Stormwater Management Permit approval for proposed subdivision) on Dry Brook Hill that sits atop the Water District #2 aquifer and is fully within the SH Water Supply Protection Overlay District. Some of my 2019 concerns have been partially addressed, but none as robustly as needed considering the serious risks to the drinking water supply and public health.

In my 05/06/2019 letter to the South Hadley Board of Health (pp.1-2), I expressed concern about Chicopee Concrete's Dry Brook Hill mining violations of Town bylaws and potential revenues due to the Town. Illegal mining for 15 years represents a substantial violation. Clearly, they did know throughout that they had no permit. I had directly asked Chicopee Concrete (i.e., Mr. Levesque) to produce their "2001" permit at a Planning Board meeting and they theoretically had it in their files and Mr. Richard Harris (SH Town Planner) agreed to its existence. However, on 12/31/2018, when Mr. Vern Blodget and I met with Mr. Harris at the SH Planning and Conservation Dept. in Town Hall and asked to see the permit, he could not produce it. This led to my research at the South Hadley Assessor's Office, Western New England Univ. Law Library, Hampshire Law Library and finally at the Hampshire County Register of Deeds (03/03/2019). This work resulted in my filing a complaint (co-signed by Mr. Rudy Ternbach) with the SH Building Commissioner on 04/16/2019 re. "Chicopee Concrete excavation beyond allowable boundaries". The outcome of that complaint followed by ZBA action is history.

In addition to the above issue, I questioned in my BOH letter if Chicopee Concrete had paid the Town for the actual volume of gravel removed? There are aerial photo/geological assay methods for estimation of actual volume differences over time, and that can be compared to whatever numbers have been reported by Chicopee Concrete. I don't know that this issue has been adequately addressed which is very significant because if monies are due, Town bylaws would prevent Chicopee Concrete from moving forward on any project until all debts are settled.

Most of my BOH letter (pp.2-4) addresses water quality and the need to protect the aquifer from chemical contaminants of emerging concern that include carcinogens, endocrine disrupters, and more that accompany discharge of various household chemicals, flame retardants, hormones, pesticides, pharmaceuticals (prescription and other), and also typical oil, gas and other chemical spills from cars, trucks, lawn equipment, and more into septic systems and/or onto open land. There is no "away" to throw to, it ultimately ends up in the ground water.

My 01/14/2019 statement to the PB reviewed a wide range of public health, public safety, endangered species, climate crisis and other environmental issues, some of which have been discussed at various meetings and some have not. That document stands for itself as a reference to my concerns and need not be reiterated here.

One other issue not addressed above is, Who insures Chicopee Concrete operations on Dry Brook Hill? If the aquifer becomes contaminated due to their excavations, the resulting lawsuits would be extreme, and what insurance carrier would want to risk that potential financial burden?

Thank you for your consideration of my comments of today as well as from 2019; and I would hope that the conclusion of today's PB hearing will be that, at the very least, the contamination risk to the District #2 water supply and health risk to South Hadley residents, including Mount Holyoke College students and faculty, are far too great, and the proposed development application will be denied.

Sincerely,

Dr. Stephen C. Frantz
Research Pathobiologist
South Hadley, MA

2 attachments

 **05:06:2019 BOH doc.pdf**
38K

 **JAAN14,2019 Statement v.FINAL final.pdf**
3390K

Richard Harris <rharris@southhadleyma.gov>

To: Brad Hutchison <bhutchison@southhadleyma.gov>, Brad Hutchison

Mon, Jun 22, 2020 at 5:43 PM
g>, Diane S Mulvaney

, Joanna Brown <jbrown@southhadleyma.gov>, Melissa O'Brien <mbrien@southhadleyma.gov>, Therien

Cc: Anne Capra <acapra@southhadleyma.gov>, Colleen Canning <ccanning@southhadleyma.gov>

Good Afternoon,

I just received the attached email for tonight's meeting.

Thank you.

Richard Harris, AICP
Director of Planning & Conservation
Town of South Hadley
Room U6
413-538-5017 Ext 128



[Quoted text hidden]

2 attachments

 **05:06:2019 BOH doc.pdf**
38K

 **JAAN14,2019 Statement v.FINAL final.pdf**
3390K

My name is Stephen Frantz, a resident of South Hadley, and professional research pathobiologist specializing in public and environmental health issues. Regarding Dry Brook Hill, the mining operation has been ongoing for at least 15 years without a special permit ever recorded at the Registry of Deeds for Hampshire County. As such, the operation appears to be in violation of SH zoning bylaws, including 255-140.

The Chicopee Concrete gravel mining operation has altered the landscape of Dry Brook Hill and most likely its natural hydrologic systems, both surface water and groundwater; and consequently, poses a risk to the drinking water purity for Dist. #2 residents. A map published in 2003 by Water Dist. #2 indicated that gravel mining on Dry Brook Hill was a potential contamination source of the Dry Brook Well (Selkirk W. 2003. South Hadley Fire District No. 2, Dry Brook Well, 1275001-04G, South Hadley MA. Zone I / Zone II / Zone III Delineation & Potential Contamination Source Location). This risk was also expressed in the 2004 U.S. Geological Survey study (Garabedian, SP and JR Stone. 2004, Delineation of areas contributing to the Dry Brook public-supply well, South Hadley, MA. US Geological Survey Water-Resources Investigations Report 03-4320. 52pp.) when far less aggregate material had been removed. It appears that thereafter, until December of last year, there has been very little significant discussion about the mining operation's potential adverse effect on human and environmental health. Since regular on-site inspections at Dry Brook Hill by Town officials have not occurred, we do not know the overall status of the mining operation and it is uncertain if bylaws might have been violated. Some issues to consider are: amount of aggregate removed; grade of slope at edges; if within area limits (borders) set forth in early agreements; and if they are good stewards of the property (e.g., trash, abandoned vehicles, and keeping equipment in a manner that allows containment of potential chemical spills). The only recent inspection of the site on record (Sept. 24, 2018 Planning Board minutes) occurred on Sept. 6, 2018. In attendance were individuals from the Planning Board, Fire Dist. #2 Water Department, and Chicopee Concrete. CC (p.5) said "they are currently halfway through the existing pit..." so that does provide us with some unknown metric for the volume of aggregate removed by that time. And Fire Dist. #2 questioned (p. 3) the presence of abandoned equipment and vehicles, and noted that equipment was not properly stored in containment areas. The lack of good stewardship likely violates bylaw 255-35. E (4) that prohibits auto graveyards and junk storage in the Water Supply Protection District.

The mining entity appears to have violated SH zoning bylaws and it would be prudent for each appropriate Town department (i.e., Planning Board,

Water Department, Building Commissioner, Board of Health, and Conservation Commission) to conduct independent, thorough inspections in order to create an inventory of potential violations of Town bylaws, especially those that endanger the the underlying aquifer. In order to adequately protect public health and the Town water supply, Town officials would likely want to get on-site to directly inspect the status of their particular concerns. According to Bylaw 46-1, at least the latter three offices, or agents thereof, have the authority to issue citations or take action against any persons or properties relative to its responsibilities as outlined in the State Health Code or the South Hadley General Bylaws relative to that office and as allowed by law. Penalties/fines may have accumulated over the last 15 years (re. mining without a Special Permit as required); and if monies are due to South Hadley, that needs to be determined and recovered. Similarly, the amount of aggregate removed needs to be independently assessed, and the appropriate fees paid to the Town. No further plans or permits, including the current 59-lot subdivision, should be considered for this site until CC, or it's current successor, has rationalized any debt to the Town of South Hadley.

MA-DEP recommends that each town and city adopt protective land use controls for all wellhead and surface water supply protection areas in the community. They say, "As a rule, preventing a water supply from becoming polluted is far easier and cheaper than cleaning up a contaminated supply after the fact". Basically, an aquifer is irreplaceable, and once contaminated cannot typically be corrected, or only partially remediated at great cost. According to David Haines (Hydrologist and Chairman of the Belchertown Conservation Commission), speaking at the 1st Annual South Hadley Conservancy Conference on April 7th, it takes thousands of years for a contaminated aquifer to clean itself up. Considering the high quality of the water from the Dry Brook Well that supplies more than 5000 people in Water District #2, it would be best to do everything possible to protect such water above and beyond the minimum MA-DEP standards, and should include *all* of the current Water Supply Protection Overlay District. In fact, that thought was echoed in the closing remarks from each of the speakers at the Conservancy Conference: Dr. Garabedian (primary author of the US Geological Survey study of Dry Brook Hill cited earlier), Dr. Werner (Prof. of Geology, MHC) and David Haines (Hydrologist, Haines Hydrogeologic). They are all experts in geology and/or hydrology, know the detailed science of the Dry Brook Hill area, and consider the water of the Dry Brook Well *abundant* in

quantity, *pristine* in quality, and worthy of doing whatever necessary to protect it. Therefore, we must ask, Should any risk to the integrity of the Town's drinking water supply, and hence a risk to the public health of South Hadley residents, be tolerated at all?

There are many examples of other towns where the aquifers have been contaminated. The Barnes Aquifer serving people in Easthampton, Southampton, and Westfield was found contaminated with carcinogens and other pollutants in the 1980's. Remediation efforts included water treatment, filtration, etc. and they eventually purchased 25 acres of watershed land (for \$1+ million) to protect it. Dr. John Swallow, the investigator of that study, said that the primary TCE contamination migrated from 4 ¼ miles away (Personal Communication, 04/06/2019). Hence, reducing the size of a Water Protection District as recently proposed for South Hadley, is ill-advised.

A 2013 paper published by the Silent Spring Institute (Newton, MA) regarding septic tanks on Cape Cod is relevant (Schaidler L, K Rogers and R Rudel. 2013. Contaminants of emerging concern and septic systems: A synthesis of scientific literature and application to groundwater quality on cape cod [<https://silentspring.org/sites/default/files/Contaminants%20of%20Emerging%20Concern%20and%20Septic%20Systems%202013%20Report.pdf>]). Hormones, drugs, and household chemicals are increasingly recognized as threats to water quality and human health. These contaminants of emerging concern (CECs) are now commonly reported in U.S. rivers, streams, and drinking water supplies, including:

- Pharmaceuticals – antibiotics* (sulfamethoxazole, trimethoprim);
- Pharmaceuticals – prescription/not antibiotics* (carbamazepine; naproxen);
- Non-prescription pharmaceuticals* (acetaminophen, caffeine, ibuprofen);
- Hormones and estrogenic activity* (17β-estradiol (E2), estrone (E1));
- Personal care product and consumer product chemicals* (bisphenol A, DEET, triclosan);
- Organophosphate flame retardants* (tributyl phosphate (TBP), tris(1,3-dichloro-2-propyl) phosphate (TDCPP));
- Alkylphenols - detergent metabolites* (nonylphenol, octylphenol).

Although CECs are not fully regulated in drinking water, significant drinking water contamination is already documented on Cape Cod. Septic systems are likely the primary source of CECs into the groundwater aquifer on Cape Cod, where 85% of residents rely on septic systems. Minimizing wastewater impacts on drinking water will reduce exposures to CECs and may better protect public health. Thus prevention priorities included:

Minimizing current drinking water impacts by reducing CEC loading from septic systems into recharge areas for drinking water wells. How might the proposal for a housing development on Dry Brook Hill accomplish this preventive intervention?

One more example is contamination of Westfield, MA wells that required a \$13 million bond in 2018 to partially "fix" the problem with filtration/aeration treatment. As noted earlier, prevention is preferred to remediation.

My understanding of the legal authority granted to MA Boards of Health includes rejecting a proposal that would contribute a risk to the drinking water supply. The various aforementioned studies should be valid for the SH BOH to reject proposals for mining or housing development on Dry Brook Hill, an area that contributes most significantly to the drinking water supply of Water District #2.

Statement re. Chicopee Concrete Major Excavation/Special Permit Application & Waiver Request of July 20, 2018

I am Dr. Stephen Frantz, a resident of South Hadley and concerned citizen. I attended the South Hadley Board of Health meeting on 12/05/2018 at which the Chicopee Concrete Service, Inc. (652 Prospect St., Chicopee, MA 01020) special permit (SP) application for a gravel pit expansion was discussed; there has been little time for official or public review of the application that is now before the South Hadley (SH) Planning Board (PB). Due to the unusual significance of this proposal, I think a concerted effort must be made to examine all aspects of the application and to duly inform all South Hadley and Granby residents of its possible public health and environmental health repercussions. *[Note: The bulk of this statement was written for the SH PB hearing on 12/10/2018; however, because that hearing was cancelled, references and other relevant material have been added to update this for the 01/14/2019 hearing.]*

My professional field is pathobiology, the study of disease systems (lack of a healthful state) that includes prevention through remediation, and encompasses public and environmental health. Hence, I am concerned about the long-term consequences of any activity that can negatively affect drinking water supply and purity and the environment.

The issue is: Special Permit under Para. 5(e) Use Regulations - Major Earth Removal of the Town of South Hadley Zoning Bylaw: Proposed Earth Excavation Operation, RLA Project No. 171206, dated July 20, 2018. It's worth noting that the application (Sect. 3 Narrative, p.1) states, "The applicant proposes to expand an existing gravel pit operation." However, this is inconsistent with Sect. 2 SP Application, p.1, FORM SP where the Nature of Request is given as item "j. Major earth removal, extraction, and/or fill activity". That is, it would be more accurate to indicate item "a. Alteration/expansion/change of a nonconforming use and/or structure." The term "Expansion" is mentioned throughout the application (e.g., Sect. 3 Narrative, p.2, p.3, etc.; thus, an explanation of the noted inconsistency should be provided by the SP applicant and/or the SH PB.

Any hydrology textbook informs us that uncompacted sand and gravel constitute "nonindurated sediments" with permeabilities much higher than those found in most other materials (1). Such deposits are premier groundwater sources, can yield significant quantities of water, and are defined as aquifers - as is the case at Dry Brook Hill (2). Therefore, regarding the SP application, it challenges public and environmental health logic to consider expansion to approximately 100 acres for the extraction of nearly 2 million cubic yards of gravel from Dry Brook Hill and nearby land that are *fully within* the Town's Water Supply Protection Overlay District. This area forms the Water District No. 2 aquifer that significantly contributes to the Dry Brook well positioned about 2000 ft NW of Dry Brook Hill. The Dry Brook well is reported to be susceptible to contamination due to the lack of hydrogeologic barriers [clay] (3). This pollution concern is also supported by a July 2003 map that identified the Dry Brook Hill sand and gravel mining operation as a potential contamination source of the Dry Brook well (4). In addition, the 2004 U.S. Geological Survey report (pp1-2) indicated that "Dry

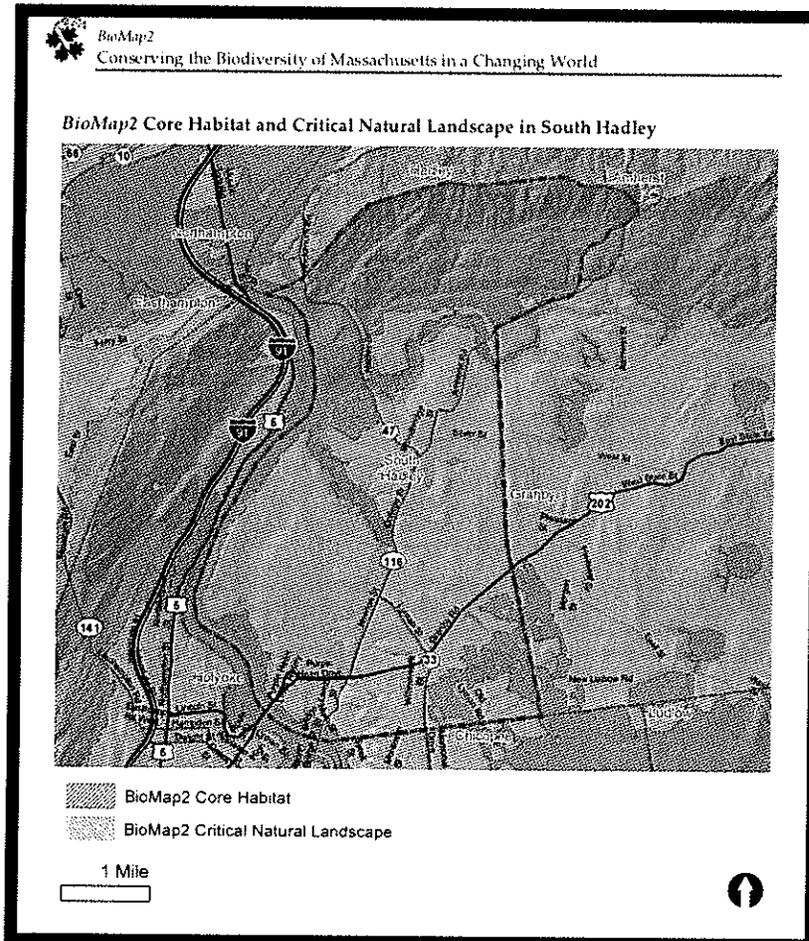
Brook Hill is important to the protection of the water quality in the Dry Brook well” ... and “is potentially vulnerable to contamination because of its permeable sandy soils and aquifer materials” (2). Specifically, on p.17 of that report, it is the gravel/sand mixture on the northwest side of Dry Brook Hill that compose the highly productive aquifer tapped by the Dry Brook supply well. Inexplicably, it is that same gravel/sand mixture that is to be removed by the proposed gravel pit expansion.

Consider the Mission Statement of Fire District No. 2 Water Department: “As we continue to educate ourselves and the public, together we will ensure the future of our water system, protect the water supply, and deliver the highest quality of water for the lowest possible rate” (5). In essence, given the District’s role in protecting the quality, quantity, and distribution of water, it would be vastly counterproductive to allow any activity that has potential to compromise their mission to their customers. At the Aug. 27th SH PB hearing, Mr. DeToma, Chair of Fire Dist. #2 Board of Water Commissioners, expressed a strong concern for protecting their 5000 customers’ water supply from potential contamination by the gravel pit operation (6). As will be described herein, the proposed earth removal activity could pose unacceptable risks to some residents, especially infants, children, and the elderly who are particularly vulnerable to water contamination and other pollution effects. Further, should the aquifer become unusable, it could become necessary for the Town to rely on the Quabbin Reservoir for additional water, and at a much higher cost to residents than at present (7).

In a related matter, this Town has nearly completed an extensive regulatory process to protect drinking water in schools and public buildings/facilities regarding lead and copper. Throughout that regulatory process, we have had confidence in the quality of water supplied by Water Districts No.1 and No. 2. We have sought to eliminate contamination through removal of aging plumbing fixtures and related equipment in the buildings themselves since the water in supply mains is fully acceptable. Activities such as the gravel pit expansion that pose a risk to the Town drinking water supply could defeat this ongoing process. That is, the SP application before us could negatively affect the water itself; incongruously, the application also seeks to be relieved of financial security requirements for clean-up and from water runoff/stormwater requirements. Regarding the latter, the application states (SP Sect.3, Narrative, p. 2), “The soils in this area are also sandy and highly permeable”; and such permeability was also noted in the 2004 U.S. Geological Survey report (2) cited previously. In my opinion, this permeability indicates a heightened risk of runoff/stormwater contamination of the District No. 2 aquifer that lies beneath the excavation area and certainly is *no logical reason* for the Town to allow a waiver of Stormwater Management Permit requirements under the Town of South Hadley Stormwater Management Bylaw.

Based on procedural and substantive information provided in the SP application, my areas of concern include legal mandates/regulations, environment, health and the public good, and deserve more thorough study and explanation. Some of these concerns and associated questions follow below in roughly the same order as discussed the SP narrative.

1. The application states that the bowl-shaped excavation at the four real estate sites will self-capture water runoff. Indeed, where the pit exists, water will be “captured”, and due to sand/gravel permeability such runoff will be a risk to aquifer contamination as explained earlier. There’s additional concern re. surface water and contaminants from trucks and equipment in infrastructure areas not located within the pit *per se*, *such as*: staging areas, raw material storage/stockpile, maintenance, parking lots, fueling stations (if any). Will gravel be screened and washed on site to remove unwanted soil, reduce dust, etc.? If so, what will be the source and disposal of such water? What specific processing equipment/ machinery besides dump trucks and trailer trucks will be employed or stored on site and will also be traveling on nearby roads and highways? At the SH PB hearing on Sep. 24, 2018, abandoned vehicles (minor automobile graveyard) and scattered equipment were reported on-site by Ms. Bedard (Fire Dist. #2 Water Commissioner) and Mr. Aiken (Fire Dist. #2 Water Superintendent). This finding not only questions the stewardship practices of Chicopee Concrete, but may violate MA DEP Drinking Water wellhead protection zoning (8). This can be resolved through the inspection and enforcement provisions that require each supplier of water (e.g., Dist. #2) to annually survey the land uses within Zones I, II and III, or within the Interim Wellhead Protection Area for each well and wellfield under its control (9).
2. Excavation is to occur on four properties (SP Sect. 3, Narrative, p.1) that include forested lands (all 4 properties) and agricultural lands (2 properties) and include or border a wetland area (1 property). Mr. Levesque (representing the applicant) has stated that existing vegetation on the proposed excavation site “... is a mixture of forested lands, mowed landing strip, etc. with most of the site falling in the forested category”(10). It should be noted that forested and other vegetated land, detritus, and soils are very important for sequestering carbon and reducing the effects of the climate crisis (11); a gravel pit is antithetical to carbon sequestration. The excavation process will remove vegetation, topsoil, substrate and all life forms that inhabit the area, and that area will become insignificant for capturing carbon in aboveground biomass as well as below ground (soils in temperate forests hold roughly 60% of the total carbon in such forests [12]. Additional problems with carbon-producing activities are discussed in Sandberg and Sharma Wallace. 2013 (13).
3. The Toronto Environmental Alliance clarifies that while each gravel pit or quarry has unique characteristics and impacts, every pit or quarry will degrade the natural environment (14). And for pits or quarries situated on lands designated as *ecologically significant*, this degradation has an even greater adverse impact. Therefore, we should be aware that the proposed excavation area in South Hadley is surrounded by “Priority Habitat of Rare Species and also Estimated Habitat of Rare Wildlife.” See map below: South Hadley Priority Habitats and Estimated Habitats, August 1, 2017 (15); a large print of this map hangs on the wall of the South Hadley Planning and Conservation Department in Town Hall. Priority Habitat is based on the known geographical extent of habitat for all state-listed rare species, both plants and animals, and is codified under the Massachusetts Endangered Species Act (MESA). Habitat alteration within Priority Habitats may



result in a take of a state-listed species, and is subject to regulatory review by the Natural Heritage & Endangered Species Program (NHESP). Priority and Estimated Habitat maps are used for determining whether or not a proposed project must be reviewed by the NHESP for MESA and WPA (Wetlands Protection Act) compliance. The SP proposed extraction site is not included as priority habitat on the August 1, 2017 map noted above, but is surrounded by same, and appears to have been included in the above 2012 BioMap2 Core Habitat and Critical Natural Landscape in South Hadley (16). Specifically, wetlands along Bachelor Brook, Stony Brook and The Cove in South Hadley are identified as Core Habitat for rare species. Just south of the proposed excavation area is the 284 acre Bachelor Brook/Stony Brook Conservation Resource Area that is the largest and most biologically diverse of the properties managed by the South Hadley Conservation Commission. Considering the juxtaposition of the proposed SP excavation lands with the protected conservation lands, it is difficult to understand how the entire area is not protected. Obviously, the gravel pit expansion is not compatible with natural heritage, biological diversity or conservation programs; and the overall operation will degrade the aesthetic beauty of this rural part of South Hadley with consequential economic impacts on nearby property values.

4. The district within which the proposal falls is zoned agricultural and is *within* the Town's Water Supply Protection Overlay District; thus, the plan appears to be counter to the Special Permit Standards re. a proposal is to be consistent with the purpose and intent of the land use for the district. The plan does not meet the Standard "to be suitable to the neighborhood and the land use area in which it is located". For example, at SH PB hearings (08/27/2018, 09/24/2018 & 12/10/2018) and recent Board of Health regular meetings (12/05/2018 & 01/02/2019), South Hadley residents have complained or expressed concern about the truck traffic from the current (and proposed) gravel pit operation. It was noted at the Sep. 24th PB Hearing that the main routes to be used by the applicant are "Route 47 to Route 116 to Route 33"; however, other routes, including Pearl Street, could be used by companies other than the applicant (17). Considering the broad range of potentially affected neighborhoods, has the SH PB queried the neighborhood residents and all those residents and businesses that would be along the travel routes of the gravel trucks? How will this proposal impact property values? Have prevailing winds (speed, direction & duration) been studied to know if particulate matter (largely siliceous and calcareous dust) and other airborne contaminants from machinery might reach nearby residences and affect public health, including respiratory issues, especially asthma among children and seniors? Similar concerns are justified for people living all along the hauling routes. At the very least, the expanded operation could be considered a nuisance and of risk to public welfare. Has the U.S. Agency for Toxic Substances and Disease Registry (ASTDR) been invited to evaluate the health risks regarding this extraction proposal? And since this proposal has the potential to cause or contribute to a condition of air pollution, has it been reviewed and approved in accordance with the air quality requirements of the Massachusetts Clean Air Act/Air Pollution Control (18)?
5. The Special Permit Standards require the proposal to be compatible with the existing character of the neighborhood and land use area. As in #4 above, the

same questions are raised re. impact on neighbors. Just because there's an existing gravel pit operation does not mean that a major expansion of it remains at all compatible because extraction expansion will result in increased traffic volume, hours of operation, lights, noise, dust, odors, fuel exhaust, and ground/earth vibrations from heavy equipment passing by on roadways. These are real public health concerns for Town residents living nearby; for example, dust and other airborne contaminants can cause respiratory ailments; and vibrations, lights and noise can disrupt sleep. In addition, along the truck routes, there will be concomitant increased safety risks to small children, joggers, bicyclists, pets and wildlife. Also, are hiking trails associated with the proposal excavation area that would be eliminated and thus impact public recreational activities?

6. This plan is in a rural area, but has there been a study of traffic patterns, including traffic flow for different times of day and seasons?
7. The application states that the plan will not increase parking areas, impervious surface, buildings, noise, odors, traffic or light (Sect.3 Narrative, p.3). In reality, expanding, perhaps quadrupling, the existing operation *will increase nearly all such problems*. Have Chicopee Concrete records been carefully reviewed to determine how many trucks are currently in service by them and their clients/subcontractors? In fact, the applicant cannot accurately predict the number of trucks to be used by them and their sub-contractors because that usage will depend on "market demand" (19). Having many more gravel trucks on Route 47 and elsewhere will present issues noted in #5 & #6 above, and their very presence will be visually/aesthetically polluting to Town residents and visitors alike. The impact of expanding the extraction operation could detrimentally affect incomes of local businesses, especially those located along haul routes (e.g., near the Town Common and other areas of commerce).
8. Route 47 (Hadley Street in Hadley and South Hadley) is a part of the Connecticut River Scenic Byway, officially designated by the U.S. Department of Transportation as part of the National Scenic Byways Program, and is the *only nationally designated scenic byway in the Commonwealth of MA* (3). This program was established to recognize, preserve and enhance selected roads throughout the United States based on archeological, cultural, historic, natural, recreational and/or scenic qualities. In fact, most of Route 47 from the Hadley Town line going south to the Town Center (Common/near Mt. Holyoke College) has a Scenic Value Rating of "distinctive" or "noteworthy". One goal of the Connecticut River Scenic Byway is to enhance the bicycling resources and to build on the growing bicycle touring section of the regional economy. There is also local/regional planning to improve and/or create walking and bike trails and to promote other outdoor recreational activities associated with Rte. 47 (20) as well as along the east side of the Connecticut River. Clearly, the proposed major excavation that would add many large dump trucks and trailer trucks of gravel to the daily scene, and would alter the scenic landscape, would not be compatible with general scenic tourism or outdoor recreational purposes. Further, there would likely be concomitant negative financial impacts for local businesses as indicated previously.

9. While the expanded gravel extraction operation is planned to not be observable to the public, this could change over time as existing soil/water relationships will be disturbed that will affect both plant and animal biodiversity. How might this operation affect groundwater at nearby Skinner Park and Bachelor Brook/Stony Brook Recreation Area? Will drinking water wells be impacted along Hadley St., Pearl St., and Sullivan Ln. as concerned residents have expressed at meetings of the SH PB and Board of Health? As stated previously, the simple presence of more gravel trucks in nearby neighborhoods represents aesthetic pollution that is not only a nuisance factor, but can also affect public health.
10. Regarding the Master Plan Consistency Statement in the application (Sect.3 Narrative, p.6), it is highly questionable that a *vast expansion* of the existing gravel pit qualifies to be “grandfathered in”. That is, the 2010 Plan could not have anticipated that a request would be made with grave risks to the integrity of the Town’s water supply system and that could jeopardize the health of South Hadley and Granby residents and their environment.
11. Section 6 of the SP application was troubling, largely because the SH ByLaw Sect. 255-84 is rather wanting in its requirements. The SP states that it is to include “restoration of the evacuation site to its proposed condition” “with 4 inches of topsoil from stockpiles” plus “seeding and fertilizing”. As noted by Mr. Levesque (representing the applicant) at the August 27th PB hearing (21), “...the existing permit process is ‘light’ on restoration requirements”. It is not clear to me what is the “proposed condition”. Such lax requirements and methods do not account for the dynamics of complex living biological systems of plants, root systems, many other life forms and soils. For example, for nutritional uptake and defense, plants communicate with their root systems that communicate with nearby microbial life forms, other plants, and fungal mycelial mats that can extend underground for very long distances. This proposal, that is to remove largely forested land, appears to indicate that the proposed work will restore the site to what was there at the outset; and that replacing an ecosystem is as simple as changing a cement patio to one with paver blocks — nothing could be further from the truth because “actual restoration” would essentially require infilling similar materials to what had been removed (a farcical proposition). What specific materials will be used to infill the pit prior to the stated “4 inches of topsoil”? Will this topsoil be of the original composition regarding organic matter, minerals, gases, liquids and organisms? Will infill materials be certified organic so as to not introduce pesticides (e.g., glyphosate & neonicotinoids), heavy metals and other toxic substances onto the site? Such potential contaminants would compromise the quality of the underlying aquifer and the health of all using that water supply that now would have less purifying filtration. How does the applicant plan to reproduce/recreate the product of millenniums of soil microbiome activity? Have the flora and fauna of the site been professionally cataloged in order to be appropriately reintroduced? Will the natural food chains be recreated? In essence, the term “restoration” as used in the SP application is a misnomer. The aftermath of gravel mining is aptly summarized in Dawson (1): “The stripping of the top soil from a tract of land is not only likely to produce disagreeable dust and noise during the process, which may be prolonged, but, more important, after it is completed it leaves a desert area in which for a long

period of time little or nothing will grow except weeds and brush. It permanently destroys the soil for agricultural use and commonly leaves the land almost valueless for any purpose.”

12. In SP Sect. 7, the reported Monitoring Well and Test Boring Data are minimal. How was the specific placement of the test points selected? Wouldn't a greater distribution of test points provide more comprehensive data throughout the site? Why did testing not include greater temporal coverage of the seasons? Shouldn't the testing protocol consider years of seasonal flooding, at least based on estimates from USGS and/or local official data? How might Connecticut River flooding impact the excavation site and the underlying aquifer, and vice versa? How frequently will the water depth below excavation be monitored, at how many test points, and by whom? All testing/monitoring (and other) reports issued should include a certified copy of the chain-of-custody.
13. What do we know about groundwater flow patterns and how they might be disturbed? How will offsite air and water quality be monitored in relation to dust and other contamination generated by the proposed excavation?
14. Plans for careful professional monitoring and testing of water quality and quantity and soil onsite and offsite should be applauded and supported. However, I could not find a detailed discussion of the composition of potential chemical pollutants that will be brought onto the proposed site (e.g., diesel fuel, hydraulic oil, brake fluid, degreaser compounds, deicing solutions, etc.). Is there an adequate plan for rapid clean-up of surface contaminant spills? What is the reporting system for such events? How will groundwater/aquifer quality be monitored for surface chemical spills, by whom, and how reported, including a certified copy of the chain-of-custody? At the SH PB hearing on Aug. 27th (10) and the Board of Health meeting on Jan. 2nd, the applicant's representative, Mr. Levesque, did not provide convincing evidence that proper spill management has been addressed for the proposal, and we learned that no such program has existed in the previous decades of the original gravel extraction operation. It deserves to be underscored that the vulnerable aquifer underlying the proposed excavation site is *one of only two sources on which South Hadley (and part of Granby) depends*; an aquifer is irreplaceable, and once contaminated cannot typically be corrected or only partially remediated at great cost. In the last few years, four Westfield drinking water wells became contaminated with chemicals related to hypertension, cancer, etc. that resulted in the City issuing a \$13 million bond in June 2018 to *partially* remediate the problem (22). Thus, it is imperative that all monitoring and reporting activities discussed for District #2 would be performed frequently and by vetted, independent professional agencies/firms.
15. It is important to note that a review the decades-old *original permit* for gravel and sand extraction at Dry Book Hill has not been possible. The reason it's important to review the earlier permit(s) is to understand the legal limitations of the operation, property lines, guidelines to avoid aquifer contamination, etc. In a 12/31/2018 visit with Mr. Vern Blodgett to the SH Planning and Conservation Department in Town Hall, Mr. Harris, Town Planner, could not find a copy of the original permit for us

and suggested that perhaps it was with the Building Commissioner. Note that at the Aug. 27th SH PB hearing, in a discussion between Mr. Harris, Ms. O'Brian (PB member) and Mr. Levesque (representing the applicant), a "2001 permit" was mentioned and I'm not sure why this was not forthcoming at the Planning office. In a visit with SH Building Commissioner, David Gardner, and his staff, a diligent search also produced no such sand/gravel extraction permit. Therefore, before further consideration is given to the new SP application, a careful review of the original permit (and all amendments/changes thereafter) should occur in order to evaluate the status, limits, and site stewardship of the current operation.

16. One last perplexing issue is "Public Notices" (also referred to as "legal notices") that provide a permanent and verifiable record that the public was adequately informed about decisions pending or made that affect the community. Of concern are recent listings provided in the local newspaper, Town Reminder (23), of "Town of South Hadley Planning Board Notice of Public Hearing" regarding the Chicopee Concrete SP application. Notice was given in the 10/12 & 10/19 issues for the 10/29/2018 hearing, but not in the 10/26 issue that immediately preceded the 10/29 hearing. The 10/26 & 11/02 issues gave notice for the 11/13 hearing, but not the 11/09 issue that immediately preceded the 11/13 hearing. The 11/16, 11/23, 11/30 & 12/07 issues did not list the 12/10 hearing. Similarly, the 12/14, 12/21, 12/28 & 01/11/2019 have not listed the 01/14/2019 hearing. At the 12/10/2018 SH PB hearing, I commented on the need for widespread public notices of the hearings above and beyond the PB website because many of our residents do not have access to electronic media. In the interest of government transparency, I find the erratic pattern of Public Notices cited above to be of significant concern.

In summary, it appears that a professional, independent up-to-date comprehensive assessment of the impact of the SP proposal on water, air, people, animals and vegetation has not been completed. This is all quite complex and tedious if we are to continue to have sufficient high quality Town water and a clean safe environment in which to live. In MA, authority regarding protection of public water supplies is divided among several town agencies, including the Board of Health, Water Department, and Conversation Commission. MA General Law-Part I, Title VII, Ch. 40, Sect. 39K establishes that a town drinking water protection district (e.g., SH Water Dist. #2) shall be for the *purposes* of water conservation, resource management and protection, and resource planning of drinking water supplies in said district including public wells, reservoirs and aquifers which are affected by more than one such city or town. In reviewing the *purpose* of SH Zoning Bylaw guidelines (24), it appears that the SP expansion proposal conflicts with several areas, including but not limited to: to lessen congestion in the streets; to conserve health; to facilitate the adequate provision of water supply; conservation of natural resources and the prevention of blight and pollution of the environment; and shall not repeal, annul, or in any way impair or remove the necessity of compliance with any other rule, regulation, by-law, permit or provision of law. As one example, SH Bylaw Ch. 255, Art. VII, Para. 255-35, H (3) (b) allows a Water Supply Protection District to restrict/prohibit practices that [1] can adversely affect the existing or potential quality or quantity of water that is available in the Water Supply District, and [2] must avoid substantial disturbance of soils,

topography, drainage, vegetation and other water-related natural characteristics of the site to be developed. Without question, the proposal of Chicopee Concrete will alter the landscape and its natural hydrologic systems, both surface water and groundwater, and is a risk to the drinking water purity of Dist. #2 residents. Any proposed operation that threatens our irreplaceable natural resources, with accompanying potential negative impacts on both public and/or environmental health, must be seriously questioned and, in my opinion, prevented from moving forward.

FINAL THOUGHTS:

“Safeguarding Water Supplies — While water testing is the best way to verify drinking water quality in any specific location, source water protection, distribution system maintenance, and cross connection control are the best ways to ensure that citizens receive high-quality water in their homes. DEP recommends that each town and city adopt protective land use controls for all wellhead and surface water supply protection areas in the community. ***As a rule, preventing a water supply from becoming polluted is far easier and cheaper than cleaning up a contaminated supply after the fact.***” — MA Department of Environmental Protection (emphasis added)

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- (7) Personal Communication. 01/02/2019. M. Aiken, Fire Dist.#2 Water Superintendent.
- (8) MA DEP Drinking Water wellhead protection zoning in accordance with 310 CMR 22.21(1), as defined in M.G.L. c. 140B, § 1.
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