

**TOWN OF SALEM  
PLANNING & ZONING COMMISSION  
REGULAR MEETING MINUTES  
TUESDAY, JULY 21, 2020 – 7:00 P.M.  
SALEM TOWN HALL – VIRTUAL MEETING VIA ZOOM**

Per State of Connecticut, Governor Lamont Executive Order Number 7B, the Town of Salem Planning and Zoning Commission Meeting on June 16, 2020 will be following the suspension of in-person open meeting requirements. Please click the link below to join the webinar:

<https://zoom.us/j/97059895317?pwd=L0ZJTkVFYkRDY2hWUkN1Ti9UZHBzUT09>

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**PRESENT**

Vernon Smith, Chair  
Margaret Caron, Secretary  
Thomas Reith  
Walter Volberg  
Carl S. Fontneau, Alternate (7:07 p.m.) (*seated*)  
Diba Khan-Bureau, Alternate (*seated*)  
Jon Walsh, Alternate (*seated*)

**ABSENT**

John Gadbois, Vice Chairman  
Ruth Savalle  
Eric Wenzel

**ALSO PRESENT**

Town Planner Justin LaFountain  
Selectwoman Liaison Terri Salas

**1. CALL TO ORDER**

Chairman Smith called the meeting to order at 7:03 p.m.

**2. PLEDGE OF ALLEGIANCE**

**3. PUBLIC COMMENT:** *none*

**4. PUBLIC HEARING:** *none*

Town Planner LaFountain reminded everyone of the rules for virtual meetings.

**SEATING OF ALTERNATE(S):**

Alternate Commissioners Khan-Bureau and Walsh were seated for Commissioners Savalle and Gadbois, respectively.

**5. APPROVAL OF MINUTES OF PREVIOUS MEETING(S):**

- a) Regular Meeting Minutes: June 16, 2020

**M/S/C: Caron/Khan-Bureau to approve the Regular Meeting Minutes of June 16, 2020, as presented. Discussion: Chairman Smith expressed his appreciation to the First Selectman's Administrative Assistant Meredith Eisenberg for sending the agenda packets. Roll Call vote, 6-0, all in favor. Voting in Favor: Commissioners Caron, Khan-Bureau, Reith, Volberg, Walsh, and Smith. Voting in Opposition: None. Voting in Abstention: None.**

Alternate Commissioner Fontneau entered the meeting at 7:07 p.m. and was seated for Commissioner Wenzel.

**6. OLD BUSINESS**

- a) Continued Riparian Corridor Overlay Zone (RCOZ) Discussion – Presentation from Bob Russo, Soil Scientist, CLA Engineers

Town Planner LaFountain welcomed and introduced Soil Scientist Bob Russo, CLA Engineers. Soil Scientist Russo prefaced his discussion regarding the existing buffer zone, as indicated in the RCOZ regulation, by stating that the information included in his memo was gathered through the study of numerous scientific publications from the 1980s to present, not all of which have been cited in his memo. The science has been consistent over the years regarding the significance of riparian buffers, the functions they serve, how they process nutrients, and how they trap such items as sediments. He briefly discussed the highlights of his written review, which recognizes the town's RCOZ regulations, defines and discusses the functions of riparian areas, and provides a summary of the current scientific and technical basis for maintaining the regulatory preservation of riparian buffers.

RCOZ Regulations – Section 25A of the town's regulations includes a section regulating the RCOZ. The section defines the purpose of the regulation and the boundaries of the regulated area as "a distance of fifty (50) feet for smaller headwater streams and one hundred (100) feet for larger streams". The 50 and 100 foot buffers are consistent with the Eightmile River Watershed Plan and are within the range of buffer zones and regulated review zones of other Connecticut towns and the CT DEEP (Connecticut Department of Energy and Environmental Protection).

Riparian Areas – The U.S. Department of Agriculture (USDA) National Resources Conservation Service (NRCS) defines riparian areas as "lands that occur along watercourses and water bodies.... They are distinctly different from surrounding lands because of the unique soil and vegetation characteristics that are strongly influenced by the presence of water." He clarified that a riparian area is different from a riparian buffer. The riparian area essentially surrounds the water resource and has a hydrologic connection to it and differs in vegetation, soils, and hydrology from the surrounding uplands. The area serves several important functions, including the preservation of the hydrology of the water bodies they

adjoin. In the case of streams, riparian areas are responsible for groundwater discharge into streams and the maintenance of base flow. It also allows the nutrients to transport downstream, serves to mitigate flooding, and helps improve the water quality by retaining and processing nutrients and sediments. As such, riparian areas are very important to aquatic life by preserving the water quality and protecting sediment inputs and providing shade.

**Riparian Buffers** – In the early 1990s, the CT DEEP Inland Fisheries Division published a position paper regarding the importance of riparian buffers to preserve the functions of the state's streams and water resources. The paper cited the available scientific information of the time and its findings continue to be valid today. The paper determined that buffers from 50 to 150 feet wide, depending upon the soils, slope, and vegetation, were adequate to keep sediment out of ponds, streams, and lakes and to maintain sufficient shading and, thereby temperatures, of those bodies of water. Descriptions of clear-cuts and how the exposure of sunlight on those streams can significantly warm those bodies of water and its resulting adverse effects were also provided. In addition, the 2002 CT DEEP's Sediment and Erosion Control and 2004 Water Quality Manuals and papers from 2010 to 2020 agree upon the same buffers as the best management practices of providing vegetative buffers around water resources. Furthermore, based upon his personal experience in inspecting construction sites where a significant vegetative buffer is left in place above the edge of a wetlands area or watercourse, the buffer serves as a significant backup to erosion and sedimentation control and protects the area should the contractor's system fail. In terms of protection from sediment, scientific studies from the 1980s to present informs us that, while a buffer as small as 16 feet is helpful, a 50 to 100 feet buffer offers a significant vegetative buffer that would help keep sediments out of the resource.

**Nitrogen** – Soil Scientist Russo's review concentrates on nitrogen, which is typically the limiting nutrient in most of our ecosystems in the Northeast. Because it is applied in fertilizers and is an important part of animal waste, nitrogen is probably the single nutrient/pollutant of most concern on a broad basis. A 2005 U.S. EPA (Environmental Protection Agency) publication provides a meta-analysis of 66 different studies regarding vegetative buffer widths and their effectiveness in attenuating nitrogen. The meta-analysis determined that a 28 meter or approximately 92' wide vegetated buffer removes approximately 75% of nitrogen. Based upon the scientific data and analysis over the past several decades, he concludes that the 50 and 100' widths are significant distances that lead to important benefits for the preservation of the quality of the riparian resource.

In closing, he stated that additional resources are available should any of the Commissioners wish to explore the matter further. The CT DEEP's establishment of the 50 and 100' buffer widths was and continues to be backed by significant scientific data.

**Questions:**

*Effect(s) of the infiltration of nitrogen into a body of water* (Commissioner Reith) – Due to a number of factors, it is difficult to provide an all-inclusive response. In CT, the drinking

water standard is 10 parts per million and it is quite common in run-off water that is sampled in outfalls for various towns to find 2 to over 10 parts per million. Local shallow groundwater that is uncontaminated is almost invariably below one part per million. It is not uncommon to have runoff that is greater than 10 parts per million due to an over-fertilized lawn or a manure pile that is located too close to a stream. Without the buffer, the nitrogen level would increase in the stream and the micro-invertebrates, amphibians, and other aquatic life would suffer as the result. He referred back to the meta-analysis which determined that a 92' wide vegetated buffer removes 75% of the nitrogen.

*Availability of similar information regarding phosphorus – an important eutrophication nutrient for such stable bodies of water as freshwater ponds whereas nitrogen is important for marine ecosystems, unless the nitrogen is at a difficult level in the streams.*

(Commissioner Fontneau) – Similar information regarding phosphorus is available and he is familiar with such studies. Based upon his understanding, Soil Scientist Russo stated that phosphorus is more effective than nitrogen and, as such, an argument could be made for a potentially narrower buffer. Riparian buffers are also very effective for phosphorus uptake and a wider buffer is required for nitrogen. Overall, vegetative buffers perform similar functions for most other nutrients of concern. Commissioner Khan-Bureau added that, according to peer-reviewed published papers, nitrogen and phosphorus can cause algae blooms without the protection of the riparian buffer; algae blooms are most commonly seen during the summer when individuals are fertilizing their lawns and from stormwater runoff. As such, both phosphorus and nitrogen must be heeded to as, without the buffer, algae blooms are possible.

*Possibility of site-specific buffers* (Chairman Smith) – Chairman Smith explained that the reason for the invitation is not to eliminate the riparian buffer. He understands the need and is in favor of preserving the water quality and protecting the wildlife. He is interested in an objective, scientific viewpoint and the possibility of adjusting the buffer in certain areas so as to allow homeowners to have greater liberty with their property.

While there is literature regarding the possibility of reducing the buffer in certain site-specific circumstances, based upon the soil type and the nature of the resources in the area, Soil Scientist Russo expressed caution in doing so as varying the width of the buffer would complicate the execution and enforcement of the regulation. Depending upon the site's resources, uses that "lay lightly upon the land" within the buffer area could be permissible on a site-by-site basis, allowing people to enjoy/utilize those areas while allowing the buffer to function in a manner that would preserve the integrity of the resource. Another important consideration with regards to such streams as the Eightmile River and its headwater streams is shade. Maintaining cool water in the summertime and providing a good canopy over the stream are important. The 50' buffer would provide a good consistent band of shade over the stream. Studies have shown that while the water entering into an area that has been clear-cut

up to the edge of a stream is cool, the water exiting the area is warm, causing a downstream effect.

Commissioner Khan-Bureau felt that the Commission should be careful when discussing the Eightmile River and RCOZ and the importance of the function and value of the federally recognized Wild & Scenic River and the protection the buffer provides. Commissioner Reith suggested the possibility of a property owner clear-cutting an area and planting grass, which is a nitrogen absorber, so that they might be able to enjoy their property in a different manner. Should one wish to go closer to the edge of the resource or within the riparian buffer, he stated the possibility of compensating with intentional plantings and maintaining the proper management of the buffer zone with a conservation restriction.

*Uses that “lay lightly upon the land”* (Chairman Smith) – Soil Scientist Russo stated that uses that “lay lightly upon the land” could include a shed, where no trees are cut down and additional plantings between the shed and the resource are placed, could be possible. Other reasonable items could include the infiltration of roof water; rain gardens; recreational uses, e.g., trails, and; a patio with a permeable surface. Vegetable and flower gardens are also possibilities as long as the soil is being naturally managed and ensuring that NPK (Nitrogen, Phosphorus, and Potassium) levels are adequate. Commissioner Khan-Bureau added that should a shed be placed within the buffer, it should be easily removed with no permanency.

*Soil variations* (Commissioner Volberg) – Soil Scientist Russo stated that the soils do vary considerably, ranging from sandier soils which may have a permeability rate of 50 to 100 feet per day to finer textured soils that may have a permeability of 1 or 2 feet per day. Should the soils have an over-abundance of nitrogen, the nutrient could travel into the stream at a very different rate; slower flows would allow more time for the soil bacteria to process the nutrients and the plants absorb them. He referred back to the 2005 U.S. EPA’s meta-analysis of nitrogen attenuation, which considers the soil texture and plant cover type and recognizes the variability. Such discussions have led some to propose the consideration of instituting soil-based zoning. And, while soil-based zoning might be more technically sound, such regulations would create very complex applications, making enforcement difficult to manage.

Chairman Smith called upon Inland Wetlands and Conservation Commission (IWCC) Chairman Ed Natoli, who informed the Commission that any activity taking place within 75’ of a water source is under the jurisdiction of the IWCC and, as such, would not be under the Commission’s purview. He suggested the possibility of having both Commissions discuss and draft the regulation together to create a single cohesive regulation.

Town Planner LaFountain expressed his appreciation to Soil Scientist Russo for his review and presentation. Chairman Smith concurred and the Commissioners thanked him for a very informative presentation. Commissioner Khan-Bureau also encouraged the Commission to consider IWCC Chairman Natoli’s suggestion to discuss and draft the regulation with the IWCC.

*Soil Scientist Russo exited the meeting at 8:21 p.m.*

Commissioner Fontneau reiterated the suggestion of working with the IWCC to coordinate their regulations. Town Planner LaFountain agreed, adding that the regulation is included in the Zoning Regulations rather than the Wetlands Regulations due to the Commission's authority to regulate agricultural uses. He supports avoiding the need for an applicant to present and receive approval/denial for an application based upon two opposing sets of regulations.

Town Planner LaFountain added that a communication was received by the Eightmile River Wild & Scenic Watershed Committee Program Director Patricia Young and Chairman Anthony Irving regarding their willingness to speak with the Commission regarding the RCOZ. Following a brief discussion regarding the need to have the Committee provide a presentation, the Commissioners agreed to accept their offer and ask that any written materials be provided to the Commissioners in advance.

b) Proposed Amendments to Special Agriculture Overlay Zone

Town Planner LaFountain reminded the Commission of their previous discussions regarding the Special Agriculture Overlay Zone. The proposed amendments refer to the allowance of animal keeping, which is allowable by right in the Rural A (RUA) and Rural B (RUB) Zones, without any limitations, but is restricted under the Special Agriculture Overlay Zone and the proposed elimination of the sentence regarding the location of the lot in whole or in part within five hundred (500) feet of the municipal boundary.

While the reasoning behind the institution of the restriction regarding the location of the lot within the municipal boundary was unknown, an amendment was made on April 1, 2007, to correct the language from "five hundred (50) feet" to "five hundred (500) feet". To the best of his knowledge, no other towns include such a restriction in their regulations. Commissioner Khan-Bureau suggested and Chairman Smith agreed to inquire with former Planning & Zoning Commission Chairman and current Selectman Hugh McKenney, who was in attendance, regarding his recollection as to the reasoning for the limitation. Selectman McKenney stated that he believed the sentence was added at the suggestion of the regional planning commission in response to concerns regarding pig farming and the potential issues that might arise with the residents of neighboring towns. In response to Commissioner Fontneau regarding the additional permitted use for the "Construction and sale or rental of agricultural and livestock related products, including, but not limited to troughs, jumps and the like" (Section 30.4(i), Special Agriculture Zone, Permitted Uses), Selectman McKenney did not recall the reasoning behind that particular addition and recommended contacting former Town Planner Maryann Chinatti for any recollections she might have regarding the regulation, should the Commission wish to further explore the matter.

A brief discussion ensued regarding the existence of any current significant pig farming activities in town. Because pig farming falls into its own category and there are special

regulations that would need to be followed for such an activity, Chairman Smith felt that this particular regulation might not be necessary. In addition, Town Planner LaFountain stated that, because this is an Overlay Zone, residents would be required to apply for the zone and present their proposed plan to the Commission for approval. As such, the Commission would still have the opportunity to review, discuss, and approve/deny their application based upon the proposed plan. Commissioners Khan-Bureau and Caron suggested determining how many, if any, pig farms are located in Salem prior to eliminating the line. Chairman Smith disagreed, stating that, due to their unique aroma, the existence of a pig farm would be well-known and because such an activity is independently regulated, it would be unnecessary to determine the number of pig farms located in town. In addition, a public hearing would be held regarding the regulation amendment, at which time the public would have the opportunity to voice their concerns. In response to Commissioner Khan-Bureau who questioned whether there were separate regulations for pig farming when the restriction was added to the town's regulations, Town Planner LaFountain stated that in the RUA and RUB (Rural Zones A and B), uses that are permitted by right are "Farming, agriculture, poultry or animal raising, forestry,..." (Sections 4.1.4, Rural Zone A, General and 5.1.4, Rural Zone B, General), without any set limitations. The amendment would clarify the existing confusion between the RUA and RUB and Special Agricultural Overlay Zones.

**M/S/C: Fontneau/Volberg, to approve and send the following proposed amendments to Section 30, Special Agriculture Zone, of the Salem Zoning Regulations to a Public Hearing.**

**Section 30.2 – Special Agriculture Zone, General:**

**The animal keeping limitations within this section shall not apply where animal raising is permitted by right in underlying zones. The application of this zone shall not be required when a Permitted Use listed in Section 30.4 is already a permitted use in the underlying zone.**

**The minimum lot size in this zone shall be five (5) acres, in addition to the minimum acreage requirement of the underlying zone. The lot must not be located in whole or in part within five hundred (500) feet of the municipal boundary. (4/01/07)**

**The intensity of all uses proposed within the Special Agriculture Zone shall be as deemed appropriate by the Commission.**

**The Public Hearing will be held virtually via Zoom on Tuesday, August 25, 2019, 7:00 p.m. Roll Call vote, 6-0-1. Voting in Favor: Commissioners Caron, Fontneau, Reith, Volberg, Walsh, and Smith. Voting in Opposition: None. Voting in Abstention: Commissioner Khan-Bureau.**

c) 2022 Plan of Conservation and Development (POCD) – *no update*

## **7. NEW BUSINESS**

### **a) Potential Regulation Amendment Regarding Solar Panels**

Town Planner LaFountain stated that he was approached by the Selectman Hugh McKenney regarding the possibility of proposing a regulation regarding ground-mounted solar panels. Selectman McKenney stated that, at the request of First Selectman Kevin Lyden, he is investigating the feasibility of installing solar arrays on town property for the purpose of generating energy and revenue for the town. He provided a brief background regarding the Board of Education's initial proposal to install roof-mounted solar panels on top of the school. Due to concerns regarding the integrity of the roof, the First Selectman has been in search of alternative options and has asked him to look into the possibility of installing ground-mounted solar panels on town property. The two locations he is currently exploring is the back of the transfer station or the Gadbois property. He wished to obtain the Commission's opinion regarding the matter.

Commissioner Reith stated that he would like to review a proposal prior to providing any feedback. Commissioner Khan-Bureau was in favor of engaging in such sustainable energy resources, adding that she and her students constructed a solar field with Norwich Public Utilities; the data that has been received to date from the field reflects the benefits the panels have had on the environment. Commissioner Volberg agreed and was open to reviewing a proposal, but expressed caution due to its possible unsightliness within the rural character of the town.

Town Planner LaFountain stated that solar panels are permitted in other towns typically through a special exception and a specific plan would be presented to the Commission to ensure that it meets their criteria. A regulation amendment would be necessary to allow the installation of solar panels and recommends the approval process to involve a special exception allowing the Commission to have discretion over and review of the site. He added that any system generating over 1 megawatt of energy is under the jurisdiction of the Connecticut Siting Council. In response to Commissioner Fontneau who questioned whether the solar panels would only be allowable on municipal-owned land, Selectman McKenney stated that that the current plan is to place the panels on town-owned property.

Chairman Smith stated, and Commissioner Volberg agreed, that he would appreciate an objective analysis and proposal, stating both the pros and the cons. Selectman McKenney, as a former member of the Commission, agreed with the importance of hearing all of the information, adding the importance of also listening to the Eightmile River Wild & Scenic Committee regarding the RCOZ, to ensure that the Commission is doing their due diligence.

## **8. ZONING ENFORCEMENT OFFICER'S REPORT/INLAND WETLANDS AND CONSERVATION COMMISSION REPORT – no report**

Town Planner LaFountain will request a report from ZWEO Matt Allen regarding the Shingle Mill Road for their next meeting.



**9. TOWN PLANNER REPORT**

a) Update Regarding Affordable Housing Plan Grant

Town Planner LaFountain reported that the Affordable Housing Plan Grant which the SCCOG (Southeastern CT Council of Governments) has applied for will allow himself and his co-workers to develop plans for the towns of Salem, Bozrah, and Franklin. The Plan is now required by the State of Connecticut in 2022 and coincides with the town's POCD. The Grant will involve public outreach and will include a survey. A draft of the survey will be presented to the Commission for review in the near future.

A series of training videos for Commissioners is being created by the SCCOG. A link will be sent to the Commissioners to the four (4) videos that are currently available. Commission-specific videos for the Planning & Zoning Commission, Zoning Board of Appeals, and Wetlands Commission will be available in the future.

**10. CORRESPONDENCE:**

- a. A copy of a letter from the Eightmile River Wild & Scenic Watershed Committee Program Director Patricia Young and Chairman Anthony Irving offering a brief presentation regarding the RCOZ.

**11. PUBLIC COMMENT:**

Eightmile River Wild & Scenic Watershed Committee Program Director Patricia Young agreed to attend their meeting to provide a brief outline, including the Federal requirements, of the RCOZ. As a former Zoning Officer and Environmental Planner, she felt that the current regulations are in need of an overhaul and would like to have the opportunity to work with the Commission to create a workable and enforceable regulation.

**12. PLUS DELTAS:** *none*

**13. ADJOURNMENT**

**M/S/C: Volberg/Caron, to adjourn the meeting at 9:05 p.m. Discussion: None. Voice vote, 7-0, all in favor. Meeting adjourned.**

Respectfully Submitted by:

Agnes T. Miyuki, Recording Secretary for the Town of Salem