



Town of Merrimack, New Hampshire

Community Development Department

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Planning - Zoning - Economic Development - Conservation

MERRIMACK CONSERVATION COMMISSION

APRIL 15, 2019

MEETING MINUTES

A regular meeting of the Merrimack Conservation Commission was held on Monday, April 15, 2019 at 6:32 p.m. in the Merrimack Memorial Conference Room.

Chair Gage Perry presided:

Members of the Commission Present: Matt Caron, Vice Chair
Cynthia Glenn
Steven Perkins
Gina Rosati
Michael Swisher, Alternate member
Tim Tenhave, Alternate Member
Councilor Peter Albert

Members of the Commission Absent: Michael Boisvert

Also in Attendance: Ken Clinton, President, Meridian Land Services, Inc.
Tom Carr, Environ. Dept. Mgr., Meridian Land Services, Inc.
Tracy Tarr, Senior Project Mgr., GZA GeoEnvironmental, Inc.

Chair Perry designated Michael Swisher to sit for Michael Boisvert.

PUBLIC COMMENT - None

PUBLIC HEARINGS - None

APPOINTMENTS - None

STATUTORY/ADVISORY BUSINESS

- 1. Chestnut Hill Properties, LLC (applicant/owner)** - Review for recommendation to the Planning Board to amend a previously approved cluster subdivision to be serviced by individual septic systems whereas municipal sewer is required. The parcels are located at Bannon Circle and Ritterbush Court (approved, not constructed roads) in the R-1 (Residential, by map) District. Tax Map 5B, Lots 002, 005, 007, 008, 009-01 through 00971. 6

Commissioner Tenhave recused himself from the discussion.

Ken Clinton, President, Meridian Land Services, Inc., spoke of the Chestnut Hill sub-division off Old Blood Road. The project was before the Commission in 2014 for a 71-lot cluster style sub-division served by sewer and water. The plan set provided was the recorded sheets of the subdivision fully approved by the Town (2016) and State.

When last before the Commission (2014), the project sought support relative to wetland crossings/impacts and for the cluster sub-division in an R1 zone. Although there was sewer nearby, it was not onsite. The Zoning Board of Adjustment (ZBA) granted a variance for a cluster in an R1 zone and 6 additional lots of density for sewer repair associated with the school off Madeline Bennett Drive. There were two areas where sewer repair was needed. After the school was constructed, it was found to be inadequate. The sewer was (technically) not accepted by the Town, and as a condition of the subdivision, repair work was required in two locations; Baboosic Lake Road and Madeline Bennett Lane.

A key reason why the project has not yet started is the cost of and risk associated with some of the offsite improvements. In particular, the sewer repair has been a large item. Although some large developers have shown interest in the subdivision, they have walked away. The clock is ticking on the permits; Alteration of Terrain (AoT), wetland, and sewer connection permit (expired although simple to gain an extension).

The question was asked of what would occur if the initial design of the subdivision (sewer/water cluster) could not be sold, e.g., developer fund offsite and up-front cost and assume risk of repair issues, what are the options:

- If unable to do water and sewer, go in the direction of water and septic. Clusters are typically water and sewer.

In the past, Meridian has permitted and constructed a water and septic cluster (Windy Hollow). In that instance, water was available, sewer was nowhere close. They explained to the Commission, Planning Board, and ZBA, it was in fact proper and appropriate, in that case, to have a cluster smaller than the 80,000 sq. ft. lots the soils would otherwise dictate, to have them be 1 to 1½ acre size lots with septic.

- Another option is the conventional subdivision, which, instead of having everything clustered in a portion of the property with open space, is effectively lots and roads throughout the entire 193± acres.

They would prefer not to do that as it spreads out the development and removes all open space. It would likely increase wetland impacts. It would eliminate the secondary access along Madeline Bennett to the school, which was a substantial point of having two full access points for the school.

Mr. Clinton stated the desire to discuss with the Commission the cluster subdivision with MVD water and individual leech fields.

The typical cluster subdivision with water and sewer has lots that border 10,000 sq. ft. When the lots were reviewed for the Chestnut Hill Subdivision, the average was found to be just under 40,000 sq. ft. With the way the lots were laid out, the project ended up with 122.6 acres of open space. While evaluating whether it is feasible to have leech fields on the lots, they turned to the State soil sizing requirements. They have mapped all soils, done test pits, etc. They have all the base data to evaluate

it. The answer is yes, technically with their staff and what they know to be attainable for leech fields, this is very much suitable. They have identified 8-10 lots that are currently undersized. They would need to gather 10,000-15,000 sq. ft. for each lot. That could be accommodated through multiple lot line adjustments. Where 50% of open space (over the gross) is required for the cluster, the project has 63%.

They are not looking to change the roads, wetland crossings, drainage; all the other permitting and design that is in place.

Mr. Clinton spoke of the ZBA decision to grant 6 additional lots indicating, at this time, if pursuing the proposed approach, they would drop from 71 lots to 65.

It is conceivable that for some of the open space lots, a lot line or two could be adjusted. The intent would not be to substantially decrease any of the open space.

Mr. Clinton commented on the desire to inform the public of the desired approach.

Commissioner Rosati questioned if the size of the homes would be impacted if moving to leech fields, and was informed they would not.

Chair Perry asked, and was informed, the size of the subdivision would not be impacted. The intent is for the same amount of property to be open space.

The need to pay close attention to lots that have more wetlands than uplands was mentioned.

Mr. Clinton provided an excerpt from the 2013 Master Plan, 5.8.2 - Regulatory Initiatives, Open Space, Landscaping & Design, which reads in part: "residential "cluster" developments that allow open space to be set aside by permitting smaller individual lot sizes and reduced frontages. Such developments, however, are not permitted for developments on septic systems. If developed carefully, low-density open space developments can result in significant open space conservation...."

In this case, they were recommending, instead of the small dense (10,000 sq. ft.) clusters with sewer and water, it is appropriate, and they have proven that it can work, when you have a less dense leech field-based cluster.

Councilor Albert noted the cul-de-sac ends at the border property, and questioned if that is for possible future development (private lot). Mr. Clinton stated it is currently a private lot, and they are frequently required to leave a stub for future planning. It would be poor planning if they did not. In this case, it is a private lot; however, he is not aware of any plans, at this point, relative to that parcel.

Chair Perry noted the previous comments of the Commission are included in the plan notes.

Mr. Clinton commented on the amount of NHDES requirements that had to be satisfied relative to wetlands and setbacks. It was a challenge, but the lots are all very high functioning lots except for 8-10 or so that could be reworked. They could have at least 71 if not 75 lots in the project on leech field.

Mr. Clinton commented if fortunate enough to gain the variance from the ZBA and get into redesign of some of the lots, he would not be surprised if the project were to come back before the Commission for a bit more in-depth explanation about the leech fields. If the Commission felt, in general, that the idea

of the proposal is reasonable but lacks the specifics, at this time, to formally endorse, and they commit to bring the project back before entering the Planning Board stage of approval, he would believe that to be reasonable.

Tom Carr, Environmental Department Manager, Meridian Land Services, Inc., commented the State has lot sizing by soil type regulations. A site-specific soil map was done on the property, which he conducted a review on. A lot of test pits have been done on the property. Most of the lots are almost large enough (State regulation size) for onsite septic and onsite wells. With a municipal water system they allow a significant reduction in the lot size because you are not drawing water and trying to put a septic on the same lot.

Based on the soil types and slopes on the property, they are looking at about 25,000 – 31,000 sq. ft. as where the lot sizes will fall into with water and onsite septic. Some have been identified that are less than 25,000 sq. ft. There are some lots that are 32,000 sq. ft. but have a lot of wetland on them. They will have to go through much deeper calculations as they move through this process. If getting through the ZBA successfully they have quite a bit of work to do, e.g., finish testing the lots, make sure calculations are correct for each of the lots, submit to the Subsurface Systems Bureau of NHDES for subdivision approval; something that was not required with sewer and water. The proposal will put the project in a secondary review with the NHDES.

Chair Perry questioned if traditional septic systems are being considered. Mr. Carr stated the lots are large enough that they would not be encumbered to the point of needing some sort of pre-treatment or specialized system on them. They would use conventional septic systems.

NEW BUSINESS

1. GZA GeoEnvironmental Review Draft Mitigation Report

GZA GeoEnvironmental (GZA) was hired to conduct a mitigation study. The goal was to develop a Geographic Information System (GIS) model to help identify and prioritize parcels to allow the Commission to optimize Aquatic Resource Mitigation (ARM) grant cycles. The model provided was designed based on current NHDES rules, which would allow the Commission to focus on sites that would rank high in the cycle.

Applicants having projects that result in wetland impacts in the Town, which require wetland mitigation, are supposed to look to the Commission for a list of projects before seeking out their own. The study will provide a list for distribution and posting.

Another positive aspect of having the model readily available is the ability to leverage funds with other partners/groups and grow the amount of available funding.

Tracy Tarr, Senior Project Mgr., GZA GeoEnvironmental, Inc., provided a *draft* model for review and feedback. Feedback will be used to adjust the model to represent the needs and desires of the Commission.

When discussing wetland mitigation, what is meant is achieving no net loss of wetland functions and values. Types of mitigation include:

Land Preservation

The permanent protection of predominantly upland areas using legal and physical mechanisms so that the resource remains in a natural or undeveloped condition. Such protection is accomplished by placing the land under a conservation easement, which is held by a conservation organization, town or state agency. A conservation easement restricts the future use of the property in perpetuity. This practice does not make up for lost wetland functions, but protects other wetlands from degradation due to development of surrounding uplands.

Wetland Restoration

The reestablishment of a filled, dredged or drained wetland to its historic condition, to restore lost functions. Restoration can include the removal of fill, restoration of the hydrology, or other means. Wetlands restoration often has a higher success rate, because the wetland hydrology had been present at one time. Some improvements to functions may be accomplished by enhancing the buffer to the aquatic resource and may be considered as part of the mitigation package.

Wetland Enhancement

The manipulation of the physical, chemical, or biological characteristics, or any combination thereof, of an aquatic resource to heighten, intensify, or improve one or more specific aquatic resource functions. Wetlands enhancement results in the gain of selected aquatic resource functions. Wetlands enhancement does not result in a gain in aquatic resource area.

Wetlands Creation

The transformation of upland to wetland at a site where the upland was not created by human activity, such as by filling or water diversion. Creation typically involves the excavation of a site to achieve adequate hydrologic features, followed by the importation of wetland soils and establishment of wetlands vegetation. This is often very costly and requires significant efforts to succeed.

The analysis done was a cooccurrence analysis where different data layers were used and overlapped. Properties with more points received a higher score. The existing conservation land was ranked, but was not included in the top 20 as it is already protected.

Data sources used were parcel boundaries that should overlap with the tax maps, geographically available wetland data (not site specific; national wetland inventory maps), data on streams, wildlife action plan data, conservation lands data (with DES' current system, if your adjacent property is already protected your project is ranked higher), public roads; fragmented land, Natural Heritage Data (to the extent they have it), and the aquatic restoration mapper (available online; ranks certain road crossings on where aquatic passage can be improved, has data on known brook trout, etc.).

Each parcel was given a score 0-25 and placed in one of five categories. Noted was that the Commission has already protected 17 of the top sites. Fifty of Merrimack's properties fall in the top category, 300⁺ in the second, 1,000 in the third, etc. Ms. Tarr presented the Commission with a map, which depicted the top properties. An additional screening tool can be applied upon the Commission's review of the properties, e.g., if the Commission is aware of landowners not interested in any kind of conservation on their property, the property could be screened out, properties currently being constructed could be reflected in the data.

The map included information relative to anticipated mitigation type. The map highlighted (stars) aquatic mapper areas that show good restoration candidates. Whenever projects fall under a statewide database, they are ranked higher by NHDES.

For the top 6 sites, GZA wanted to do an initial baseline wetland assessment, with GIS data. The wetland functions looked at included groundwater, recharge/discharge, fish habitat, sediment shoreline stabilization; functions wetlands are providing. They looked at the NH Method, which is used to compare wetlands at the town-wide level and assesses 12 functions and values: ecological integrity, wetland-dependent wildlife habitat, fish & aquatic life habitat, scenic quality. Educational potential, wetland-based recreation, flood storage, groundwater recharge, sediment trapping, nutrient trapping/retention/transformation, shoreline anchoring, and noteworthiness.

Commissioner Tenhave noted Jeff Littleton, Moosewood Ecological, did work for the Commission, and used the same method when providing rankings for some of the other properties. Ms. Tarr stated that could be incorporated into the model so that all the data is housed in a single location.

Ms. Tarr stated there is no longer a size multiplier. Scores are 0-10. Eight to ten are considered the higher scores. Scores below 5 are typically not a great function, but can identify where a function may be able to be restored.

The top 6 sites had diverse wetlands. The codes indicate that, according to the National Wetland Inventory, there are forested and Riverine wetlands in Merrimack. A lot of the higher value wetlands are associated with brooks and rivers.

Ms. Tarr suggested, if the Commission narrows down the sites it is most interested in, and has interested willing landowners, GZA could conduct site data to gain better wetland lines and ensure the numbers are as accurate as possible.

The Commission was asked to review the rankings to ensure they are sensible, look at the map; if anything seems off make her aware so the model can be re-evaluated and adjusted, and identify priorities that may not be reflected, e.g., if there is the desire to remove approved subdivisions, if there are interested landowners, that could add a point to the model. The Commission should consider outreach for site evaluation, and GZA would help refine the model and reassess the top five sites.

Commissioner Tenhave pointed out an area of State-owned land (along F.E. Everett) and abutting Wildcat Falls (80 acres) owned by the Town. The State-owned land has black hashes through it. He questioned if that indicates Town owned land. Ms. Tarr stated the black is used to show that there is some kind of protection indicated in GRANIT (New Hampshire's Statewide Geographic Information System (GIS) Clearinghouse). Commissioner Tenhave commented on not being aware of any kind of protection on that State-owned parcel. If it is found to have protection(s), he would like to be made aware of that.

The item will be placed on a future agenda for additional discussion.

2. Wildflower Planting on Conservation Properties

Commissioner Rosati spoke of the information provided the Commission (copy attached) relative to proposed plantings on conservation properties.

She proposed the Commission begin a slow campaign to make some of our conservation land more bee friendly by planting native wildflowers that are favored by bees and other pollinators. By planting a native perennial wildflower mix in a sunny location, we can provide the bees with energy during their travels. In addition to providing a meal for bees, butterflies and other pollinators, this will benefit birds and small animals that will eat the seeds. Whatever seeds aren't eaten will grow the following year.

The UNH Cooperative Extension has formulated a basic mix for NH meadow plantings on medium to dry soils and full sun. This mix of wildflowers will support pollinators throughout the summer months and provide habitat for birds and other wildlife throughout the year.

Flowers suggested for planting were based off the UNH Cooperative Extension's basic mix. Prices were provided by Vermont Wildflower Seeds, a New England company that is non-GMO and chemical free. Commissioner Rosati noted she swapped the Shasta Daisy for Oxeye Daisy (Oxeye Daisies are a biennial and Shasta is a perennial) and the Black-eyed Susan for Brown-eyed Susan. The Joe Pye Weed Seed was removed; further research indicated, although not listed as an invasive plant, it is listed as aggressive.

Lanceleaf Coreopsis	1 oz.	\$6.95
Purple Coneflower	1 oz.	\$8.95
Shasta Daisy	1 oz.	\$6.95
Brown-eyed Susan	1 oz.	\$6.95

Commissioner Rosati stated the desire to add an annual for blooms during the first summer.

Cosmos or Scarlet Flax	1 oz.	\$6.95
Rocket Larkspur	1 oz.	\$6.95

Total **\$43.70** (free shipping after \$39)

Commissioner Tenhave suggested, with the volume of seed proposed, an area larger than the 8' x 8' location identified in Wildcat Falls would be necessary.

One quarter pound of seed would cover 250-500 sq. ft. (10' x 50').

Commissioner Tenhave suggested a few different spots in that area be tried, e.g., some closer to tree line, some in middle, etc.

The Commission discussed how to prepare the area for the seeds. It was noted the field would need to be mowed each Fall.

If the campaign is successful, the desire would be to expand the effort to other properties. Another opportunity would be putting together a seed mix that could be handed out at the Winter Carnival.

MOTION BY COMMISSIONER ROSATI TO APPROVE THE POLLINATOR PROPOSAL AND THE EXPENDITURE OF AN AMOUNT NOT TO EXCEED SEVENTY-FIVE DOLLARS (\$75.00) FOR THE PURCHASE OF THE PLANTINGS. SOURCE OF FUNDING IS FUND 53.

MOTION SECONDED BY COMMISSIONER GLENN

ON THE QUESTION

The Commission expressed its pleasure with the proposal, and the desire, if successful, to expand to other properties.

MOTION CARRIED

7-0-0

OLD BUSINESS

1. Additional Expense of Funds for HHNP Re-decking Project Along Quarry Trail

Chair Perry commented on the Commission's prior approval to increase the expenditure for the decking repair when some of the product purchased increased in cost.

Additional material was needed (screws) resulting in another increase to the initial approval.

Vice Chair Caron noted the volunteers (19) were able to get to more bridges than the project had proposed addressing. He spoke of the amount of work that was completed, and expressed his gratitude to the volunteers.

MOTION BY CHAIR PERRY TO AUTHORIZE THE ADDITIONAL EXPENDITURE OF TWENTY-NINE DOLLARS AND NINETY-SEVEN CENTS (\$29.97) FOR DECKING REPAIR AND OTHER BRIDGE WORK ON THE QUARRY TRAIL. SOURCE OF FUNDING IS FUND 53

MOTION SECONDED BY VICE CHAIR CARON

MOTION CARRIED

7-0-0

OTHER BUSINESS

1. Sub-committee Updates

Horse Hill Nature Preserve

A meeting is scheduled for April 29th at 6:30 p.m. in the Merrimack Memorial Conference Room.

Grater Woods

The sub-committee will meet in May.

Wildcat Falls

The Sub-committee met on April 2nd during which members discussed ongoing parking lot issues.

A Wildcat Falls cleanup day was conducted; however was scheduled on short notice. Only two members participated. An event is likely to be scheduled for Earth Day. Downed trees need to be removed requiring use of a chain saw and manpower. Vice Chair Caron stated, if informed of the location, he would address it the next day.

MerrimackOutdoors.org

Commissioner Tenhave informed the Commission he was contacted by Wendy Wetherbee of Wetherbee Creative, regarding the Commission's website. He questioned if a member of the Commission was willing to take on the responsibility of coordinating and providing information to the website designer to maintain and update the site.

Chair Perry commented there is a budget set aside to allow for work to be done on the site. The individual responsible would be required to coordinate the input from the Commission for the site. Commissioner Tenhave added the main page needs to be updated periodically.

Commissioner Perkins volunteered to take on that responsibility.

Chapter 111 Update

Commissioner Tenhave requested time be devoted at an upcoming meeting (1/2 hour to 45 minutes) to discussion of Chapter 111 with the goal of reminding the Commission what the project is all about, going over the updates learned through deed research, and to begin to categorize properties we may want to codify rules and/or regulations on and some for which he will recommend that not be done.

The item will be placed on the agenda for the first meeting in May.

Vice Chair Caron spoke of World Environment Day; June 5th. His employer has two project teams; one is going to Wasserman Park and the other to the Sklar Waterfront Property. The exact number of participants is not yet known; however, last year it was over 30.

Vice Chair Caron noted the Student Conservation Association's New Hampshire Corps (SCA NH Corps.) project "the hitch" requires \$10,500 funding for an 11-day hitch. In addition, there is the need for a location for the participants to stay. It may be something the Commission could consider next year. He suggested the bypass of Grater Road would be a good project. The group has forestry experience, timber experience, etc. They bring the equipment needed to complete the project. Vice Chair Caron stated he would follow some of the projects they do this year to be able to provide that feedback to the Commission when discussing the possibility again.

Commissioner Rosati questioned if Matt Casparius, Director, Parks and Recreation, was asked about the group staying at Naticook. Vice Chair Caron indicated he had spoken with Director Casparius; however, additional information is needed before being able to determine whether the camp would be available.

Chair Perry suggested the funds could be set aside, and the group asked to review the project as work for next year. That would allow the time needed and the ability to gather the information needed to determine where the group might be able to be housed. Vice Chair Caron was asked to pursue it further as a project for next year.

PRESENTATION OF THE MINUTES

Merrimack Conservation Commission. [March 18, 2019](#)

The following amendments were offered:

Page 2, Line 12; remove "Vice"

Page 3, Line 1; "weekend" should be plural

Page 4, Line 46; "on" should be "one"

Page 5, Line 35; insert "to" before "Kyle"

Page 6, Line 9; reverse the order of "was what" so that it reads "what was"

Page 7, Line 20; delete "only" at the end of the sentence

MOTION BY COMMISSIONER ROSATI TO ACCEPT, AS AMENDED

MOTION SECONDED BY COMMISSIONER GLENN

MOTION CARRIED

7-0-0

PUBLIC COMMENT - None

COMMISSIONER COMMENTS

Commissioner Tenhave encouraged residents to think about Earth Day and consider whether they can become involved in some way or fashion.

Councilor Albert commented on Earth Day and the activities that occur in Town.

Councilor Albert spoke of the Town Council Retreat that occurs in June. If there are items the Commission would like the assistance of the Council with, that information should be provided in advance of the Retreat so that discussion could occur.

Commissioner Rosati spoke of the recent high fire warning and urged residents to be mindful of behavior.

Councilor Albert noted the Nashua Regional Planning Commission's Hazardous Waste Collection Day scheduled in Nashua this coming Saturday.

ADJOURNMENT

MOTION BY COMMISSIONER TENHAVE TO ADJOURN

MOTION SECONDED BY VICE CHAIR CARON

MOTION CARRIED

7-0-0

The April 15, 2019 meeting of the Merrimack Conservation Commission was adjourned at 8:31 p.m.

Submitted by Dawn MacMillan

**POLLINATOR PROPOSAL
TO MERRIMACK CONSERVATION COMMISSION
SUBMITTED BY GINA ROSATI**

HISTORY:

Beginning in the winter of 2006-07, commercial beekeepers began reporting honey bee colony loss rates of between 30-90 percent each winter, compared to a historical loss of 10-15 percent. Workers bees leave the hive to forage, but they don't return. This decline in bees became known as Colony Collapse Disorder, and is happening across the United States, as well as Europe, and some Asian and African countries. It's become a serious concern as bees are responsible for pollinating about one-third of the world's food supply. This is not just something limited to commercial honeybees. Wild bee populations are suffering the same fate.

According to the Environmental Protection Agency, no one factor is to blame. There are a number of theories to explain the loss of so many bees, including invasive mites, new or emerging diseases affecting bees, pesticide poisoning, including the use of neonicotinoid pesticides, changes to habitats where bees forage, and inadequate forage caused by the destruction of natural habitat. Other theories suggested are climate change and atmospheric electromagnetic radiation from cell phone towers which could be interfering with bees' navigation mechanisms.

While the U.S. Department of Agriculture has taken the issue of declining bee populations seriously and acted by proposing bills and restrictions on certain pesticides, there is much that individuals can do to protect our bees, including avoiding pesticides, providing native plants, and fresh water.

PROPOSAL:

I propose that the Merrimack Conservation Commission begin a slow campaign to make some of our conservation land more bee friendly by planting native wildflowers that are favored by bees and other pollinators. By planting a native perennial wildflower mix in a sunny location, we can provide the bees with energy during their travels. In addition to providing a meal for bees, butterflies and other pollinators will benefit, as will birds and small animals that will eat the seeds. Whatever seeds aren't eaten will grow the following year.

According to the UNH Cooperative Extension, "Based on observations and trials in NH, we have formulated a basic mix for NH meadow plantings on medium to dry soils in full sun. This mix of wildflowers will support pollinators throughout the summer months and provide habitat for birds and other wildlife throughout the year."

Red Columbine	Common Milkweed	Partridge Pea
Lanceleaf Coreopsis	Purple Coneflower	Pale Purple Coneflower
Purple Joe-Pye Weed	Oxeye Sunflower	Wild Bergamot
Dotted Horsemint	Stiff Goldenrod	Foxglove Beardtongue
Yellow Coneflower	Black Eyed Susan	Showy Goldenrod
New England Aster	Smooth Blue Aster	

SEED/PLANT PRICING:

I chose Vermont Wildflower Seeds, as they are a New England company that is non-GMO and chemical free. Rather than choose a wildflower mix, I chose individual flowers based on the above recommendations of the UNH Cooperative Extension, with emphasis on wildflowers that are deer resistant, known to be attractive to pollinators, and are common here in NH, as it's my hope that hikers will not pick them. I will put a staked sign up asking that people leave the flowers for the bees.

I suggest:

Joe Pye Weed Seed	½ oz.	\$10.95
Lanceleaf Coreopsis	1 oz.	\$6.95
Purple Coneflower	1 oz.	\$8.95
Oxeye Daisy/Sunflower	1 oz.	\$6.95
Black-eyed Susan	1 oz.	\$6.95

I'd also like to add an annual for blooms during the first summer:

Scarlet Flax	1 oz.	6.95
Total		\$47.70 (free shipping after \$39)

PLANTING/ESTABLISHMENT GUIDELINES:

There is an area at Wildcat Falls on the Falls Loop Trail just past the picnic bench – this area had a fire and is relatively free of brush, except for some wild grass, which could easily be removed to plant. It would be easy to get in and out with water until plants have sprouted and are established.

Liz Petrides of the WCF Sub-committee has offered to help.

There will be some maintenance in the fall to mow down the area, but once established, the wildflower meadow should be self-sustaining, although it could take up to 4 years for that to happen. If the first year shows growth and promise, I propose we add an additional wildflower meadow in viable spot in another Merrimack Conservation Commission property, but that can be discussed next spring.

SOURCES:

<https://insights.osu.edu/sustainability/bee-population>
<https://www.epa.gov/pollinator-protection/colony-collapse-disorder>
<https://www.thebalance.com/bee-colony-collapse-disorder-facts-and-economic-impact-3305815>
<https://fas.org/sgp/crs/misc/RL33938.pdf>
https://en.wikipedia.org/wiki/Colony_collapse_disorder
<https://www.livescience.com/61086-biggest-myth-about-bee-apocalypse.html>
<https://extension.unh.edu/resource/wildflower-meadows-plant-selection-and-establishment>
https://extension.unh.edu/resources/files/Resource007652_Rep11219.pdf
https://extension.unh.edu/resources/files/Resource006628_Rep9500.pdf
<https://www.vermontwildflowerfarm.com/>