

**HEARINGS, MEETINGS, LICENSES**

**4/11/16**

**Town of Middleborough**  
**Department of Veterans' Services**  
**20 Centre Street, third Floor**  
**Middleborough, Massachusetts 02346-2252**

*MEMORANDUM*

To: Middleborough Board of Selectmen and the Town Manager

From: Paul J. Provencher  
Veterans' Services Officer

Subject: Clarification of a timeline that I feel has been misrepresented

Date: April 7 2016

It is with heavy heart that I'm reaching out to the community as whole asking for their support to help right a ship that has been on the verge of sinking for a long long time. Those that know me, know I've lived within the parameters of town government for the most part over the past 13 plus years that I've served the community as the Director of Veterans' Services, without voicing too much opposition.

The point here is that this is an internal issue with the personnel department, headed by the *Town Manager*, that has been poorly handled right from the start. I am lead to believe that this town manager, wants to keep me from doing my job in accordance with dictates of the state regulations. That is reaching out to the large community of veterans and their family members to see what their needs are, and assisting them wherever possible. I mention the issue from the context of one of my initial conversations with the *Town Manager* regarding my MA. state Chapter 115 caseload. He asked how many cases I had and how much money being spent annually on the program. When I told him, he seemed alarmed that a community of this size would be spending that much money.

I submit that I was hired by the town to service the veterans of this community and their family members as directed by the MA. regulations governing the Department of Veterans' Services and in that capacity, I have followed the dictates of those regulation to perform the duties of my job to the best of my ability. Middleborough is a very veteran rich and patriotic town and as such I'm striving to meet the needs of this population as well now as when I first took the position in November of 2002.

The past eighteen months or so, under the leadership of our new *Town Manager*, has been trying, for not only my department, but for Middleborough town government in general. I'm asking for the support of the *Board of Selectmen*, to help correct one little aspect of injustice that he has been being blaming on the clerical union and my department. I'm hopeful that we can square away this problem before town meeting.

First of all, I want to thank Jane Lopes for recently writing up the 2 articles dealing with this issue in the Middleborough Gazette. There is however a major error in her Thursday March 31 2016 article. She wrote "If you can convince the union to support your request (for a 19-hour clerical position) Nunes said. Looking back at the FY2016 budget book, one can clearly see that in the department requested column under the clerical position, I requested over \$30,000 for that line item. That equates to my department requesting a fulltime clerical person.

I respectfully submit that, *Mr. Nunes* being a career politician in the area of public administration and having been the Mayor of the city of Taunton, and then again hired as a major part of the receivership team, under the Patrick administration, to financially bail out the city of Lawrence, he knew he was setting up a standoff position between the town and the clerical union, by cutting the Veterans' Services department clerical position down to nineteen hours. A nineteen hour position carry's no town benefits. A clerical position, under union standards, must be at least twenty hours. Unfortunately, it doesn't really matter where you and I might stand as far as the union goes; all Town of Middleborough departments are unionized. This being said, the union has stated that there will be no new hires of fewer than twenty hours.

Moving forward, the following is the timeline of events, as I see it, to establish the FY2016 budget and live within it. The budget recommendation from our *Town Manager* for FY2016 budget, is prepared several weeks prior to town meeting, and the departments put forward their requested budgets during this process. His recommended budget is then discussed with the *Board of Selectmen*, fine-tuned and ultimately brought before the town at town meeting for approval. Please make note, as stated, it is the *Town Managers* recommended budget that our *Board of Selectmen* work off of and is fine tuned to present for approval at Town Meeting. The clerical union addressed our *Town Manager* prior to Town Meeting to let him know of their opposition to the nineteen hour Veterans' Services clerical position. Twenty hours is the minimum hours required for any union position. As I am writing this, in April 2016 a whole year after this budget was prepared and presented to the Board of Selectmen and the community, I still have no clarification as to whether or not *Mr. Nunes* bothered to share this information with our elected *Board of Selectmen* at that time. I only know that as Department Head of the Veterans' Services, our Town Manager definitely failed to notify me.

The FY2016 budget gets approved on town meeting floor in April 2015 with the 19 hours intact. In my monthly department meeting with the *Town Manager* starting at that the beginning of FY2016, July 2015, I ask what the status of my clerical position is. He states that the clerical union will not allow the position to be hired at 19 hours. He tells me that he's working on it and will get the issue resolved.

This brings us to August 2015. I am made aware of the fact, that a current clerk in one department moved to another department's position and her former position that was fully funded for more than twenty hours per week for FY2016 is no-longer needed and goes away. Where did that money for that clerical position go, and why wasn't it given to my department to fund the clerical position that I have been asking for? Did the *Board of Selectmen* know of this situation? I would hope that if they had known about this and the issue that the clerical union was holding the *Town Manager* from hiring a nineteen hour position, they would have given those hours to Veterans' Services department.

Can anyone feel my frustration? The Veterans Services Department meetings for August, September, October, and November 2015, between *Town Manager* and the Director of Veterans' Services, if we got to meet at all, always had the *Town Manager* simply saying "I'm working on the clerical position", without giving any specifics as to what he was doing and how it was going.

Now, Fall Town meeting comes and goes without incident and without recommendation from our *Town Manager* that an increase in hours is needed to be able to fill the clerical position for the Veterans' Services Department, due to a union problem. At this point, did the selectmen know the situation at hand? Why at this time didn't they take some action to help keep the Veterans Services Department from facing continued difficulty? I feel that I have been pretty patient up to this point, and given ample time to let our town government do what is expected of them. That is to keep an eye on the needs of the town departments and assist wherever possible with any shortfalls.

Now after all of this time going by, and my department struggling to stay afloat---December 2015, I finally try and take things into my own hands. I personally reached out to the clerical union representative and asked if she and the *Town Manager* met about the clerical position issue for the Veterans' Services Department and if so, what was the outcome? The answer was that the *Town Manager* never reached out to the union representative for a

discussion on the matter. This outcome is a dose of reality and a slap in the face. Here we have a *Town Manager* telling me, to my face, that he was working on that clerical issue for the Veterans' Services department, only to find out, he never even bothered to reach out to the one entity that he and town labor council should have been addressing all along. Again, did our town *Board of Selectmen* know about this and endorse this behavior?

I let the clerical union representative know that I would be meeting with a member of the *Board of Selectmen* in a few days on the issue at hand and asked if she would be willing to meet with the *Town Manager* and address the issues with *Mr. Nunes* prior to my meeting. She said she would, and she did. She told me that, *Mr. Nunes* said he was working on the matter and would get it resolved. I'm sorry for all of the repetitiveness in my memorandum, but this is how everything has been progressing, or would it suffice to say not progressing?

Still onward, I ended up meeting with a *Board of Selectmen* member around Christmas of 2015, and asked for his intervention and help to move this along. I didn't mention this whole timeline to him at the time. I'm unclear as to the outcome of his meeting with *Mr. Nunes*. I think he just reported back by saying that the issue was being worked on.

The next meeting with the *Town Manager*, I believe was in January 2016. At this point the *Town Manager* said it was now too late to do anything about the one hour increase in this FY and I would have to work without the assistance of a part-time clerk. He said the problem would be fixed in the FY2017 budget. He then went on to say **"quit while you're ahead"**, and those are his exact words! I took that to be his way of telling me to back down from continuing my fight, at this point, for the clerical position in this FY. The term "quit while you're ahead" is often times hard to swallow, but I accepted it as his way of saying that I fully understand your plight and I am going to correct this in the next FY.

Within weeks of this January meeting with the *Town Manager*, he put out that there would be no new hires or increases in hours in FY2017 and my clerical position was totally chopped out of my FY2017 budget!!! I had once again requested for it to be funded as a fulltime position in the FY2017 Veterans' Services budget.

My next department meeting happened in early March 2016. At this time I asked select-person Dalpe to be in attendance in the meeting as I laid out my perception, of the injustice that had taken place over the clerical position for my department. At this meeting, I asked our *Town Manager* to correct the issue in this FY, by bringing the position to a minimum of twenty hours. The funds should still be available because the money was already budgeted and had not been used since the position was never filled from the start of the FY. I pointed out that this would still allow the town to adhere to his (*Mr. Nunes*) policy of no new hires or increases in hours for FY2017. At this time he said, he could not and would not support this issue for the remainder of FY nor would he support it for FY2017. He came up with his own ideas as to how to run my department, which are in no way shape or form appropriate or realistic for the social services type of department that the Veterans' Services department is. I made the town manager aware of the fact that I was prepared to go to the finance committee, BOS, and the floor of the town meeting, if needed to get the clerical position for the Veterans' Services department funded. I let them know of the importance of the clerk position with me retiring in February of 2017 and the fact that my position has not been one that could be in any way shape or form handled by one person and that it had not been for quite some time.

Select-person Dalpe states that she received a correspondence addressed to the town manager dated March 8 2016 from SRPEDD offering up possible assistance to their member communities in a number of administrative capacities. She asked me to check with them to see if they would be able to be of help with needed administrative person for the Veterans' Services Department. In a April 6 2016 conversation between myself and Ross Perry of SRPEDD, it was discovered that the assistance would mostly be available to assist towns that were trying to regionalize departments. This is not the case with the Middleborough Veterans' Services department.

On Monday, March 7 2016, I'd already been requested to meet with the finance committee to staff the shortfall of the medical and cash aid line item for the current FY. This is an annual issue between the Veterans' Services

department and the finance committee. I opened my presentation asking if the finance committee was aware of the 19 hour clerk position not being hired. They absolutely were not aware of this. They listened to the proposal of using the currently approved clerical funds to increase the position to a 20 hour a week position for the this FY and the idea of getting the position continued in FY2017. They wanted to meet with the town manager and myself at their next scheduled meeting of March 21 2016 to discuss the issue.

March 21 2016 the town manager was out sick and could not make the fincom meeting.

On March 21 2016, I had an audience with the BOS and presented them with a sheet costing out the clerk position if hired for 20 hours, with benefits starting on April 1 2016. They didn't want to discuss the situation without the town manager present. Additionally they wanted a justification for the clerk position to be in their packets for the next meeting with them on March 28 2016. A lot of time and effort was spent putting together what became a 5 page justification for the clerical position.

At the March 28 2016 BOS meeting, with the town manager present, there was minimal discussion about the justification memo they requested. The BOS went along with the lead of the town manager, that nothing was going to be done and that I had to live with what I had. The town manager once again laid out his dictates on how to run my office with a less than 4 hour per week senior tax credit person. Once again, I pointed out how that was not going to work. At this point, I displayed my very heart felt frustration at the whole process and told the town manager and Board of Selectmen that I'd see them at town meeting to address the issue with the voters.

Since March 28 2016 I've reached out to individuals that have been in the positions of town managers, and selectmen from our community and others and the overwhelming response that I've received, is that if they wanted to get it done, they can get the 20 hour position done with the funds at hand regardless of the vote of the town meeting for a 19 hour a week position.

Additionally, I sat in on the April 4 2016 finance committee meeting to listen to the town manager staff the warrant articles for the April 25 2016 special town meeting and the FY2017 annual town meeting. It was dishearten to hear that he wanted \$7,500 in the *Town Manager's* office under regular pay assistant to add 4 hours per week to his assistant. It was even more upsetting to find out that the assistant has been working 40 hours per week even without that requested appropriation coming to town meeting vote. I would think that that 4 hour a week appropriation carried forward into the FY2017 budget also. Were the selectmen aware of this situation and was it legal for the *Town Manager* to do business in this manner?

The finance committee during their April 4 2016 meeting voted to restore the 10 hour per week clerical position that was appropriated and favorably voted upon for the Veterans' Services department at the April 2015 annual meeting for FY2017. They did this in hopes that a clerical person from another department working less than fulltime would be want to get an additional 10 hours. While I am thankful for their insight and understanding of the need that I have in the Veterans' Services department, 10 hours per week would still significantly have the Veterans' Services department understaff at the critical time leading up to the transition from the current Director of Veterans' Services to the new one and beyond.

With the pending retirement of the department head that has been working well in excess of 40 hours per week for as long as he can remember, It is essential to plus up the personnel hours in the department as soon as possible to not only to make for a smooth transition, but also to make sure that the job is a doable position for a 40 hour per week Director of Veterans' Services.

I am therefore requesting that since by state mandate, the Veterans' Services department falls directly under the *Board of Selectmen*, the board take the following actions:

Allow for a 20 hour a week clerk to be hired for the remainder of FY2016 with the clerical monies appropriated this FY for both the Building department and the Veterans' Services department. The monies

available currently in the Veterans' Services department budget alone (\$7,925.94) would more than cover the cost of the 20 hour a week person with benefits for the rest of the FY.

Allow for that same 20 hour a week person to be fully funded in the FY2017.

Finally, I am hopeful that the *Board of Selectmen* will take the Veterans' Services department out from under the day to day control and management of *Town Manager* and place the department directly under their control. The mental anguish that this *Town Manager* has caused me over the past year, on this 1 issue alone, is more than any town employee should be expected to put up with whatsoever.

**W.R.P.D. CONTINUED HEARING  
Renewable Energy, LLC (Next Sun)**

March 11, 2016

Patricia J. Cassidy, Agent  
Middleborough Conservation Commission  
20 Centre Street, 2nd Floor  
Middleborough, MA 02346

**Re: Special Permit Restoration Plan Review**  
17 Jericho Road Solar Facility

Dear Patricia,

This report is submitted at the request of the Middleborough Conservation Commission for the review of the Special Permit application related to clearing in violation of the Order of Conditions file #SE220-1245 at 17 Jericho Road. A site visit was conducted along with the application review. Documents reviewed include:

1. 'Plan Showing Trees Cut Beyond Approved Limit of Work', Dwg No. CR1.0 dated 2/18/16 (latest revision)
2. 'Remediation Plan' Drawing No. CR-2.0 dated 2/18/16 (latest revision).
3. 'Remediation Plan' Drawing No. L-1.0 dated December 15, 2015, Revised 2/18/16.
4. Proposed 25 foot Buffer Zone Restoration Plan Narrative dated January 20, 2016.
5. 'Landscape Maintenance Recommendations for Solar Electric Generation Facility'.

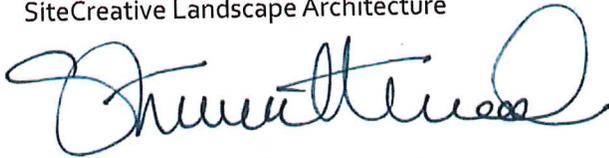
Review observations and recommendations:

1. We recommend that the caliper of trees removed is documented for reference in determining the scope of proposed replacements.
2. There are several trees on site that have been topped. These should be documented.
3. Proposed fencing within the 100 ft buffer zone should be shown on the plans.
4. Any regrading should be identified, along with extent and location of slope stabilization.
5. The proposed 209 plantings (based on ratio of 1.5 to 1 of the 139 cut trees) includes 100 understory shrubs, so fewer trees are being planted than were removed. We suggest that the Commission request a higher rate of replacements based on tree removal quantity and caliper.
6. We suggest varying the size of proposed plantings for staggered maturity rates and grouping shrub masses for more contiguous cover.

7. Plan installation notes state that plantings may be deleted in areas where existing vegetation exists. Please clarify.
8. Planting notes also state that plantings shall be watered until established. Please clarify method of watering and anticipated frequency to monitor watering requirements.
9. The landscape maintenance recommendations are geared toward home landscapes vs naturalized areas. It is recommended to remove items related to manicured landscapes (including fertilizing, pruning for aesthetics and winter cleanup) and add information specific to the proposed 2 year maintenance period of plantings, including watering method and invasive species removal.

Feel free to contact me if you have any questions or you would like to discuss.

Best Regards,  
SiteCreative Landscape Architecture

A handwritten signature in blue ink, appearing to read 'Stephanie Hubbard', with a large, stylized flourish at the end.

Stephanie Hubbard, RLA, LEED AP  
Principal



Environmental Consulting & Restoration, LLC



April 6, 2016

Middleborough Conservation Commission  
 20 Centre Street, 2nd floor  
 Middleborough, MA 02346  
 Attn: Patricia Cassidy, Conservation Agent

**RE: Proposed 25 foot Buffer Zone Restoration Plan, 17 Jericho Road, Middleboro**

Dear Ms. Cassidy & Members of the Conservation Commission:

Please accept this revised 25 foot Buffer Zone Restoration Plan to mitigate cutting of vegetation within the 25 foot buffer zone to Bordering Vegetated Wetlands at 17 Jericho Road in Middleboro. Per review of the April 1, 2016 second review letter from Site Creative Landscape Architecture and discussion on April 5, 2016, Environmental Consulting & Restoration, LLC (ECR) has revised the restoration proposal to include additional plantings and recommendations.

The propose restoration tasks involves the following activities:

1. Maintenance of the existing erosion control line to include replacement of degraded sections, if necessary.
2. Removal of excess slash (cut limbs/brush) within the restoration area.
3. Planting of native vegetation by hand to include the species, number, and sizes in Table 1 below. The saplings have been revised to include varying sizes and increased sizes as noted below:

**Table 1 – Proposed 25 foot Buffer Zone Restoration Plant Palette**

Description	Species	Varying Sizes	Number	Estimated Mature Height & Width
Coniferus Tree	Red Cedar ( <i>Juniperus virginiana</i> )	5 to 6 ft.	16	50' x 15'
Coniferus Tree	Red Cedar ( <i>Juniperus virginiana</i> )	4 to 5 ft.	9	50' x 15'
Coniferus Tree	White Pine ( <i>Pinus strobus</i> )	8 to 10 ft.	10	80' x 40'
Coniferus Tree	White Pine ( <i>Pinus strobus</i> )	6 to 8 ft.	18	80' x 40'
Deciduous Tree	White Oak ( <i>Quercus alba</i> )	2-2.5" caliper	4	60' x 40'
Deciduous Tree	White Oak ( <i>Quercus alba</i> )	1-1.5" caliper	18	60' x 40'
Deciduous Tree	Red Maple ( <i>Acer rubrum</i> )	2 to 2.5" caliper	10	40' x 30'
Deciduous Tree	Red Maple ( <i>Acer rubrum</i> )	1 to 1.5" caliper	16	40' x 30'
Deciduous Tree	Sassafras ( <i>Sassafras albidum</i> )	2 to 3.5" caliper	5	25' x 25'
Deciduous Tree	Sassafras ( <i>Sassafras albidum</i> )	1 to 1.5" caliper	16	25' x 25'
Deciduous Tree	Red Oak ( <i>Quercus rubra</i> )	2 to 2.5" caliper	5	60' x60'
Deciduous Tree	Red Oak ( <i>Quercus rubra</i> )	1 to 1.5" caliper	18	60' x60'
<b>TOTAL SAPLINGS</b>			<b>145</b>	

Table 1 cont.				
Shrub	Bayberry ( <i>Myrica pennsylvanica</i> )	2-3 ft.	7	9' x 9'
Shrub	Highbush Blueberry ( <i>Vaccinium corymbosum</i> )	2-3 ft.	7	6' x 6'
Shrub	Black Chokeberry ( <i>Aronia melanocarpa</i> )	2-3 ft.	7	6' x 5'
Shrub	Sweet Pepperbush ( <i>Clethra alnifolia</i> )	2-3 ft.	7	6' x 6'
Shrub	Mountain Laurel ( <i>Kalmia latifolia</i> )	2-3 ft.	7	10' x 10'
Shrub	Black Huckelberry ( <i>Gaylussacia baccata</i> )	2-3 ft.	6	6' x 6'
Shrub	Shadbush ( <i>Amelanchier canadensis</i> )	2-3 ft.	6	15' x 5'
Shrub	Sweet Fern ( <i>Comptonia peregrina</i> )	1-2 ft.	6	2' x 2'
Shrub	Gray Dogwood ( <i>Cornus racemosa</i> )	2-3 ft.	6	9' x 9'
Shrub	Witch Hazel ( <i>Hamamelis virginiana</i> )	2-3 ft.	6	15' x 5'
<b>TOTAL SHRUBS</b>			<b>65</b>	
<b>TOTAL SAPLINGS &amp; SHRUBS</b>			<b>210</b>	

In addition to restoration activities proposed within the 25 foot buffer zone, additional buffer zone restoration using shrub plantings is proposed beyond the 25 foot buffer zone in accordance with our discussion with Stephanie Hubbard of Site Creative Landscape Architecture and Patricia Cassidy of the Middleboro Conservation Commission on April 5<sup>th</sup>. The additional restoration work consists on planting 73 additional shrubs as detailed in Table 2 below:

**Table 2 – Proposed Additional Buffer Zone Restoration Plant Palette (Beyond 25 feet)**

Description	Species	Varying Sizes	Number	Estimated Mature Height & Width
Shrub	Bayberry ( <i>Myrica pennsylvanica</i> )	2-3 ft.	8	9' x 9'
Shrub	Highbush Blueberry ( <i>Vaccinium corymbosum</i> )	2-3 ft.	8	6' x 6'
Shrub	Black Chokeberry ( <i>Aronia melanocarpa</i> )	2-3 ft.	8	6' x 5'
Shrub	Sweet Pepperbush ( <i>Clethra alnifolia</i> )	2-3 ft.	7	6' x 6'
Shrub	Mountain Laurel ( <i>Kalmia latifolia</i> )	2-3 ft.	7	10' x 10'
Shrub	Black Huckelberry ( <i>Gaylussacia baccata</i> )	2-3 ft.	7	6' x 6'
Shrub	Shadbush ( <i>Amelanchier canadensis</i> )	2-3 ft.	7	15' x 5'
Shrub	Sweet Fern ( <i>Comptonia peregrina</i> )	1-2 ft.	7	2' x 2'
Shrub	Gray Dogwood ( <i>Cornus racemosa</i> )	2-3 ft.	7	9' x 9'
Shrub	Witch Hazel ( <i>Hamamelis virginiana</i> )	2-3 ft.	7	15' x 5'
<b>TOTAL ADDITIONAL SHRUBS</b>			<b>73</b>	

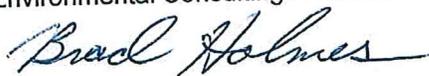
During the planting event, the shrubs will be grouped in series of 3 to 5 in a cluster to create a more contiguous cover. Also during planting, the placement of saplings and shrubs will be directed towards sparsely vegetated areas in order to avoid planting where adequate vegetation exists.

Upon planting, the root balls of each plant should be mulched with natural wood chips. Additionally, the larger trees should be guyed, as necessary, for the first growing season. Substitution of plant species should only occur after confirmation of native plant substitution by the Conservation Agent.

4. In addition to the proposed revegetation of saplings and shrubs, the existing cut deciduous trees such as Red Maple, Black Oak, and White Oak within the 25 foot buffer zone are expected to produce stump sprouts. ECR estimates that approximately 40% of the cut trees within the 25 foot buffer zone consist of deciduous trees. The root base of the cut deciduous tree is viable and during the beginning of the next growing season, the stump will regenerate to produce sprouts that can be managed into new saplings. Stump sprout maintenance is proposed to manage the stump sprouts by selecting one or two of the terminal buds of the new sprouts and pruning out the remaining sprouts during the middle of the first growing season. Over the following growing seasons, the saved/selected sprouts should be maintained to include pruning the new shoots as they emerge from the stump. Over time this will produce a new healthy sapling.
5. Upon completion of the revegetation activities, any exposed soils within the 25 foot buffer zone restoration area should be hand raked and seeded with a New England Conservation/Wildlife seed mix. Seeding should occur during the beginning to middle of the growing season when soil temperatures are consistently above 55 degrees. Seeding activities outside the growing season will require the seeded areas to be covered with weed free straw until seed germination.
6. The 25 foot buffer zone restoration area will be monitoring during the first three growing seasons to include maintenance activities consisting of replacement of dead plant stock, stump sprout pruning, and hand pulling of new non-native invasive plant growth. At the end of each growing season, an update letter report with photographs will be submitted to the Conservation office to document the success of the restoration project.

Proposed activities will include coordination with the Conservation Agent. We look forward to discussing this proposal with the Commission at the next available meeting. If you require additional information or have questions, please contact me at (617) 529 – 3792.

Sincerely,  
Environmental Consulting & Restoration, LLC



Brad Holmes, PWS, MCA  
Manager

CC: Renewable Energy (MA), Inc.  
Andrews Survey & Engineering, Inc.

**CONTRACTOR HANDOUT**  
**Buffer Zone Restoration, 17 Jericho Road, Middleboro**

- Stump Sprout Pruning Strategy – The landscape contractor shall choose one or two of taller healthier stump sprouts (terminal buds) and hand prune the remaining sprouts at the base of each resprouting cut stump within the 25 foot buffer zone. This work should be done at the middle of the first growing season in and around July/August. Over the following growing seasons, this work should occur on a routine basis (at least twice per growing season) to produce healthy new saplings.
- Plant Replacement Strategy – During the growing season, dead or missing plants should be replaced when observed during routine inspection events. The dead plant should be removed from the site and a new plant (sapling or shrub) should be replaced using the plant list provided in the restoration proposal.
- Watering Strategy – Watering during the planting event will occur as needed and directed by the landscape contractor. Upon plant installation, watering of the plants weekly during the growing season will be necessary if rainfall conditions are not adequate. Watering will be conducted by a watering truck supplying a water source to the site with hoses adequate to water each of the plants. Watering will be of sufficient quantity to penetrate the soil to a depth of eight inches, which will meet the moisture needs of the plant without saturating the soil.
- Site Inspections – The planting areas should be monitored as twice a month during the growing season by a landscape professional approved by the Middleboro Conservation Commission such as a MCLP certified landscape professional, Massachusetts Certified Arborist, etc. If remedial actions are found necessary during the site inspections, the Conservation Commission and landscape contractor shall be notified immediately.
- Invasive Plant Removal - The non-native invasive plants within the 25 foot buffer zone (Oriental Bittersweet, Japanese Knotweed, etc.) will be flagged in the field by the overseeing specialist prior to removal activities. The overseeing specialist shall review the removal methodology with the laborers. The woody saplings and shrubs will be flush cut and the stumps immediately painted with herbicide (Rodeo herbicide EPA Reg. No. 62719-324 with the active ingredient glyphosate) using a foam paint brush, which prevents application of herbicide to non-target species. Where possible, smaller shrubs and vines will be hand pulled, collected, and disposed of. All removed plants shall be collected and disposed of at a facility familiar with the disposal of non-native invasive plants.

Where extensive amounts of Japanese Knotweed exist, these areas should be treated by a licensed pesticide applicator. Where dense stands of Japanese Knotweed exist, these stands could be foliar sprayed. Where Japanese Knotweed is mixed among other vegetation, then targeted herbicide application is necessary. The targeted methodology for treatment involves using the JK Injection System, the technician injects each individual knotweed cane with 5 cc/ml of the wetland approved glyphosate-based herbicide Rodeo. Rodeo is a wetland-approved glyphosate based herbicide that is considered the standard for successful non-native invasive plant control and protection of wetland resource areas. Plant die off is expected after approximately 2 to 4 weeks after the treatment of the Japanese Knotweed. After plant die off, the plants would be cut by hand at the base of the stem, collected, and disposed of at a licensed facility. The optimal time to treat Japanese Knotweed is after the plant flowers in late August/beginning of September when the plants have expended more energy and are susceptible to herbicide treatment. Additional follow up treatment may be necessary as determined by the overseeing specialist.

# **SHEFFIELD ROADWAY LAYOUT**



The Board of Selectmen will hold a public hearing in the Selectmen's Meeting Room at the Town Hall, 10 Nickerson Avenue, Middleborough, MA on **Monday, April 11, 2016 at 7:45 PM to accept the layout of Sheffield Road in Middleborough, MA, on such terms as the Selectmen shall determine for the purposes of a Town way**, such property being shown on a plan entitled "Roadway Acceptance Plan of Land Sheffield Estates in Middleborough, MA", dated May 3, 2013, drawn by Outback Engineering Inc., which plan is on file with the Town Clerk's office.

BOARD OF SELECTMEN

Allin Frawley

John Knowlton

Leilani Dalpe

Diane Stewart

Stephen J. McKinnon

March 31, 2016

The Middleboro Gazette Newspaper



# Town of Middleborough

Massachusetts

## Planning Board

PLANNING DIRECTOR  
Ruth McCawley Geoffroy

Telephone (508) 946-2425  
Fax (508) 946-1991

March 29, 2016

Board of Selectmen  
Town Hall  
10 Nickerson Ave.  
Middleborough, MA 02346

Re: Sheffield Estates - Public Layout

Honorable Board:

The Planning Board is in receipt of a plan entitled: "Roadway Acceptance Plan of Land 'Sheffield Estates in Middleborough, Massachusetts'" dated May 3, 2013, revised through June 12, 2013, prepared by Outback Engineering, Inc., 165 East Grove Street, Middleborough, MA 02346, consisting of one (1) sheet referred by your office on March 16, 2016 for the Planning Board's comment on public layout and acceptance.

The Planning Board, at their public hearing on March 8, 2016, voted to issue a Certificate of Completion for "Sheffield Estates" and found that the construction of the subdivision road and the installation of the municipal services, as approved February 7, 2006, to be complete, and have been built in compliance with the Town of Middleborough Subdivision Rules and Regulations.

The Planning Board, therefore at their regularly scheduled meeting held March 29, 2016, voted to recommend favorable action on the layout and acceptance of Sheffield Road by the Town of Middleborough.

If you should have any questions regarding this, please do not hesitate to contact the Planning Department.

  
\_\_\_\_\_  
Tracy Mayelli  
Adam Carlone  
\_\_\_\_\_  
\_\_\_\_\_

Middleborough Planning Board

cc: Timothy Spillane

LAW OFFICES OF  
**MICHAEL P. O'SHAUGHNESSY**

70 EAST GROVE STREET  
MIDDLEBORO, MA 02346  
PHONE (508) 947-9170  
FAX (508) 947-9130  
E-mail: mike@mpoesq.com

March 15, 2016

Middleborough Board of Selectmen  
10 Nickerson Avenue  
Middleborough, MA 02346

Re: Sheffield Road Layout Request

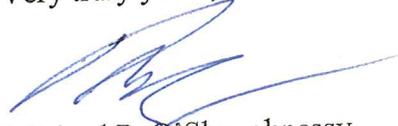
Dear Honorable Board Members:

I represent Spillane Homes, LLC. As you are aware, my client has petitioned the Board of Selectman to layout the roadway known as Sheffield Road as a public way. In support of this request, I have enclosed the road layout plan. I am sending a copy of this letter and the layout plan for filing with the Middleborough Town Clerk. Please note that the Release of Claims form will be provided under separate cover.

It is my understanding that the Board of Selectmen has referred the proposed layout to the Town of Middleborough Planning Board pursuant to Massachusetts General Laws Chapter 41, Section 81I and will schedule a layout hearing for approximately four (4) weeks from this date. Notice of the layout hearing must be published in the Middleborough Gazette and copies of the notice must be delivered to the developer, the owners of all of the lots in the subdivision and the owners of any lots that are not in the subdivision but which lots have easements on them for the benefit of the subdivision and the Board shall also post a notice of the layout hearing in a public place in the town of Middleborough.

Should you have any questions or comments, please do not hesitate to contact me.  
Thank You.

Very truly yours,



Michael P. O'Shaughnessy

cc: Middleborough Town Clerk – by hand delivery

LAW OFFICES OF  
**MICHAEL P. O'SHAUGHNESSY**

70 EAST GROVE STREET  
MIDDLEBORO, MA 02346  
PHONE (508) 947-9170  
FAX (508) 947-9130  
E-mail: mike@mpoesq.com

March 18, 2016

Middleborough Board of Selectmen  
10 Nickerson Avenue  
Middleborough, MA 02346

Re: Sheffield Road Layout Request

Dear Honorable Board Members:

In support of the above referenced layout request, please find the Release of All Claims signed by the owners of lots within the subdivision.

Should you have any questions or comments, please do not hesitate to contact me.  
Thank You.

Very truly yours,



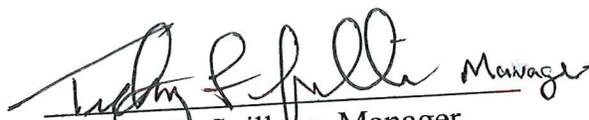
Michael P. O'Shaughnessy

RELEASE OF ALL CLAIMS

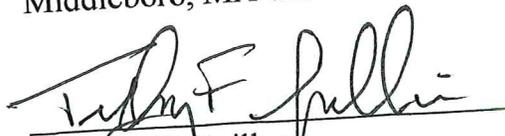
The undersigned in consideration of the Town of Middleborough (the "Town") laying out and acquiring Sheffield Road as a Town way hereby release the Town from any and all claims for damages on account of or arising from an anticipated order of taking by eminent domain by the Town's Board of Selectmen to acquire ownership of the said ways and to acquire easements in the land of the undersigned taken in such order of taking in connection with said way.

The way to be acquired as a Town way is shown on a plan entitled "Roadway Acceptance Plan of Land, Sheffield Estates in Middleborough, Massachusetts, Dated: May 3, 2013 revised through 6/12/2013, Prepared by Outback Engineering, Inc. 165 East Grove Street, Middleborough, MA 02346 Tel: (508) 946-9231".

Witness the hand(s) and seal(s) of the undersigned this 17<sup>th</sup> day of March, 2016.

  
Timothy F. Spillane, Manager  
Spillane Homes, LLC  
30 Sheffield Road  
Middleboro, MA 02346

Lot Number: Parcel B, 4, 6

  
Timothy F. Spillane  
30 Sheffield Road  
Middleboro, MA 02346

Lot Number: 5



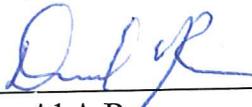
Michael LaBonte  
3 Sheffield Road  
Middleboro, MA 02346

Lot Number: 1A

Deceased 

Heather LaBonte  
3 Sheffield Road  
Middleboro, MA 02346

Lot Number: 1A



David A Reeve  
31 Sheffield Road  
Middleboro, MA 02346

Lot Number: 2 and 3



Debra J. Reeve  
31 Sheffield Road  
Middleboro, MA 02346

Lot Number: 2 and 3

**EASTWOOD ESTATES ROADWAY  
LAYOUT - CANCELED**

ROBERT J. MATHER, ESQ.  
ATTORNEY AT LAW

---

One Lakeville Business Park  
Suite 1A  
Lakeville, MA 02347

Tel (508) 946-0066  
Fax (508) 946-4474  
E-Mail: [rjmather@rjmatherlaw.com](mailto:rjmather@rjmatherlaw.com)

April 8, 2016

Board of Selectmen  
Town of Middleborough  
Town Hall  
Middleborough, MA 02346

Re: Captain Hall Road, Augustus Way, Hayden Way and Leland Way Road Acceptance

Dear Board Members:

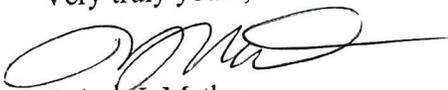
I am writing as attorney for Greystone Realty, Inc. and Marcus Baptiste and in regard to the public hearing scheduled for Monday, April 11, 2016 at 8:00 PM to accept the layout of Captain Hall Road, Augustus Way, Hayden Way and Leland Way. On behalf of my client, I respectfully request the Board to withdraw our request to have these roads laid out as public ways at this time.

As it turns out we are unable to meet the time periods necessary to make the annual town meeting on April 25, 2016. If we proceeded with our hearing on April 11, 2016 the Board would not be able to vote to layout the roadways at that meeting because they will not have received a recommendation from the Planning Board prior to the meeting. The next meeting of the Planning Board is not scheduled until April 12, 2016, which would be the earliest that the Planning Board could make a recommendation. Even if the Planning Board made a recommendation at that meeting there is not enough time left for the Board of Selectman to approve the layout and file it with the office of the Town Clerk because it must be filed not less than seven days before the town meeting.

It is our full intention to seek to have the roadways laid out as public ways at the fall special town meeting. We will begin the layout process in late July or early August to ensure that will have no issues with meeting all of the applicable time periods.

If you have any questions whatsoever please let me know.

Very truly yours,



Robert J. Mather  
RJM/slf

**EARTH REMOVAL PERMIT  
W.L. BYRNE - NEW**



# Town of Middleborough

## CONSERVATION COMMISSION

20 CENTRE STREET  
MIDDLEBOROUGH, MASSACHUSETTS 02346

PHONE: 1-508-946-2406  
FAX: 1-508-946-2309

### MEMORANDUM

TO: Board of Selectmen  
Ruth Geoffroy, Planning Director  
Robert Whalen, Building Commissioner  
Christopher Peck, DPW Superintendent

FROM: Patricia J. Cassady, Conservation Agent 

RE: Earth Removal Application – W.L. Byrne, Inc., Off Chestnut & Rocky Meadow  
Streets (Map 62, Lot 2726)

DATE: April 8, 2016

---

This memorandum is in response to the earth removal permit that the above-mentioned applicant has submitted to the Board of Selectmen.

I have the following comments regarding this site:

- 1) The Conservation Commission received a Request for Determination of Applicability for this proposal and opened the hearing last night on April 7, 2016.
- 2) The Commission voted to continue the hearing to April 21, 2016 so that the wetland line can be reviewed.
- 3) The project is proposed outside the 100-foot buffer zone but this also needs to be confirmed in the field.
- 4) The Conservation Department on behalf of the Commission has submitted comments to the state regarding the Environmental Notification Form under the Massachusetts Environmental Policy Act.

If you have any further questions, don't hesitate to contact the Conservation Office at 508-946-2406.

Thank you

pjc

Incorporated 1669



CRANBERRY CAPITAL  
OF THE WORLD

Christopher Peck  
D. P. W. Director

*Town of Middleborough*  
Massachusetts  
Department of Public Works  
48 Wareham Street  
Middleborough, MA 02346  
Phone 508-946-2481 Fax 508-946-2484



DIVISIONS  
Highway  
Sanitation  
Insect & Pest Control  
Tree Warden  
Wastewater  
Water

April 6, 2016

Ms. Diane Stewart, Chairwoman  
Board of Selectmen  
Town Hall  
10 Nickerson Ave  
Middleborough, Ma 02346

**Subject: W.L. Byrne Inc.- Earth Removal Permit Review Letter**

Dear Mr. Frawley,

At the request of the Board of Selectmen I have reviewed the Earth Removal Permit Application as submitted by G.A.F. Engineering Inc., on behalf of W.L. Byrnes Inc. As part of the submittal I received the following:

- Earth Removal Permit Application dated March 7, 2016, prepared for the applicant W. L. Byrnes, Inc., prepared by G.A.F. Engineering Inc.
- "Conservation Farm Plan", prepared in 2009 and updated in 2015, prepared by Natural Resources Conservation Service (NRCS).
- Proposed Cranberry Bog and Earth Removal Plan, prepared by G.A.F Engineering Inc., dated March 7, 2016.

The Department of Public Works comments are as follows:

1. The complaints received from abutters have been for dust issues. The applicant has addressed any complaints promptly.
2. The existing earth removal has had positive quarterly inspections. We have noted issues with wash out conditions on the side slopes during a few inspections. These issues again were promptly addressed by the applicant.

Very Truly Yours,

A handwritten signature in black ink, appearing to read "Chris Peck", written over the typed name.

Christopher Peck  
Director of Public Works



## Town of Middleborough

### CONSERVATION COMMISSION

20 CENTRE STREET  
MIDDLEBOROUGH, MASSACHUSETTS 02346

PHONE: 1-508-946-2406  
FAX: 1-508-946-2309

March 25, 2016

Matthew A. Beaton, Secretary  
Executive Office of Energy and Environmental Affairs  
Attention: MEPA Unit – Holly Johnson, MEPA Analyst  
100 Cambridge Street – Suite 900  
Boston, MA 02114

RE: ENF Comments for W.L. Byrne, Inc., Rocky Meadow & Chestnut Streets (Map 62, Lot 2726),  
Taunton River Watershed, Middleborough, Massachusetts (EEA# 15455)

Dear Secretary Beaton & Analyst Johnson:

On behalf of the Middleborough Conservation Commission I am writing this letter to offer comments regarding the above-mentioned project.

- 1) The Conservation Commission received a Request for Determination of Applicability (RDA) for the project under the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, Sec. 40 and regulations under 310 CMR 10.00 et seq.) This Request will be heard at the Commissions next meeting on Thursday, April 7, 2016.
- 2) Through the RDA process the wetland boundary depicted on the plans entitled "Proposed Cranberry Bog and Earth Removal Plan, Rocky Meadow Street, Middleborough", Sheets ER-1 & ER-2 dated March 7, 2016 by G.A.F. Engineering, Inc. and stamped by William F. Madden, P.E. will need to be reviewed to see if the wetland and the 100-foot buffer zone are accurate.
- 3) An earth removal application has also been submitted to the Middleborough Board of Selectmen to be reviewed by them on Monday, April 11, 2016.
- 4) This project is within a Zone 3 Water Resource Protection District per the Water Resource Protection District By-law under the Board of Selectmen.

If you have any questions regarding these comments don't hesitate to contact the Conservation Department at 508-946-2406.

ENF Comments for W.L. Byrne, Inc., Rocky Meadow & Chestnut Streets (Map 62, Lot 2726), Taunton  
River Watershed, Middleborough, Massachusetts (EEA# 15455)

Sincerely,



Patricia J. Cassidy, Agent

For the Middleborough Conservation Commission

Cc: William F. Madden, P.E., G.A.F. Engineering, Inc.  
James McLaughlin, MA DEP-SERO  
Donald J. Gallant, Vice President, Byrne Sand & Gravel Co., Inc.  
Linda Rinta, USDA Farm Planner  
Middleborough Board of Selectmen  
Christopher Peck, DPW Director  
Robert Whalen, Building Commissioner  
Ruth Geoffroy, Planning Director



**Town of Middleborough**  
20 Centre Street, Second Floor  
Middleborough, Massachusetts 02346

**Robert J. Whalen**  
Building Commissioner  
Tel. 508-946-2426  
Fax 508-946-2305

April 4, 2016

Middleborough Board of Selectmen  
Middleborough Town Offices  
10 Nickerson Ave  
Middleborough, MA 02346

RE: W.R.P.D. Application for Earth Removal Permit, owner William L. Byrne for W. L. Byrne, Inc., Chestnut Street (Rocky Meadow Street), Assessor's Map: 062 Lots: 2726.

Honorable Board,

I have received the plans submitted by William F. Madden, P. E. of G. A. F. Engineering dated: March 14, 2016 on behalf of William L. Byrnes for an earth removal permit for the above referenced property.  
I have no comment.

Respectfully submitted,

Robert J. Whalen  
Building Commissioner  
Zoning Enforcement Officer

RJW/d

MIDDLEBOROUGH POLICE DEPARTMENT  
99 NORTH MAIN STREET  
MIDDLEBOROUGH, MA 02346



Joseph M. Perkins  
Chief of Police

P (508) 947-1212  
F (508) 947-1009  
middleboroughpolice.com

April 4, 2016

Board of Selectmen  
Town of Middleborough  
Nickerson Avenue  
Middleborough, Ma 02346

**RE: Commercial Truck Traffic**

Dear Honorable Board,

On or about April 1<sup>st</sup>, 2016, Mr. Gallant, President of Byrne Sand & Gravel Company of Middleborough requested a records check from the Middleborough Police Department. Mr. Gallant wanted to know if there had been any issues or complaints concerning Byrne vehicles operating in town.

Since 2012, eight (8) incidents involving commercial vehicle traffic were recorded with the department. Of the eight (8), none of the incidents recorded involved Byrne Sand & Gravel.

5/24/12 12-6169, Lopes  
11/9/12 12-14058, Lopes  
7/3/13 13-9230, Logan  
9/5/13 13-12084, Lopes  
10/4/13 13-13309, C-Site

# MIDDLEBOROUGH POLICE DEPARTMENT

99 NORTH MAIN STREET  
MIDDLEBOROUGH, MA 02346



Joseph M. Perkins  
Chief of Police

P (508) 947-1212  
F (508) 947-1009  
[middleboroughpolice.com](http://middleboroughpolice.com)

11/20/13 13-15398, Landers  
8/25/14 14-9225, Polillio  
3/16/16 16-3466, MJM

Respectfully,

A handwritten signature in cursive script that reads "Joseph M. Perkins".

---

Joseph M. Perkins  
Chief of Police

CC; Don Gallant, Byrne S&G

Board of Selectman  
Town Of Middleborough

Date 04/05/2016

To whom it may concern:

I am writing in response to a Notice To Abutters that I received and was filed with you on March 15, 2016. My name is Karl Hayes and I OWN THE PROPERTY AT 15 Woodslake Terr. In Middleborough, I also represent Margaret Nash (My Aunt) who owns the property at 7 Short Brook Ave in Middleborough of which I am her power of attorney. We both oppose any more earth removal . I believe that this will eventually affect the wells in the area. I am currently in florida for the winter and did not plan to return until the end of the month or mid May. I hope you can bring this up at the meeting Monday night on my behalf.

Sincerely Karl Hayes

### 4/7/16 Telephone Notes:

- \* Both properties have shallow wells
- \* Installed in 1940's
- \* Concern that work will cause wells to dry up
- \* Has concerns with water quality  
(did have it tested and it came back ok)



ENGINEERING,  
INC.

ENGINEERS  
SURVEYORS

March 7, 2016

Town of Middleboro  
Board of Selectman  
Town Hall  
Middleboro, MA 02346

Re: Earth Removal Permit Application  
W. L. Byrne, Inc.  
Chestnut Street (Map 062, Lots 2726)  
Existing Earth Removal Permit #11-1  
**G.A.F. Job No. 10-7652**

Dear Members of the Board,

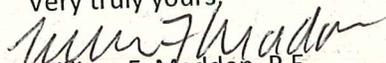
On behalf of our client, W. L. Byrne, Inc., G.A.F. Engineering, Inc. respectively submits an Application for Earth Removal in the Town of Middleboro at the above referenced site.

G.A.F. Engineering, Inc. has enclosed for your review eleven (11) copies of the following Supporting documentation, along with the filing fee in the amount of \$300.00.

1. Earth Removal Permit Application
2. Application for License
3. Copy of Earth Removal Permit #11-1
4. Copy of Deed
5. Copy of Water Management Registration No. 9P4-4-25-182.04
6. Certified Abutters List
7. Assessor's Location Map
8. Locus Map
9. Traffic Route Map
10. Site Plans and Checklist
11. USDA NRCS Farm Plan

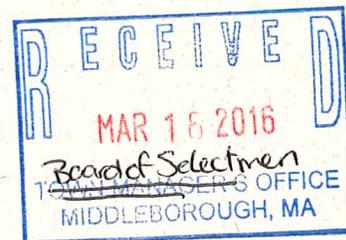
Thank you for your anticipated consideration of this request and should the Board have any questions, please feel free to contact our office.

Very truly yours,

  
William F. Madden, P.E.

WFM/mas

Cc: W.L. Byrne, Inc.  
Middleborough Conservation Commission  
Enc.



266 MAIN ST.  
WAREHAM, MA  
02571  
TEL 508.295.6600  
FAX 508.295.6634

gaf@gaf-eng.com

**GAF ENGINEERING INC.**  
266 MAIN STREET  
WAREHAM, MA 02571

THIS CHECK IS IN PAYMENT OF THE FOLLOWING

13297

53-179-113



CHECK  
AMOUNT

*Three Hundred Dollars* DOLLARS

PAY	TO THE ORDER OF	CHECK NO.	DESCRIPTION	DISCOUNT
DATE \$ 7/16	Town of Middleboro	13297	8284	

\$ 300.00

**Eastern Bank**

*White Town* MP

⑈0 13297⑈ ⑆0 1130 1798⑆ 0665002762⑈



### 3. Project Plan

Has a Project Plan been submitted with this application? YES

**An Application for an Earth Removal Permit will not be accepted by the Board of Selectmen for Public Hearing, unless submitted with the application.**

### 4. Planning Information

#### a. Proposed traffic Route from site to unloading materials.

Beginning at the entrance of the site at the intersection of Thomas Street and Chestnut Street, then proceed westerly on Thomas Street to Sachem Street. Turn right on to Sachem Street to Wood Street and the Byrne facility.

b. Has a plan and Notice of Applicability (NOA) or Intent (NOI) been submitted to the Town of Middleboro's Conservation Commission? YES

c. Has Order of Conditions by the Conservation Commission been issued: if so what is project number and date of conditions: NO

d. Provide copy of the Order of Condition so they may be attached to permit.

e. Is there a Department of Environmental Protection-Water Management Act Registration or Permit for this property? YES

Permit No. 9P4-25-182.04

Registration No. 425182.29

f. Has a Farm Plan been completed? YES Please provide a copy. Enclosed

g. Expected Date of Project Completion: 3 Years

### 5. Engineering General Information

Engineering Firm Name:

**G.A. F. Engineering, Inc.**

Engineer's Contact Name:

**William F. Madden, P.E.**

Street:

**266 Main Street**

Town/City:

**Wareham, MA 02571**

Phone Number:

**508-295-6600**

**7. Financial Obligations**

Do you owe any property taxes, water, sewer or any other financial obligation to the Town of Middleborough that is not current?

\_\_\_\_\_yes        X  no

**8. Authorization of Applicant**

a. Have you authorized the engineer to speak on your behalf regarding project questions that may come up prior to the public hearing?

  X  yes      \_\_\_\_\_no

b. I have reviewed this Application Package and attached information and deem it to be correct.

William F. Madden

Signature of Applicant

WILLIAM F. MADDEN, P.E.  
Printed Name of Applicant

Date 3/7/14

Phone Number: 508-295-6600



Town of Middleborough

Massachusetts

BOARD OF SELECTMEN  
APPLICATION FOR LICENSE (PLEASE TYPE OR PRINT CLEARLY)

DATE March 7, 2016  
NAME OF APPLICANT W. L. Byrne Inc.  
ADDRESS OF APPLICANT PO Box 410, 270 WOOD STREET  
ASSESSORS MAP & LOT MAP 62 LOT 2726 62-2726  
DAYTIME TELEPHONE 508-847-0724

NAME OF BUSINESS W. L. BYRNE INC.  
OWNER OF PROPERTY TO BE LICENSED W. L. BYRNE, INC.  
ADDRESS OF PROPERTY TO BE LICENSED Rocky Meadow / Chestnut  
ASSESSORS MAP & LOT MAP 62 LOT 2726

TYPE OF LICENSE REQUESTED (Check One)

- 2<sup>nd</sup> Hand \_\_\_\_\_
- Class I Automobile Dealer License \_\_\_\_\_
- Class II Automobile Dealer License \_\_\_\_\_
- Class III Automobile Dealer License \_\_\_\_\_
- Entertainment \_\_\_\_\_
- WRPD \_\_\_\_\_
- Earth Removal Permit x
- Liquor License \_\_\_\_\_
- Junk Dealer \_\_\_\_\_
- Other \_\_\_\_\_

Anticipated Start Date for Business: ON-GOING  
Days & Hours of Operation: 7:30 AM TO 4:30 PM MONDAY THROUGH FRIDAY

Has the applicant previously held a similar license in the Town of Middleborough or elsewhere?  
If yes, explain:  
YES, PERMIT NO. # 11-1

Signature [Handwritten Signature]

DATE OF HEARING: \_\_\_\_\_

Please bring to the Treasurer/Collector's office @ the Town Hall Annex, 20 Center Street, 3<sup>rd</sup> floor to obtain confirmation/signature that no outstanding taxes/municipal charges exist.

Dear Treasurer/Collector:  
Please inform this department as to whether or not the above listed property owner/applicant/petitioner owes the Town of Middleborough any outstanding taxes and/or municipal charges that remain unpaid for more than one year.

Does Property Owner/Applicant/Petitioner owe Taxes/Municipal Charges? NO

[Large handwritten signature]

## PROJECT PLAN

W.L. BYRNE  
OFF CHESTNUT STREET  
MIDDLEBORO, MA  
EARTH REMOVAL PERMIT 11-1  
G.A.F. JOB NO." 10-7652

- Project Purpose:** Removal of sand and gravel associated with the construction of cranberry bogs
- Site Description:** The site is presently used for cranberry cultivation and sand and gravel removal (Permit #11-1). Over the years sand and gravel has been removed from the site and cranberry bog and water supply systems constructed.
- Removal of earth is required for the construction of approximately 13.5 acres of cranberry bog, a 5.5-acre reservoir as well as additional work and staging areas.
- Past Activities:** The site has been subject to earth removal permits for many years. Over the last 8 years the earth removals and subsequent cranberry bog construction have taken place in substantial compliance with conditions for earth removal, issued by the Board of Selectmen.
- Proposed Activities:** The project involves the removal of 639,000 cubic yards of material over three-year time frame. Phasing is not currently proposed. It is expected that no more than 200,000 cubic yards of material will be removed in any years.
- The earth removal activities will not take place within 100 feet of adjacent wetlands. The project is not subject to the provisions of the Wetland Protection Act (WPA).
- The 100 foot buffers to the residential properties will consist of an undisturbed vegetated buffer.
- A 100' foot undisturbed vegetated buffer to the residential properties will be provided. No excavation will take place within 200' feet of a public way. Dust will be controlled by applying water from a water truck or other source. Erosion controls are not required as basins without outlets are being constructed. All side slopes will be graded at 3:1 horizontal to vertical finished with 4" of topsoil and seeded.
- No screening or rock crushing is proposed

## APPENDIX B

### PLAN CHECKLIST

PLEASE COMPLETE CHECKLISTS FOR PLANS AND PROJECT PLAN AND INITIAL:

	<b>Check</b>	<b>Initials</b>
<b>PLANS</b>		
<b>A. Cover page that shows:</b>		
1. Name of project:	<u>✓</u>	<u>WFM</u>
2. General directional and town locus:	<u>✓</u>	<u>WFM</u>
3. Water Resource Protection District limits	<u>✓</u>	<u>WFM</u>
4. Engineering Firm Name and address	<u>✓</u>	<u>WFM</u>
5. Flood Map limits (if applicable)	<u>✓</u>	<u>WFM</u>
6. Zoning District limits	<u>✓</u>	<u>WFM</u>
<b>B. Civil Drawing Sheet 1 - that show at a minimum:</b>		
1. Existing streets	<u>✓</u>	<u>WFM</u>
2. Property lines and names of adjacent properties/abutters	<u>✓</u>	<u>WFM</u>
3. Existing tree lines	<u>✓</u>	<u>WFM</u>
4. Existing and proposed topographical contours (5' foot minimum)	<u>✓</u>	<u>WFM</u>
5. Town roadways	<u>✓</u>	<u>WFM</u>
6. Proposed treed buffer zones between edges of excavation and abutters	<u>✓</u>	<u>WFM</u>
7. Proposed buffer zones between property excavation and town street(s)	<u>✓</u>	<u>WFM</u>
8. Distances of proposed reservoir or excavations from property lines of abutters.	<u>✓</u>	<u>WFM</u>
9. Location and type of proposed excavation and work	<u>✓</u>	<u>WFM</u>
10. Locations of stockpiling of materials	<u>✓</u>	<u>WFM</u>
11. Proposed reservoir volume, slopes and bottom elevations	<u>✓</u>	<u>WFM</u>
12. Site of proposed dewatering pond, discharge and overflow structure	<u>N/A</u>	<u>WFM</u>
13. Any proposed buildings, structures or utilities	<u>✓</u> <u>N/A</u>	<u>WFM</u> <u>WFM</u>
14. Roadway systems and gates, and proposed paving areas	<u>✓</u>	<u>WFM</u>
15. Proposed areas of agricultural uses	<u>✓</u>	<u>WFM</u>
16. Indications of phased operations	<u>✓</u>	<u>WFM</u>
17. Areas to be seeded	<u>✓</u>	<u>WFM</u>
18. Existing and proposed slopes with limits of final grading	<u>✓</u>	<u>WFM</u>
19. Locations of ditches	<u>✓</u>	<u>WFM</u>
20. Wetlands and water resource areas	<u>✓</u>	<u>WFM</u>
21. Elevations of water (high, low) as applicable	<u>N/A</u>	<u>WFM</u>
22. Drainage patterns with directional arrows showing flow	<u>N/A</u>	<u>WFM</u>
23. Fencing	<u>N/A</u>	<u>WFM</u>
24. Professional Engineers Civil stamp	<u>✓</u>	<u>WFM</u>

25. Date of preparation  
Other information as appropriate to good engineering design

✓

WFM

**C. Civil Drawing Sheet Number 2 (as applicable)**

1. Pond specifications with erosion controls
2. Erosion controls
3. Side Flow Profile

✓

WFM

✓

WFM

✓

WFM

**Conditions for Earth Removal Permit  
May 9, 2011**

<b>Name</b>	W. L. Byrne, Inc.
<b>Street</b>	Chestnut Street, Middleborough, MA
<b>Past Earth Removal Permit No.</b>	06-7
<b>New Earth Removal Permit No.</b>	<b>Permit No. 11-1</b>
<b>Zoning Map Description</b>	Map 62, Lot 2726
<b>Other Permits</b>	DEP Water Management Act Permit #9P4-25-182.04 / Registration #425182.29
<b>Proposed Volume</b>	Total      881,200 cubic yards

**CONDITIONS**  
**BOARD OF SELECTMEN**

**General Information**

The time line and proposed work for the W. L. Byrne, Inc. project shall be as outlined in the **Project Plan** required under this permit, and approved by the Town's Agent. The Project Plan outline can be found in Appendix A of the Earth Removal Application Package.

The Project Plan outlines the proposed construction sequence and time lines for the project. The project plan shall be updated annually for approval by the Board of Selectmen or their designated 'Agent' (Town's Agent).

The Earth Removal Permit holder shall submit to the Town's Agent for review and approval, a **Project Plan** that will outline the planned activities and goals for each quarter of the phased construction work for each year of the permit. The following sections are applicable under this permit:

- a. General Conditions
- b. Standard Conditions and Site Requirements
- c. Special Conditions
- d. Inspection Fees and Bonding

**A. General Conditions**

1. All phased construction work consisting of re-grading shall be completed and required plantings shall be 'growing' prior to any application for a future earth removal permit or opening of new phases. No cutting, clearing, or grubbing of areas not included under the Project Plan as 'phased' work shall be performed at the site.

If any aforesaid described work is done in unpermitted areas, without the written permission of the Town's Agent, future earth removal requests may be forfeited.

The Town of Middleborough's Earth Removal Bylaw, as amended, should be reviewed by the project proponent to ensure that compliance requirements are met.

2. This permit is valid for **three (3) years**, or for a lesser time approved by the Board of Selectmen at the time of application and hearing and may be renewed for up to one (1) year thereafter at the discretion of the Board of Selectmen.

3. Hours of operation are limited from 7:30 A.M. to 4:30 P.M. Operation is allowed Monday through Friday. Motors of earth removal equipment, including trucks hauling material to and from the site, are not to be started or run until before 7:30 A.M and after 4:30 pm.

4. No operation at the site is allowed on Saturday, Sunday or Town Hall observed holidays, which are as follows:

New Year's Day	Labor Day
Martin Luther King Day	Columbus Day
Presidents Day	Veterans' Day
Patriots Day	Thanksgiving Day
Memorial Day	Christmas Day
Independence Day	

5. All excavated areas not part of the bogs will be top-soiled and planted per the specification on the approved plan or at the direction of the Town's Agent. All top and subsoil shall be stripped from the operation area and stockpiled for use in restoring the area after the removal operation has ceased. A minimum of four inches of topsoil must be put back in place.

6. The permit holder is not permitted to spot excavate to remove better material here and there on the site. The project will be excavated in phases, as provided on the approved plan. Phases shall be planted, prior to excavation of the next phase. The Town's agent may allow partial excavation into the next phase provided that planting is performed during the growing season.

7. Excessive erosion is to be controlled as determined by the Board of Selectmen's Agent, working with the Town's Conservation Commission's Agent. During non-construction periods, stockpiled materials may be required to be covered to prevent erosion from the site.

8. No refining or screening of material is allowed on the permitted property except the screening of sand and loam to be used for on-site cranberry bogs, gravel for on-site roadways and loam for final on-site grading and seeding.

Any utilized screening plant shall be no larger than 150 to 200 yards per hour.

The permit holder shall provide a written description, time frame, and proposed volume of material to be screened for approval by the Town's Agent.

9. Existing tree lines, natural land topography, and vegetative buffer zones shall be maintained a minimum of fifty feet (50 ft.) from all property lines. In the absence of tree lines on the property, then the natural vegetated buffer, shall be maintained for the same distances and trees planted in order to screen the site.

**B. Standard Conditions and Site Requirements**

1. Standard highway signs warning of heavy trucks entering the street shall be erected as directed by the Town's Agent and be in place prior to commencement of removal operations.
2. The Board of Selectmen, Conservation Commission, Town Manager, or their Agents shall be free to inspect the premises at any time during normal working hours with, or without, prior notice to the permit holder.
3. The permit holder shall adhere to all State laws pertaining to covering loads and weight loads.
4. Any spillage on public ways or private property shall be cleaned up immediately by the permit holder or its agent.
5. The Board of Selectmen may, following a public hearing, revoke the permit, modify or revise the conditions of the permit and/or impose a fine if they find that the permittee, or any agent of the permittee, violates any condition of this permit.
6. The Town Manager or designee is authorized to act as the Board of Selectmen's Agent in the administration and enforcement of this permit.
7. All loaded vehicles must be covered to prevent dust and contents from spilling or blowing from the property.
8. The haul road and loading area must be watered regularly to keep dust from blowing from the property. Gravel may be required to be added to the haul road by the Town's Agent to assist in dust control.
9. This permit is not transferable, except by vote of the Board of Selectmen. Notice of a pending sale or transfer must be provided to the Board of Selectmen. The Board of Selectmen will hold a public hearing to consider the transfer of this permit to the prospective buyer of the property.
10. During operations, where the excavation working face will have a depth of more than 15 feet with a slope in excess of 1:1, a fence at least three (3) feet high shall be erected to limit access to that excavation.
11. No area shall be excavated so as to cause accumulation of freestanding water, except in conjunction with a storage pond for cranberry bogs as shown on the plans. Permanent drainage shall be provided as needed in accordance with good conservation practices. Drainage shall not lead directly into or from streams or ponds, except as specifically approved by the Town's Agents and as allowed by state statute or regulation.

12. No excavation shall be closer than 200 feet to an existing public way unless specifically permitted by the Board of Selectmen at a publicly scheduled hearing. Natural vegetation shall be left and maintained on the undisturbed land for screening and noise reduction purposes.

13. Bog pumps will be powered electrically, or in the alternative, mufflers will be installed on pumps to reduce noise.

14. Gates will be installed on the haul road to prevent unauthorized access to the property.

15. Two by Three foot signs will be erected every 500' along the property line. The signs will display the permit number, the name and phone number of the permit holder's agent and the name and phone number of the Town's Agent, together with the words "NO TRESPASSING-EARTH REMOVAL IN PROGRESS".

16. All trucks hauling from the site must display a sign on the rear of the truck in an area that will be unobstructed and clearly in view displaying the words "TOWN OF MIDDLEBOROUGH **PERMIT No. 11-1**".

17. A copy of this Earth Removal Conditions shall be filed with the Registry of Deeds by the Permit holder as a notice to all that these conditions restrict work on the lot under the permit.

18. A Certificate of Compliance will be issued by the Board of Selectmen when the project is completed. The Certificate of Compliance will operate to release the lot from the conditions of the permit and terminate the permit. The Certificate of Compliance must also be filed with the Registry of Deeds by the permit holder.

19. The approved plan shall be modified to include the general location (no survey required) of any monitoring wells on the site.

20. No standing trees are to be cut, trimmed, or removed from the site, except for those areas shown on the approved plan. Violation shall result in a fine being imposed, in accordance with Earth Removal Bylaw §6, and/or revocation of this Permit. If any tree needs to be trimmed, cut, or removed, prior approval shall be provided by the Town's Agent.

21. No rock crushing is authorized. Any proposed rock crushing may be authorized by the Board of Selectmen following a public hearing on a request for an Earth Removal Permit modification.

22. Excessive noise levels, as determined by the Town's Agent, shall result in onsite equipment modification within one (1) week of notification.

23. De-watering operation plans shall be provided through a modification to the submitted Project Plan for review and acceptance by the Town's Agent. De-watering may be limited during the summer months. Siltation barriers will be provided as required by the Town's Agent.

### C. Special Conditions

1. All access to and from the permitted property will be as follows:

**Entering:** At the intersection of Thomas Street and Chestnut Street

**Exit:** At intersection of Thomas Street and Chestnut Street then proceed westerly on Thomas Street to Sachem Street. Turn right onto Sachem Street to Wood Street and the Byrne facility

→ 2. Trucks will not idle on **Chestnut** Street at any time.

→ 3. The permit holder will be responsible for maintaining the roadway to no less than present conditions after consultation with Highway Superintendent or designee every four (4) months or if conditions warrant immediate action.

### D. Inspection Fees and Bonding

#### Inspection Fees

1. An initial review to confirm compliance with permit conditions and restrictions must be performed by the Board of Selectmen's Agent before the commencement of any earth removal activities.

→ The fee for this review is **\$1,600.00, due** and payable at the time the permit holder notifies the Board of Selectmen's Agent that all requirements of the permit which must be done prior to commencement of work have been accomplished, and the permit holder is ready for the Agent to perform the initial review.

2. Quarterly reviews must be performed by the Board of Selectmen's Agent every three months following commencement of earth removal work. These reviews will include a field review and plan review to determine on-going compliance with the permit.

→ a. The fee for each such review is **\$1,600, due** and payable to the Town three months after the commencement of earth removal on the lot and every three months thereafter for the duration of the permitted project.

b. This report, along with **the Project Plan** will be made available to the public in the Selectmen's Office, upon request.

- c. The Board's Agent will include, with the quarterly review, a written assessment and update of actual activities and goals that were provided under **the Project Plan**.
- d. → The Boards' Agent will determine if **the Project Plan** is meeting the proposed activities and goals. If **the Project Plan** activities and goals are not met for three (3) consecutive quarters, the project permit shall be suspended and a hearing with the Board of Selectmen shall be held to determine if the permit shall be reissued.

**Bond Requirements**

1. A bond, or acceptable alternative surety, in the amount of **\$50,000.00** will be required to indemnify the Town for damage to private or Town property and for use by the Town for site closure in the event of abandonment of the project.

Alfred P. Rullo, Jr., Chairman  
BOARD OF SELECTMEN

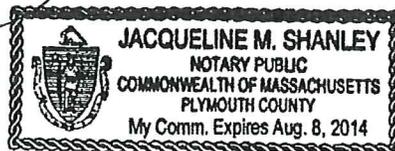
*Alfred P. Rullo, Jr.*  
Date

Commonwealth of Massachusetts  
County of Plymouth

On this 9th day of May, 2011, before me the undersigned Notary Public, personally appeared Alfred P. Rullo, Jr. proved to me through satisfactory evidence of identification which was/were personal knowledge to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose(s).

*Jacqueline M. Shanley*  
Signature of Notary

(Seal)  
My commission expires 8.8.14



BK 11302 PG 334

103565/6

Received & Recorded  
PLYMOUTH COUNTY  
REGISTRY OF DEEDS  
30 SEP 1992 01:07PM  
JOHN D. RIORDAN  
REGISTER

I, WILLIAM L. BYRNE,

of Middleborough, Plymouth County, Massachusetts,

in consideration of ---THREE HUNDRED THOUSAND (\$300,000.00) DOLLARS---

grant to W. L. BYRNE, INC., a Massachusetts corporation, having its principal place of business in Middleborough, Plymouth County, Massachusetts, and having a mailing address of P. O. Box 410, Middleborough, MA. 02346

✱

with quitclaim covenants

the land in Middleborough, Plymouth County, Massachusetts situated on and off the southwesterly side of Rocky Meadow Street and more particularly set forth in the following deeds to this grantor:

PARCEL 1: Beginning at the southerly side of Rocky Meadow Street in said Middleborough at the northeast corner of land now or formerly of Korpinen; thence turning and running Southeasterly 310 feet, more or less to a point;  
thence turning and running Northwesterly 150 feet, more or less to a point;  
thence turning and running Southwesterly 330 feet more or less to a point;  
thence turning and running Southeasterly 1,430 feet, more or less to a point at the southwesterly corner of Parcel 2, hereinafter described;  
thence turning and running Northeasterly by two courses of 390 feet more or less, and 253 feet more or less, respectively, to the southerly side of said Rocky Meadow Street at the northwest corner of Parcel 2 hereinafter described;  
thence turning and running Northwesterly along the said southerly line of Rocky Meadow Street, 1,425 feet more or less to the point of beginning.

Containing 17.9 acres of land, more or less.

Being Parcel I as set forth in the deed of James B. Barron and Patrick F. O'Connor, Trustees of Rocky Gutter Realty Trust, u/d/t dated April 27, 1981. Said deed is dated October 26, 1984, and recorded at Plymouth County Registry of Deeds in Book 6161, Page 36.

PARCEL 2: Beginning at a point on the southerly side of said Rocky Meadow Street at the northeasterly corner of Parcel 1, hereinabove described;

thence turning and running Southwesterly by two courses of 253 feet, more or less and 390 feet, more or less to a point;  
thence turning and running Northeasterly 580 feet to the southerly side of Rocky Meadow Street, 1,255 feet, more or less to the point of beginning.

Containing 17.2 acres of land, more or less.

Excluding and excepting Lots #1-21 as shown on a plan recorded at the Plymouth County Registry of Deeds as Plan #347 of 1972 in Plan Book 16, Page 597, entitled as follows: "Subdivision Plan of Land in Middleboro - Mass. Prepared for Elk Range Trust Scale: 1" = 100' March 6, 1972 Lawrence E. Hughes, Registered Land Surveyor Marshfield Mass."

A. T. MADDIGAN LAW OFFICE  
Thatcher's Row  
P.O. Box 72  
Middleboro, MA 02346

Property Address: Rocky Meadow Street  
Middleborough, MA 02346

Being Parcel II as set forth in the deed of James B. Barron and Patrick F. O'Connor, Trustees of Rocky Gutter Realty Trust u/d/t dated April 27, 1981. Said deed is dated October 26, 1984, and recorded at the Plymouth County Registry of Deeds in Book 6161, Page 36.

**PARCEL 3:** the land in Middleborough, Plymouth County, Massachusetts on the southwesterly side of Rocky Meadow Street, bounded and described as follows:

Starting at a point on Rocky Meadow Street at the corner adjacent to property now or formerly of Chester and Mary K. Hobart, and thence running South  $53^{\circ} 04' 07''$  West, 600 feet to a point;

thence North  $44^{\circ} 48' 40''$  West, 2,267.35 feet;  
 thence North  $32^{\circ} 52' 01''$  East, 408.00 feet to a point;  
 thence running South  $46^{\circ} 28' 36''$  East 191.16 feet to a point;  
 thence North  $42^{\circ} 50' 40''$  East, 30.00 feet to a point;  
 thence South  $33^{\circ} 17' 00''$  East, 221.99 feet to a point;  
 thence South  $35^{\circ} 35' 15''$  East, 95.52 feet to a point;  
 thence South  $43^{\circ} 53' 29''$  East, 116.09 feet to a point;  
 thence North  $53^{\circ} 30' 40''$  East, 13 feet to a point;  
 thence South  $36^{\circ} 29' 20''$  East, 360.00 feet to a point;  
 thence South  $37^{\circ} 09' 33''$  East, 124.70 feet to a point;  
 thence South  $40^{\circ} 14' 01''$  East, 132.18 feet to a point;  
 thence South  $43^{\circ} 36' 35''$  East, 134.97 feet to a point;  
 thence South  $45^{\circ} 40' 07''$  East, 128.43 feet to a point;  
 thence North  $44^{\circ} 15' 40''$  East, 250 feet to a point;  
 thence South  $45^{\circ} 44' 20''$  East, 50 feet to a point along Rocky

Meadow Street;

thence South  $44^{\circ} 15' 40''$  West, 254 feet along lot 35 on the below mentioned plan to a point;

thence South  $47^{\circ} 38' 53''$  East, 120.07 feet to a point;  
 thence South  $45^{\circ} 44' 20''$  East, 240 feet to a point;  
 thence South  $41^{\circ} 48' 40''$  East, 438.87 feet to a point;  
 thence North  $52^{\circ} 15' 40''$  East, 300 feet to a point on Rocky

Meadow Street;

thence South  $45^{\circ} 44' 20''$  East, 57.13 feet to the point of beginning.

Meaning and intending and hereby conveying the land bounded north-easterly by Rocky Meadow Street;

Southeasterly by land now or formerly of Hobart and of Gillchrest, 600 feet more or less;

Southwesterly by said Gillchrest land, now or formerly, 2,267.35 feet, more or less;

Northwesterly by land now or formerly of RM #5 Trust 700 feet, more or less.

Excepting Lots 22 through 41 on a plan of land entitled, "Subdivision Plan of Land in Middleboro, Mass. for Elk Range Trust, Scale 1" = 40' dated August 22, 1972", prepared by C.E. Paul Connolly, recorded in Plymouth County Registry of Deeds as Plan #324 and #325 of 1973.

Set forth in the deed of James B. Barron and Patrick F. O'Connor, Trustees of Rocky Gutter Realty Trust u/d/t dated April 27, 1981. Said deed is dated October 26, 1984, and recorded at the Plymouth County Registry of Deeds in Book 6161, Page 38.

**PARCEL 4:** the land in Middleborough, Plymouth County, Massachusetts on the southwesterly side of Rocky Meadow Street, bounded and described as follows:

Starting at an iron pipe for a corner in the southwest side of Rocky Meadow Street at a corner of land now or formerly of Clyde B. Stevens;

thence Southwesterly by said Stevens' land about 2,750 feet to a stake being also a corner;

thence South  $11^{\circ} 11'$  East, 500 feet to a stake;  
 thence Southeasterly 1,050 feet more or less to a corner of A.D. Makepeace Company's Round Swamp Bog property, now or formerly;

thence by said Makepeace's land as follows:  
 North  $46^{\circ} 30'$  East 78 feet; North  $63^{\circ} 30'$  East 95.5 feet; South  $87^{\circ} 45'$  East 237 feet; South  $77^{\circ}$  East, 265 feet to another parcel now or formerly of A.D. Makepeace Company;

thence along the Northern boundary line of A.D. Makepeace Company, now or formerly, 495 feet along a woods road whose direction is generally South  $82^{\circ} 25'$  East;

thence in line of A.D. Makepeace Company, now or formerly, North  $72^{\circ}$  East, 515 feet, more or less;

thence by land now or formerly of Chester Hobart, North  $26^{\circ} 30'$  East 915 feet and North  $63^{\circ} 30'$  East 446 feet to Rocky Meadow Street and

BK 11302PG336

PARCEL 4 (con.): thence Northerly and Westerly by Rocky Meadow Street about 2,675 feet to the point of beginning. Containing 123 acres, more or less.

Excluding Lots #22 through #41 on Plans recorded as #324 and #325 of 1973.

Being as set forth in the deed of James B. Barron and Patrick F. O'Connor, Trustees of Rocky Gutter Realty Trust u/d/t dated April 27, 1981. Said deed is dated October 26, 1984 and recorded at the Plymouth County Registry of Deeds in Book 6161, Page 35.

PARCEL 5: the land in Middleborough, Plymouth County, Massachusetts, bounded and described as follows:

Beginning at a stake and stones standing in the division line between the third and fourth division of South Purchase and on a hill called Bullet Hill;

thence Westerly by land now or formerly of G. Cushman to a stake and stones;

thence Southerly by said Cushman's land to a stake and stones;

thence Westerly by said Cushman's land to a stake and stones in the line of land now or formerly of Lewis Harlow;

thence Northerly by said Harlow's land, now or formerly, to the land now or formerly of Eleazer Thomas;

thence North to said division line;

thence Southerly to the bound first mentioned. Containing 4 acres, more or less.

Being parcel #14 in a deed from Winfield G. Gillchrest to Pine Tree Farm Trust, recorded at the Plymouth County Registry of Deeds in Book 3496; Page 686.

Being Parcel 1 as set forth in the deed of James B. Barron and Patrick F. O'Connor, Trustees of Rocky Gutter Realty Trust u/d/t dated April 27, 1981. Said deed is dated October 26, 1984, and recorded at Plymouth County Registry of Deeds in Book 6161, Page 40.

PARCEL 6: Described in the foreclosure deed of Plymouth Cooperative Bank to Arthur D. Benson, et alii, Trustees under the Will of Thomas S. Peirce, dated September 7, 1929, recorded at Plymouth County Registry of Deeds in Book 1580, Page 400, which is located between Purchase Street, Chestnut Street, Tispaquin Street and Rocky Meadow Street, except the portions thereof which have heretofore been conveyed by the Trustees under the Will of Thomas S. Peirce to various purchasers by deeds which have been duly recorded; and the deed of Elk Breeding and Grazing Association, Inc. to Arthur D. Benson, et alii, Trustees under the Will of Thomas S. Peirce, dated April 25, 1930, and recorded at Plymouth County Registry of Deeds in Book 1591, Page 429, which is located between Purchase Street, Chestnut Street, Tispaquin Street and Rocky Meadow Street, except the portions thereof which heretofore have been conveyed by the Trustees under the Will of Thomas S. Peirce to the various purchasers by deeds which have been duly recorded.

Being Parcel 2 as set forth in the deed of James B. Barron and Patrick F. O'Connor, Trustees of Rocky Gutter Realty Trust u/d/t dated April 27, 1981. Said deed is dated October 26, 1984, and recorded at the Plymouth County Registry of Deeds in Book 6161, Page 40.

PARCEL 7: A parcel of land situated in Middleborough, Plymouth County, Massachusetts, shown as Lot No. 2 on a plan entitled, "Plan of Land in Middleborough, Plymouth Co., Mass. Scale: 1" = 40', November 17, 1976, Land Surveyors Incorporated, 1106 Main Street, Brockton, Mass., Owned by M. Victor Sylvia and Marion I. Sylvia", which lot is bounded and described as follows:

SOUTHWESTERLY, by Chestnut Street as shown on said plan for a total distance of 818.85 feet;

NORTHWESTERLY by Lot No. 1, as shown on said plan, 274.31 feet;

NORTHERLY, by said Lot No. 1, 118.97 feet;

WESTERLY, by said Lot No. 1, 87.58 feet;

NORTHWESTERLY, by land now or formerly of Charles A. Bowman, Jr. and Sharon L. Bowman, 213.03 feet as shown on said plan

NORTHEASTERLY, by land now or formerly of Charlotte D. Gillchrest, Trustee, as shown on said plan for a total distance of 672.76 feet; and

SOUTHEASTERLY, by Lot No. 3, as shown on said plan, 511.41 feet.

PARCEL 7 (con.): Said Lot No. 2 hereby conveyed and described above contains 9.59 acres more or less, according to said plan recorded at the Plymouth County Registry of Deeds.

Said premises are subject to a slope easement set forth in a taking made by the Plymouth County Commissioners, affecting Chestnut Street, dated September 10, 1940, recorded at the Plymouth County Registry of Deeds in Book 1793, Page 374.

Said Lot No. 2 being a portion of the premises shown on a decree plan in Land Court Confirmation Case No. 37626, drawn by Roy C. Anderson, Jr., Surveyor, dated August 17, 1972, recorded at Plymouth County Registry of Deeds in Book 4041, Page 130.

Set forth in the deed of James B. Barron a/k/a and Patrick F. O'Connor, Trustees of Rocky Gutter Realty Trust u/d/t dated April 27, 1981. Said deed is dated October 26, 1984, recorded at the Plymouth County Registry of Deeds in Book 6161, Page 39.

All of the above parcels are subject to easements, takings and restrictions of record to the extent the same are not merged and are in full force and effect.

For title reference may be had to the above-described deeds.

PARCEL 8: A certain parcel of land situated on the southwesterly side of Rocky Meadow Street, in Middleborough, Plymouth County, Massachusetts, being shown as Lot "B" on a plan of land entitled, "Division of Land Rocky Meadow Street, Middleborough, Massachusetts, prepared for A.D. Makepeace Company, dated July 13, 1981, Scale 1" = 100', E.J. Flynn Engineers, Inc., 127 Taunton Street, Middleboro, Mass.", recorded at Plymouth County Registry of Deeds in Plan Book 22, Page 603. Said Lot B contains 9.20 acres, and is bounded and described according to said Plan as follows:

NORTHEASTERLY	by Rocky Meadow Street, 776.23 feet;
NORTHWESTERLY	by land now or formerly of Robert Titterington, 411.53 feet;
SOUTHWESTERLY	again by land now or formerly of Robert Titterington, 486.52 feet;
NORTHWESTERLY	by land now or formerly of said Robert Titterington and land of the grantor, 508.68 feet;
SOUTHERLY	by land of A.D. Makepeace Company, 609.32 feet; and
SOUTHEASTERLY	again by land of A.D. Makepeace Company, 643.82 feet.

Together with the benefit of and subject to the right of way running from Rocky Meadow Street to Lot A as shown on said plan.

Being the same premises as set forth in the deed of A.D. Makepeace Company, dated March 23, 1987, recorded at the Plymouth County Registry of Deeds in Book 7570, Page 311.

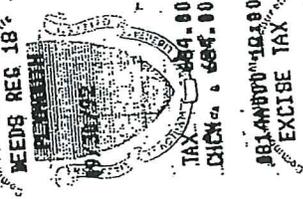
BK 11302PG338

Executed as a sealed instrument this

29<sup>th</sup> day of September 19 92

*William L. Byrne*

CANCELLED



The Commonwealth of Massachusetts

Plymouth

ss.

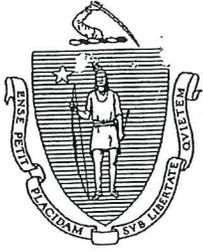
September 29, 19 92

Then personally appeared the above named WILLIAM L. BYRNE

and acknowledged the foregoing instrument to be his free act and deed,

Before me, THOMAS A. MADDIGAN Notary Public - ~~State of Massachusetts~~  
My commission expires July 1, 19 94

← END OF INSTRUMENT →



COMMONWEALTH OF MASSACHUSETTS  
 EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
 20 RIVERSIDE DRIVE, LAKEVILLE, MA 02347 508-946-2700

ARGEO-PAUL CELLUCCI  
 Governor

JANE SWIFT  
 Lieutenant Governor

BOB DURAND  
 Secretary

LAUREN A. LISS  
 Commissioner

REGISTRATION STATEMENT FOR VERIFIED WATER WITHDRAWAL

Registration under MGL c. 21G for the water withdrawal identified below is accepted by the Department of Environmental Protection.

GENERAL INFORMATION

Registration Number: 425182.29

River Basin: Taunton

Registrant:

Byrne Sand & Gravel  
 Chestnut Bogs  
 P.O. Box 410, 210 Wood Street  
 Middleborough, MA 02346-0410

Number of withdrawal points: 1

Groundwater: 0

Surface water: 1

Location:

Chestnut Street, Middleborough

Use:

Cranberry Production

Cranberry Bog Acreage: 12.0

Average Volume per Day (MGD): 0.11

Days of Operation: 365

Total Annual Volume (MGY): 39.1

CONDITIONS AND REQUIREMENTS

Compliance with registration conditions is required by 310 CMR 36.08. Those applicable are described below.

Metering

Install source meter for withdrawal point: N/A

Calibrate meter: N/A

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

DEP on the World Wide Web: <http://www.state.ma.us/dep>

Printed on Recycled Paper

Records

Withdrawal records are required to be kept as follows:

Annual reporting of bog acreage in production. Individual record keeping and reporting of water withdrawal, if the Department requires such in the future.

Verification:

The Department verified registrations based on the results of a water use study conducted by the University of Massachusetts Cranberry Experiment Station, and on documentation of acreage in production from 1981-1985.

OTHER CONDITIONS and REQUIREMENTS:

REPORTING

The Registrant is required by 310 CMR 36.11 to file an annual statement of withdrawal by January 31 of each year that this registration is in force, on forms specified by the Department. The Registrant shall include withdrawal records from the previous calendar year with the annual report filing. At the request of the Department, the registrant may be required to report withdrawal volumes monthly, in accordance with 310 CMR 36.08.

REGISTRATION RENEWAL

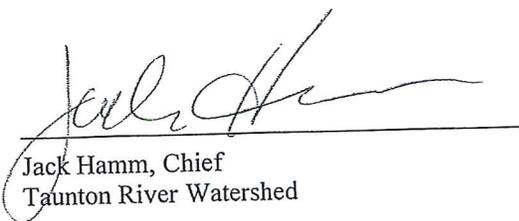
This registration statement expires on January 1, 2008, unless a renewal registration request is filed with the Department prior to that date, in accordance with 310 CMR 36.10.

REGISTRATION TRANSFER

This statement shall be surrendered to the Department upon transfer of any withdrawal authorized by this document.

Transfer of this registration is governed by the provisions of 310 CMR 36.09.

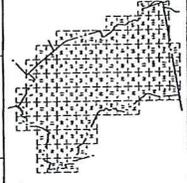
NOTE: Regulations are subject to change. The applicant is responsible to use the most current regulations.

  
\_\_\_\_\_  
Jack Hamm, Chief  
Taunton River Watershed

3/20/00  
\_\_\_\_\_  
Date



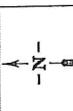
TAX MAP 62



REVISED BY:  
TOWN OF MIDDLEBOROUGH  
ASSESSING DEPARTMENT  
PLANNING & ZONING

COMMENTS:  
THESE PLANS ARE FOR TAX ASSESSMENT PURPOSES ONLY. THE FIGURES SHOWN ARE NOT THE RESULT OF A SURVEY, AND ARE NOT TO BE USED FOR ANY OTHER PURPOSES OR OTHER LEGAL DOCUMENTS.  
DATA SOURCES:  
AERIAL PHOTOGRAPHY DATED APRIL 29, 1987  
CONTROL AND ADJUSTMENT BY CON ASSOCIATES, WILMINGTON, MA  
FIELD NUMBER  
PARCEL NUMBER SHEET

Legend:  
TOUR LINE  
MAP BATHING  
POWER SERVICE  
STREETS  
LIVE FENCE  
WETLANDS  
GRAVELLY SOIL

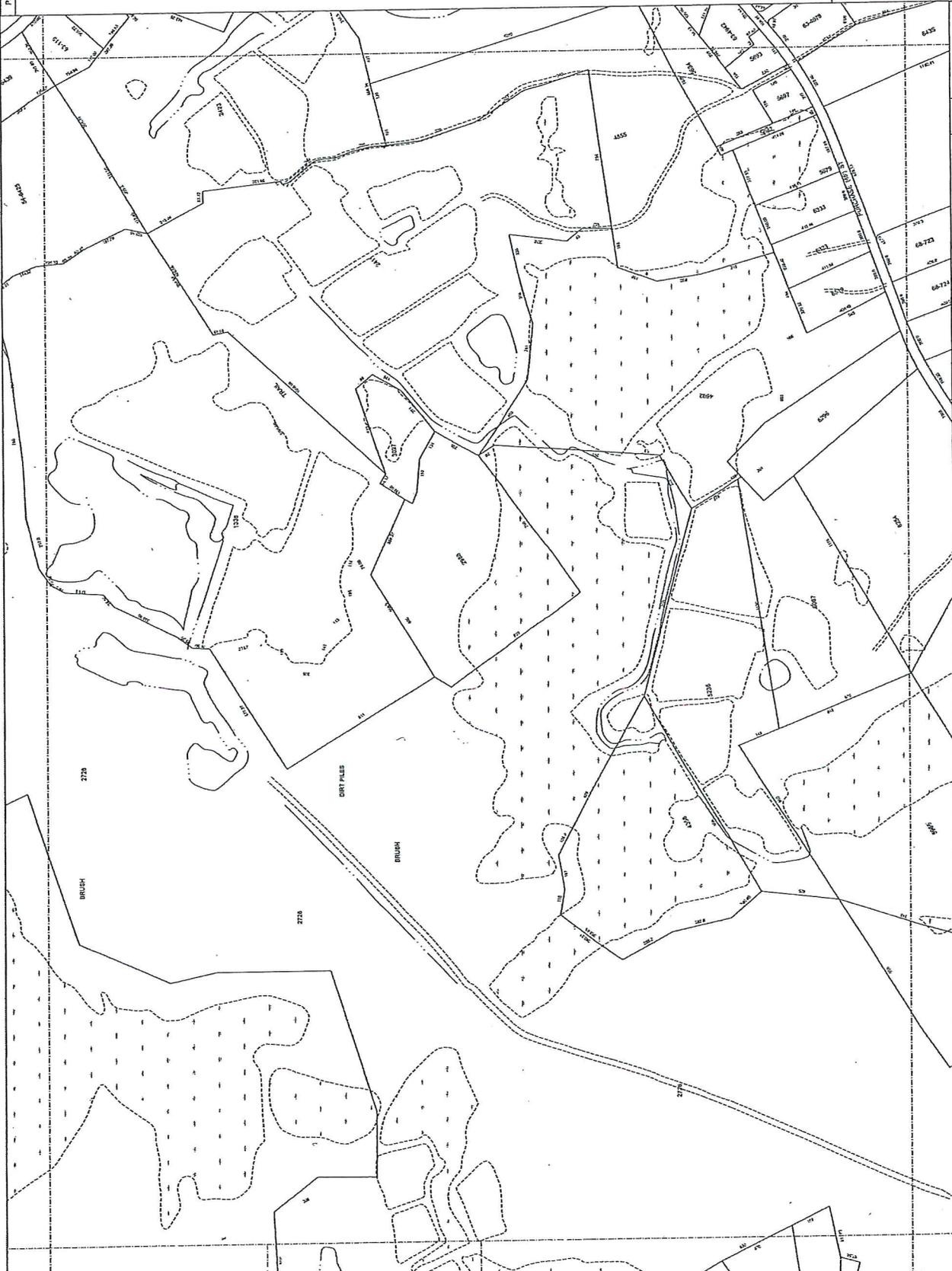


61	62	63
67	68	69

SCALE: 1 INCH = 200 FEET  
GRID IS BASED ON MA STATE PLANE COORDINATE SYSTEM

TOWN OF MIDDLEBOROUGH  
PLYMOUTH COUNTY, MASSACHUSETTS

Access Path Designation: This is solely for ERI and building address purposes. Designation of a way as an access path is not to be construed as a determination that the way is a public way, a way shown on an approved subdivision plan, a street as defined in the Town of Middleborough Zoning By-Laws, a way for purposes of the Subdivision Control Law or a way or street for any other purpose.

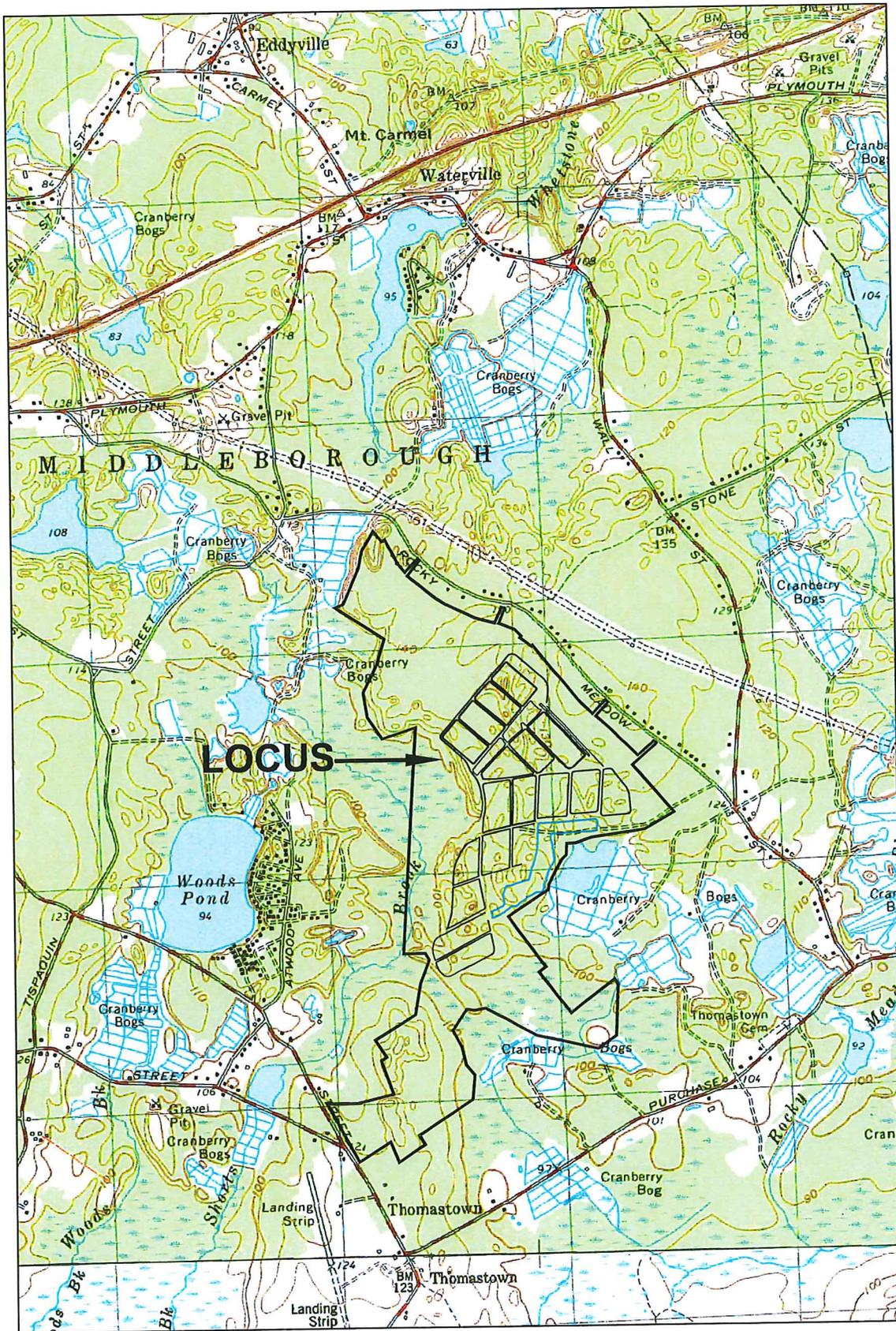


AREA

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PARCEL

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SCALE: 1:25000  
 M. L. BYRNE, INC.

LOCUS MAP

SOURCE: MASS GIS USGS QUAD  
 MIDDLEBOROUGH, MA

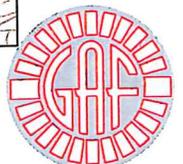
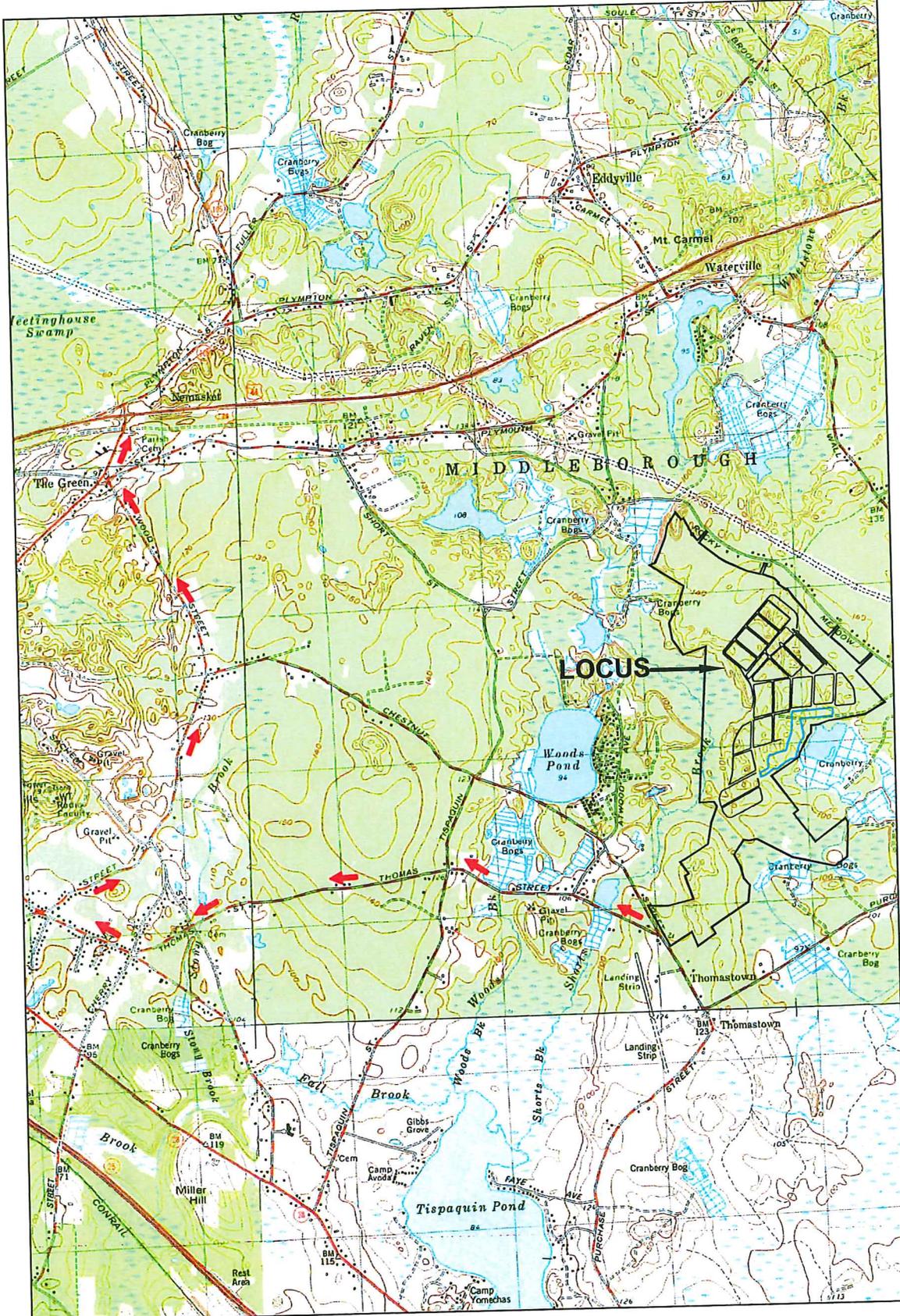


FIGURE 1

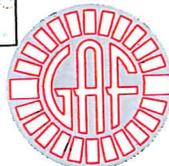
ENGINEERING, INC.



SCALE: 1"=3000'  
 M. L. BYRNE, INC.

TRAFFIC ROUTE MAP

SOURCE: MASS GIS USGS QUAD  
 MIDDLEBOROUGH, MA



ENGINEERING, INC.

FIGURE 2



Middleborough Assessor's Office  
10 Nickerson Avenue  
Middleborough, MA 02346

## ABUTTER'S LIST CERTIFICATION PAGE\*

Date: February 29, 2016

Selectmen

Board Name for Certification

This is a certified abutter's list for 300 feet in every direction including across the street of Map 24 Lot 5555 & Map 33 Lot 686 located at Fuller & 42 Fuller Street in Middleborough, MA 02346.

Joanne Nelson, Clerk  
Middleborough Board of Assessors

(This list consists of 3 pages with 33 lots)

\*Please note there is no additional charge for this page and it is intended to certify the information on the preceding or attached document (s).

Parcel ID	Location	Owner name	C/O Owner	Mailing Address	City	State	Zip
006-2255	THOMPSON ST	HASEOTES, V S & SONS GIAMPIETRO, RICHARD L TRUSTEE		PO BOX 8000	CUMBERLAND	RI	02864
024-3278	100 FULLER ST	ECKHARDT, ROBERT E & SUSAN B TRUST		11 JOSEPH ROBERT LN	MIDDLEBORO	MA	02346
024-4029	LN	GIAMPIETRO, RICHARD L TRUSTEE		94 FULLER ST	MIDDLEBORO	MA	02346
024-4036	94 FULLER ST	O'BRIEN, SUSAN R		10 JOSEPH ROBERT LN	MIDDLEBORO	MA	02346
024-4059	LN	MELLO, RONALD J & LAWANDA S		8 JOSEPH ROBERT LANE	MIDDLEBORO	MA	02346
024-4093	LN	PAWLAK, ANTHONY		26 FULLER ST	MIDDLEBORO	MA	02346
033-1316	26 FULLER ST	NICE, JAMES & SAUNDRA		28 FULLER ST	MIDDLEBORO	MA	02346
033-1322	28 FULLER ST	BAYSIDE AGRICULTURAL INC		2417 CRANBERRY HIGHWAY	WAREHAM	MA	02546
033-1366	FULLER ST	GARANITO, JOHN & JENNIFER		37 FULLER ST	MIDDLEBORO	MA	02346
033-1428	37 FULLER	SMITH, THOMAS & PATRICIA		41 FULLER ST	MIDDLEBORO	MA	02346
033-1434	41 FULLER ST						

**LOCUS**  
MAP 24 LOT 5555 & MAP 33 LOT 686  
FULLER ST & 42 FULLER ST

**OWNER NAME**  
BAYSIDE AGRICULTURAL INC

**APPLICANT NAME**  
FULLER STREET  
DEVELOPMENT LLC

**PAGES**  
1 of 3

**REASON FOR PROJECT**  
EARTH REMOVAL & PERMIT RENEWAL

**NAME OF BOARD**  
SELECTMEN

**CONTACT #**  
508 758-2749

**DATE**  
2/29/2016



parcel ID	Location	Owner name	C/O Owner	Mailing Address	City	State	Zip
EARTH REMOVAL & PERMIT RENEWAL		SELECTMEN		508 758-2749	2/29/2016		
REASON FOR PROJECT		NAME OF BOARD		CONTACT #		DATE	
MAP 24 LOT 5555 & MAP 33 LOT 686 FULLER ST & 42 FULLER ST		BAYSIDE AGRICULTURAL INC		FULLER STREET DEVELOPMENT LLC		243	
033-1513	43 FULLER ST	LABOSSIERE, JEANNINE ETAL		43 FULLER ST	MIDDLEBORO	MA	02346
033-2968	FULLER ST	SOUTHBROOK DEVELOPMENT		3 CHESTER AVE 2417 CRANBERRY HIGHWAY	BERKLEY	MA	02779
033-591	FULLER ST	BAYSIDE AGRICULTURAL INC		45 FULLER ST	WAREHAM	MA	0257
033-789	45 FULLER ST	WILBUR, ALFRED JR & JO- ANN		88 FULLER ST	MIDDLEBORO	MA	02346
024-4832	88 FULLER ST	WILLIS, LAWRENCE JR & PATRICIA		84 FULLER ST	MIDDLEBORO	MA	02346
024-4862	84 FULLER ST	NEDELMAN, NEIL & JANET		82 FULLER ST	MIDDLEBORO	MA	02346
024-4891	82 FULLER ST	MARKLEY, DEBORAH		76 FULLER ST	MIDDLEBORO	MA	02346
024-5637	76 FULLER ST	TWOMBLY, DEREL LEE TRUSTEE		72 FULLER ST	MIDDLEBORO	MA	02346
024-5646	72 FULLER ST	DEMOLLES, STEVEN & KAREN		74 FULLER ST	MIDDLEBORO	MA	02346
024-5653	74 FULLER ST	TWOMBLY, DEREL LEE		70 FULLER ST	MIDDLEBORO	MA	02346
024-5672	70 FULLER ST	O'CONNELL, ELIZABETH N		66 FULLER ST	MIDDLEBORO	MA	02346
024-6336	66 FULLER ST	CANTALUPO, LISA A					



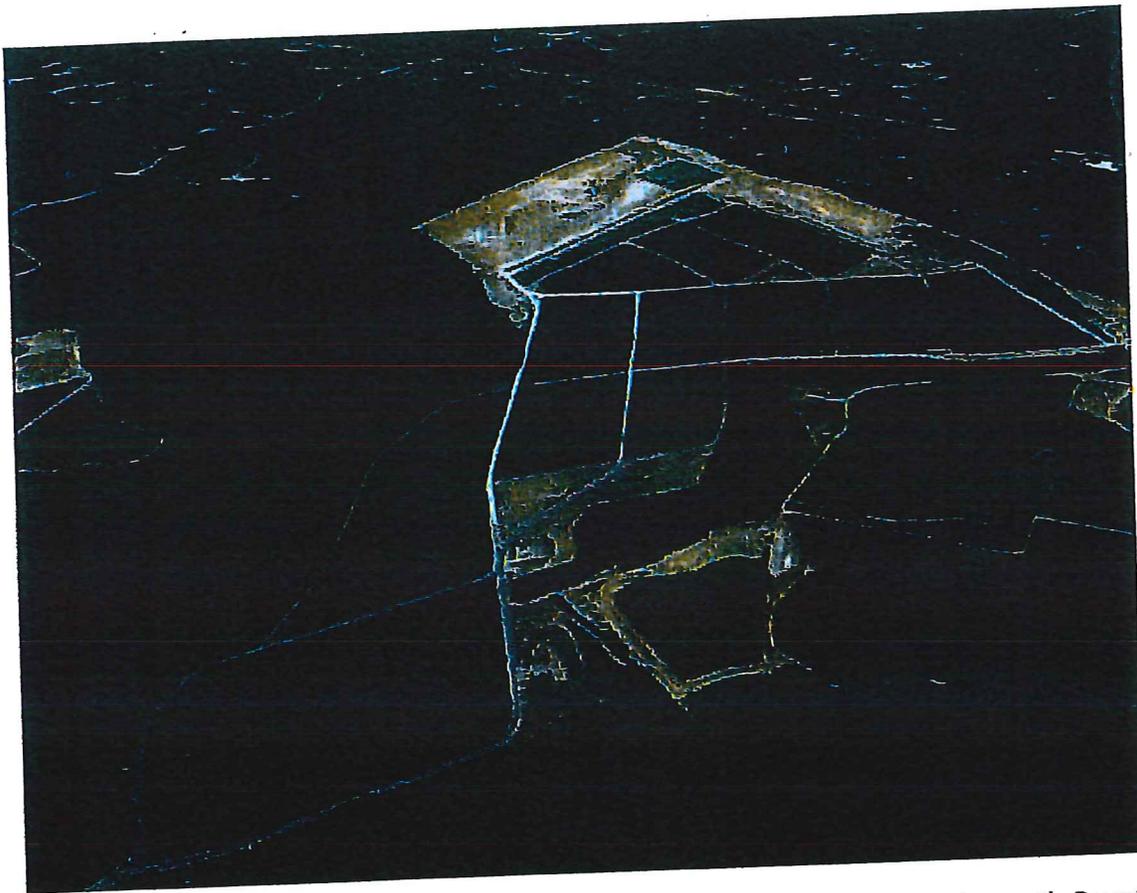
LOCUS	OWNER NAME	APPLICANT NAME	PAGES				
MAP 24 LOT 5555 & MAP 33 LOT 686 FULLER ST & 42 FULLER ST	BAYSIDE AGRICULTURAL INC	FULLER STREET DEVELOPMENT LLC	3 of 3				
<b>REASON FOR PROJECT</b>	<b>NAME OF BOARD</b>	<b>CONTACT #</b>	<b>DATE</b>				
EARTH REMOVAL & PERMIT RENEWAL	SELECTMEN	508 758-2749	2/29/2016				
parcel ID	Location	Owner name	C/O Owner	Mailing Address	City	State	Zip
024-6365	64 FULLER ST	ANDERSON, SCOTT & COLLEEN		64 FULLER ST	MIDDLEBORO	MA	02346
024-6386	62 FULLER ST	LUNDIN, ROBERT R GILBERT, SUZANNE & HEIKKILA, JEFFREY T		62 FULLER ST	MIDDLEBORO	MA	02346
024-6434	71 FULLER ST	SULLIVAN, KEVIN M & KATHLEEN C		71 FULLER ST	MIDDLEBORO	MA	02346
024-6458	67 FULLER ST	DICESARE, RALPH M & JUDITH A		67 FULLER ST	MIDDLEBORO	MA	02346
024-6476	61 FULLER ST	MASSEY, NORMAN DOUGLAS		P O BOX 175 2417 CRANBERRY HIGHWAY	MIDDLEBORO	MA	02346
033-1167	THOMPSON ST	BAYSIDE AGRICULTURAL INC		50 FULLER ST	MIDDLEBORO	MA	02346
033-521	FULLER ST	STORCH, FREDERICK J JR		56 FULLER ST	MIDDLEBORO	MA	02346
033-718	50 FULLER ST	DUCILLE, ADRIAN		10 NICKERSON AVE	MIDDLEBORO	MA	02346
033-728	56 FULLER ST	TOWN OF MIDDLEBOROUGH					
034-155	FULLER ST (OFF)						





# W.L. BYRNE INC. Chestnut Bog Conservation Farm Plan

Prepared 2009, Updated in 2015  
By Linda Rinta, USDA Certified Planner #TSP-04-4142



W.L. Byrne Inc., Middleborough Ma

Plymouth County  
Taunton River Basin

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<b><i>Agricultural Regulations to the Wetlands Protection Act</i></b>	

**FARM IDENTIFICATION:**

<b>Owner</b>	W.L. Byrne Inc.
<b>Farm Manager</b>	Donald Gallant Sr.
<b>Crop Manager</b>	Kenneth Harju
<b>Farm Type:</b>	Cranberry Bog
<b>Town:</b>	Middleborough
<b>County:</b>	Plymouth
<b>State:</b>	Massachusetts
<b>USDA Tract</b>	Plym Co. T 899
<b>Total Acres: Cranberries:</b>	73 ac with build out plans to ~130 ac
<b>Total acres</b>	479 ac
<b>Water Resources:</b>	Excavated ground water ponds on the property, with canals and tail water recovery capacity.
<b>Watershed:</b>	Taunton River

**LOCUS MAP IS ON PAGE 5**

**BEFORE A SPECIFIC CONSTRUCTION PROJECT IS STARTED, A REVIEW OF THE PERMIT PROCESS SHALL BE MADE AND ALL NECESSARY FEDERAL, STATE AND LOCAL PERMITS SHALL BE OBTAINED. ASSISTANCE AND GUIDANCE IS AVAILABLE FROM NRCS. 508-295-7962**

## CONSERVATION PLAN

### FARM OVERVIEW AND OBJECTIVES:

The W.L. Byrne Inc. cranberry bogs in Middleborough consist of 2 connecting parcels totaling 84 acres of cranberry bog in the Taunton River Basin. Formally operated as two separate farms, managers at W.L. Byrne work the parcels together for more efficient management. For the purposes of this plan however, they are addressed separately with two unique documents. This plan refers to the bog also known as Chestnut Bog consisting of 73 acres of bog created in upland.

The planning objective at this time is to improve production & farm efficiencies and sustain the farming resources on their existing 73 acres of producing bog. It also includes plans to expand the cranberry bogs by 55 additional acres coinciding with the mining of gravel. While constructing bog, the company plans to develop the necessary supportive infrastructure. They will expand water supplies and improve the ability to collect and reuse flood water and stabilize slopes and dikes as the phases of build-out move forward. The new bogs are 'conceptually' sited on this plan, however since they are not currently under cultivation, they are not included in the assessment of BMPs applied as applied.

**The conservation plan consists of a review of a set of conservation practices relative to this specific property as it is currently farmed in its unique setting, presented within three sections:**

The first section of maps describes the property and the surrounding environment including a description of soils found on the property with their limitations. A **narrative record** provides a description of each conservation practice and an **assessment and record of decisions**, containing brief descriptions of those conservation practices which have been implemented and those that will be implemented within a certain time frame designated by the farm manager and landowner. Additional information is displayed including field numbers, acreages and Natural Resource Conservation Service (NRCS) practice code numbers used when reporting practice completion. **The third section** provides additional technical data relative to the successful implementation of the listed conservation practices. Included in an addendum are reference materials relative to the conservation practices applied on this farm.



### NATURAL RESOURCES

This farm is currently used for cropland and sand and gravel mining. The areas that are actively being mined are in a state of de-construction. Areas that have recently been mined are being converted to cropland and necessary and related workspace. Areas that have already been restored are productive with the appropriate agricultural infrastructure. All upland dikes, edges and access roadsides are stabilized with grass plantings that are well maintained.

The relationship of mining and cranberry growing is part of the heritage of the region. Many of the historic and continuously productive bogs in Plymouth County today are the result of iron mining activities at the turn of the century.

**SOIL:** Although ideally suited for cranberry cultivation and gravel resources, the soils on this farm are severely limited for other agricultural uses. The wetland soils are not suited for development and the upland soils are excessively drained for most crops. The major activity on this property is currently cranberry cultivation and the commercial removal of sand & gravel.

**WATER:** Water resources are adequate for the existing acreage. New ground water supplies will need to be permitted and developed for new acres.

**AIR:** The air quality is generally good. Dust and sand blow may need to be mitigated during the gravel removal/ construction process.

**PLANTS:** Vegetation is limited by the excessive droughtiness in the uplands and tolerance for anaerobic conditions in the wetlands.

**ANIMALS:** The site is under construction and there is currently little wildlife habitat.

**HUMANS:** Accommodations to growing suburban neighbors must be considered when undertaking activities with off-site impacts. W.L Byrne Inc. has made efforts to reduce the number of gravel trucks leaving the property, clean and stabilize work areas as phases are completed and control dust and sand blow.

The property is vast with a variety of terrain and is widely abused by riders of all-terrain vehicles (ATVs). The managers have documented damage to bogs, dikes and canals by ATV tracks. In addition, pump houses have been vandalized and sprinkler heads have been stolen. Damages to the property is in the tens of thousands of dollars despite posting, fencing, locked gates, locked and barred pump houses.

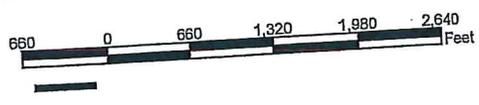
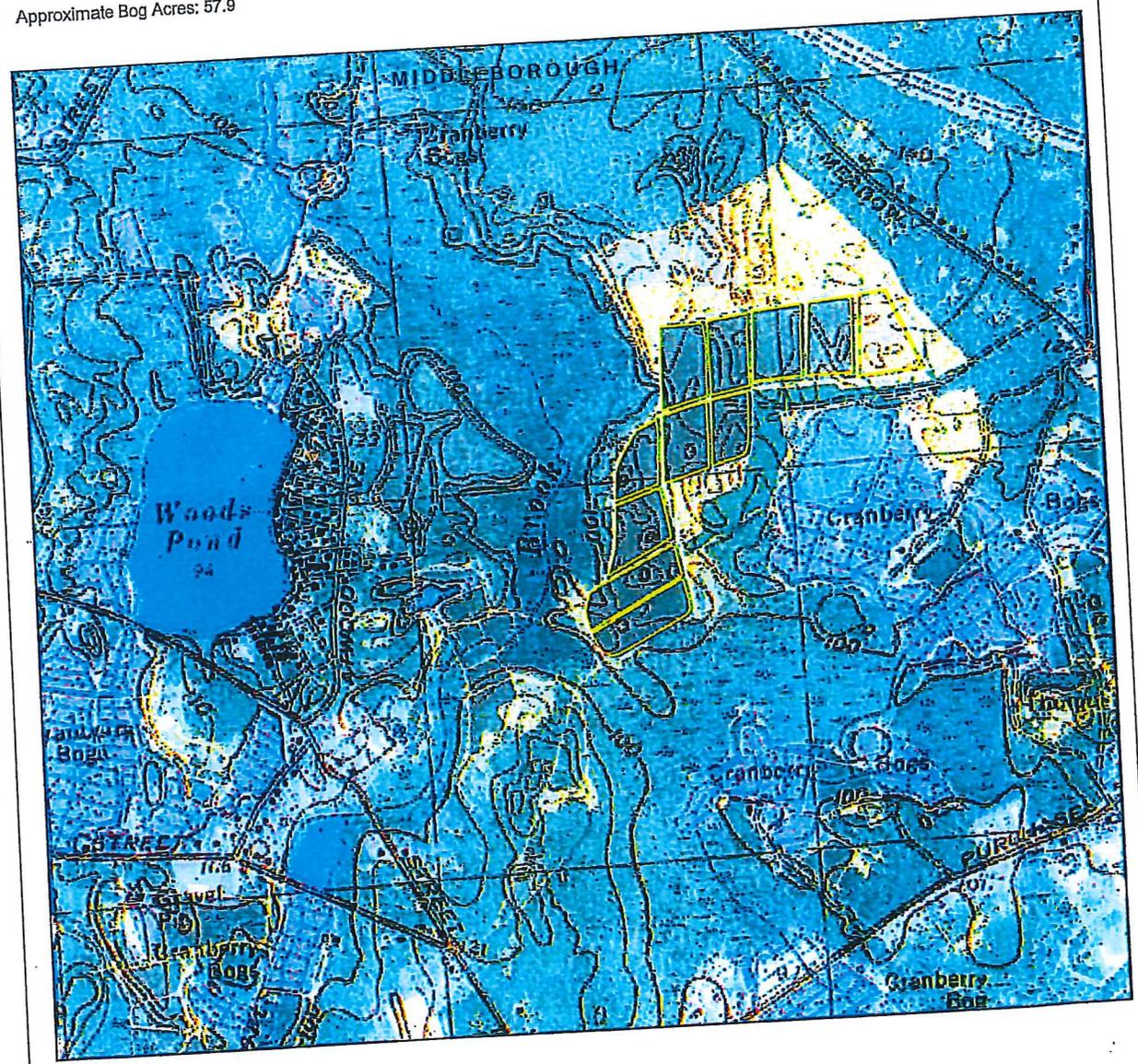
### Locus Map

Customer(s): WILLIAM BYRNE



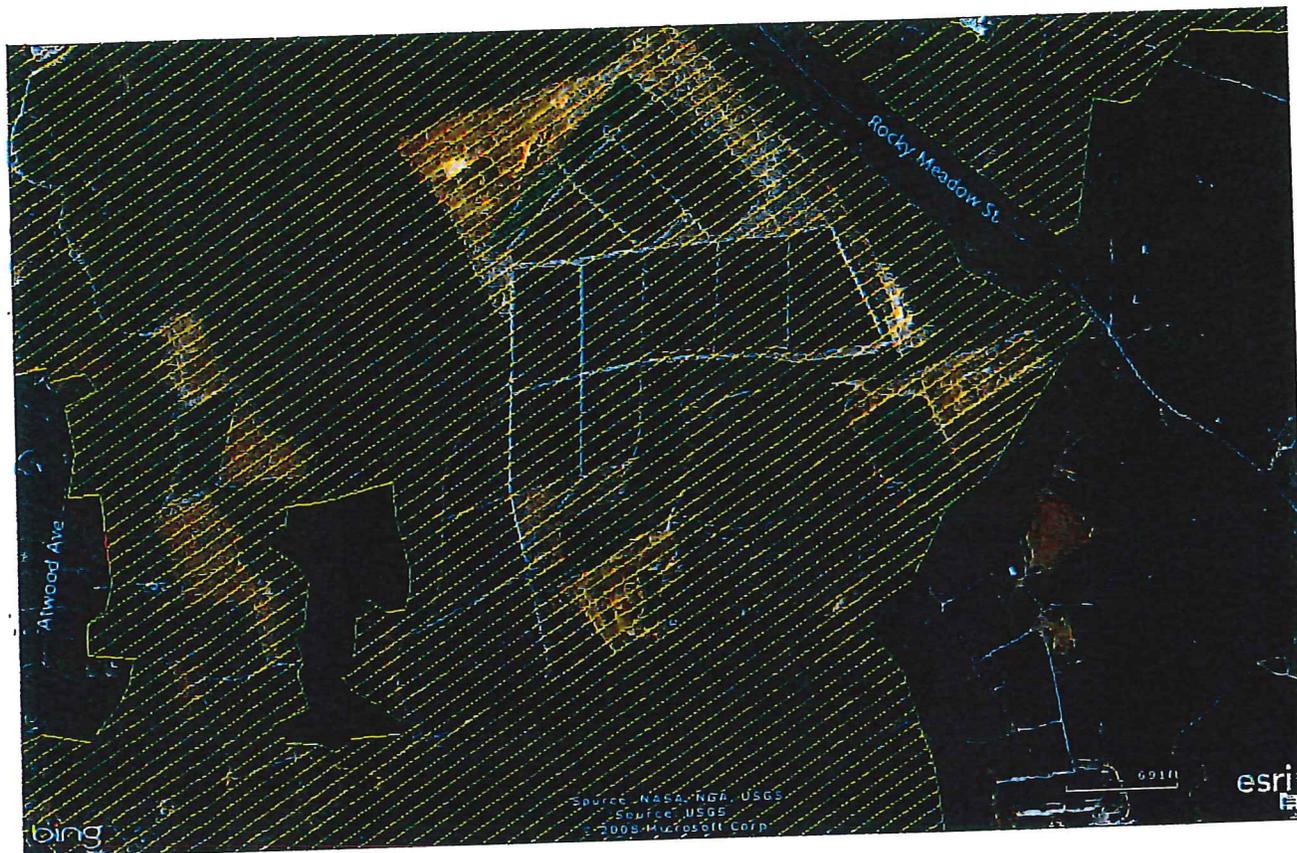
Field Office: WEST WAREHAM SERVICE CENTER  
Agency: Plymouth County Conservation District  
Assisted By: Linda Rinta

Approximate Bog Acres: 57.9



W.L. Byrne Inc.  
Chestnut Bog

Natural Heritage Endangered Species Program  
Map of Priority Habitats of Rare Species

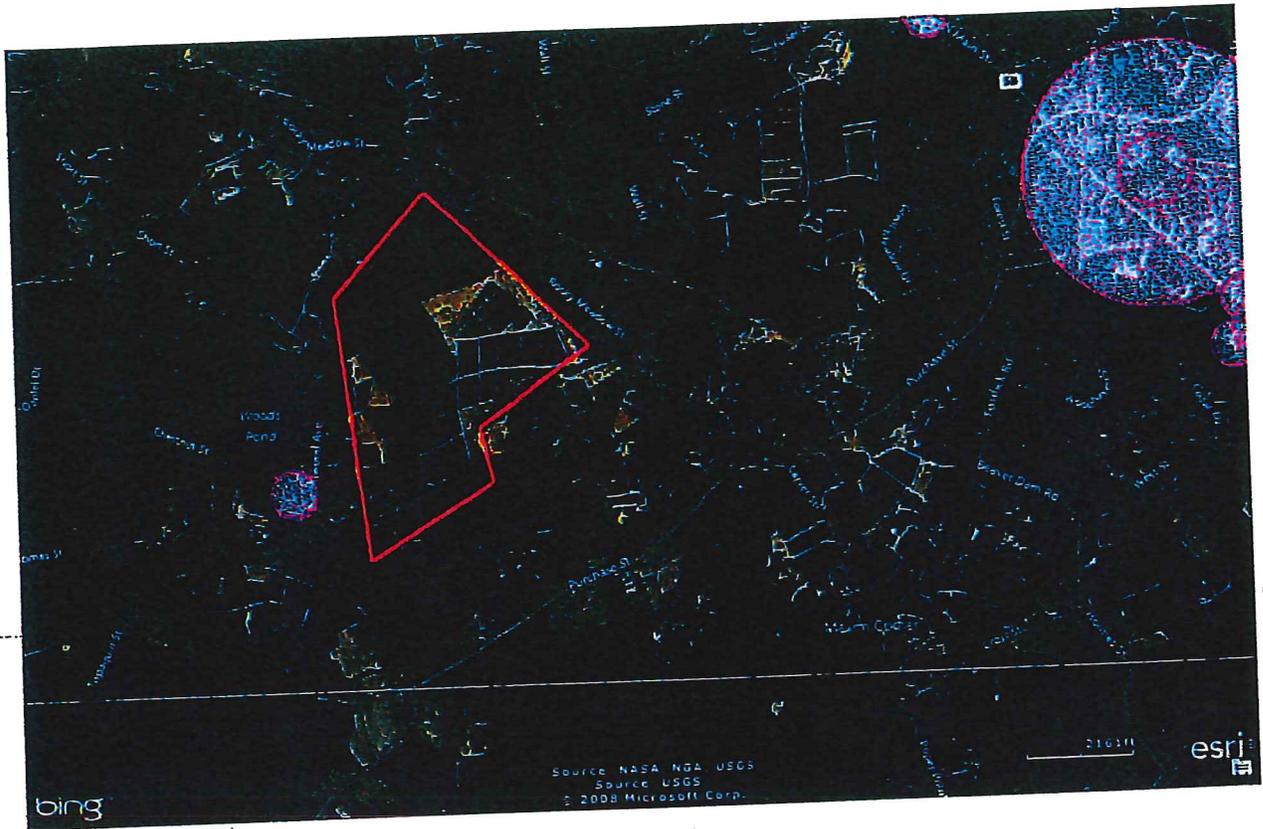


 Yellow striping indicates Priority Habitat 226 in the 13<sup>th</sup> edition of the Heritage Atlas. The species indicated is Eastern Box Turtle.

On December 17, 2013 The Natural Heritage Endangered Species Program (NHESP), of Massachusetts Division of Fisheries and Wildlife issued a "no-take" determination for the further development of new cranberry bog as proposed. A copy of the determination is in the addendum of this plan.

W.L. Byrne Inc.  
Chestnut Bog

### Mass DEP Wellhead Protection Areas (Zone II, IWPA)

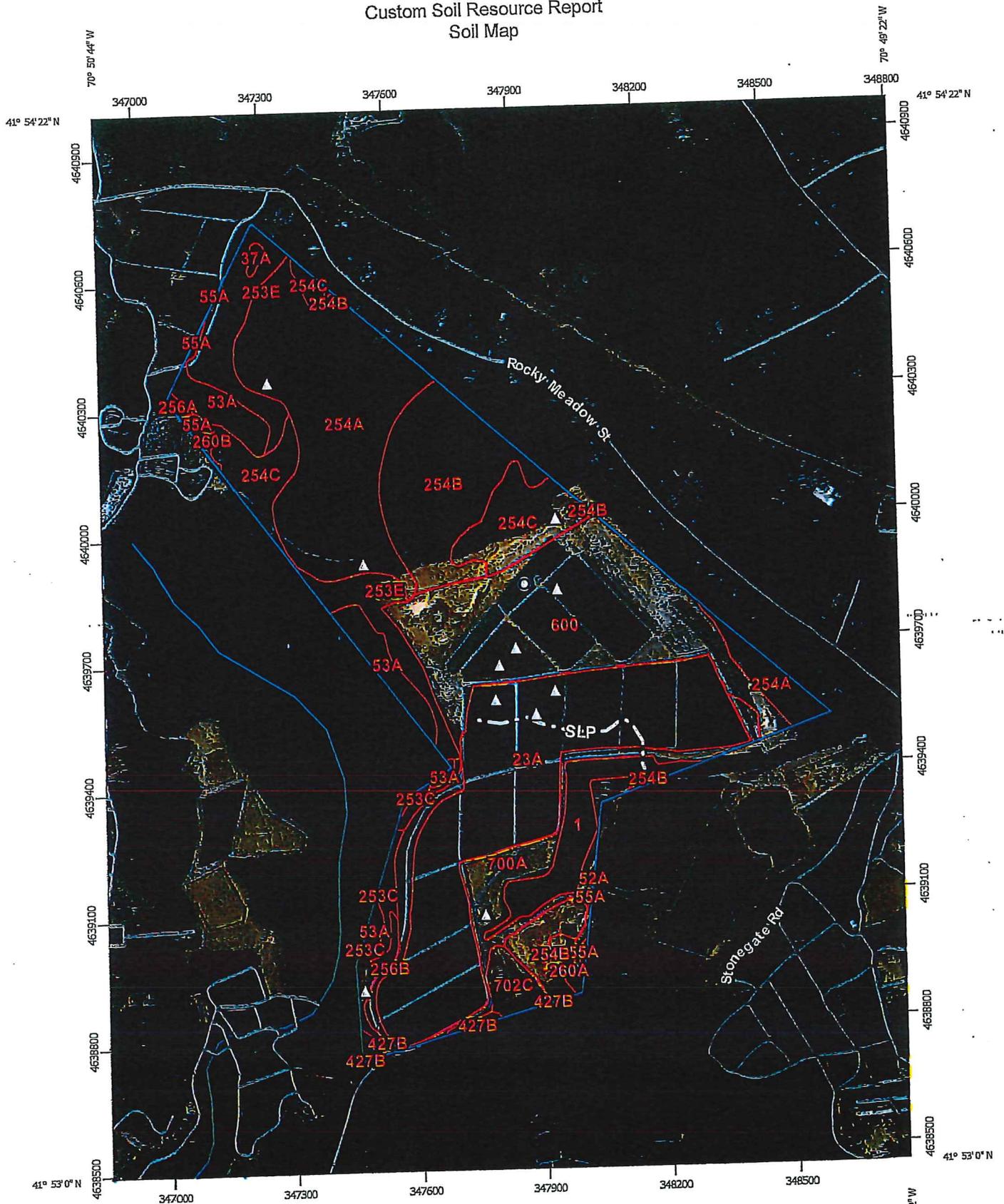


 A Zone II is a wellhead protection area that has been determined by hydro-geologic modeling and approved by the Department of Environmental Protection's (DEP) Drinking Water Program (DWP)

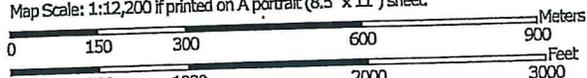
There are none on this map

 Pink shading on this map indicates Interim Wellhead Protection (IWPA area) In the absence of an approved Zone II, DEP has adopted the Interim Wellhead Protection Area (IWPA) as the primary, protected recharge area for PWS groundwater sources.

# Custom Soil Resource Report Soil Map



Map Scale: 1:12,200 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

Custom Soil Resource Report

## Map Unit Legend

Plymouth County, Massachusetts (MA023)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	10.3	3.4%
23A	Tihonet coarse sand, 0 to 3 percent slopes	64.8	21.7%
37A	Massasoit - Mashpee complex, 0 to 3 percent slopes	0.5	0.2%
52A	Freetown muck, 0 to 1 percent slopes	0.0	0.0%
53A	Freetown muck, ponded, 0 to 1 percent slopes MLRA 144A	11.8	4.0%
55A	Freetown coarse sand, 0 to 3 percent slopes, sanded surface	1.2	0.4%
253C	Hinckley loamy coarse sand, 8 to 15 percent slopes	4.0	1.3%
253E	Hinckley loamy coarse sand, 15 to 35 percent slopes	18.3	6.1%
254A	Merrimac sandy loam, 0 to 3 percent slopes	53.7	18.0%
254B	Merrimac sandy loam, 3 to 8 percent slopes	32.4	10.8%
254C	Merrimac sandy loam, 8 to 15 percent slopes	18.7	6.3%
256A	Deerfield fine sand, 0 to 3 percent slopes	0.5	0.2%
256B	Deerfield fine sand, 3 to 8 percent slopes	1.9	0.6%
260A	Sudbury fine sandy loam, 0 to 3 percent slopes	1.5	0.5%
260B	Sudbury fine sandy loam, 3 to 8 percent slopes	1.0	0.3%
427B	Newfields fine sandy loam, 3 to 8 percent slopes, extremely stony	0.6	0.2%
437B	Plymouth loamy coarse sand, 3 to 8 percent slopes, bouldery	0.0	0.0%
600	Pits, gravel	53.1	17.7%
700A	Udipsamments, wet substratum, 0 to 3 percent slopes	21.1	7.0%
702C	Udipsamments, 8 to 15 percent slopes	4.0	1.3%
<b>Totals for Area of Interest</b>		<b>299.2</b>	<b>100.0%</b>

HAZARDOUS WASTE INVESTIGATION REPORT (HWIR) FOR THE PROPOSED CRANBERRY BOG DEVELOPMENT AREA 15-15-15-15



GRAPHIC SCALE  
SCALE 1" = 500'

1 OF 1	DWG.	<b>PROP. CRANBERRY BOG DEVELOPMENT PLAN</b>		<b>G.A.F. ENGINEERING, INC.</b> PROFESSIONAL ENGINEERS & LAND SURVEYORS 266 MAIN STREET - WAREHAM, MA 02571 TEL: (508) 295-8600 FAX: (508) 295-8554 E-MAIL: gaf.eng@verizon.net or info@gaf-eng.com																	
		OFF ROCKY MEADOW ROAD 210 WOOD STREET	MIDDLEBORO, MA	PREPARED FOR: <b>W.L. BYRNE, INC.</b> MIDDLEBORO, MA	DATE: OCT. 1, 2015	JOB NO.: 10-7652	DRAWN BY: JH	SCALE: 1" = 500'													
				<small>COPYRIGHT © 2015 G.A.F. ENGINEERING, INC. NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED, OR TRANSMITTED BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION SYSTEM WITHOUT THE EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. WITH THE EXCEPTION OF ANY REPRODUCTION AUTHORIZED BY THE AUTHOR. THIS DOCUMENT IS THE PROPERTY OF G.A.F. ENGINEERING, INC. AND IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED IN THE TITLE. ANY REPRODUCTION OR TRANSMISSION OF THIS DOCUMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL BE PENALIZABLE.</small>		<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>BY</th> <th>APP'D</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REV.	DATE	BY	APP'D	DESCRIPTION									
REV.	DATE	BY	APP'D	DESCRIPTION																	

W.L. Byrne Inc  
72 acres of cranberry bog

Chestnut Bogs  
Benchmark Map

2015  
Linda Rinta





### GENERAL CRANBERRY WATER MANAGEMENT

A water management system is a planned water delivery system, which when broken down into various components, will uniformly distribute water to maintain adequate soil moisture for optimum plant growth, and provide adequate floodwater for cranberry culture without causing excessive water loss, erosion or reduced water capacity.

Water management includes the management of the water supply for irrigation, harvest, winter flood, and late holding water. As a general rule, each acre of cranberries will use five to ten feet of water to meet all production, harvesting and flooding needs. There are two main ways to distribute water onto the bogs -through sprinkler systems and through flooding.

#### WINTER FLOOD

Cranberry vines may be injured or killed by severe winter weather. This injury, winter kill, is prevented by protecting the vines with a winter flood. The winter flood may be applied as early as December 1 and remains on the bog as long as winter kill conditions are present or forecasted. Generally, growers hold the flood no later than March 15.

#### LATE WATER

Late water floods have been used since the 1940's and have been used to protect the bog from spring frost and to provide some pest control. In modern cranberry production, holding late water refers to the practice of withdrawing the winter flood in March then re-flooding the bog in later April for one month.

#### HARVEST FLOOD

Approximately 90 percent of the crop is harvested this way. Flood harvesting occurs after the berries are well colored and the flood waters have lost their summer heat. The bogs are flooded with up to one foot of water. In order to conserve water, harvest will be managed so water is reused to harvest as many sections of bog as possible before water is released from the system.

#### IRRIGATION

During the growing season cranberries can require 0.20-0.25 inches of water per acre per day during the hottest, driest and windiest weather. The standard recommendation is for vines to receive an inch of water per week from either rain, capillary action from groundwater, irrigation or some combination of these. Best Management Practices recommend irrigating in the early morning, so as not to extend the time the plants are naturally wet. This practice also minimizes loss from evaporation, run-off and drift, which can amount to 30 percent of water that comes out of the nozzle.

#### FROST PROTECTION

Frost protection applies water to prevent damage to buds and berries when they are sensitive to temperatures below freezing. During the spring and in the fall, during cold periods, frost protection is a necessity. It is necessary to apply at least 0.10 inch of water per acre to provide basic frost protection. This will protect the plants to about 24 degrees F under calm conditions.

**Water Management Specific to W.L. Byrne Bogs:** The water source for these bogs is an excavated ground water/tail water pond located on the property. (see map) . All irrigation and flood water used on these bogs is returned to the reservoir. Tail water recovery principals are utilized throughout the system. All bogs and associated infrastructure were built to best management practice standards of the cranberry industry.

**436/ 378 – IRRIGATION STORAGE RESERVOIR/ POND WITH  
447 – TAIL WATER RECOVERY**

Earlier phases of cranberry bog development including 11 cranberry bogs consisting of a total of 57 acres utilized a single excavated ground water pond with flood and irrigation water returning directly to that same supply. This was a simple tail water recover system which also incorporated a parallel lift canal with flume outlets to distribute and collect flood water.

14.3 acres were added since 2009 under the existing permit with an additional excavated pond irrigation to provide water storage for bogs 12, 13 & 14. The canal has also been extended up along the eastern edge of the bogs so that tail water can be returned to the upper bogs for flooding.

At build-out, the new pond shown on page 15 will be expanded for additional storage and tail water recovery for the upper bogs.

**447 -TAIL WATER RECOVERY POND**

This practice applies to reservoirs and ponds that store irrigation and flood water for cranberry farming. Reservoirs and ponds capture and store surface and ground water for use throughout the growing and management season. Regular cleaning and maintenance is required to provide an adequate water supply. Structural features such as dikes and flumes must be maintained to ensure function, stability and the water holding capacity of reservoirs and ponds.

**Assessment:**

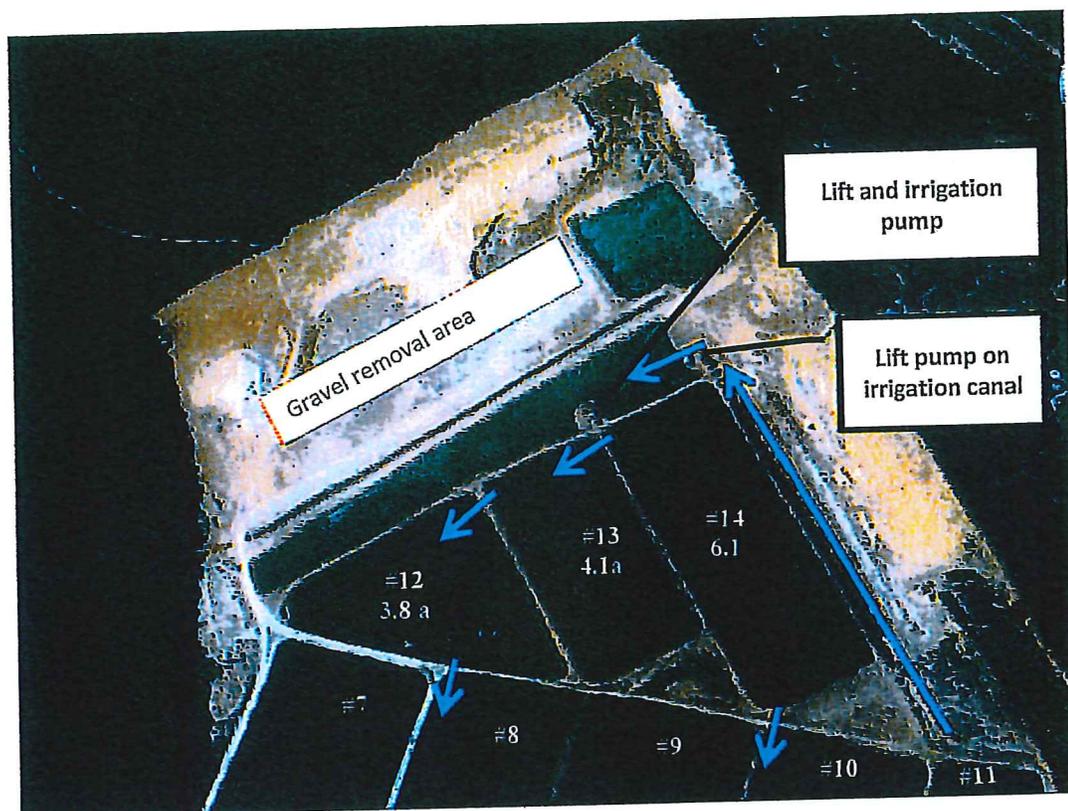
The system of tail water recovery functions well with the use of lift pumps and irrigation canals for distribution and gravity for re-collection.

**Decisions:**

Plans to further expand canals into the build-out area will be incorporated and connected by canal and/or pipeline as new bog areas are created. Extended line to bogs 12 – 14 installed.



Bogs #12, #13 & #14 constructed since 2009, planted in 2011  
 Developing pond 2 with tail water recovery



### 320 – IRRIGATION CANAL

Irrigation canals are permanent constructed channels to convey irrigation water from one source to one or more irrigated areas.

**Assessment:** Existing canals are well maintained. Irrigation canals are an integral part of the irrigation water conveyance system for this bog. Flood water is distributed to the many sections of bog by a system of canals and is collected and returned to the reservoir utilizing a canal system. A lift canal runs along the southern edge of sections 9, 10, & 11. A permanent concrete pipe is installed between the canal and the reservoir to house a lift pump. Water is lifted from the reservoir to the canal and distributed to the upper bogs through flumes.

**Since the last farm plan:** That canal has been extended to section 14 planted in 2011, where a lift pump can be used to flood assist bogs 12, 13 & 14.

**Decisions:** In the future, the lift canal will be connected to the reservoir and canal system developed for the planned bogs by an open canal.

**Recommendations:** Follow specifications provided by NRCS. Maintain canal integrity by removing accumulated weeds or other debris from flow area, mowing side slopes to eliminate wood growth, and maintaining vigorous vegetative growth on the side slopes. Lime according to a soil test or at a minimum of every 5 years using a rate of two tons per acre (100 pounds per 1,000 square feet). Where grasses predominate, fertilize according to soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7 pounds per 1,000 square feet). Where legumes predominate, fertilize according to a soil test or broadcast every 3 years 300 pounds of 0-20-20 or equivalent per acre (8 pounds per 1,000 square feet).

### 356 - DIKE

Dikes are embankments constructed of earth or other suitable materials to protect land against overflow or to regulate water. Dikes for cranberry bog water management include perimeter and interior dikes to temporarily impound water for harvesting, trash removal, pest control, and winter flooding or other management purposes including maintaining water quality.

**Assessment:** Dikes on the W.L. Byrne Co. Bog were examined and appear to be structurally sound. Existing dikes consist of a combination of well-compacted native mineral soils and silty materials. They are adequate to contain water exposed to agro-chemicals. Some dikes are undergoing construction at the present time. When the work is completed they need to be stabilized with permanent vegetation to prevent erosion and sedimentation.

**Decisions:** Maintain dikes, repair rodent damage as it occurs. Control woody vegetation while maintaining a cover. See Critical Area Planting.

#### 430 - IRRIGATION WATER CONVEYANCE, PIPELINE (PLASTIC MAINLINE)

Irrigation water conveyance pertains to that part of the irrigation system that carries water to the irrigation sprinkler system (mainline). Water conveyance is through underground thermo-plastic pipelines ranging from 1/2" to 18" in diameter which are closed to the atmosphere and subject to internal pressures of 80 lb./sq." or greater. The intent of this practice is to prevent loss of water quality, damage to the landscape and to make possible proper management of irrigation water by reducing water conveyance losses.

**Assessment:** All mainlines are composed of drisco pipe and are installed according to NRCS standards and specifications for irrigation. The operators are satisfied with the performance of the main lines.

**Decisions:** Future mainlines will be designed to minimize rinse-out times to every extent possible.

#### 442 - SPRINKLER IRRIGATION SYSTEM

A sprinkler irrigation system (laterals and heads) is a planned water delivery method, using sprinkler heads under pressure. The system should uniformly distribute water to maintain adequate soil moisture for optimum plant growth without causing excess water loss or reduced water capacity. Sprinkler systems for cranberries bogs are also used for protection of crops from frost damage, for the application of fertilizers and pesticides and for plant temperature control during periods of intense heat.

**Assessment:** All sprinkler systems are functioning effectively. The current spacing is 50 x 60 with 1.5" and 1.25" lateral lines with Rainbird 30-5/32 heads. These specifications comply with NRCS recommendations at the time they were installed.

#### 449 - IRRIGATION WATER MANAGEMENT

Irrigation water management is a method of determining and controlling the rate, amount and timing of irrigation water in an efficient manner. The purpose of this practice is to effectively use available irrigation water supply in managing and controlling the moisture environment of crops to promote crop response, to minimize soil erosion and loss of plant nutrients, to control undesirable water loss and to protect water quality. The irrigator will have the knowledge and capability to manage and apply water in such a manner that these objectives can be reasonably attained. The knowledge should include:

- How to determine when irrigation water should be applied, based on the rate of water used by crops and on the stages of plant growth and weather.
- How to measure or estimate the amount of water required for irrigation and leaching needs
- The normal time needed for the soil to absorb the required amount of water and how to detect changes in intake rate
- How to adjust stream size, application rate, or irrigation time to compensate for changes in such factors as intake rate or the amount of water to be applied
- How to evaluate the uniformity of water application

### 608 - SURFACE DRAINAGE, MAIN OR LATERAL

Surface drainage in Cranberries bogs consists of open drainage ditches and/or stoned filled and tiled ditches constructed to dispose of surface water. The practice includes main, lateral and perimeter ditches. Main and lateral ditches may also be used to distribute water for flooding and for frost control, if necessary.

Assessment: The ditches are currently maintained and cleaned as needed.

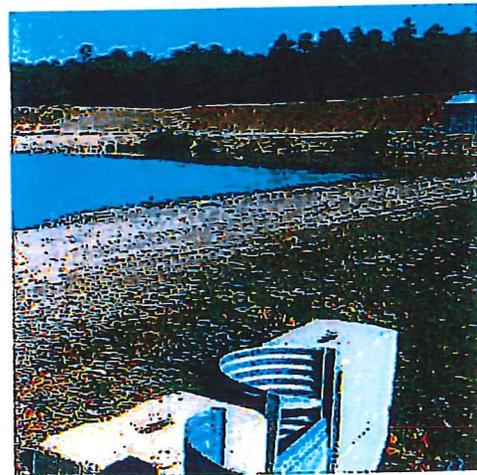
Decisions: The operator will continue with a regular maintenance program.

### 587- FLUMES

Flumes are water control structures (WCS) usually constructed of steel, aluminum or concrete which are installed in a dike that conveys water, controls the direction of flow or maintains a desirable water surface elevation. The primary purpose of a WCS is to control the stage, discharge, distribution, delivery, or direction of flow of water in open channels or water use areas. They are also used for water quality control, holding back sediment and impounding chemical laden water until it has sufficiently degraded (for its specified detention time) for discharge from the bog system.

Flumes on bogs #1 – #14 (numbered in white) are shown on the map on page 19 with flume numbers in yellow corresponding to a chart located on page 20. They include flumes on the newer bogs 12 - 14 . Some of the flumes on bogs 1 – 11 were previously found to be undersized for storm water management and have been partially remediated with added "top" barrels.

The additional bog ditches and canals have also provided greater storm water storage capacity relieving the some of the over burden of storm water. There is only one outlet a to cranberry bog managed reservoir owned and operated by W.L. Byrne, Inc. for the neighboring B & B bogs, also owned and operated by W.L. Byrne, Inc. The only other outlet for excessive storm water is through a lift pump to another cranberry impoundment.



Flume Map for W. L Byrne Bogs



## 587- Water Control Structures ( chart of flumes from maps)

ID	TYPE	BOG	BARREL	HEADER	CONDITION
1	ALUMINUM	#1 TO EXIT	30"	45"	GOOD
2	ALUMINUM	#2 TO EXIT	24"	36"	UNDERSIZED
3	ALUMINUM	#2 TO #1	24"	36"	GOOD
4	LIFT PUMP ON	RESERVOIR TO #2	18"	NA	GOOD
5	ALUMINUM	#3 TO #2	18"	36"	GOOD
6	ALUMINUM	#4 TO #3	18"	36"	GOOD
7	ALUMINUM	#5 TO #4	18"	36"	GOOD
8	ALUMINUM	#6 TO #5	18"	36"	GOOD
9	ALUMINUM	#6 TO #5	18"	36"	GOOD
10	ALUMINUM	#6 TO CANAL	18"	36"	GOOD
11	PIPE	CANAL TO #6	36"	NA	GOOD
12	ALUMINUM	#7 TO #5	18"	36"	GOOD
13	ALUMINUM	#7 TO B & B RES	18"	36"	GOOD
14	PIPE ONLY	#8 TO #7	24"	NA	GOOD
15	ALUMINUM	#8 TO RESERVOIR	24"	BOX	GOOD
16	ALUMINUM	LIFT CANAL TO #9	24"	45"	GOOD
17	ALUMINUM	#10 TO LIFT CANAL	24"	45"	GOOD
18	ALUMINUM	LIFT CANAL TO RES	24"	45"	GOOD
19	ALUMINUM	LIFT CANAL TO #11	24"	45"	GOOD
20	ALUMINUM	#11 TO RESERVOIR	24"	45"	GOOD
21	ALUMINUM	#10 TO NEW BOG	18"	36"	EXCELLENT
22	ALUMINUM	#9 TO NEW BOG	18"	36"	EXCELLENT
23	ALUMINUM	#9 TO NEW BOG	18"	36"	EXCELLENT
24	ALUMINUM	PIPE ONLY	NA		GOOD
25	ALUMINUM	#14 TO CANAL	24"	45"	EXCELLENT
26	ALUMINUM	#14 TO #13	24"	45"	EXCELLENT
27	ALUMINUM	#13 TO #12	24"	45"	EXCELLENT

#### 466 – LAND SMOOTHING

The purpose of land smoothing is to remove irregularities on the land surface for more uniform cultivation and efficiency of equipment. For cranberry bogs, land smoothing is used to construct a more level bog to reduce the amount of flood water needed for cranberry production. This is a water conservation practice.

**Assessment:** All sections are level and designed to sequentially flood and de-flood.  
**Decisions:** New Bog sections will be level and designed to move flood water efficiently.

#### 342 - CRITICAL AREA PLANTING

Critical Area Planting is establishing vegetation such as trees, shrubs, vines, grasses or legumes on highly erodible or critically eroding areas.

The purpose of the practice is to stabilize the soil, reduce erosion, runoff, and sediment damages to downstream areas and improve water quality.

**Assessment:**

Examination of vegetation on uplands adjacent to bogs, in particular, dikes and adjacent roadways indicate that the overall condition of the property is good. Seeding disturbed places within the newly constructed project areas should be conducted as soon as practical in order to stabilize banks and to prevent erosion.

Continual monitoring of the dikes and roadways is necessary to prevent damages from sediment and runoff to the canals and the bog. Permanent vegetation should be established in areas where erosion is evident. If vegetation cover fails to hold the soil in place, engineered structures for stability should then be considered. Newly installed flumes should be permanently stabilized using "turf grass", stone headwalls or one of the seeding recommendations listed below:

#### Recommendations

Continually maintain sparse areas by applying seed mixtures and mulch. Maintenance recommendations are documented in section 342 - Critical Area Planting.

"Hard armor" and Geo-textile fabric may be used where problems persist. Contact NRCS engineering for technical assistance.

#### Suggested Seed Mix,

Plymouth County Conservation  
 District Mix for Cranberry Bog  
 shores, dikes and workspace.  
 34% perennial Rye  
 39% Creeping Red Fescue  
 24.5 Empire Birdsfoot Trefoil



**386 – FIELD BORDER**

A strip of perennial grass, trees or shrubs established at or around the edge of a field to provide a perimeter buffering effect for improved water quality and to provide wildlife food and cover.

**Assessment:** The overall farm area has a buffer of white pine and maple swamp between the agricultural & mining area and residential neighborhoods.

**Decisions:** Buffers will be maintained consistent with the protection of ag land recognizing that bogs edges need sun exposure and air flow. Vegetation around the bogs is also controlled so as not to harbor pests that can be problematic on the cranberry bogs.



## *CROP MANAGEMENT*

### *NUTRIENT MANAGEMENT PLAN CONTENTS:*

Planning requirement  
 Farm identification and maps required  
 Section describing Cranberry Plant Nutritional Needs  
 Soil and Tissue Tests  
 Section describing Applicators Decisions  
 Record Keeping

### *590 –NUTRIENT MANAGEMENT FOR CRANBERRIES*

The goal of nutrient planning for cranberries is to ensure healthy plants, good harvests, and the protection of environmental water resources (surface and ground). Cranberry nutrient planning consists of monitoring and observation; careful record keeping of applications, yields, and monitoring/observation results; and training and education. As a result of this process, applications are chosen and timed in such a way as to preserve vigor and productivity while protecting water resources. This plan has been developed with guidance and recommendations provided by the 2015 Cranberry Chart Book Management Guide for Massachusetts, published by the University of Massachusetts Cranberry Station, Massachusetts Experiment Station and University of Massachusetts Extension, USDA Cooperating.

Beginning in 2016, all farmers in Massachusetts who apply nutrients on 10 or more acres of land will be required to have a Nutrient Management Plan and keep accurate records of fertilizer or any nutrients applied. A nutrient management plan as defined by the Commonwealth of Massachusetts is "a written plan to manage the amount, placement, timing, and application of plant nutrient materials in order to minimize nutrient loss or runoff and to maintain the productivity of soil when growing agricultural products". This Nutrient Management Plan is a written in accordance with the requirements of 330 CMR 31.00 to ensure that plant nutrients are applied to agricultural land in an effective manner to provide sufficient nutrients for plant growth while minimizing the impacts of the nutrients on water resources in order to protect human health and the environment.

To be in compliance with the planning requirement of this regulation you will need this section of the plan along with a copy of the locus map and map identifying bog sections, as well as accurate records of nutrients applied each crop year. You will also need to document your decisions on applying nutrients, even if in a most fundamental way to demonstrate that you are following best management practices as recommended by the UMass Cranberry Station.

There is software available to help with this documentation or you can use the fertilizer check sheets and formulation calculator provided in this plan as developed and approved by UMass Cranberry Station and available in the Cranberry Chart Book. Nutrient management Plans must be 3 years current when new bogs or major changes are incorporated.

Prepared by Linda Rinta  
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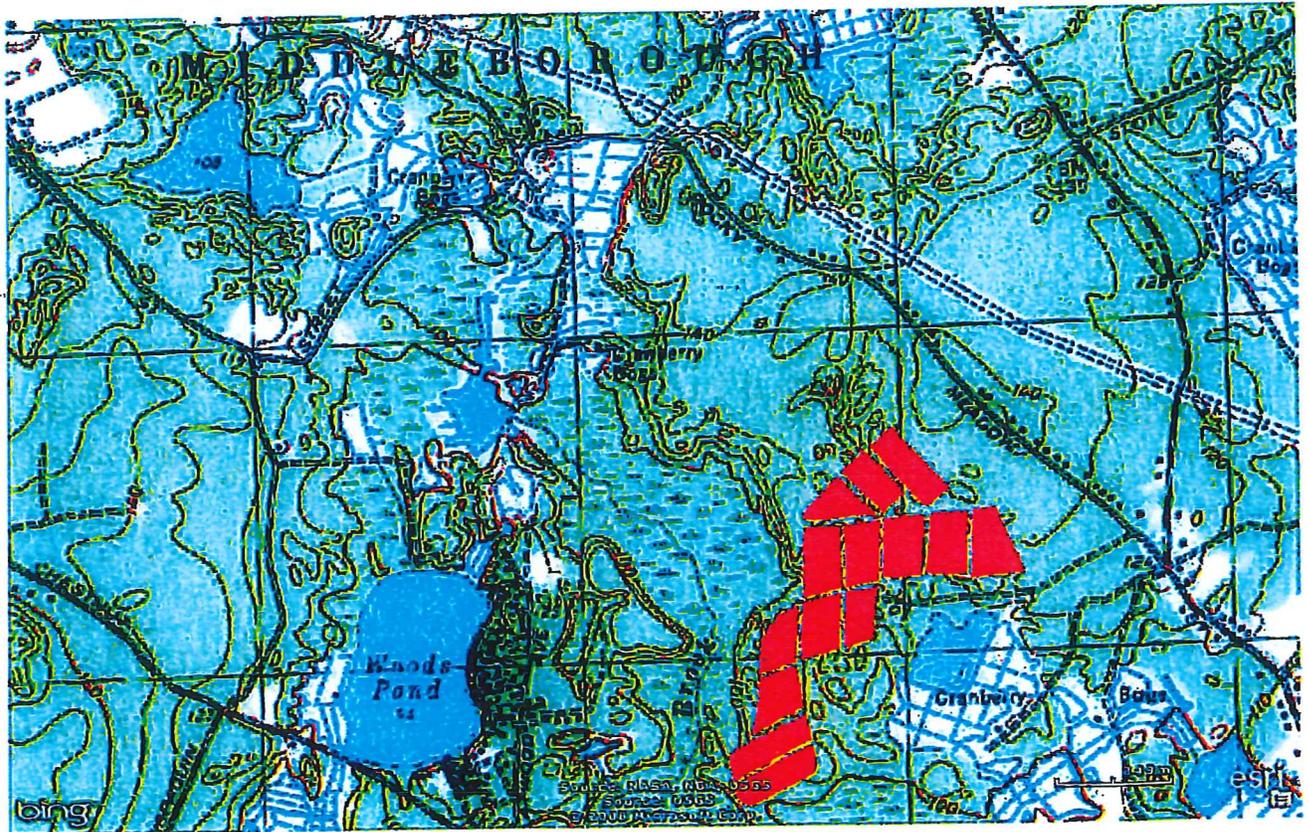
W. L. Byrne Inc

Tract: 899

NRCS West Wareham Center  
Date: 9/13/2015

### Byrne Bogs on Chestnut St., Middleborough MA

### Locus Map



W.L. Byrne Inc.

Chestnut Bog Sections as identified by number and acreage:



As of 2015, this cranberry bog system consists of 14 bogs totaling 72 acres of cranberries

Bogs 1 – 14 are high yielding Stevens Variety with a base rate of nitrogen as recommended on page 26 with adjustments to support a number of factors: heavy crop, vine density and length, weather factors, insect pressures, deficiencies indicated in tissue tests or by observation. (Refer to most recent edition of Cranberry Chart Book.

Tail water is collected, returned to the excavated reservoir and reused within this system. The only outlet is to the cranberry bog impoundment reservoir of the adjacent B & B Bogs also owned and farmed by W.L. Byrne Inc.

## Cranberry Plant Nutritional Needs

### *Excerpted and quoted from the 2015 Cranberry Chart Book Management Guide*

The UMass Cranberry Station provides MA growers with annually-updated nutrient management recommendations in the Chart Book. The recommendations are based on a documented base of scientific study and include guidance on how to use information from crop removal, tissue testing, and other factors in determining an application rate for cranberries.

The cranberry plant has evolved in sandy, acidic and nutrient poor soils. While they may require less nutrients than other crops, those requirements must be met for optimum growth and to achieve yield potentials. Yield potential is dependent upon the cultivar, condition of the plants as they come through the winter (including nutrient content at the end of the previous season - tissue test), weather, management applications such as rotational sanding and flooding, and any events that might limit production such as insect infestations or frost damage.

This plan is based on the Chart Book recommendations and consideration of the factors listed above. Since some factors occur during the nutrient application season, the plan must be flexible and adjusted for change as conditions warrant. As recommended, this plan is based primarily on nitrogen (N). Phosphorus (P) considerations are also included.

These are the base N rates for 2015 as published in the Chart Book.

**Nitrogen (N) base rates**

Cultivar group	Base N rate Lb/A	Other considerations
Natives: Early Black and Howes	25-40	Reduce to 25 – 30 for crops less than 200 bbl/A
Older hybrids and large fruit: Ben Lear, Stevens, Grygleski, Pilgrim	35- 50	Reduce to 35 – 40 for crops less than 200 bbls/A
Rutgers and University of Wisconsin cultivars: Crimson Queen, Demoranville, Mullica Queen, HyRed	50-80	Reduce to 50 – 60 for crops less than 300 bbl/A

*Table taken directly from the Chart Book*

### **Adjustment of the N base rate**

For each management unit, a base rate will be selected from the table and modified as recommended in the Chart Book based on the following observations: 1) N in the tissue test; 2) examination of density, upright length, and leaf color; 3) factors that impact yield potential such as insect infestation, winter damage, sanding, late water, etc.

**Vine appearance in June:** According to the UMass Chart Book, decisions regarding the N rate should be based in part on the length and density of uprights. Assessed at hook stage in mid-June, an even and adequate vine cover of both flowering and non-flowering uprights is desired and uprights should not be longer than 4" in general. The upright density for Howes, Ben Lears and Stevens should be about 400

per sf. and Early Blacks, 600 per sf. The minimum upright total length should be greater than 2.5" but less than 4".

### Nitrogen (N) decisions

Choose a starting N rate and delivery schedule based on experience and previous performance or use the starting guidelines in the previous section. N rates are then adjusted through the season based on the chart below.

#### Use less N if:

You will not produce a crop  
 Varieties are Early Black or Howes  
 Subsoil is deep peat  
 Organic matter is >3% (limit spring use)  
 Bog was sanded  
 Bog was pruned (limit spring application)  
 Previous crop was light  
 Tissue test N is >1.1%  
 Uprights are long and rank or runners present  
 Frost or other limitation to flowering  
 Insects or disease has limited crop potential

#### Use more N if:

Bog is recently renovated  
 Varieties are Ben Lear or Stevens  
 Bog built on mineral soil (small increments)  
 Organic matter is <1% (small increments)  
 Bog was mowed  
 Previous crop was heavy  
 Tissue test N is <0.75%  
 Uprights are stunted or stand is thin  
 Heavy bloom (large crop potential)  
 Vines show general yellowing

### Phosphorus (P) decisions

**NO MORE than 20 lb/a P recommended**  
 the information below.

**(45 lb/a P<sub>2</sub>O<sub>5</sub>).** Make site specific decisions based on

*You can use the work sheets on page 30 to document observations*

**Phosphorus (P) base rates**

Production system	Recommended P rate lb/a	as P <sub>2</sub> O <sub>5</sub> lb/a	Notes
New plantings	up to 30	up to 68	Initial year only
Established beds, tissue test >0.16%	no more than 10	no more than 23	
Established beds tissue test, 0.11-0.15% and stable	no more than 15	no more than 34	Trying a lower rate (e.g. 10) is encouraged
Established beds, tissue test <0.12% and trending down	up to 20	up to 45	15 lb/a P with testing should suffice
Established beds, tissue test <0.1%	20	45	

Soil testing for P in MA cranberry soils is confounded by high iron and low pH making plant availability difficult to determine. Therefore recommendation rates are based on plant use **and tissue tests**. Plant use rates in Massachusetts on established beds are about 5lb/A per 250 bbls/A crop.

P can be an environmental pollutant when discharged to a fresh water pond or accumulates in the sediments that feed a fresh water body. There are specific guidelines for the use of phosphorous near surface water that must be considered in water management of bogs adjacent to lakes and pond where phosphorous can accumulate and contribute to algal blooms. In this plan, recommendations from UMass Cranberry Station Extension will be followed.

**Potassium (K)**

The amount of K taken off the bog in harvest is almost the same as N. Cranberry soils are naturally low in K and it is essential to the health of the plant moving sugars within the plant and maintaining proper hydration. When soil and tissue tests are normal the recommended rate of K is <100 lbs/A with an N-P-K fertilizer with similar N and K numbers. If soil and tissue tests are low for K than recommended rate is 60 – 100 lbs per A with consideration of a supplement like SuloMag or KMag at 100 – 150 lbs/A and if the tissue test is high recommended K is less than 60 lbs/A with no supplements.

Calcium, Magnesium, and other micro-nutrients may be applied if tissue tests warrant treatment. Treatment will be based on Chart Book recommendations.

**Timing and Sources:**

**Timing (based on nitrogen):** On established beds with typical organic matter in the soils nitrogen should not be applied until the soil temperature exceeds 55°F. As soil temperatures increase from 55°F - 70°F fertilizer applications can be beneficial. This corresponds to the plant stage rough-neck through bloom. Cranberry plants use nitrogen during three stages of growth primarily: early season leaf production, and fruit set and bud set. In general, fall fertilizer is not recommended unless bogs or late season tissue tests show symptoms of stress. Phosphorus and potassium will be added with nitrogen (N-P-K fertilizer) using ratios that fit the rates chosen for each of them.

**Nitrogen sources:** The ammonium form of nitrogen is recommended. Monoammonium phosphate is an excellent source of nitrogen, however it can provide excess phosphorus and should be avoided where discharge flood water is released to a fresh water pond. Urea provides N in the ammonium form also. Organic sources such as fish fertilizer or controlled release materials have more longevity in sandy soil and are also good choices.

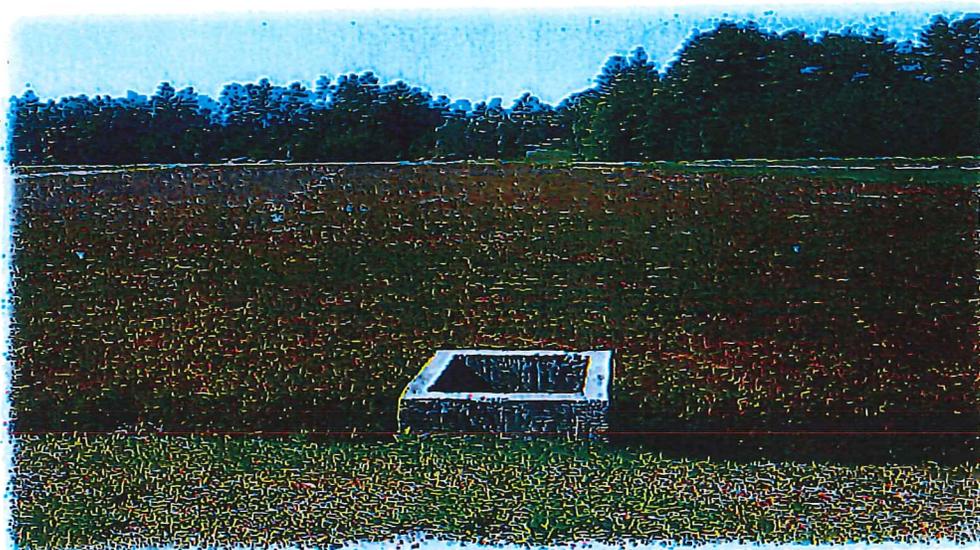
### **Soil & Tissue Tests: Soil & Tissue Tests:**

Soil tests are not used to determine the base rate of fertilizer applied to cranberry bogs but they are used to monitor the organic matter and pH of the soils which effects how phosphorus mobilizes in the root zone or in flood water. Soil tests can be taken in the spring or summer and are recommended every 2-4 years where P release is a concern, otherwise every 3-5 years is sufficient.

Tissue tests for mineral content should be done every 1 – 4 years depending on previous results and more frequently if the fertilizer management plan changes. Tissue testing must be done between mid-August and mid-September in order to provide a correct assessment. Interpretation guides are found in the Chart Book.

### **Soils and Tissue tests for this bog were taken in 2011**

Soils were found to be low in phosphorus; Tissue tests were found to be high in naturally occurring minerals, iron, manganese, boron and zinc, deficient in potassium & sulfur and within the range of normal for nitrogen and phosphorus.



### Grower Application Decisions:

Once the base rate nitrogen and phosphorus needs have been determined, the total amount of fertilizer required can be calculated depending on the formulation of N-P-K that will be used. Below is the calculator that will also provide the total Phosphorus and Potassium that will be provided per formulation.

Calculate Total Pounds Fertilizer per Acre Based on Nitrogen Need	
1) How many pounds of Nitrogen are you using?	
2) What type of fertilizer are you using (N-P-K) For example 18-8-18; 15-15-15; 12-24-12	___N-___P-___K
3) Calculate Total pounds of Fertilizer Required per Acre:	
(Total lbs of N in line 1) divided by N in line 2 x 0.01) =	
	Total lbs fertilizer
4) How much Phosphorous (P) and Potassium (K) is this?	
P: Total lbs from line 3 x (P in line 2 x 0.01) x 44	___ Total Lbs P
K: Total lbs from line 3 x (K in line 2 x 0.01)	___ Total Lbs K
<b>Example:</b> If you were targeting 30 lbs nitrogen and using 18-8-18 (N-P-K)...	
$N / (18 \times 0.01) =$	167 lbs total fertilizer
P: $167 \times (8 \times 0.01) \times 0.44 = 21.2 \text{ lbs P}$	5.9 lbs or 6 lbs P
K: $167 \times (18 \times 0.01) \times 0.83 = 39.8 \text{ lbs K}$	24.9 lbs or 25 lbs

### WORK SHEETS FOR ADJUSTING NITROGEN RATE

Use one form for each management unit each year. Recommendation listed below each question.

Bog (unit) name \_\_\_\_\_ Year \_\_\_\_\_ Base N rate chosen: \_\_\_\_\_

	yes/no	Decision - action taken
Crop produced? (use less)		
Bog renovated? Soil test organic matter <1%? (use more)		
Rate adjusted for variety?		
Is subsoil peat? (use less)		
Is bog built on mineral soil? (use more in small increments)		
Is organic matter in soil test >3% (use less in spring)		
Was bog sanded this year? (use less in spring)		
Was bog pruned or mowed? (less if pruned, more if mowed)		
Was previous crop abnormal? (less if light, more if heavy)		
Was tissue test N abnormal? (less if >1.1%, more if <0.75%)		
Is upright length abnormal? (less if >4" or many runners, more if <2" above flowers)		
Is stand density adequate? (less if rank, more if thin)		
Is bloom adequate? Frost? (less if limited, more if heavy)		
Has insect or disease limited crop po- tential? (use less)		
Are vines yellowed? (use more, check for other problems)		

**Fertilizer decision making checklist - P**

Use one form for each management unit each year.

Bog (unit) name \_\_\_\_\_ Year \_\_\_\_\_

	yes/no	Recommendation	Action/ rate used
Tissue test P >0.1%?		If yes - use N-P-K with 1:2 ratio; 20 lb/a P If no - go to next line	
Is tissue test <0.1%? Is soil test (Bray) >20 ppm		If yes - use a foliar P pre-bloom (2-4 lb/a P) If no - go to next line	
Is tissue test <0.1%? Is soil test (Bray) <20 ppm		If yes - use N-P-K with 1:3 or greater ratio	
Is P in soil (Bray) >80 ppm?		If yes - avoid high P fertilizers, 1:1 ratio is recom- mended	

**Record Keeping:**

- Each work order that is developed is a nutrient planning decision.
- When that work order is applied, it becomes of record of application.
- The Nutrient Management Regulation requires that you apply fertilizer only to your cropping units, according to UMass recommendations for cranberries with considerations for site specific adjustments.
- You should have soil and tissue tests done about every 4<sup>th</sup> year on established beds, and before and after planting on new beds
- You also need to keep accurate records of fertilizer applications within each crop year.

## ***CROP MANAGEMENT***

### **595 – INTEGRATED PEST MANAGEMENT (IPM) FOR CRANBERRIES**

Pest Management is a conservation practice that manages agricultural pest infestations (including weeds, insects and diseases) to reduce adverse effects on plant growth, crop production and environmental resources. The practice establishes the elements of an Integrated Pest Management (IPM) approach. This approach requires an understanding of the dynamic nature of pest management and includes combinations of appropriate biological, chemical and cultural control techniques. The purpose of this strategy is to promote favorable crop results while minimizing environmental impacts. The goal is to use a multi-disciplinary approach to controlling the most economically threatening pests, while optimizing favorable crop yields. IPM programs utilize various techniques to monitor weather, pest life cycles and crop development. It also integrates cultural, biological and chemical control strategies to maintain pests below economically damaging levels. Potential control strategies will be based on established economic thresholds and will employ techniques that minimize environmental impacts.

#### **Monitoring/Observation**

Appropriate monitoring techniques, such as weekly sweep sets, weed mapping and close observation will be used in order to determine pest infestation levels; techniques will be based on the recommendation of the "Cranberries Chart Book: *Management Guide for Massachusetts*," University of Massachusetts publication.

#### **Selection of Management Techniques**

Pest Management methods will be selected on the basis of degree of control, cost and environmental risk. Timing will be based on economic thresholds (when established) as well as the operator's experience and site-specific conditions. Implementation of methods will follow the guidelines recommended in the "*Cranberries Chart Book*".

#### **Education/Training**

Operator will possess a valid pesticide applicator certification and will attend the appropriate continuing education workshops to keep informed of research developments, or will contract with a licensed custom applicator that does.

#### **Record Keeping**

The operator will maintain, in a format appropriate to the operation, records of dates, locations times of applications, rates and formulations used, split doses, and weather conditions. Records should be consistent with those required by DFA and Handlers.

#### **OPERATION, SAFETY AND MAINTENANCE**

Calibrate equipment where applicable to ensure recommended pesticide rates are applied. Protect pesticides from weather and when disposing of any pesticides, proper care should be taken to comply with all applicable local, state and federal laws.

**Assessment::****Integrated Pest Management (IPM) as Practiced on W.L. Byrne Inc. farms.**

In cranberries, the greatest risk for transport is most often storm water run-off and/or leaching, depending on the soil structure and water management strategies in place. Except for newly constructed bogs, pesticides are applied on a foliar cover, on level ground.

*In addition, the pesticides typically used on this property as selected by the operator have been evaluated, relative to the specific soils where they are used and the manner by which they are applied to determine and mitigate risk factors to every extent possible. The NRCS risk assessment tool measured the potential for off-site transport of pesticides through storm water run-off, leaching, volatilizing and drift.*

The bogs at this farm include newly re-constructed acreage and so not all materials will be applied to foliage only. There will be some expected direct contact with soil. That is taken in consideration with the materials used and the application methods. On this property, most risk factors can be mitigated with water management. In addition, tail water is collected and re-used to every extent possible. All bogs can operate on a semi-closed water management system to further insure against off site impacts.

These bogs are constructed on restored gravel pit soils, which are naturally porous. They have been constructed according to the UMass Cranberry Station's Best Management Practice for Upland Bog Construction. With an impervious layer of hardpan liner the bog beds hold water above the ground water table.

- The operator practices IPM at a high level, scouting twice a week during the growing season, treating each bog bed individually and only applying materials when the economic thresholds have been breached. The operator also monitors weather conditions and spot treats whenever possible.
- Scouting and application records are maintained.
- The Chemigation Best Management Practice is followed by the operator. It is included in the addendum of this plan as a reference document for the operator.

*The operator practices IPM at a high level, scouting twice a week during the growing season, treating each bog bed individually and only applying materials when the economic thresholds have been breached. The operator also monitors weather conditions and spot treats whenever possible.*

A self-assessment for Nutrient & Pest Management Developed by the U Mass Cranberry Station and approved by NRCS in 2009 and updated in 2011 follows on page 35.



**NRCS Conservation Practice Standard: Code 595 ~ Pest Management**

**IPM Worksheet: Cranberry**

Version: 2/12/09 Updated 2011

Completed by Kenneth Harju Operator in 2013

**Soil Nutrient Management and Cultural Practices**

Bog and ditch areas are properly managed to maximize drainage. All areas of the bog are capable of being flooded for proper winter protection.	20	<u>20</u>
Leaf trash is removed yearly from the bog by flooding.	10	<u>10</u>
Trash from border areas is removed to prevent spread of plant disease.	10	<u>10</u>
Bog is sanded (or pruned) at regular intervals (3-5 years) as weather allows.	10	<u>10</u>
Bog is periodically held under a late water flood as an alternative strategy to reduce fruit rot or infestations of mites, Gypsy moths, false armyworm or cranberry fruitworm.	10	<u>10</u>
Flumes are maintained to maximize tightness and minimize leakage.	10	<u>10</u>
Bog has been managed to reduce overgrowth and to promote air circulation; canopy is not overly dense and runners are minimal.	10	<u>10</u>
Leaf tissue analysis, including nitrogen, is performed at least every four years.	5	<u>    </u>
Fertilizers are applied utilizing the previous year's leaf tissue analysis as well as other appropriate crop and weather related factors.	5	<u>5</u>
Records of fertilizer applications are kept. Abnormalities and response applications are noted as needed.	10	<u>10</u>
Fertilizers are applied in a program using approved materials in accordance to their respective uptake and mobility properties.	10	<u>10</u>
Phosphorus is applied not to exceed 20 lb/A per year	10	<u>    </u>
Irrigation is based on soil moisture monitoring with a water level float, tensiometer, or moisture sensor.	10	<u>10</u>
<i>Total practice points for Soil and Nutrient Management and Cultural Practices</i>		<u>115</u>
<i>Total possible points for Soil and Nutrient Management and Cultural Practices</i>		130

### **Pesticide Application and Records**

*Only pesticides approved and registered in the state are used. Sprinkler systems must meet federal chemigation standards. Records of pesticide applications including date, field identification, targeted pest, pesticide name, formulation, rate and number of acres treated are maintained. Where bogs intersect rivers or where there is no water holding capacity, diazinon, chlorpyrifos (LORSBAN™), indoxacarb (AVAUNT™), thia-methoxam (ACTARA™) and chlorothalonil (BRAVO™, ECHO™, etc.) are not used in the bog. Pesticide drift is minimized. Re-entry and pre-harvest intervals are observed.*

On cranberry farms where multiple management units exist, records of monitoring data and pesticide applications are kept separately for individual bogs or management units.

10      10

Maps (DEP or Mass GIS) are checked yearly to determine if any part of the bogs are in ground-water protection areas (Zone II) and if so, only allowed compounds are used in these areas, or proper exemptions are approved.

10      10

Records of dates of water holding within the farm system for winter flood, harvest flood, and after pesticide applications are maintained.

5      0

Chemigation system gives thorough coverage of bog.

10      10

A dye test is run annually to establish rinse and washout times.

10      10

Spraying of sensitive areas is prevented by use of half-heads or spray guards where necessary.

10      10

Chemigation system includes gate valves to allow for partial treatment of system.

10      10

Chemigation system is operating at its optimal Coefficient of Uniformity.

10      10

Worker protection training has been given to all workers entering bog areas.

5      5

Pesticide applications are posted in an appropriate location.

10      10

*Total practice points for Pesticides Application and Records*

85

*Total possible points for Pesticides Application and Records*

90

## Disease Management

Diseases include numerous species of field and storage fruit rots, upright dieback, phytophthora root rot and fairy ring.

Cultural strategies are utilized for disease control where possible, e.g., prunings, sanding, trash flow, etc.	10	<u>10</u>
Crop stages are recorded at least weekly from scattered bloom onward	5	<u>5</u>
Percent bloom counts are used to time fungicide applications	10	<u>10</u>
Fungicide applications are made according to Extension recommendations.	5	<u>5</u>
When a disease is suspected and cannot be diagnosed from previous experience, vine samples are collected and brought to an appropriate laboratory for diagnosis.	5	<u>5</u>
To minimize the available infection period for fruit rot fungi, irrigation is routinely scheduled in the early morning to limit the period of leaf wetness.	10	<u>10</u>
Good drainage is maintained to avoid Phytophthora root rot.	10	<u>10</u>
		<u>55</u>
<i>Total practice points for Disease Management</i>		<u>55</u>
<i>Total possible points for Disease Management</i>		<u>55</u>

## Insect Management

*Insect monitoring conforms to those practices described by the state IPM recommendations. Records of all monitoring information collected are maintained. Major insect pests are cranberry fruitworm, Sparganothis fruitworm, cranberry weevil and blackheaded fireworm.*

Sweep samples are taken weekly from early May through scattered bloom to monitor for presence and abundance of insect pests, as appropriate for any individual management unit.

Insecticide applications are applied only when supported by appropriate monitoring and when action thresholds are exceeded.

Where the blackheaded fireworm is a frequent pest, treatments are timed to sweep net captures and visual inspection in spring and by pheromone trap captures in summer.

Where the Sparganothis fruitworm is a frequent pest, treatments are timed to sweep net captures and visual inspections in spring and by pheromone trap captures in summer.

Populations of susceptible lepidopteran pests that exceed recommended action thresholds are managed with application B.t. products or insect growth regulators, such as Intrepid or Confirm.

Cranberry fruitworm management is based upon the phenology of the cranberry plant. Fruit are inspected at regular recommended intervals. Subsequent treatment is made when the number of unhatched viable eggs exceeds the action threshold.

No insecticides are applied for cranberry tipworm.

*Total practice points for Insect Management*

*Total possible points for Insect Management*

	25	<u>25</u>
	25	<u>25</u>
	10	<u>10</u>
	10	<u>10</u>
	20	<u>20</u>
	20	<u>20</u>
	10	<u>10</u>
		<u>120</u>
		<u>120</u>

### Weed Management

The most troublesome weeds in cranberry are dodder, bristly and prickly dewberry, glaucous greenbriar, wild bean and poison ivy.

A weed survey map is maintained in recordkeeping files.

10     10

Weed management, including herbicide selection and rates, is determined using the information contained in the weed survey.

10     10

Non-chemical weed management techniques, such as hand-pulling, clipping, or flooding are utilized.

5     5

Where appropriate, spot treatment of weed area is used instead of broadcast treatment of bogs.

10     10

A mowing program is followed to reduce weed seed populations on ditch banks.

10     10

Where dodder is a frequent pest, management decisions are made based on dodder seedling emergence and past experience.

10     10

If dodder is a frequent pest and fruit is harvested in water, booms are cleaned and rinsed between harvested units to minimize seed transport.

10     10

The UMass Extension weed priority system is utilized to assist in the formulation of a weed management program.

5     5

*Total practice points for Weed Management*

70

*Total possible points for Weed Management*

70

**Education**

Manager attends one or more UMass Extension Cranberry Station meeting, training, or workshop during the year.	10	<u>10</u>
Manager subscribes to the UMass Extension Cranberry Station Newsletter, and renews yearly.	10	<u>10</u>
Manager has a copy of the UMass Extension Cranberry Station Best Management Practices Guide and reviews relevant practices yearly.	10	<u>10</u>
Manager uses current UMass Cranberry Station Chart Book to make management decisions.	10	<u>10</u>
<i>Total practice points for Education</i>		<u>40</u>
<i>Total possible points for Education</i>		40

**NRCS Appendix for Pest Management (595) Requirements**

Does the bog system have a tailwater recovery pond?	15	<u>15</u>
Can chemigated water be held for at least 5 days?	10	<u>10</u>
Pesticide applications are not made when rainfall is predicted.	10	<u>10</u>
Pesticide applications are only made when windspeed is optimal (2-9 MPH).	10	<u>10</u>
What percentage of weed control is done with spot sprays, wiping or hand pulling?	10	<u>10</u>
What percentage of low risk pesticides do you use?	10	<u>10</u>
<i>Total practice points for NRCS</i>		<u>65</u>
<i>Total possible points for NRCS</i>		65

**POINT SUMMARY**

<b>TOTAL POINTS</b>	<u>555</u>
<b>TOTAL POSSIBLE POINTS</b>	570
<b>Percentage</b>	96%

MANAGEMENT GUIDELINES PROVIDED HERE SERVE ONLY AS REMINDERS.

FOR COMPLETE GUIDELINES, REFER TO MATERIALS AVAILABLE AT THE CRANBERRY STATION.

## MANAGEMENT GUIDELINES

**Reducing inputs to cut costs of production.** Within a cost-cutting framework, there are some key insect management practices that should be the last ones eliminated to save money. The following are listed in descending order of importance for most bogs. If late water was not held, it is not advisable to skip the initial spray (the first spray in IPM-based programs) for cranberry fruitworm that occurs 7-9 (Howes/Blacks) or 3-7 days (Ben Lears/Stevens) after 50% out-of bloom. This targets the largest portion of the population. If poorly managed, cranberry fruitworm pressure will build in subsequent years and be harder to manage. Sweep-netting of all acreage at end May –beginning June to detect cranberry weevil, cutworms, gypsy moth, and blackheaded fireworm outbreaks is important. It is likely that as most or all insecticide inputs are lowered, blackheaded fireworm and weevil levels will increase; Sparganothis fruitworm levels will drop. If a bad infestation of weevil or fireworm establishes, management inputs must be intensified in subsequent years. Finally, walking the bog early and late in the season to inspect for soil insects, mites, and webbing of fireworms allows detection of insect populations that will affect the acreage in subsequent years or require renovation.

**Start scouting bogs May 15.** Always gauge pest levels of insect caterpillars in their early stages! As the caterpillars of many species grow larger, they cling increasingly to the vine or hide in daytime. At this point, they will be detected by night sweeping and are gathered in daytime sweeps in smaller numbers over time. Continue sweeping at least until the start of bloom. Be aware that some serious pests are active during and after bloom, for example, brown spanworm and cranberry weevil, and that you should continue to closely monitor your bog. Be aware that some pests, particularly cranberry weevil, gypsy moth, and brown spanworm, may be very patchy or in coves or edges, so thorough assessment of total acreage is essential. Many stages of insects are active only at night and are concealed during the day. Visual or sweep monitoring at different times through the season may reveal an infestation that was missed earlier or poorly controlled (e.g., large cutworms or spanworms). Moth flights, root weevil adults, or white grub adults also may be seen.

**Sweep netting,** using a 12" net and 180° sweeps into the vine, should be conducted at least once a week. A sweep set consists of 25 sweeps across the bog. The insects in the net should be properly identified, counted, and recorded. Conduct 1 set of 25 sweeps for each acre. For larger pieces (more than 20 acres), at least 1 sweep set per 2 acres is advisable. In multiple-acre pieces, calculate the average number of each insect you picked up in all of your sweep sets. Treat only after average number of each insect in your series of sweep sets exceeds these values, and after other external concerns have been brought to bear including cost of application, expected returns, weather, water concerns, neighbors, etc.

	AVERAGE #		AVERAGE #
ADD UP: blossomworm, false armyworm		black-headed fireworm	1-2
other cutworms, and gypsy moth	4.5	Sparganothis fruitworm	1-2
brown spanworm, green spariworm	18	cranberry weevil	4.5

**Adjustment of action thresholds to reflect current value of the crop.** In sweep-net sampling, the average numbers of an insect pest that we use to trigger a management measure is only a rule of thumb. It serves as an indication that an insect pest is being sampled at numbers that we consider high and worthy of attention. In today's slump in returns, the thresholds for most spring caterpillars could be relaxed greatly because the value of the crop saved is too low to equal the cost of the spray. However, caution should be taken before ignoring high numbers of cranberry weevil, blackheaded fireworm and Sparganothis fruitworm in the spring. This will result in a second generation infestation at bloom and fruit set, and establishment of infestation which may be hard to manage in that year and in subsequent years.

**Pheromone traps.** If treating, traps should be used for timing sprays for cranberry girdler, black-headed fireworm, and Sparganothis fruitworm. Monitor adult populations with traps starting June 1. Check and clean traps weekly, recording number of moths captured. Change bait every 3 weeks. Use 1 trap/10 acres. Place on upwind side of

bog. Check descriptions of adult moths because non-target species are sometimes caught in large numbers. Confirm and 3M Sprayable Pheromone applications follow different recommendations. See label. For black-headed fireworm; if treating summer generation, apply insecticide 10 days after peak moth flight, usually during bloom.

For *Sparganothis* fruitworm; if treating, apply insecticide 10-14 days after peak moth flight, ca. mid-to-late July.

For girdler, treatments are usually in July. Refer to the section on cranberry girdler for timing of specific treatments. Be aware that a bad infestation can exist even with low trap catches.

### MANAGEMENT NOTES

**READ AND FOLLOW LABEL INSTRUCTIONS.** Do not use a pesticide for control of a pest not on the label unless a specific recommendation is made by a person authorized to do so. Pesticide-treated bogs may need to be posted. Check labels. Workers and scouts should be notified prior to treatments, and informed about re-entry times. See label for variation in restricted entry times and worker protection standards (WPS).

1. ONLY APPLY INSECTICIDES IF DAMAGING NUMBERS ARE PRESENT.

2. LATE WATER -- See Late Water section. Late water research shows that the flood severely reduces mites, cranberry fruitworm, false armyworm, gypsy moth.

REFLOODING --

- a) About May 18 for 10 hours controls false armyworm and blossomworm.
- b) About June 1-12 for 10 hours controls green spanworm, small black-headed fireworm, spotted and black cutworms and armyworms, but is likely to **increase fruit rot and seriously reduce the crop.**
- c) About May 12 and holding up to July 15-20 kills all insects, but with the loss of crop.
- d) Sept. 20-30. Flooding within this time for a week every third year discourages girdler and blossomworm. May be done with late berries still on the vine. A 3 or 4 week flood at this point will manage cranberry fruitworm.

3. SANDING -- Regular uniform sanding helps check girdler and green spanworm and may temporarily suppress early season tipworm populations.

4. LEAFMINERS -- There is no evidence that available registered insecticides control this insect.

5. For complete guidelines -- Refer to materials available at the Cranberry Station. Management guidelines provided here serve only as reminders. Review the Insect Management BMP in the UMass Best Management Practices Guide.

6. **BEES!! INSECTICIDES ARE HIGHLY TOXIC TO BEES, ESPECIALLY DIRECT APPLICATIONS AND RESIDUES. DO NOT APPLY OR ALLOW DRIFTING TO DRIFT TO CRANBERRIES IN BLOOM OR NEARBY BLOOMING PLANTS/WEEDS IF BEES ARE FORAGING.**

CERTIFICATION OF PARTICIPANTS

\_\_\_\_\_  
Date

*Donald Gallant* 10-31-15  
Donald Gallant Date

CERTIFICATION OF:

Conservation Farm Planner  
*Linda Rinta* 2-27-2015  
Linda Rinta Date

NRCS  
*Mia Halter* 11-3-15  
Mia Halter Date

NONDISCRIMINATION STATEMENT

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

**STM & ATM  
WARRANTS**

**4/11/16**



## Special Town Meeting Warrant

Middleborough Massachusetts

To Joseph Perkins, Police Chief or any of the  
Police Officers of the Town of Middleborough

Greetings:

In the name of the Commonwealth of Massachusetts you are hereby required to notify and warn all the inhabitants of said Town, qualified to vote in Town affairs, to meet in the **Auditorium of the Middleborough High School**, on **Monday, April 25, 2016, at 7:00 P.M.**, to act on the following articles:

ARTICLE 1. To see if the Town will vote to raise and appropriate and/or transfer a sum of money from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account, or other available source, to supplement and/or adjust departmental budgets for Fiscal Year 2016, or act anything thereon.

<i>Department</i>	<i>Dept. No</i>	<i>Account</i>	<i>Line Item</i>	<i>Amount</i>
Veterans Department	543	577000	Medical & Cash Aid	\$90,000.00
DPW – Highway	422	0159293	Snow Removal	TBD
Town Manager’s Office	123	542400	Printing	\$4,000.00
Board of Selectmen	122	511101	Regular Pay	\$20,186.24
Town Manager’s Office	123	511103	Regular Pay Assistant	\$7,500.00
Police Department	210	524100	Building Maintenance	\$8,946.36
School Department	313	563150	Special Ed Tuition	\$100,000.00
Assessor’s Office	141	511101	Regular Pay	\$2,763.00

ARTICLE 2. To see if the Town will vote to raise and appropriate and/or transfer a sum of money from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account, or other available source for unpaid bills from prior years, or act anything thereon.

**SouthCoast Media Group**

**\$111.52**

ARTICLE 3. To see if the Town will vote to raise and appropriate and/or transfer \$30,000 from taxation, free cash, another specific available fund, the Stabilization Fund, and existing appropriation or account or other available source, to the Highway Department for street repairs, or act anything thereon.

ARTICLE 4. To see if the Town will vote to raise and appropriate and/or transfer \$20,000 from taxation, free cash, another specific available fund, the Stabilization Fund, and existing appropriation or account or other available

source, to raze a town owned structure located on Cambridge Street, Map ID 50I, Parcel 3472, or act anything thereon.

ARTICLE 5. To see if the Town will vote to transfer \$400,000 from free cash to the Stabilization Fund, or act anything thereon.

ARTICLE 6. To see if the Town will vote to appropriate, borrow or transfer from available funds, a sum of money to be expended under the direction of the School Building Committee for the Memorial Early Childhood Center Roof Replacement Project, 219 North Main Street Middleboro, MA, 02346, which school facility shall have an anticipated useful life as an educational facility for the instruction of school children of at least 50 years, and for which the Town may be eligible for a school construction grant from the Massachusetts School Building Authority ("MSBA"). [*Alternatively, if a repair project:* The proposed repair project would materially extend the useful life of the school and preserve an asset that otherwise is capable of supporting the required educational program.] The MSBA's grant program is a non-entitlement, discretionary program based on need, as determined by the MSBA, and any project costs the Town incurs in excess of any grant approved by and received from the MSBA shall be the sole responsibility of the Town. Any grant that Town of Middleborough may receive from the MSBA for the Project shall not exceed the lesser of (1) 56.26 percent (%) of eligible, approved project costs, as determined by the MSBA, or (2) the total maximum grant amount determined by the MSBA, or act anything thereon.

ARTICLE 7. To see if the Town will vote to authorize and establish a revolving fund pursuant to General Laws Chapter 44, Section 53E ½ for Fiscal Year 2016 (7/1/15 – 6/30/16) for the Oliver Estate Advisory Committee established by vote under Article 25 of the warrant for the October 5, 2015 Special Town Meeting, the Board of Selectmen and the Conservation Commission for a program for the Oliver Estate property which program includes holding open houses, tours, celebrations and other events from which revenue is derived from entry and parking fees, advertising charges, vendor fees, sale of food and other items and from other sources. All revenue received or derived from or in connection with program activities shall be credited to the revolving fund with the Board of Selectmen authorized to expend from the fund for purposes of the fund and program including expenses incurred in connection with the program activities and for maintenance, operation, rehabilitation and use of the property including construction costs and engineering and consultant fees and expenses incurred in connection with such maintenance, operation, rehabilitation or use of the property, with a limit of Twenty-Five Thousand Dollars (\$25,000.00) in total amount which may be expended from the fund for Fiscal Year 2016, or act anything thereon.

ARTICLE 8. To see if the Town will vote to appropriate a sum of money from free cash or from another specific available fund or account, which sum is intended to replace and offset the transfer of funds from the donations account of the Old Tourism Committee to the General Fund, for the use of the New Tourism Committee established by vote under Article 24 of the warrant for the October 5, 2015 Special Town Meeting to pay expenses incurred by the New Tourism Committee in connection with carrying out its program which includes sponsoring and/or holding events, celebrations, promotions and other activities, or act anything thereon.

ARTICLE 9. To see if the Town will vote to appropriate or reserve from the Community Preservation Fund annual revenues in the amounts recommended by the Community Preservation Committee for committee administrative expenses, debt service, community preservation projects and other expenses in fiscal year 2016, with each item to be considered a separate appropriation:

Reserves:

From FY 2016 estimated revenues for Historic Resources Reserve	\$7,334.00
From FY 2016 estimated revenues for Community Housing Reserve	\$7,334.00
From FY 2016 estimated revenues for Open Space Reserve	\$7,334.00

, or act anything thereon.

Sponsored by the Community Preservation Committee

ARTICLE 10. To see if the Town will vote to transfer \$56,691 from the CPA Budgeted Reserve account to the following CPA Accounts, or act anything thereon:

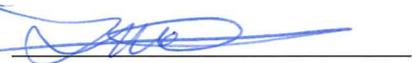
Open Space Fund Balance Reserve	Account 26.3252.00	\$18,897
Community Housing Fund Balance Reserve	Account 26.3253.00	\$18,897
Historic Resources Fund Balance Reserve	Account 26.3254.00	\$18,897

Sponsored by the Community Preservation Committee

Given, under our hands at Middleborough, this **day of April, 2016.**



**Allin Frawley, Chairman**



**Leilani Dalpe, Vice Chairman**



**John M. Knowlton**

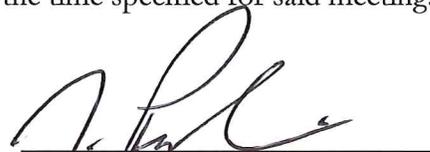


**Diane Stewart**



**Stephen J. McKinnon**  
**BOARD OF SELECTMEN**

Pursuant to the instructions contained in the above warrant, I have notified and warned all inhabitants of said Town of Middleborough, qualified to vote as expressed in said warrant, to meet at the time and place for the purpose specified by causing an attested copy of the same to be published in the Middleboro Gazette on the **7th day of April, 2016**, that date being more than fourteen days before the time specified for said meeting.



**JOSEPH PERKINS**  
Police Chief



## Annual Town Meeting Warrant

Middleborough Massachusetts

To Joseph Perkins, Police Chief or any of the  
Police Officers of the Town of Middleborough

Greetings:

In the name of the Commonwealth of Massachusetts you are hereby required to notify and warn all the inhabitants of said Town, qualified to vote in Town affairs, to meet in the **Auditorium of the Middleborough High School**, on **Monday, April 25, 2016, at 7:15 P.M.**, to act on the following articles:

ARTICLE 1. To hear the report of any committee or officer of the Town, to appoint any committee, or act anything thereon.

ARTICLE 2. To see if the Town will vote to raise and appropriate a sum of money by taxation or from available funds in the treasury to defray expenses of the Town for the fiscal year beginning on July 1, 2016, relating to all or any of its officers, boards or departments and for purposes authorized by law, or act anything thereon.

ARTICLE 3. To see if the Town will vote to transfer from the income from the sales of gas and electricity a sum of \$700,000.00 to the Assessors for the purpose of fixing the tax rate for Fiscal Year 2017, or act anything thereon.

ARTICLE 4. To see if the Town will vote pursuant to Section 53E ½ of Chapter 44 of the General Laws, as amended, to authorize and/or reauthorize establishment of one or more revolving funds for the purpose of funding certain activities and operations of certain departments and programs of the Town during Fiscal Year 2017 as set forth below, or act anything thereon.

<b>PROGRAM</b>	<b>EXPENDING AUTHORITY</b>	<b>SOURCE</b>	<b>AMOUNT TO BE EXPENDED</b>
Municipal Fire Alarm System	Fire Chief	Fees	Not to exceed \$15,000
Hazardous Materials Incident Training & Materials	Fire Chief	Fees	Not to exceed \$50,000
Recycling Program	Public Works Sup.	Fees	Not to exceed \$5,000
Composting Bin Program	Public Works Sup.	Fees	Not to exceed \$2,500
Herring Fishery Program	Herring Fishery Com	Fees	Not to exceed \$10,000
Recreation and Sports Program	Park Commission	Fees	Not to exceed \$100,000
Zoning Map, Bylaws and Subdivision Rules & Regulations	Town Clerk	Fees	Not to exceed \$2,500
Oliver Estate Advisory Committee	Board of Selectmen	Fees	Not to exceed \$25,000

ARTICLE 5. To see if the Town will vote to authorize and establish a revolving fund pursuant to General Laws Chapter 44, Section 53E ½ for Fiscal Year 2017 (7/1/16 – 6/30/17) for the New Tourism Committee established by vote under Article 24 of the warrant for the October 5, 2015 Special Town Meeting for the program operated by the New Tourism Committee which includes sponsoring and/or holding events, celebrations, promotions and other activities from which revenue is derived from entry and parking fees, advertising charges, vendor fees, sale of food and other items and from other sources. All revenue received or derived from or in connection with program activities shall be credited to the revolving fund with the New Tourism Committee authorized to expend from the fund for expenses of the program with a limit of Twenty-Five Thousand Dollars (\$25,000.00) in total amount which may be expended from the fund for Fiscal Year 2017, or act anything thereon.

ARTICLE 6. To see if the Town will vote to raise and appropriate and/or transfer \$161,600 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing to purchase new police cruisers and Automated External Defibrillators (AED's) for the Police Department, or act anything thereon.

ARTICLE 7. To see if the Town will vote to raise and appropriate and/or transfer \$102,625 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing to purchase a new wheelchair accessible van for the Council on Aging and a wheelchair mini-bus for the School Department, or act anything thereon.

ARTICLE 8. To see if the Town will vote to raise and appropriate and/or transfer \$45,000 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing for installation costs of a septic system at the Oliver House and to purchase a new boiler for the Library, or act anything thereon.

ARTICLE 9. To see if the Town will vote to raise and appropriate and/or transfer \$325,413 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing to purchase a fire truck-tanker for the Fire Department and a public safety communications system for the Department of Public Works, or act anything thereon.

ARTICLE 10. To see if the Town will vote to raise and appropriate and/or transfer \$123,800 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing for Office 365 Exchange, a server, LCD monitors, workstations, network hardware upgrades and printers for the Information Technology Department, or act anything thereon.

ARTICLE 11. To see if the Town will vote to raise and appropriate and/or transfer \$43,500 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing for a Kubota tractor/mower and a used pickup truck for the Park Department and installation of a handicapped ramp at Masi Field House, or act anything thereon.

ARTICLE 12. To see if the Town will vote to raise and appropriate and/or transfer \$197,000 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing to purchase network hardware upgrades/wiring (switches, routers) and devices for the School Department, or act anything thereon.

ARTICLE 13. To see if the Town will vote to raise and appropriate and/or transfer \$130,500 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing for the purchase of a pickup truck with a plow, used cab and 10 wheel chassis for the Department of Public Works and for the reconstruction of the Jackson Street Parking Lot, or act anything thereon.

ARTICLE 14. To see if the Town will vote to raise and appropriate and/or transfer \$60,000 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing and \$60,000 from Water Department Retained Earnings for the purchase of a portable asphalt reclaimer, or act anything thereon.

ARTICLE 15. To see if the Town will vote to raise and appropriate and/or transfer \$17,819 from Water Department Retained Earnings, \$17,819 from Wastewater Retained Earnings and \$17,819 from Sanitation Retained Earnings for the purchase of a utility software module package, or act anything thereon.

ARTICLE 16. To see if the Town will vote to transfer \$60,000 from Water Department Retained Earnings for purchase of a diesel utility truck with plow, or act anything thereon.

ARTICLE 17. To see if the Town will appropriate \$9,500,000 from borrowing to pay costs for the construction of a new Police Station, including, but not limited to, the employment of professionals and equipping and furnishing said building and all other costs incidental and related thereto, and to meet this appropriation to authorize the Treasurer, with the approval of the Board of Selectmen to borrow, said sum under General Laws Chapter 44, or any other enabling authority and issue bonds or notes of the Town upon such terms as the Treasurer and the Board of Selectmen shall determine; provided that the appropriation hereunder shall be subject to and contingent on the passage of a ballot question to exempt the amounts required for the payment of principal and interest on the bonds or notes authorized hereunder from the limitations on taxes imposed by M.G.L. Ch.59, section 21C (Proposition 2 ½), or act anything thereon.

ARTICLE 18. To see if the Town will vote to raise and appropriate and/or transfer \$308,000 from taxation, free cash, another specific available fund, the Stabilization Fund, an existing appropriation or account or other available source, or by borrowing for road resurfacing projects, or act anything thereon.

ARTICLE 19. To see if the Town will vote to raise and appropriate the sum of \$400,000.00 by borrowing under General Laws, Chapter 44, by borrowing from the Massachusetts Water Pollution Abatement Trust pursuant to General Laws Chapter 29C or by raising and appropriating said sum from some other source for the purpose of funding the Town's program to repair, replace or upgrade waste disposal systems, or act anything thereon.

ARTICLE 20. To see if the Town will vote to appropriate or reserve from the Community Preservation Fund annual revenues in the amounts recommended by the Community Preservation Committee for committee administrative expenses, debt service, community preservation projects and other expenses in fiscal year 2017, with each item to be considered a separate appropriation:

Appropriations:

From FY 2017 estimated revenues for Committee Administrative expenses \$13,000

Reserves:

From FY 2017 estimated revenues for Historic Resources Reserve \$24,000

From FY 2017 estimated revenues for Community Housing Reserve \$24,000

From FY 2017 estimated revenues for Open Space Reserve \$24,000

From FY 2017 estimated revenues for Budgeted Reserve \$165,000

Or take any action thereon.

Sponsored by the Community Preservation Committee

ARTICLE 21. To see if the Town will vote to appropriate \$25,000 from the Community Housing Resources Reserve of the Community Preservation Fund to fund a portion of the Middleborough Housing Authority's Nemasket Apartments Window Project (9 Hale Avenue and 21 Maddigan Way) for the purpose of improving

housing conditions for twelve elderly housing units in two buildings; said funds to be expended under the direction of the Community Preservation Committee; or take any other action thereon.

Sponsored by the Community Preservation Committee

ARTICLE 22. To see if the Town will vote to appropriate \$87,319 from the Historic Resources Reserve of the Community Preservation Fund including \$8,000 for in-house project management and oversight for the purpose of Historic Preservation/ Rehabilitation /Restoration of the Oliver House; said funds to be expended under the direction of the Community Preservation Committee; or take any other action thereon.

Sponsored by the Community Preservation Committee

ARTICLE 23. To see if the Town will vote to appropriate \$21,000 from the Historic Resources Reserve of the Community Preservation Fund including \$2,000 for in-house project management and oversight for the purpose of Historic Preservation/ Rehabilitation /Restoration of the Soule Homestead Barn and Farmhouse; said funds to be expended under the direction of the Community Preservation Committee; or take any other action thereon.

Sponsored by the Community Preservation Committee

ARTICLE 24. To see if the Town will vote to appropriate \$171,088 for land purchase expense and incidental legal, due diligence, and closing costs including up to \$10,000 for in-house project management and oversight to enable the Town of Middleborough to acquire for conservation preservation purposes under M.G.L. Chapter 44B, the Community Preservation Act, and to authorize the Board of Selectmen to purchase land at Woloski Park in Middleborough, Massachusetts, and shown as Lots 2465, 2487, 2476, 2448, 2444, 2339, 2414, 2454, 2457, 2482, 2478, 2442 and 2455 on Middleborough Assessors Map 020; the portion of the land determined by the Board of Selectmen to be park, forest, open space and/or conservation land to be managed by the Conservation Commission; and that to meet this appropriation to authorize the Treasurer with the approval of the Board of Selectmen and Community Preservation Committee, to borrow \$171,088 under General Laws Chapter 44 and Chapter 44B, or the sum of \$171,088 from the Community Preservation Open Space Reserve fund as appropriate and available, and to authorize the Board of Selectmen to submit on behalf of the Town any and all applications deemed necessary for gifts, grants, and/or reimbursements from the Commonwealth of Massachusetts, or the United States, and/or any other state or federal programs including those in aid of conservation land acquisition and historic preservation acquisitions; and/or any others in any way connected with the scope of this Article; said gifts, grants, and/or reimbursements to be deposited in the Undesignated Community Preservation Fund and Open Space Reserve Fund, as appropriate; and that the Board of Selectmen be authorized to demolish and remove all buildings on the land which is purchased so as to restore the and to open space, and to grant a perpetual conservation restriction on the park, forest, open space and/or conservation land, to be determined by the Board of Selectmen, which shall meet the requirements of M.G.L. Chapter 44B, § 12 and M.G.L. Chapter 184, §§ 31-33, and to enter into all agreements and execute any and all instruments as may be necessary to affect said purchase or act anything thereon

Sponsored by the Community Preservation Committee

ARTICLE 25. To see if the Town will vote to use some of the funds, received by the Town from Weston Forest timber sales re: the trust fund established under Clause Nineteenth C – VII of the will of Frederick S. Weston in connection with the Frederick Weston Memorial property, for the Stipend for Weston Forest Committee secretary, to appropriate from said funds \$1,000 for such purposes, or act anything thereon.

ARTICLE 26. To see if the town will vote to appropriate One Hundred Twenty-One and 76/100 Dollars (\$121.76) from the Old Tourism Committee's donations account (Account Number 29.3280.46) and authorize the New Tourism Committee and/or Old Tourism Committee to use the appropriation to pay the expense fee charged by

the public records custodian in connection with fulfilling a public records request by the Old Tourism Committee, or act anything thereon.

ARTICLE 27. To see if the Town will vote to amend the handicapped and disabled veteran parking by-law adopted under Article 4 of the October 22, 1984 Special Town Meeting by deleting Section (d), the penalty clause of the by-law, and replacing it with the following:

Section (d):

- (1) The penalty for violation of this by-law shall be Three Hundred Dollars (\$300.00) for each offense.
- (2) Any unauthorized vehicle parked or standing in violation of this by-law shall be removed in accordance with Section 22D of General Laws Chapter 40; or act anything thereon.

ARTICLE 28. To see if the Town will vote to amend the action taken to form the Oliver Estate Advisory Committee as approved by Special Town Meeting of October 5, 2015 Article 25, by adding the following language: "The appointing authority shall fill a vacancy based on the unexpired term of the vacancy in order to maintain the cycle of appointments", or act anything thereon.

ARTICLE 29. To see if the Town will vote to authorize the Board of Selectmen to negotiate and enter into a PILOT tax agreement on behalf of the Town, as authorized by MGL Chapter 59, section 38H, with EarthCleanSyn I, II and III LLC, with respect to annual payments in lieu of personal property taxes for a term of up to twenty years relative to a solar energy system with an AC rated capacity of up to one and a half (1) megawatt to be installed on different parcels of land owned by Howard Anderson and Lauderdale Realty, LLC, and located at River Street and Sylvan Street, or act anything thereon.

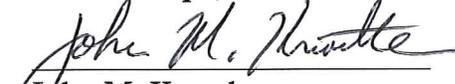
ARTICLE 30. To see if the Town will vote to accept Captain Hall Road, Augustus Way, Hayden Way and Leland Way in Eastwood Estates as Town ways as laid out by the Board of Selectmen and to authorize the Board of Selectmen to acquire by eminent domain by gift the fee in the ways as shown on the road layout plan on file with the Board of Selectmen and Town Clerk containing four (4) sheets and entitled "Roadway Acceptance Plan – Captain Hall Road (Sheet 1) – Augustus Way (Sheet 2) – Hayden Way (Sheet 3) – Leland Way (Sheet 4), prepared by Prime Engineering Inc. which plan is dated February 4, 2016 (Sheets 1 and 2) and January 4, 2016 (Sheets 3 and 4), and any related easements, or act anything thereon.

ARTICLE 31. To see if the Town will vote to accept Sheffield Road as a Town way as laid out by the Board of Selectmen and to authorize the Board of Selectmen to acquire by eminent domain or by gift the fee in the way as shown on the road layout plan on file with the Board of Selectmen and Town Clerk entitled "Roadway Acceptance Plan of Land – Sheffield Estates in Middleborough, Massachusetts", prepared by Outback Engineering, Incorporated, which plan is dated May 3, 2013, and any related easements, or act anything thereon.

Given, under our hands at Middleborough, this **day of April, 2016.**

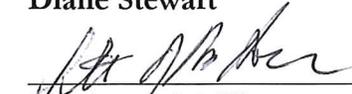
  
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**Allin Frawley, Chairman**

  
\_\_\_\_\_  
**Leilani Dalpe, Vice Chairman**

  
\_\_\_\_\_  
**John M. Knowlton**



Diane Stewart



Stephen J. McKinnon

BOARD OF SELECTMEN

Pursuant to the instructions contained in the above warrant, I have notified and warned all inhabitants of said Town of Middleborough, qualified to vote as expressed in said warrant, to meet at the time and place for the purpose specified by causing an attested copy of the same to be published in the Middleboro Gazette on the 14<sup>th</sup> day of **April, 2016**, that date being more than seven days before the time specified for said meeting.



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JOSEPH PERKINS

Police Chief