

Ringwood Environmental Commission 2020 Annual Report

PREPARED FOR THE RINGWOOD MAYOR AND BOROUGH COUNCIL

Thomas Conway | Chair | 11/19/2020

Summary and Overview

The Ringwood Environmental Commission saw some change right from the start of 2020. Joanne Atlas was not selected to continue on the Commission and Mayor Schaeffer chose Thomas Conway to replace her as Chair. Timothy Colosadro and former Mayor Jim Martocci were added to the Commission.

The Commission set to work establishing Vision, Mission, Values and Objectives. Commissioners voted to renew membership in the Association of New Jersey Environmental Commissions and to join the Passaic River Coalition. A logo was adopted for the Commission.

The Borough website was updated to reflect the changes. Areas of Focus were identified and adopted by various Commissioners. Work began on informing the public on various pests that could invade their yards. A trail was proposed to be built behind the library and the Commission sent a grant to ANJEC for supplies and education. We did not get the grant.

Our March meeting was cancelled just as COVID-19 hit the area. All momentum was lost and we did not meet again until a Zoom meeting in June. The Commission expressed concern for the increase in park traffic and how this was affecting our trails and common areas.

In September, the Commission met again to try to get momentum back in the virtual setting. Support for the plastic ban was discussed, but New Jersey has now made that law. Concerns about the Superfund site and forthcoming actions have also been a frequent topic.

The last meeting in November focused on plans for 2021 and how to make the year more productive for the Commission.

Appendices

- Appendix A Library Trail (page 7)
- Appendix B Selected Correspondence (page 20)
- Appendix C Superfund Documents (page 25)
- Appendix D Commission Documents (page 44)
- Appendix E Invasive Bulletins (page 48)
- Appendix F Green Team Postings (page 53)

Commission Actions

Most Commission actions are presented in the meeting minutes. This section will highlight some of the accomplishments of the Commission. We only had 2 in-person meetings due to COVID-19 and that severely limited the amount we were able to accomplish. Despite the setbacks, the Commission is set to have a productive 2021.

VISION, MISSION, VALUES, AND OBJECTIVES

The first task the Commission accomplished was forming a set of Vision, Mission, Values and Objectives. These are intended to guide the current and future Commissioners to make sure our actions are aligned to the goals of the Environmental Commission. These were established and voted on early in the year. They can be found on the Borough website, as well as in Appendix D.

AREAS OF FOCUS

Commissioners were encouraged to adopt an area of focus for the year. These are also included in Appendix D. Some highlights from these areas are:

- Invasive Species documents on website
- Participation in Superfund meetings and membership on CAG
- Plastic Bag Ban passed statewide
- Grant submitted for trail
- Cooperation between three main lakes

PLAN REVIEWS

Commissioners adjusted to the virtual environment by reviewing plans as they were received from the Borough. Comments were added when necessary and sent back to the Board of Adjustment for Review.

Chair's Report

I will switch to the first person for this section. It is my personal belief that transparency is paramount for a local government to function at its peak level. In appointing me as Chair, the Mayor has given me wide latitude to learn and connect with others to promote Ringwood's interest. In this section I will detail the activities I undertook using the office to which I have been assigned. All legal functions, such as plan reviews and spending money, are voted on by the Commission; there are many functions that are handled by the Chair alone. The following is a brief summary of the actions I have taken in 2020.

REGIONAL OUTREACH

When appointed in January, I felt I was not up to the task, but I understand that few are in their first year. I thought it best to connect with people that had this experience or could provide support for future projects.

New York-New Jersey Trail Conference

I have a strong relationship with the New York-New Jersey Trail Conference. I immediately reached out to my contacts there to better understand how the Ringwood Environmental Commission could help them in our Borough. Peter Dolan also helped with the budgeting for the ANJEC grant for a Library Trail (see Appendix A).

When Off-Road Vehicle (ORV) traffic spiked due to the closure of the parks, I reached out to the Trail Conference for help. Working with a group of mountain bikers and Eric Pain from the Ringwood Park office, we were able to document the destruction and map out the most trafficked areas. This was given to the State to aid them in enforcement.

The Trail Conference is also ready to help blaze the library trail for Ringwood. This will hopefully tie into the Economic Development Commission's plans concerning their grant application.

Highlands Coalition

I reached out to Julia Somers of the Highlands Coalition. We talked about common challenges in our area and the importance of Ringwood to the Highlands Region. Like most contacts, they also were involved in the ORV issues.

Zac from that group has agreed to give a Highlands presentation during 2021 to help us kick off the year of water for Ringwood.

North Jersey Water District Supply Commission

This was an interesting road. I reached out to Judy Sullivan who I know through work on the Superfund site. I believe a dialogue with the Upper Ringwood community is a necessity for me to properly fulfill my responsibilities as Chair. We communicated for a while and decided to meet at the North Jersey Water District Supply Commission

headquarters where she would introduce me to their Executive Director, Tim Eustace. The library trail is located partly on NJDWSC property, so the meeting made sense from the start.

Our meeting went well and we discussed some of the challenges that lakes face. I pointed out some algae concerns, but he did not share them since his body of water is so large that algae are not a factor in their treatment. To be clear, cyanobacteria is not a problem for the reservoir as it is for Ringwood lakes. Diatoms do pose some problems for treatment, but diatoms are desirable in recreational lakes.

Tim gave me the path to get approval for the trail and we are still pursuing that eight months later.

Passaic River Coalition (PRC)

Laurie Howard and I had a long meeting in February. The PRC owns many tracks in Ringwood and they are able to get grants to perform work on their properties. One project was for invasive species removal.

Laurie and I connected often during the ORV boom this spring and summer. It culminated in a call with the State Attorney General's office this autumn. The PRC lands are most effected by the ORV traffic.

Rutgers Regional Office

I also reached out to Amy Rowe at the Rutgers Outreach office. She was able to get me involved in the Rutgers Environmental Steward Program. While I signed up to learn more about the environment, I was impressed with the connections I was able to make. Environmental Chairs from Oakland and Montclair were in the course. Those connections took a bit of a hit with COVID-19.

When we went virtual, the learning continued and one of the presenters in now on the Highlands Council (Dr. Van Abs). I learned a lot about the environment pertaining to New Jersey and to Ringwood's importance to the Highlands region.

WORKING WITH ENVIRONMENTAL GROUPS

Many times groups reach out to Ringwood to work together. Often these require responses before the monthly meetings of the Commission. Sometimes the task is a letter of support, but other times it may be a larger project involving hands-on effort. This section summarizes these actions for 2020.

NJDEP Watershed Ambassador

Brian Pinke approached the Commission about conducting salt monitoring in some of our streams. This was not approved by the Commission, so I reached out to the Green Team and they supported the concept. I went with Brian on one monitoring session and we

measured at a few locations. Due to the lack of snow last winter, there was no event to compare snow numbers to the baseline number.

The new watershed ambassador has volunteered to run a course on stream analysis. This will be incorporated into our year of water. I liked that she reached out from last year's ambassador's recommendation, so hopefully this will be a growing connection.

Off-Road Vehicle (ORV) Invasion

When the Governor closed the parks, many illegal activities flourished in the woods. I encountered many people that still went on trails and they reported that ATV's had moved from the seldom-used woods roads to marked trails. Many good trails in town were ruined by the ORV activity.

When I connected with a bunch of mountain bikers, I used their input to create a database of ORV activity. This included anecdotal stories, pictures and maps detailing the worst spots. A committee of concerned groups was formed and I sent them the appropriate information.

Once people were allowed back on the trails, the activity receded a bit, but the destruction continued. All year long, ORV's could be seen brazenly riding on Botanical Garden roads. I reached out to Chief Mann and shared my concerns about enforcement and how it traditionally falls on his tribe. We agreed to not push the issue from a Ringwood standpoint and allow other groups to continue their campaigns.

I also reached out to Scott Heck and Chief Walker who both agreed to action, but there is little the Borough can do. The ORV users are very influential in the Borough and I did not pursue it further.

I also reached out to the Highlands Council and that correspondence is in Appendix B.

Economic Development Commission Grant Application

The EDC approached me about supporting their grant to link trails and the community businesses. A letter of support was provided. See Appendix B.

Superfund

In May and again in June I submitted letters to the EPA during their comment period on the Groundwater proposal. Both of these submissions happened during the COVID-19 crisis and were not composed to the quality to which I think the site deserves. Nonetheless, the comments were accepted. These are attached to Appendix C. I also included a letter from 2019 since I was able to add EPA responses to the text.

The main point of the comments revolves around the fact that we do not know what is going on in the mines. The EPA is clear that they don't know the source of the pollution, yet they are going to cap liquid. Caps make sense in solid waste areas as solids may leach,

but the medium they are contained in does not flow. Capping contaminated water is not a solution. The EPA also seems to ignore that human beings live above this site.

Dr. Lucia Rodriguez-Freire reached out to me about supporting an initiative entitled "Harnessing plant-microbe interactions to control PFAS environmental fate." This project syncs well with my push for phytoremediation to be considered for the site. It is strange that the EPA is not pursuing this solution since the contaminants are liquid and close to the surface.

Green Team Activity

I was appointed to the Green Team as the Environmental Chair by the Mayor. In my interactions with the team, I proposed a seminar on lake health, but that was a COVID-19 casualty. The Green Team did make a "Healthy Lakes" document and I assisted them by drafting an 8-week Facebook posting campaign for their page. Please see Appendix F for the posts.

Open Space Commission

I also attended some Open Space meetings, but they are focused on turf fields so I rarely had a comment.

Environmental Justice Ordinance

An Environmental Justice Ordinance was drafted and sent to the council for their July meeting. This ordinance is to make sure Ringwood does not repeat the mistakes it made with the Ramapough and Ford. This was supposed to be passed by the Council and sent on to the State. It is in Appendix B. I saw no mention of this in the Council Meeting Minutes nor did I get a reply to my email to the Mayor and Council.



2020 Ringwood Environmental Commission Report

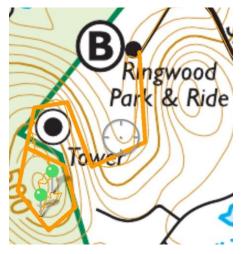
Appendix – A

Library Trail

Ringwood Library Trail Summary

The Borough of Ringwood and the Ringwood Environmental Commission would like to build a trail that leads from the library to a scenic viewpoint on NJDWSC land. We intend for this trail to allow families and community members to have an easy hike that highlights the beauty of the area. The library will be able to host informative learning sessions and then the attendees can immediately venture out to the woods. This will also be one of the few trailheads in Passaic County to be accesses by public transportation (bus route).

Trail Overview



The trail starts at the Ringwood Library and follows an existing service road up to a cell tower. From the tower, hikers would follow a short loop to take advantage of a scenic viewpoint of the reservoir.

The trail would provide Ringwood with its only trailhead in its business district. Conveniently located by the library as well as the park and ride, this trail would be a popular spot for residents looking to add a short adventure to their time in the business district. An addition, with a playground at the base of the trail, we hope this will encourage parents to involve their young kids in this relatively short and easy hike.

Community Benefits

- Establishing a formal hiking trail to help mitigate the trash and waste left at the vista.
- Providing a destination trail to encourage out-of-town visitation.
- Allows bus transportation to a hiking trailhead. These options are very limited in the county.
- It can serve as an exciting project to spur local environmental involvement and serve as a central gathering spot for interested residents.
- It will allow environmentally friendly programs at the library to incorporate short field trips into the outdoors.

Timeline and Budget Summary

- The major cost will be conducting the trail building workshops with local volunteers. The Environmental Commission is working on an ANJEC grant to cover most of this cost and private funds have been committed to cover the rest.
- With timely approvals, cleanup and trail construction can start in April with a June opening for the trail.

Ringwood Library Trail Views

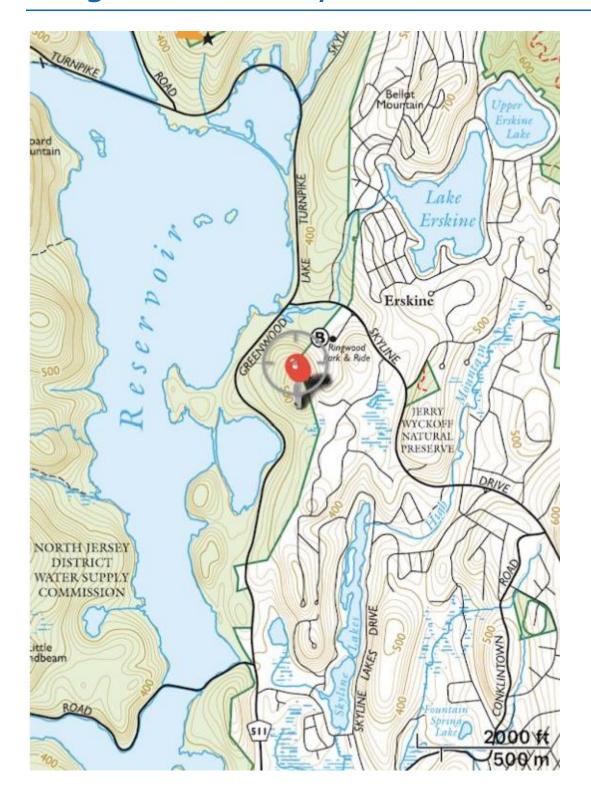








Ringwood Library Trail Location



Trail Budget and Volunteer Hours

Ringwood Library Trail Budget					
Trail Buildir	ng				
Description	Price	Quantity	Total		
Trail Workshops (See NYNJTC Detail)	\$600	3	\$1,800		
Ringwood Trail Crew Tool Cache (See NYNJTC Detail)	\$552.21	1	\$552		
Kiosk (Future Pi	oject)				
Description	Price	Quantity	Total		
Classic Kiosk option (See Kiosk Detail)	\$2,400	1	\$2,400		

Note: Cleanup costs to be covered by existing cleanup funds

Ringwood Library	Trail Volunte	er Hours	
	Cleanup		
Description	Hours	Volunteers	Total
Cleanup Organizing and Scheduling	5	2	10
Cleanup Activity	2	12	24
		TOTAL:	34
Tra	il Building		
Description	Hours	Volunteers	Total
Layout and Design Workshop	6	8	48
Trail Maintenance Workshop	6	8	48
Trail Construction Workshop	6	8	48
Trail Construction Activities	12	6	72
		TOTAL:	216
	Kiosk		
Description	Hours	Volunteers	Total
Project Manager	40	1	40
Procurement of Material	12	1	12
Construction	5	4	20
		TOTAL:	72



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TRAIL PLAN SERVICES BUDGET Project: Ringwood Trail Project

Date Submitted: February 14th, 2020

Trail Workshops - \$600/day

Three days worth of professional Trail Conference staff time conducting trail workshops to promote the project, recruit local volunteers, train volunteers in technical skills, and execute work on the ground. Cost includes the following:

- Layout and Design workshop to teach about sustainable trail planning, water flow, measuring grades, flagging routes, and more. The class will result in a final planned route for the new trail, as reviewed and tweaked by a professional trailbuilder.
- Trail Maintenance workshop to teach about maintenance best practices while clipping, clearing, and blazing the new trail corridor. The class will result in a section of cleared trail corridor, as well as volunteers trained to complete any work needed.
- Trail Construction workshop to teach about tool use and safety, trail structures, drainage, sidehilling, and more. The class will result in having any major sustainability issues along the trail addressed, as well as volunteers trained to complete any work needed.
- All tools, personal protective equipment, materials, time, and travel expenses incurred in the execution of these workshops.

TOTAL - \$1800

Ringwood Trail Crew Tool Cache - \$552.21

The goal of this project is not only to produce an enjoyable hiking trail, but also to cultivate local volunteers for future trail stewardship in the Ringwood area. To accomplish that, tools and safety equipment are needed to equip a small volunteer crew.

- 3 pick-mattocks

1 sledgehammer

4 packages of

gloves (S, M, L, XL)

2 Rogue hoes

- 1 bucket

- 6 hardhats

2 rock barsI spade shovel

- 6 safety glasses

TOTAL - \$552.21

The expected timeline for the project is to hold workshops in April and May, then finish remaining trail work by the end of June for a formal trail opening in the summer of 2020.

Submitted by Peter Dolan, Trail Program Manager

Tool Cache Budget Breakdown

- 3 pick-mattocks
 - o (https://www.homedepot.com/p/Husky-5-lb-Pick-Mattock-with-36-in-Hardwood-Handle-32415/204168139): \$92.94
- 2 Rogue hoes
 - (https://roguehoe.com/product/70hr54/): \$159.90
- 2 rock bars
 - (https://www.homedepot.com/p/Husky-60-in-Pinch-Point-Bar-34218/204168180):
 \$65.98
- I spade shovel
 - (https://www.homedepot.com/p/ANViL-Wood-Handle-Digging-Shovel-3589600/307828173): \$10.98
- 1 sledgehammer
 - (https://www.homedepot.com/p/DEWALT-10-lb-Sledge-Hammer-DWHT56029/304384750): \$38.99
- 1 bucket
 - (https://www.homedepot.com/p/The-Home-Depot-5-Gal-Homer-Bucket-05GLHD2/100087613): \$3.25
- 6 hardhats
 - (https://www.homedepot.com/p/3M-Yellow-Non-Vented-Hard-Hat-with-Pinlock-Adjustment-CHH-P-Y12/202195393): \$38.88
- 6 safety glasses
 - o (https://www.homedepot.com/p/ERB-lprotect-Safety-Glasses-Clear-Temple-Clear-Anti-Fog-Lens-17510/301858734): \$8.40
- 4 packages of gloves (S, M, L, XL, 48 gloves total)
 - (https://www.amazon.com/gp/product/B0035UWIAW/ref=ox_sc_act_title_2?smid= A2G5S4SDVEREB7&psc=1): \$132.89

Ringwood 2020 OSS Grant App

2020 ANJEC OPEN SPACE GRANTS FOR ENVIRONMENTAL COMMISSIONS APPLICATION

Municipality: Ringwood County: Passaic Phone: 201-841-3257

Mailing address of municipality: 60 Margaret King Ave., Ringwood, NJ 07456

Environmental Commission Contact Person (person responsible for application):

Name: Thomas Conway e-mail: thoamspaulconway@gmail.com

Home address: 19 West Cir., Ringwood, NJ 07456

Day phone: 201-258-2015 Cell Phone: 201-841-3257

Environmental Commission Chair:

Name: Thomas Conway

Day phone: 201-258-2015 Cell Phone: 201-841-3257

Municipal Manager/Administrator

Name: Scott Heck e-mail: sheck@ringwoodnj.net phone: 973-475-7101

Year Environmental Commission was established by ordinance: 1974

Is your Commission a member of ANJEC? Yes

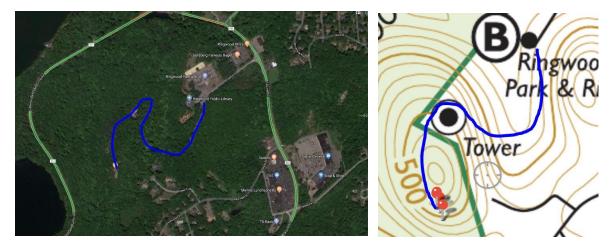
Title of Project: Ringwood Library Trail

Amount being requested from ANJEC: \$1,500

Project description

Ringwood is a town of trails. We have well over 100 miles of trails and some of them are very popular. Many of the trails involve travel into town, but they bypass the main business areas. Meanwhile, right behind the library is an existing dirt service road that takes you within 300 yards of one of the most beautiful viewpoints in Ringwood. The viewpoint currently reflects recent usage by people. They have left behind many chairs as well as garbage, mainly alcoholic containers.

The Ringwood Environmental Commission would like to open this wonderful viewpoint to the public at large. By marking a trail from the library parking lot to the viewpoint, we can have a short, accessible trail in the heart of the Skyline business district. As an added bonus, the Park & Ride is close by, allowing commuters to enjoy a quick hike without extra travel.



The viewpoint offers wide views of the Wanaque reservoir and the mountains in the distance. It is an open rocky area with enough flat space for a dozen people to sit and enjoy the scenery.



ANJEC Grant Specific Questions

1. Completeness – Does the application include a full description of deliverables, schedule and budget, including who will supervise and/or carry out each major task, when and how?

Deliverables – This project has two major deliverables at the start. The first was to clean up the abused area. This viewpoint was used as a party spot and was littered with chairs, cans, bottles, pots, among other items. A group of four has already completed a cleanup of the area. The second deliverable is to create the actual trail. A budget detailing all the required material is included in this application. The land owners, Ringwood Borough and North Jersey District Water Supply Commission, have agreed to allow and support this project.

Schedule – The Trail Conference was ready to work in April. Since COVID-19 has had an effect on social gatherings, we have postponed this. We expect to be able to be one of the first groups to gather as restrictions are eased and assume this will happen over the summer. All activity will be outside in groups of 12 or less. We can go smaller if required. Since all permissions are set, we just need to schedule the trail building classes and execute the trail construction.

2. Budget - Did the commission research and itemize major costs in preparing the budget and determining the amount requested? An application without an itemized budget will not qualify for a grant. Include all major costs, whether covered by grant funds or other funding sources.

Budget for the trail and the volunteer hours is included in the application.

3. Additional resources – Does the application list any community partners committed to and/or contributing to the project? Obtain commitment from the partner organizations before listing them.

North Jersey District Water Supply Commission – The viewpoint is on their property. The Executive Director, Tim Eustace, has given us permission to build the trail on his land. HE was scheduled to join the cleanup, but COVID-19 prevented the group activity.

Ringwood Borough – Scott Heck, Borough Manger, is actively behind this project. We have taken DPW workers to the site and they helped remove the garbage that was collected during the cleanup. Scott will confirm the budget with a letter from Ringwood.

New York New Jersey Trail Conference – Peter Dolan worked with our Commission to schedule the original trail building conferences. He remains committed to the project and will be ready to go once restrictions are lifted. HE has personally toured the site and sees the value in this endeavor.

4. Environmental Commission benefit - How will the environmental commission use this project to raise its long-term visibility among residents and the governing body? Describe specific outreach tasks.

The Ringwood Environmental Commission expects to have a cache of trail tools and a few trail stewards at the end of this project. Working with our Green Team, we have volunteers ready to take the trail building classes and become trail stewards. Ringwood trails are served by volunteers from around the area. We expect this project to allow Ringwood residents to become more involved in the trail building and maintenance. The best trail stewards are the ones that live next to their trails.

In 2021, we would like to add a kiosk to the trail. This would be a place to share information about Environmental activities.

5. Impact on the community - Does the application explain how residents or others will be informed and/or included in the project, and how this will have a positive impact on local open space?

This trail starts and end at the Ringwood Library and we will run events at the library on Environmental matters and then be able to head right out into the real woods. It is a short (<1 mile) hike to the viewpoint. This will allow families to easily reach the top without committing to a full day on the trail. There is also a playground at the library and this will make for a nice day out with the kids. The Park and Ride is also adjacent to this trailhead, so commuters can enjoy a nice 30-minute hike before or after their commute.

There are more trail possibilities in this immediate area for future expansion. The NJDWSC has shown interest in allowing additional trails as the added foot traffic will generally force the people there illegally to have to move to other areas. By expanding this convenient trail access, we will also help the business district that is just up the road. Lastly, this trail will be one of the few trailheads in the county that can be reached by public transit.

6. Replicability or follow-up — Does the application explain the project's ongoing use, and/or how it will be an annual or other regular event? If the proposed activity is a plan, does the application address "next steps" and who will pursue them?

This trail will be the first trail to take advantage of this open space behind our library. There is much more space to allow for additional trails. The combination of library, playground, park and ride, dog park, and nearby business district make the future possibilities unlimited.



BOROUGH OF RINGWOOD

To: info@anjec.org

Subject: 2020 ANJEC OPEN SPACE STEWARDSHIP GRANTS FOR ENVIRONMENTAL COMMISSIONS

Dear Grant Manager:

The Borough of Ringwood has been working in collaboration with our Environmental Commission to build a trail behind the Borough's library (The Library Trail). Preliminary plans have been discussed and we will work with the New York-New Jersey Trail Conference (NYNJTC) to build the trail. **The Borough fully endorses this project.**

The NYNJTC has offered to conduct some workshops to assist with the design and building of the trail. This service will involve some local volunteers who will assist in building the trail and acquire the skills and physical tools to maintain the trail in the future. The Borough is prepared to provide in-kind services and we will pay for any additional costs that are included in the budget.

This project will complement other initiatives we have going in Ringwood. We are working to build an outdoor classroom at one of our public schools. Many of our schools border state lands with trails starting right off their property and our outdoor classroom will have its own trail as well.

We expect the Library Trail to help kids get exposed to hiking from a very young age. At the base of the trail is an existing playground that is already very popular. We envision programs that can be held at the library to cover the basics of hiking, take the kids on the 15-minute hike to the viewpoint, and then finish off with some time at the playground.

We are excited about this project and welcome any support from ANJEC.

If you have any questions or need additional information, please do not hesitate to contact me directly.

Sincerely,

Scott Heck

Ringwood Borough Manager



2020 Ringwood Environmental Commission Report

Appendix – B

Selected Correspondence

RESOLUTION IN SUPPORT OF NJ LEGISLATIVE BILLS S-232/ A-2212 - Requires the DEP to evaluate environmental and public health impacts of certain facilities on overburdened communities when reviewing certain permit applications.

WHEREAS, the bill S-232/A-2212 concerns environmental permits in overburdened communities, and

WHEREAS, this bill would require a person seeking a permit for a new facility, or for the expansion of an existing facility, located in an overburdened community, to meet certain additional requirements before they can obtain the permit, and

WHEREAS, "facility" is defined as any: (1) electric generating facility with a capacity of more than ten megawatts; (2) resource recovery facility or incinerator; (3) sludge combustor or incinerator; (4) sewage treatment plant with a capacity of more than 50 million gallons per day; (5) transfer station, recycling center, or other solid waste facility with a combined monthly volume in excess of 25 tons; (6) landfill, including, but not limited to, a landfill that accepts ash, construction or demolition debris, or solid waste; (7) medical waste incinerator; or (8) major source of air pollution, as defined by the federal "Clean Air Act.", and

WHEREAS, an overburdened community is defined as any community where 35 percent of the households qualify as low-income according to the U.S. Census, 40 percent of households are minority, or 40 percent of households have limited English proficiency, and

WHEREAS, NJDEP would not be permitted to grant certain environmental permits unless the permit applicant first:

- 1. prepares a report assessing the environmental impact of the proposed new or expanded facility on the overburdened community,
- 2. makes the assessment report available to the public at least 30 days prior to a public meeting, and
- 3. organizes and conducts a public hearing in a location as convenient as possible to all interested parties, and

WHEREAS, under the bill S-232/A-2122, the DEP would have the authority to deny a permit application in an overburdened community upon a finding that the cumulative impacts posed by the proposed new or expanded facility, would constitute an unreasonable risk to the health of the residents of the overburdened community and to the environment in that community.

NOW, THEREFORE, BE IT RESOLVED BY THE BOROUGH OF RINGWOOD

1. Does hereby support S-232/A-2122, requiring the DEP to evaluate environmental and public health impacts of certain facilities on overburdened communities when reviewing certain permit applications.

2. Will provide a copy of this resolution to our local NJ Senate and Assembly representatives, (Gerald Cardinale, Robert Auth, and Holly T. Schepisi).

Dated: July 21, 2020

MUNICIPAL CLERK

I hereby certify that the above Resolution was adopted by the Municipal Council of the Borough of Ringwood at its Regular Meeting of July 21, 2020.

NICOLE LANGENMAYR, RMC

Ringwood Environmental Commission 60 Margaret King Avenue Ringwood, NJ 07456

Highlands Council Attn: Lisa Plevin 100 North Rd. Chester, NJ 07930 lisa.plevin@highlands.nj.gov

May 12, 2020

Dear Ms. Plevin:

Thank you for taking the time to speak with me last week. As discussed, I am following up with a quick summary of the concerning events in the state forest in and around Ringwood, NJ. These primarily involve ATV's and off-road motorbikes.

The increase in ATV traffic began at the start of the COVID-19 quarantine in New Jersey. Multiple parties began to notice that the vehicle traffic had increased in the state forests. Many feel this is due to the lack of options for the riders who may normally travel to use the vehicles in legal areas. The increase was concerning, but for the most part, these riders stuck to existing woods roads and places deep in the forest.

Things changed drastically when the Governor shut down the parks. The balance in the state forest changed as hikers and mountain bikers stayed home. Without the usual people to see them, ATV's took over the trails. Many trails in Ringwood have become ATV-width dirt roads. Along with the destruction, the recent rains have created streams out of these deep tracks. This is causing water that would normally recharge the area to instead flow out to the bigger streams and leave the watershed.

Many people have reached out to me about the destruction. The Passaic River Coalition is getting reports, for the first time, that people are being threatened by the riders. The Jersey Off Road Biking Association reports that some of their bridges have been destroyed and their trails are a mess. I have seen ATV's creating new trails through the woods and using the abandoned plane field at Brushwood as a track. There are few times you can hike in the woods now without hearing the whir of ATV's

The park manager, Eric Pain, has been great to work with. He is doing his best to stop the abuse, but his power is limited. We just do not have enough State Park Police to make a difference. ATV's are getting bolder in their actions. Some riders are building jumps in the woods. Piles of trash are accumulating at their hangout spots. The balance that we enjoyed in years past is now gone.

Please help us get the forests back to the old status quo. While we may never be able to eliminate this illegal activity, we need to put an immediate stop to the increase in abuse. Hikers and bikers are regularly encountering emboldened riders that do not yield. Confrontations are increasing and I fear people's safety is now in jeopardy. Without quick action, ATV's will come to dominate the area and that will cause great harm to the Highlands Watershed.

Thank you for taking the time to hear our concerns. There are many people looking to stop this activity, so please reach out if you need additional information or documentation of the damage.

Sincerely,

Thomas Conway

Chair, Ringwood Environmental Commission

Ringwood Environmental Commission 60 Margaret King Avenue Ringwood, NJ 07456

Ringwood Economic Development Commission Mitch Kahn, Chair 60 Margaret King Avenue Ringwood, NJ 07456

July 24, 2020

Dear Mr. Kahn:

The Ringwood Environmental Commission will support your application for the Highlands grant in any way possible. We recently adopted the following vision statement which aligns with the goals laid out in your grant application:

Promoting a clean, healthy and well-protected environment supporting a diversity of species while allowing people to connect with nature.

We have also applied (and were denied) for a grant to build a trail behind the library. This plan has been shelved due to COVID, but it will resume when our state begins to open up again. The information you seek in this grant aligns well with the actions we have taken in 2020.

The grant also fits in with one of the objectives we set earlier this year:

Enhance decision-making by the local government by ensuring that environmental policies are integrated into all plans and projects.

Ours goals and objectives are very well aligned in the scope of work covered in your grant application. We support your effort and hope to be part of the process if you do receive the grant.

Sincerely,

Thomas Conway

Chair, Ringwood Environmental Commission



2020 Ringwood Environmental Commission Report

Appendix – C

Superfund Documents

Thomas Conway 19 West Circle Ringwood, NJ 07456 thomaspaulconway@gmail.com 201-841-3257

June 3, 2020

Mr. Peter Lopez Regional Administrator, Region 2 Environmental Protection Agency 290 Broadway New York, NY 10007

Re: Proposed Cleanup Plan to Address Groundwater Contamination at the Ringwood Mines/Landfill Superfund Site in New Jersey

Dear Mr. Lopez:

I am writing again at the deadline for comments about the Proposed Cleanup Plan to Address Groundwater Contamination at the Ringwood Mines/Landfill Superfund Site in New Jersey. I will again express my frustration that these comments are due during a State of Emergency for New Jersey and while our flags continue to fly at half-staff. Our own state elections have been pushed out beyond this date, yet the EPA only added a month to the last extension. Please excuse my typos and lack of sources.

In these comments, I will explain why the decision to cap a mine where the source of contamination is still unknown makes no sense. I will give light to the fallacy that the EPA is applying models that ensure the health and safety of a small native population. This site has a fifty-year history and EPA involvement for almost as long. To spend this much time on the site and end up with a cap is shortsighted. I am proud of my community for being able to carry this fight for so long and promise that I will do my best to help my beleaguered neighbors to finally achieve a sense of safety on the ground they live on and revere.

Silent Genocide

In my June, 2019 comments, I spoke about the silent genocide that is ongoing in Ringwood, NJ. The EPA's risk models are unable to handle this small population. Despite the residents' well-documented health issues, their small population gets lost in the models. Their suffering and deaths end up as statistically insignificant in your broad models. Your models are made to deal with sites that had contamination and may have leaked into the groundwater. Ringwood is different. We have an Environmental Justice community of Native Americans living on top of mining tunnels filled with hundreds of millions of gallons of polluted water. This is a unique site and requires a unique solution.

Deaths in Upper Ringwood

Environmental Justice has evolved into our current landscape because of actions like the one you propose. A community is suffering from health issues worse than those of surrounding areas. The EPA seems to completely disregard what is obvious to those near this community. People are dying too soon and their health continues to suffer. While this does not fit into the EPA's models, it seems that there is built-in prejudice in those models. Most people of means would leave a polluted site and move on. One has to consider the ancestry of the Upper Ringwood community and their ties to this land. The land is like a living relative that is ill. If one takes the time to understand this relationship, it will become apparent that treating this community like a statistic is an injustice. A people tied to the land should at least have that core belief recognized, if not completely included in the final solution. Your plan calls for that disease to be locked into the land.

There is an underlying stress in a community living on a Superfund site. Every cold, fever, or worse could be a regular virus or it could be something from the site. This fear will remain long after you pack up and leave behind the polluted mine water. The fact that the community continue to survive on their ancestral lands is a credit to a strength that I will never understand, but it should command the respect of those in charge of cleaning up the site. This solution damns the people to a perpetual purgatory. One must wonder if other communities would get the same solution.

Last, I know of no vapor studies to determine if the water in the mines is giving off dangerous fumes. As I have stated before, the mines are like a giant lung. They inhale fresh air as the water table drops. When the water table rises again, the air that mixed in the tunnels with the noxious water escapes to the surface. What guarantees or research do you have that shows this will not be an issue after capping?

Manipulation of the Community

My June, 2019 comments detail the abuses of Walter Mugdan. Those actions over O'Connor continue to divide our community and prevent it from working together for the best outcome. This has caused members of the CAG to come and go, thus weakening this important part of the process. I will repeat:

As our late senator Frank Lautenberg said, "In order for something like this not to occur again at Ringwood or other sites in New Jersey, it is essential community leaders are part of the process from the beginning to the end of the cleanup."

After 30+ years, while living on top of polluted mines, it is difficult for anyone to remain part of the process from beginning to end. Only the EPA and Ford with their large payrolls can keep the continuity of focus needed to effect the outcome. This is truly Goliath using his power to crush a small opponent.

Please consider bringing in an outside consultant to work hand-in-hand with the community. While you trumpet the fact that you have provided CAG meetings and advisors, the people have never had the continuity of a professional to oversee the EPA and Ford through a long duration. This clearly puts the community at a disadvantage. It would be a miracle if we could hire Ford's

old consultant, Arcadis, to work for the community to determine the best course of action. There has never been an adequate response as to why Arcadis was let go and Cornerstone took over. This alone makes the change suspicious.

Oxygenation of Water

I agree that oxygenation of water will help remediate some of the pollutants. Are there any concerns about toxic vapors being released into the community? Are any safeguards going to be put in place to monitor and/or prevent this scenario?

Drinking Water

A unique part of our site is that pollution from offsite is bound in millions of gallons of water. This is not the typical issue for mines that the EPA caps. Those mines are more contaminated from what originated in the wells, while the surface may have contamination from the processes used to extract the ore. In Ringwood, the pollution in our mines is in no way related to the earth they were dug from. It is foreign matter dumped into the water by Ford. Moreover, all this water lies just upstream of a reservoir that waters over 3.5 million souls.

This unique situation deserves a unique solution. Cap it and forget it does not work. The North Jersey District Water Supply Commission has its own concerns and they have been expressed in the Jacob's report and will not be rehashed here. We just do not know where the water from the mines will end up and what affects the flow. It is irresponsible to leave contaminated water so close to a reservoir when there are so many unknowns.

What is known is that the water flows out of the mine. The presence of 1,4 dioxane down gradient of the site is an indicator that pollution is heading offsite. I do not understand how a cap will prevent water from continuing to do so. Please explain.

Phytoremediation

I believe our site is ideal for phytoremediation. Planting a shield of plants that can capture pollution for later disposal seems like a perfect fit here. We have water flowing out of the mines. Why has this solution not been studied?

Another benefit of phytoremediation would apply to OCDA. With known pollution in that site and a recycling center planned on top of a cement cap, specific phytoremediation plants bordering the site would help capture pollutants and keep them out of the reservoir. I recognize that the immense volume of the reservoir is enough to soak up the pollutants and bring them below standards, but eventually you may get a collection there that harms people. More recently, we have seen that newly discovered chemicals (1,4 Dioxane) are leaking from the site.

Pathways and Wells

The EPA acknowledges that it does not know the source of the pollution. Is this due to your models not fitting this situation. It is obvious to lay people that the source of the pollution is dirty mine water in Peter's mine. While that may not fit into your definition of a known source,

it is careless to disregard the obvious and it certainly should not be an excuse for leaving polluted water in the mine. No matter the source, treating the mine water is the best way to mitigate the effects of that pollution.

The idea of setting up sentinel wells when the source of the pollution is unknown just sounds odd. It seems like an admission that the EPA knows the source is in Peter's Mine. Sentinel wells are nice and all, but they are typically setup around a known source. One has to assume that all mine water now has unacceptably high levels of pollutants and also to assume that polluted water exists in the various levels of the mine. Since no one knows the true pathways of our underground water (aquifer), the placement of monitoring wells will only be guided by the documented movement of surface water. There is no real protection or monitoring of underground water movement. If a pathway opens up directly into the reservoir, it would put many New Jersey residents' water supply at risk.

Is there any reassurance that the wells themselves do not become new pathways for pollution to move offsite?

Airshaft

I still do not understand why the investigation of Peter's Mine always stops at the bottom of the airshaft. It's like if a kid pees in a pool and they only address the spot where he or she was standing. Water is an amazing solvent and having all these chemicals in aqueous solution means their ions and components can mix and form new chemicals. I believe reading somewhere (no time for source) that Ford claims that since there are different chemicals below the airshaft, that it is not their responsibility. Yet those chemicals are only known to form from Ford's dumping and not the historical mining activity. Any talk of a chemocline is ridiculous, unless you go below that level and do conclusive testing.

Water flows out of the airshaft at fifty gallons an hour. So you will cap it. Water cannot be stopped, that is the principle behind hydraulic equipment. Where will the water present next? Could the solution pose a risk of new problems?

Conclusion

We know the following:

- Water is moving out of Peter's Mine Airshaft at fifty gallons an hour.
- That water contains unacceptably high levels of known pollutants.
- The mine lies up gradient of a reservoir.
- People live above the pollution that is to be capped.

We do not know the following:

- The source of the pollution (your conclusion, not mine).
- The underground pathways of water.
- The pollutants beyond the bottom of the Peter's Mine airshaft.
- Gaseous release of pollutants into the community

Given the known and unknown, the typical EPA cap does not seem to fit this situation. The EPA has models that do not properly weigh the risks to a small population. This is not a solution. This is another attempt by the EPA to kick the can to yet another generation.

It is a shame to see a Native community shunted aside in this careless manner. A crime was committed by Ford. It is the responsibility of the EPA to seek a remedy that addresses the problems of the victims, not the most cost conscious way to get the offender off the hook. Ringwood is a unique site and a unique alternative should be proposed. The options given here are strikingly similar and appear to do little to guarantee that the people of Ringwood will be able to lead a safe and healthy life. Half the state of New Jersey will share I this risk.

Please bring in a dedicated consultant that does not work for the perpetrators of this crime. Given the complexities of the site and its tremendous history, a dedicated professional would be invaluable to assisting this Environmental Justice community.

Your Humble Servant,

Thomas Conway Chair, Ringwood Environmental Commission

Mr. Gowers:

First, I am shocked that the comment period was not extended again. I realize that another extension would be very unusual, but these are unusual times. Please forgive any errors and the lack of sources cited.

Ringwood is surrounded by parks and as the Environmental Chair; I have had to spend considerable time dealing with the ATV invasion brought on by park closures. I fight every day to keep my business running while also trying to responsibly provide for my family. Needless to say, I have not been able to find the time to prepare proper comments for the terrible plan the EPA has proposed for the Groundwater. It is unconscionable for the EPA to keep this timeline in light of the worldwide catastrophe that is tying up many resources. Unfortunately, it does continue a pattern of the EPA trying to mute the public and close this Superfund site. Even the meeting in February was given very short notice.

First, your April 1 letter says: "To view the EPA's proposed plan for the groundwater and mine water at the site, please visit www.epa.gov/superfund/ringwood-mines". This link goes to a page that does not exist. The incompetence by the EPA is so profound that it seems intentionally misleading.

I believe this plan has major shortcomings. Without the time to fully expound on them all, I am forced to jot down this quick summary.

- 1. The EPA methodology does not seem to account for people living above this entire area. I would like to see more research on vapors from the contamination.
- 2. Phytoremediation seems ideal for groundwater remediation. Why is this not being tested or even proposed? This is the perfect site for phytoremediation.
- 3. The monitoring wells may not work. The EPA says it cannot determine the source of the contamination, yet it will setup monitoring wells. Seems like double speak. The source is Peter's Mine and it should be pumped and treated.
- 4. We have no idea what is below the airshaft in the mines. The alternatives discussed for cleaning the airshaft are equivalent to cleaning a cove in a lake. Your reports indicate 50 gallons of water an hour move up and out of the airshaft. Clearly there are millions of gallons of tainted water below this grade and you are only modeling for the amount in the airshaft.
- 5. No one knows the water pathways there. That's a fact. Yet you write that the monitoring wells will be sufficient. This is a shot in the dark or worse, just scraping the surface.
- 6. Is there any concern that bedrock aquifer wells will create new pathways for the water to reach the surface?
- 7. The report correctly acknowledges that oxygenation will help naturally attenuate some of the contaminants. Is there a risk that some of this may escape in gaseous form and hurt the residents?
- 8. The water patterns are unknown. Five years between monitoring events seems too long.

Please extend the comment period. I need weeks more time to fully review this proposal. This is a decades-long site and it seems rushed to force this solution through during the Covid19 crisis. This would be a new low for the EPA on this site and the EPA has already shot through the floor a few times.

Regards, Thomas Conway

July 3, 2020

Ref: Letter of Collaboration for Dr. Lucia Rodriguez-Freire

Dear Program Director and Panel Reviewers,

If the proposal submitted by Dr. Rodriguez-Freire entitled **CAREER: Harnessing plant-microbe interactions to control PFAS environmental fate** is selected for funding by the NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description or the Facilities, Equipment or Other Resources section of the proposal.

Sincerely,

Thomas Conway

Chair, Ringwood Environmental Commission

Mobile: 201-841-3257

Email: ringwoodenvironmental@gmail.com

19 West Cir.

Ringwood, NJ 07456

Thomas Conway 19 West Circle Ringwood, NJ 07456 thomaspaulconway@gmail.com 201-841-3257

Tuesday, June 16, 2020

Mr. Peter Lopez Regional Administrator, Region 2 Environmental Protection Agency 290 Broadway New York, NY 10007

Filing for Comment: Assistant Attorney General U.S. DOJ – ENRD P.O. Box 7611 Washington, D.C. 20044-7611 pubcomment-ees.enrd@usdoj.gov

Filing for Comment: Kevin F. Kratina, Assistant Director, NJDEP Site Remediation and Waste Management Program, Enforcement and Information Support Element 401 East State Street, PO Box 420 - Mail Code 401-06A, Trenton, NJ 08625-0420.

Re: Ringwood Mines Superfund Site, United States of America, New Jersey Department of Environmental Protection, and Administrator of the New Jersey Spill Compensation Fund v. Ford Motor Co. and the Borough of Ringwood, D.J. Ref. No. 90-11-3-830/1

Dear Mr. Lopez:

I am writing to you to express my concerns about the Consent Decree entered into by Ford and the Borough of Ringwood. I will highlight the absurdity of a surface solution while the groundwater continues to flow onto the site. I will discuss the enormous pressure and outright deception the EPA put on the local community. The science and data behind the ROD are inconsistent at best. Finally, the EPA needs to take responsibility for delisting the site when there were and still are human beings living on top of polluted earth.

Wait for the Groundwater Investigation

It is premature to enter into this agreement since the groundwater investigation is still ongoing. To separate the two sites is only possible on paper. Your own reports indicate an upward flow of water out of Peter's Mine. It seems absurd to come up with a plan for the surface when groundwater is still flowing up out of the up-gradient mine. No one has identified the exact source of the pollution, but data shows that most of it emanates from the mine. This decision is

equivalent to making a plan to clean the bathroom floor while the toilet continues to overflow. You must marry this action with the groundwater remedy. It is very likely that more pollution will contaminate the surface while we wait for the groundwater remedy.

Consistent with the National Contingency Plan, EPA often segregates clean-up activities at a site into discrete actions, designated as "operable units" to address geographical portions of a site, specific site problems, or initial phases of an action to manage migration of contamination or eliminate or mitigate a release or threat of release of contamination or a pathway of exposure. See 40 C.F.R § 300.5. Phasing the cleanup allows EPA to address environmental media or areas that have been characterized while the nature and extent of contamination in other areas of or media at the Site can be investigated. This allows for a more expeditious cleanup of the overall site. See, e.g., United States v. Manzo, 182 F. Supp. 2d 385, 402–03 (D.N.J. 2000) (explaining the benefits of dividing a site into different operable units).

The selected remedy addresses waste in the Cannon Mine Pit, the Peters Mine Pit and the O'Connor Disposal Area, which are sources contributing to the groundwater contamination at the Site, and it represents the second of three phases of cleanup at the Site. Gowers Decl., Ex. 3 ¶ 8. The groundwater contamination at the Site is being investigated as part of Operable Unit 3, and a remedy will be selected for Operable Unit 3 in a future Record of Decision. Id. However, the selected remedy for OU2, once implemented, will limit direct exposure to contaminated soil and fill material and mitigate their potential as a source impacting the groundwater by reducing migration of precipitation through contaminated fill material into the groundwater and surface water. Id. at ¶ 27. The selected remedy also includes groundwater monitoring at the Cannon Mine Pit, Peters Mine Pit, and O'Connor Disposal Area until the Operable Unit 3 remedy is selected. SOW, § 1.3 at pp. 2–4, PageID 158–60. Therefore, EPA anticipates that implementation of the selected remedy will be consistent with the future groundwater remedy at the Site. See Gowers Decl., Ex. 3 at ¶ 8.

EPA recognizes that the protection of human health and the environment at a Superfund site can be achieved through a variety of methods in addition to excavation of the contamination, including: treatment to destroy or reduce hazards presented by a substance; engineering controls such as containment; and institutional controls, such as deed restrictions on the use of land, to prevent exposure to hazardous substances. As explained above, the OU2 ROD included EPA's detailed analysis of the remedial alternatives, including both capping remedies and excavation remedies, assessed against the required nine criteria set forth in the National Contingency Plan. And as explained above, the remedial caps will eliminate exposure pathways to hazardous substances and reduce precipitation infiltration and migration from contaminants into groundwater and surface water. EPA therefore determined that the containment remedies selected for OU2 would be protective of human health and the environment, as well as would satisfy the other eight criteria required by the National Contingency Plan. Gowers Decl., Ex. 3 ¶¶ 23, 27–28. Moreover, the OU2 remedy requires EPA to conduct a statutory review every five years to ensure that the remedy remains protective of human health and the environment, as required by CERCLA Section 121(c). Id. at ¶ 29; 42 U.S.C. § 9621(c). Therefore, EPA will monitor the OU2 remedy and be able to respond to potential problems that may arise with this remedv.

EPA recognized that subsidence of the cap to be constructed in the Peters Mine Pit of OU2 may need to be addressed after construction and plans to address subsidence through construction methods and post-construction maintenance. Specifically, as noted in the OU2 ROD and the OU2 Final Remedial Design Report, construction of the OU2 remedy at the Peters Mine Pit will include compaction of fill materials in order to mitigate the potential for subsidence of the cap. Gowers Decl., Ex. 3 \P 32. Additionally, the Statement of Work of the Decree (SOW), which details the specific actions and deadlines required to implement the remedy, requires that Ford and the Borough prepare an Operations and Maintenance Plan that will describe the requirements for inspecting, operating, and maintaining the selected remedy. Statement of Work, Exhibit C of Consent Decree, Doc. 2-1 (hereinafter SOW), § 5.7(g), ECF PageID 171–78. As part of the Operations and Maintenance Plan, Ford and the Borough will be required to address subsidence issues that may compromise the protectiveness of the cap. Gowers Decl., Ex. 3 \P 32.

General Comments

- 1. Peter's Mine Cap Height: The NRRB recognizes the historic and ongoing subsidence as a site problem. Region 2 seems to ignore this. They like to claim that 40 years of inactivity has made the ground stable, but there is no proof of this that has been presented. The EPA does acknowledge the failure of the old caps. The ROD calls for, "Placement and compaction of a sufficient amount of fill material in the Peters Mine Pit to raise the elevation to a level at least two feet above the average surface water elevation of the removed pond". This is clearly not enough, even for the rosy picture the EPA likes to paint. The fact is that we do not know what is going on in Peter's Mine below the terminus of the airshaft. To allow the cap to barely have a slope is negligent. Please revisit the capping plans and make sure it takes into account the likely chance that the area will continue to subside.
- 2. *Tree Roots:* The Peter's Mine cap plan does not include a change of use with the State land. In order for this to work, the deepest roots should not reach into the pollution. With the Groundwater report stating there is an up flow of water out of the mine, how can we be sure the plants in the area are not contaminated? It seems that this area should have a change of use with access restricted. What procedures will take place to make sure contaminants are not taken up by the deep roots of native flora?

3. *Dubious Risk Models:* Clearly the risk models are absurd. Using a young hypothetical hunter that lived exclusively off the vegetation and game on the O'Connor site is extreme. This is presented as part of Walter Mugdan's attempt to manipulate the community which I will cover later. Please go back to the typical risk models and then evaluate the decisions on O'Connor. The EPA's statement that this land was used

- traditionally for hunting should indicate exactly how long ago it was used this way. It was used as a mine tailing settling pond for many decades. How long ago was it used for hunting as the EPA claims? (pg. 65 of ROD)
- 4. Recent Discovery of 1,4 Dioxane: The ROD does not incorporate the discovery of 1,4 dioxane. While this chemical is not threatening at the current levels, it should be analyzed to help discover the source of pollution that is migrating offsite. Due to its solubility, this takes a slow migration model and turns it into something entirely different. More sentinel wells would aid in determining the pathways the pollution is taking offsite and into the reservoir.
- 5. The State of New Jersey is a Responsible Party: While the 11th Amendment will prevent the EPA from taking action, it should be clear that the state was negligent in enforcing its own law against contamination of streams up until 1970. This created an environment where the disposal of industrial waste was essentially unregulated. If the state could not enforce these laws, how would one expect a tiny borough to do it?

EPA has broad discretion in structuring CERCLA settlements. United States v. Davis, 261 F.3d 1, 23 (1st Cir. 2001). Specifically, "the government's decisions on whether and with whom to settle are not subject to judicial review." United States v. Atlas Minerals & Chems. Co., 851 F. Supp. 639, 653 (E.D. Pa. 1994) (citing 42 U.S.C. § 9622(a)). In this case, EPA issued notices of potential liability to Ford and the Borough in 1983 and 1990, respectively. Gowers Decl., Ex. 3 ¶¶ 11, 13. Historically, EPA has directed Ford and the Borough to participate and cooperate in cleaning up the Site with approval by New Jersey. Consent Decree § I, ¶¶ F—N, PageID 18—19. Consistent with CERCLA Section 121(f)(1)(F), 42 U.S.C. § 9621(f)(1)(F), the United States notified New Jersey of these negotiations and invited the State to participate in 2015. Id. ¶ C, PageID 18. The proposed Consent Decree was the product of an arm's-length negotiations between the United States, New Jersey, Ford, and the Borough. The Consent Decree provides that Ford and the Borough (the two PRPs to the Decree) will fund and perform all the remedial work under the OU2 ROD and the Explanation of Significant Differences.

As stated above, this settlement resulted from the arm's-length negotiations of parties with opposing interests. The PRP parties to the Consent Decree have agreed to perform the work of the OU2 ROD and Explanation of Significant Differences. In response to the argument that the United States is liable by virtue of its previous clean-up activities at the Site, courts have routinely rejected such arguments. E.g., United States v. Sensient Colors, Inc., Civ. No. 07-1275 (JHR), 2009 WL 394317, at *1, *8 (D.N.J. Feb. 13, 2009) (citations omitted); In re Paoli R.R. Yard PCB Litig., 790 F. Supp. 94, 97 (E.D. Pa. 1992), aff'd, 980 F.2d 724 (3d Cir. 1992) (table).

6. Contaminated Material Separation: Ford and the EPA have a history of failing to accurately measure what part of the removed material is contaminated and what part is not. Please explain how the contractors will test the material that may be used as fill in Peter's Mine or hot enough to be transported offsite. (pg. 68 of ROD)

As detailed in the OU2 Remedial Design Report, excavated material will be staged in approximately 500 cubic yard stockpiles for sampling and analysis for the characteristics of hazardous waste—corrosivity, ignitability, reactivity, and toxicity. Gowers Decl., Ex. 3 ¶ 34. This testing will be done using the Toxicity Characteristic Leaching Procedure, in accordance

with 40 C.F.R. Part 261, Subpart C. Samples will be collected from the stockpiles and sent to a certified laboratory under proper chain of custody and with a rapid turnaround time. Gowers Decl., Ex. 3 ¶ 34. Material that is determined to be characteristically hazardous will be disposed of at an appropriate off-site facility. Id. Non-hazardous material will be used as fill in the Peters Mine Pit. Id. Furthermore, if paint or drums are encountered during the excavation process, they will be placed on and covered with plastic sheeting pending a Toxicity Characteristic Leaching Procedure analysis for off-site disposal at a permitted facility. Id.

Cost estimates for the selected remedy include costs to account for any uncertainties that may arise while implementing the OU2 remedy, including the potential for additional drums to be found. Id. at ¶ 26. The selected remedy for the Cannon Mine Pit calls for pull back of shallow soils surrounding the Cannon Mine Pit and into the pit itself. Id. However, cost estimates included in the OU2 ROD assume the need for excavation and off-site disposal of drums from the Cannon Mine Pit due to the discovery of drums in this area during the remedial investigation. Id. Similarly, the cost estimate for the Peters Mine Pit assumes that excavated material will be disposed of as non-hazardous waste based upon historic sampling results in this area. Id. However, as noted above, the cost estimate provides for the possibility of finding drums in the Peters Mine Pit. Id. In any event, the cleanup requirements of the OU2 ROD and Explanation of Significant Differences will be performed, regardless of the ultimate cost. Id.

- 7. *Hazardous Soil in the Mines*: The budgets for Cannon and Peter's have zero expectation of hauling away hazardous soil. In fact, the only hazardous removal that is in the budget is for 15 drums from Cannon, nothing from Peter's Mine. Yet, in many EPA notes on the site, they discuss the likelihood of additional drums being found. This possible contingency cost should be included in any reasonable budget.
- 8. The CAG is almost Non-Functional Now: The EPA has allowed a political power player to have absolute control over the CAG for many years and to run it into the ground. Community members are left out. Can we reestablish a fair CAG that actually represents our community rather than continue to divide us as has been done in the past? A greater understanding of how the EPA plans to gather a group of concerned citizens and residents onsite would be most helpful. The track record is terrible, so drastic change and monitoring is necessary.
- 9. *CAG Future:* As set forth in Section 2 of the SOW, EPA has the lead responsibility for developing and implementing community involvement activities at the Site. Please explain how this will be different than the failures of the past.

EPA does not directly establish or control Community Advisory Groups. U.S. Environmental Protection Agency, Guidance for Community Advisory Groups at Superfund Sites at 2, OSWER Directive 9230.0-28, dated Dec. 1995, available at

https://semspub.epa.gov/work/HQ/174152.pdf; see also 40 C.F.R. §§ 300.430(c) (requiring the input from a community on how and when it would like to be involved in the Superfund process). A Community Advisory Group can be formed at any time. EPA assists with the formation of a Community Advisory Group and provides feedback on its membership, but EPA does not choose the members of a Community Advisory Group. Community Advisory Group membership can naturally change as the need for it changes or based on individual preference to remain a part of the group. However, EPA always seeks to ensure that the Community Advisory

Group process and meetings are conducted in a civil, inclusive, and welcoming manner to the best of its efforts.

At the Site, EPA has encouraged stakeholders, including Chief Mann, to work with the existing Community Advisory Group as these groups work best when they represent a diversity of opinions. See generally Seppi Decl., Ex. 4. Similarly, EPA will continue to encourage the participation of Upper Ringwood residents, including members of the Ramapough Lenape Tribe, and other stakeholders in any future Community Advisory Group meetings. EPA has also provided for a neutral facilitator to assist the Community Advisory Group with meeting preparation and facilitation during meetings. Id. at $\P\P$ 7, 14. This neutral facilitator has worked with the Community Advisory Group to establish by-laws and operating procedures that encourage full participation in the group.

10. *Threatened Release:* In point 30 of the Filed Complaint, "EPA has determined that there is or may be an imminent and substantial endangerment to the public health and welfare or the environment because of actual or threatened releases of hazardous substances at or from the Site." Please explain what this release is exactly and why three caps will solve the problem. We are at the headwaters of a reservoir that serves for 3.5 million souls.

CERCLA Section 101(22) defines a release as "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant) " 42 U.S.C. § 9601(22). The National Contingency Plan further defines a release to include the threat of release. 40 C.F.R. § 300.5. A release or threatened release of hazardous substances, pollutants, or contaminants at the Site primarily stems from the alleged disposal of waste material from Ford's plant in Mahwah, New Jersey. Such waste included plant trash, paint sludge, drummed waste, and other non-liquid plant waste, which was disposed of at Cannon Mine Pit, Peters Mine Pit and O'Connor Disposal Area of the Site. ROD at 1–2, PageID 82–83. Paint sludge and other drummed industrial wastes are the primary sources of contamination at the Site, and these sources of contamination resulted in the release or threat of release of elevated levels of lead, polychlorinated biphenyl compounds, and arsenic which are all hazardous substances. Id. at 7, PageID 88.

11. Dust Controls and Monitoring: In the selected remedy (Excavation, 5A) you budgeted \$250,000 for air monitoring. In the contingency remedy (Cap, 4A) that item is only budgeted for \$50,000. What makes the air monitoring so much lower when the amount of activity is equivalent on the site? The contingency remedy has \$50K for dust controls, versus only \$30K for the selected remedy, so this makes the discrepancy in air monitoring even more baffling.

The selected remedy for the O'Connor Disposal Area, the capping remedy denoted as Alternative 4A, does not employ insufficient air monitoring. Air monitoring employed during the selected remedy, Alternative 4A, will ensure that any impacts on workers and the surrounding community are addressed. Alternative 5A provided for more extensive excavation of impacted materials over a longer timeframe than Alternative 4A. Gowers Decl., Ex. 3 \P 25. Therefore, estimated air monitoring costs for Alternative 5A are greater than the estimated air monitoring

costs for Alternative 4A. Id. However, it is anticipated that the capping remedy, Alternative 4A, as selected in the Explanation of Significant Differences, will involve the handling of more dry fill materials during cap construction than would be anticipated during implementation of Alternative 5A. Id. Therefore, dust control costs were estimated to be greater for Alternative 4A than Alternative 5A. Id.

12. Cost Variations: Please explain the cost difference in the deer exclusion fencing. In 4A it is \$4.00 per linear square foot. In 5A that cost in \$10.00 per square foot. The seed is \$0.05 more expensive in 5A as well. Was this intentional to inflate the costs of 5A?

The selected remedy in the OU2 ROD provided for variations in the cost estimate for the two alternatives for the O'Connor Disposal Area. Gowers Decl., Ex. 3 ¶¶ 24–26. The OU2 ROD selected an excavation remedy for the O'Connor Disposal Area (denoted as Alternative 5A) and provided for a contingency remedy of capping (denoted as Alternative 4A) if certain conditions were met by the Borough. Id. at ¶ 21. Upon satisfaction of these conditions, EPA documented selection of the capping remedy for the O'Connor Disposal Area in the Explanation of Significant Differences. Id. at ¶ 22. The differences in cost for certain similar items between the two remedy alternatives reflect the differences between the two remedies. Id. at ¶ 24. Both remedies include the same cost estimate for deer exclusion fencing and seed mix for restoration of wetlands required by NJDEP, but the capping remedy (Alternative 4A) includes additional costs for deer exclusion fencing and seed mix for the construction of new wetlands needed for that remedy. Id. The price difference in the seed mix accounts for conditions that are specific to the wetlands mitigation as part of the construction of new wetlands. Id. Similarly, cost variations between the two alternatives for "Site Cleaning, Grubbing, Mulching, Stump Disposal (Includes cap area and scraped area)" reflect differences in site cleaning and grubbing between Alternatives 4A and 5A. Id.

- 13. Erroneous Cap Reference: The budget for 5A has a line that lists: "Site Cleaning, Grubbing, Mulching, Stump Disposal (Includes cap area and scraped area)." Why the reference to a cap area in a budget line for 5A? This calls into question if excavation was really an alternative, or a smokescreen to gain favor with the community while shifting blame onto Ford and the Borough for a typical EPA solution (capping).
- 14. *Cost Variations:* Why is the same line item (referenced above in #12) listed at different prices? (4A \$7,500 and 5A \$5,500 per acre.)

EPA's Manipulation of the Community

One of the most appalling aspects of this second listing and ongoing process has been the manipulation of the local community by the EPA. While Ford and, later, the government have dithered for 50 years, a Native American population continues to live on top of this pollution. While their population is statistically too small to prove negative health effects, they are certainly affected by this pollution. The models the EPA has been using mostly apply to the environment and they are incapable of truly assessing the devastation this site has caused the community living on it. The EPA must take actions to protect the health of the population immediately and end this **Silent Genocide**.

EPA conducted an Environmental Justice (EJ) Assessment for the Site in 2006 that identified potential EJ concerns of the local community, which includes members of the Turtle Clan of the Ramapough Lenape Tribe who reside in the Upper Ringwood area, and recommended actions to address these concerns, which was released for public review in draft form. Gowers Decl., Ex. 3 ¶ 37. The recommendations included: restoration of the Site to the National Priorities List, establishment of a Community Advisory Group, facilitation of a Technical Assistance Grant, coordination with the NJDEP, collection of health data, and improved communication with Site stakeholders. Id. In July 2013, EPA finalized the EJ Assessment, which concluded that the Ringwood Mines community is an adversely impacted area. Id. However, given the current limits of localized health information about community residents, the area cannot be satisfactorily distinguished in order to perform a comparative assessment in determining whether a disproportionate impact (environmental injustice) had occurred or exists. Id. This final EJ Assessment included an Addendum to the EJ Assessment that detailed how EPA addressed the recommendations in the 2006 draft EJ Assessment. Id. Consistent with those recommendations, EPA restored the Site to the National Priorities List in 2006; facilitated the formation of the Community Advisory Group for the Site; provided a Technical Assistance Grant to the Edison Wetlands Association for the benefit of the Community Advisory Group; 9 and coordinates Site activities with NJDEP. Id. In addition, in 2006 and 2007, EPA encouraged the NJDOH and ATSDR to begin collection of health information with regard to potential contamination by lead, arsenic, and antimony. Id. In June 2011, the NJDOH and ATSDR returned to the Ringwood community and performed additional blood lead level testing in children. Id. at ¶ 36. Lastly, EPA has included and continues to include various stakeholders in the Site cleanup process via the Community Advisory Group and coordination with NJDEP. Id. at ¶ 37, 42.

When the original ROD came out, the EPA had numerous off-the-record conversations with the various powerholders. These conversations were aimed at making sure the residents of the Borough of Ringwood remained divided. By keeping the community divided, the EPA and Ford are able to move forward on their own without the proper oversight of the people on the land. This has been a purposeful act.

As our late senator Frank Lautenberg said, "In order for something like this not to occur again at Ringwood or other sites in New Jersey, it is essential community leaders are part of the process from the beginning to the end of the cleanup."

Let's get those leaders together again and fulfill the promise of the original CAG's purpose. The EPA's actions have been the exact opposite. Only one member from the community living on the site is a member. We need to have a local voice that represents the community.

EPA respectfully disagrees with the characterizations of its efforts at the Site. EPA has consistently involved the community, as and when appropriate, throughout the Site's history. This involvement has included, among other things, participation at Community Advisory Group meetings, provision of grant and contractor support for technical assistance to the Community Advisory Group, and formal public comment periods for the OU2 ROD and the Consent Decree as required by law. Gowers Decl., Ex. 3 ¶¶ 18, 37, 42; Seppi Decl., Ex. 4 ¶¶ 5–12, 14. EPA strives to keep the community informed and engaged in the decision-making for the Site where

appropriate and will continue to do so during implementation of the OU2 selected remedy, enforcement of the Decree, and future cleanup efforts at the Site.

Over the years, Walter Mugdan has convinced the Upper Ringwood community that he would be able to completely clean up O'Connor. The ROD shows that contaminated mine tailings would be left in place under any plan, so this is a fallacy in any situation. The steep slope of the site alone precludes a successful excavation plan. Mr. Mugdan made it worse by becoming the champion of the excavation alternative, while dealing with Ford and the Borough to change the use of the land and allow capping.

The National Remedy and Review Board saw right through this. In a Recommendation #2 which Mr. Mugdan responded to in the fall of 2013 (R2-0007432), the NRRB questions the risk assessments used and even goes so far as to chide, "...explain...the rationale for not preferring what appear to be equally protective and less expensive alternatives, especially for the O'Connor disposal area." It goes on to question how the Region came up with unacceptable risk.

Recommendation #3 echoes the concerns about the models used by Region 2. Recommendation #8 reiterates how the NRRB was baffled by the decision to excavate.

Mr. Mugdan's Response #8 is ridiculous. It is impossible that 6 inches of topsoil on top of potentially contaminated mine tailings would, "allow the community to continue to hunt game and gather plants according to their cultural and traditional practices without any inhibitions or restrictions..." Considering the lack of progress on the groundwater investigation, this claim about O'Connor is purposely misleading to the community. Peter's Mine is recognized as the most polluted of all sites. It lies up gradient of O'Connor. O'Connor would never be 100% safe to use as a food source.

EPA's National Remedy Review Board is a peer review group of EPA managers and technical and policy experts who review proposed Superfund cleanup decisions that meet cost-based criteria to make sure the cleanups are consistent with CERCLA, the National Contingency Plan, and EPA guidance.5 In a September 2013 memorandum, the National Remedy Review Board provided advisory recommendations to EPA concerning the proposed remedy for OU2, and EPA subsequently responded to those recommendations. Gowers Decl., Ex. 3 ¶ 17. EPA noted that many of the National Remedy Review Board's recommendations were incorporated into the documents that support the OU2 selected remedy. Id. For example, the National Remedy Review Board's recommendation #2 asks that EPA's approach to assessing and addressing site risk be explained in the Site decisional documents. Id. The OU2 ROD was subsequently prepared with a robust discussion of how potential risk was calculated for OU2. Id. In addition, the National Remedy Review Board recommended that decisional documents explain how paint sludge and drums would be addressed by the remedial alternatives if encountered during implementation of the selected remedy. Id. The OU2 ROD clearly discusses this scenario. Id. Additionally, as noted above, CERCLA Section 113(h) expressly bars challenges to the selected remedy until the completion of the remedial action. 42 U.S.C. § 9613(h)(4). Therefore, comments criticizing the selected remedy are beyond the scope of this proposed Decree.

Mr. Mugdan's arrogance knows no bounds. He told the North Jersey Record that he thought it was a "bit of a stretch" to dig out all of O'Connor since capping and excavation provided the same level of risk reduction under the Superfund program and then went on to claim that he had pushed for excavation because it was what the community wanted.

He then acts like the lone hero for the site, instead of part of an EPA team, when he was quoted:

"I was happy to be able to provide something to the local community that was really going to remove all of the contamination from a certain area," he said. "This was one area where I thought maybe we can remove entirely the wastes that were dumped there. But the way in which we had to justify that was the future use of open space."

The above statement reflects the personal nature of Mr. Mugdan in wheeling and dealing behind the scenes. It is disappointing to see a public servant acting like a royal prince, speaking in the first person. Does his power have any check within the government?

When the recycling center was proposed, Mr. Mugdan claimed that his hands were tied by federal rules. In other words, he was going to be the savior, but rules and the Borough got in his way. All along, he knew the rules and used them to his own advantage, barely concealing his duplicity; despite his claims that the recycling center was put forward, "at the last minute."

Mr. Mugdan purposefully created a fiction to divide the local community. In essence, he knew the site would be capped and shifted the blame from himself to the Borough and Ford. The CAG and the upper Ringwood community still believe Mr. Mugdan was sincere and continue to fight Borough officials. Mr. Mugdan should be investigated and the EPA should be liable for misleading the residents on their true intention.

This gamesmanship has no place in a situation where people are dying. The EPA has failed once and is trying to cover up their second failure. The EPA should be added as a Potentially Responsible Party for misleading the public and dragging out the investigation for over 30 years, while people continue to suffer from Ford's Toxic Legacy.

Your Humble Servant.

Thomas Conway Ringwood Environmental Commissioner



2020 Ringwood Environmental Commission Report

Appendix – D

Environmental Commission Documents

2020 Vision, Mission, and Values

The Environmental Commission adopted the following at its February 20, 2020 meeting. By having a clear vision, we know the general direction we all want to move in, no matter how impossible it is. The key is to move *forward toward something*. Once we know where we want to be in the future, we follow a mission. The mission explains what we need to do *now* to achieve the vision. The last step in defining an organization is the list the values that we hold close to our purpose. It is what we believe in and defines how we are supposed to conduct ourselves.

Vision Statement

Promoting a clean, healthy and well-protected environment supporting a diversity of species while allowing people to connect with nature.

Mission Statement

To protect and improve the quality of our land, water, and air by advising the Borough of Ringwood on actions and policies of sustainability. Through education and outreach, the Commission seeks to inspire our community to incorporate environmentally responsible practices.

Values

- 1. We are a trusted, independent and authoritative advocate for the environment.
- 2. We make objective decisions based on the best available scientific evidence and information.
- 3. We make a difference by working with others to build trust, networks and partnerships to deliver effective outcomes.

Objectives (Choose a bunch, avoid duplicates)

- 1. Organize events to promote environmental awareness.
- 2. Maintain the environmental and ecological stability of the Borough of Ringwood by advising on environmental concerns and issues affecting the borough.
- 3. Enhance decision-making by the local government by ensuring that environmental policies are integrated into all plans and projects.
- 4. Provide guidance to residents on invasive species.
- 5. Promote and organize clean up events in the Borough and its parks.

Ringwood Environmental Commission

Areas of Focus

The following areas of focus were agreed on during the February, 2020 meeting of the Ringwood Environmental Commission.

Gypsy Moths – Tom

Looking to update the 2019 document and get it over to the borough. The state survey and local observations predict a lighter Gypsy Moth infestation compared to 2019. An update of the 2019 document is all we plan to do.

Superfund Site - Rich & Joe

Rich is on the CAG and Joe will focus on analyzing the EPA documents.

Plastic Bag Ban - Tim

Current legislation is in front of the state legislature. Coronavirus has killed the momentum at the state level as has unfounded fears of reusable bags spreading the virus.

Septic Ordinance - Paul

The EC approved a letter to the Borough and Health Commission last summer.

Recycling Liaison - Joe

This is up in the air since Cesar left.

Grant Coordinator – Anne & Tim

- 1. Working to get the \$1,500 ANJEC grant to support the library trail. This is due May 4, 2020
 - a. Cleanup completed.
 - b. Borough support draft on Scott's desk
 - c. Need to finalize grant app.
- 2. We need to have a live to Lisa Plevin at the Highlands Council. She can help with those grants.
- 3. Seek grants to help protect our forests.

Lake Coordinator - Paul

What is going on with treatments?

Other Focus Possibilities

- Trail Oversight
- Green Team Liaison
- Environmental Resource Inventory
 - The Highlands does this for Ringwood now. We need to reach out to them and make sure we are part of the process.
 - o Need to include Ringwood's history in the next ERI.
- Clean Up Coordinator
- Storm Water Management
- Tree Ambassador
- Outreach
- Ecotourism
- Community Forestry Management Plan
 - https://www.nj.gov/dep/parksandforests/forest/community/Information for Municipalities.html
 - o <u>carrie.sargeant@dep.nj.gov</u>

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2020 Ringwood Environmental Commission Report

Appendix – E

Invasive Species Bulletins

Ringwood Environmental Commission

April 2020 Bulletin – Invasive Spotlight

Ringwood is host to dozens of invasive species. The Ringwood Environmental Commission works with local and state resources to identify the species that have the greatest effect on our borough and especially the homeowners. The last two years we have focused on gypsy moths, but the emerald ash borer beetle is now well established in the borough. This update covers these two threats.

Gypsy Moth 2019 Activity and 2020 Outlook

There are two main methods for Ringwood to gauge its gypsy moth population. The first is conducted around peak moth infestation time. This is done via an aerial survey of the area. 2019 showed a marked decrease in Ringwood overall, but homeowner experience does not match this. The second is an egg mass survey done in the autumn. Both surveys showed a decrease in activity. Here is a historical analysis of the State surveys:

Year	Ringwood				New Jersey			
	Moderate	Heavy	Severe	Total	Moderate	Heavy	Severe	Total
2019	88	-	-	88	1,211	493	-	1,704
2018	-	456	-	456	626	3,134	-	3,760
2017	-	1,735	-	1,735	640	10,124	2,783	13,547
2016	-	-	-	-	6,648	5,950	851	13,449
2015	-	12,744	820	13,564	3,622	161,416	125,658	290,696
2014	63	-	-	63	917	272	141	1,330
2013	-	85	-	85	724	2,051	112	2,887
2012	-	-	-	-	650	418	-	1,068
2011	-	-	-	-	444	777	96	1,317
2010	-	-	-	-	1,484	2,156	173	3,813
2009	80	-	-	80	33,785	51,277	6,828	91,890
2008	151	-	-	151	21,093	146,243	171,854	339,190
2007	-	-	-	-	12,819	39,886	267,905	320,610

In addition to the State surveys, the Ringwood Environmental Commission conducted an online survey in the fall and found that 70% of over 100 respondents reported moderate to heavy damage. The survey also found that caterpillars were prevalent, but moths were not as widespread as past years. This may indicate a natural predation

on the caterpillars and moths. Two thirds of respondents said this should remain a high priority for the borough. Based on the location of the responses with heavy damage, the State was advised on where to focus their egg mass surveying.

Given the information available, the State did not recommend any borough-wide spraying this year. The Ringwood Environmental Commission agrees with this stance. If you had a heavy infestation in 2019, please contact a professional to determine the best course of action to protect your trees.

For more information on gypsy moths, please visit http://ringwoodnj.net/filestorage/2500/2508/2019
REC Gypsy Moth.pdf to view last year's bulletin. It includes details on the life cycle and prevention options.

Emerald Ash Borer Beetle

The Emerald Ash Corer (EAB) has arrived in Ringwood. It has actually been in town for a few years, but 2019 was the year New Jersey added Ringwood to its list of effected towns. It is predicted to kill 99% of New Jersey ash trees over the next few years.



Background

Native to China, eastern Russia, Japan, and Korea, the EAB was first discovered near Detroit in 2002

and has since spread to 25 states, including New Jersey.

This metallic green insect infests and kills ash trees. EAB larvae feed on the inner bark and disrupt the movement of water and nutrients, essentially girdling the tree. This insect often infests the upper branches of the tree first and may affect branches as small as 1" in diameter. It takes 2-4 years for infested trees to die, but mortality is imminent.

Ringwood and the parks have already taken action to prevent damage and injury from the infected ash trees. Once a tree is infected, it must be removed to prevent it from coming down and causing damage. There is little hope in protecting the forests, but individual homeowners do have some options.

Ash Tree Identification

Ash species have opposite branches and leaves and a compound leaf with 5-11 leaflets. The bark has a unique diamond-shaped ridge on older trees, but younger trees may have smoother bark.



 Leaves are compound and composed of 5 to 11 leaflets.



2. Seeds on female trees are paddle shaped.



8. Branches and buds are in pairs directly across



Mature bark has diamond-shaped ridges.

To determine if your tree is in trouble, look for dying branches at the top of the tree, woodpecker damage (they like to eat the EAB), galleries under the bark, D-shaped holes, and the green adult beetle.



Steps to Take

Minimally, identify your ash and monitor them. Looks for signs of infestation and visit the below link to learn more. Once infested, your tree will become weak and may even be a hazard to your home or family.

If a tree is already infested or in poor health, it may be best to remove the tree before it dies and poses a hazard to people and surrounding structures. But for those residents with high-value ash in good health, trees can be treated before they become infested.

A Certified Tree Expert can help residents evaluate, then treat or remove ash trees. Contact the Board of Certified Tree Experts at 732-833-0325 njtreeexperts@gmail.com for a list of professionals serving your area.

Report any signs. If any signs of the EAB beetle are found, call the New Jersey Department of Agriculture at 609-406-6939.

Visit www.emeraldashborer.nj.gov for more information.

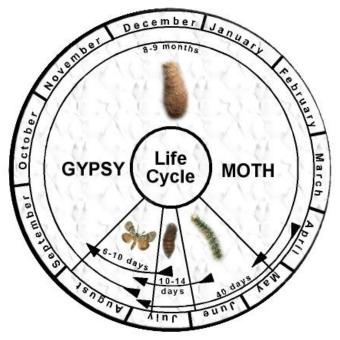
Ringwood Environmental Commission

April 2019 Bulletin – Gypsy Moth Information

The gypsy moth, Lymantria dispar, is one of North America's most devastating forest pests. For 150 years, this invasive species has feasted on the forests of the Northeast. Last year, extensive defoliation occurred near Sloatsburg Road in Ringwood State Park. This bulletin will explain the threat posed by the gypsy moth and offer some ideas on how to best counter it destructive potential.

Gypsy moths and their egg masses can cause allergic reactions in some people, so direct contact is not advised.

Gypsy Moth Cycle



For most of the year, gypsy moths are in their protective egg masses on the sides of trees. In late April, they hatch and begin feeding on newly expanded leaves. The larvae begin feasting on new leaves and will grow into caterpillars. If the concentration is high enough, the caterpillars can completely defoliate a tree and entire tracks of forest can end up bare.

Typically, leaves will grow back after a few weeks, but after successive seasons of defoliation, trees will be weakened enough to begin dying.

Larvae molt through 5 to 6 stages before going through pupation. During this stage they are dormant in hard to reach areas. Their moth stage is very short and is only intended to reproduce via the fertilization of egg masses.

Prevention

For most of the year, attacking egg masses is the only way to combat the pest. While many will not be reachable, the ones you can reach should be scraped into a bucket of dish soap and left to die for 48 hours. Do not just scrape the masses and stomp them as most eggs will still hatch. Another option is to spray the mass with approved horticultural oil.

The picture below was taken this fall in Ringwood State Park. The holes in the egg mass on top are a good sign. It may indicate the presence of the tiny parasitic wasp Ooencyrtus kuvanae. The egg mass below it is more typical and will likely produce hundreds of larvae this spring.



Once the larvae hatch and begin feeding, the best way to stop the nuisance is to trap the larvae on their way up and down the tree. You can purchase barrier bands or make your own using duct tape and a sticky material

such as TangleFoot® or Vaseline®. Do not put sticky material directly on the tree as it can harm the bark.



As the larvae grow into caterpillars, they will seek shelter to hide during the daylight hours. If you tie a piece of burlap around your trees, you can catch the caterpillars in the cloth and then place them in soapy water to kill them. This is a time intensive approach and should only be used on a few trees with major infestations.

Once the caterpillars turn into gypsy moths, they will not cause any further damage. There are treatments that can be applied at this stage, but that would not be appropriate for the individual homeowner.

Dealing with the Mess

One of the worst side effects of the caterpillars' yearly feast is the poop, called "frass." In heavily infested trees, the frass can sound like a light rain shower as they drop from the forest canopy. When they get wet, they turn into a slime that can be hard to remove.



A homeowner's best course of action is to sweep all hard surfaces of frass before they get wet. Once they turn to slime, a thorough hosing should suffice, but soap or power washing may be required. If the falling frass is unbearable, you can take solace in knowing that this phase will only last a week or two. The next image shows the caterpillar frass with a centimeter scale.

Nature to the Rescue

There are many animals and fungi that will attack the gypsy moths. Mice love to eat the gypsy moth pupae. The parasitic wasp species was mentioned earlier. During wet springs, a fungus, Entomophaga maimaiga, can wipe out entire gypsy moth colonies. The nucleopolyhedrosis virus will kill gypsy moths, but it is also dependent on a wet spring.

We have had an unusually wet year in 2018. This is good for the fungi and another wet spring will help nature to control the gypsy moth population.

The good news is that trees can survive a few years of gypsy moth onslaughts. By keeping an eye on your local area, you will know if more drastic action has to be taken. There are options on a regional scale, such as aerial spraying, but these should only be used as a last resort.

Conclusion

By taking some preventative steps, you may be able to reduce the impact of the gypsy moth caterpillar in your own yard. During a large outbreak, you can only wait it out and clean up the frass before it turns to slime.

Like all things, nature will eventually find a way to restore the balance in our forests, but for individual homeowners that balance may not occur until trees have died. If your property's trees have had successive seasons of defoliation, it is best to check with a professional and see if your trees can be saved.

Additional Resources

https://extension.tennessee.edu/publications/Documents/SP518.pdf

https://www.nj.gov/agriculture/divisions/pi/pdf/GMhomeowner.pdf

https://naldc.nal.usda.gov/download/CAT87213646/PD <u>F</u>



2020 Ringwood Environmental Commission Report

Appendix – F

Green Team Postings

Jackie,

The Green Team would like to create a series of posts for the Sustainable Ringwood Facebook page. Ideally, we would have 8 posts that run for 8 weeks. It would be best if you could create these posts for the page and set them on a timer to go out on Thursday mornings. We would like each post to link back to the document hosted on the Borough website. (http://ringwoodnj.net/filestorage/2500/2508/Maintaining Healthy Lakes.pdf)

Please find the verbiage and pictures below. While the swimming season is over, the year-round activities affect our lakes, so putting these out over the autumn should be as effective as doing it during the swim season. Please let me know if you would like me to change the format of these posts.

Regards,

Tom

Week 1 - Overview

Ringwood is a town of lakes. Three sections of the borough are defined by large lake associations and there are many other smaller lakes that residents live on. We also host the largest reservoir in the state, serving over three million people. Monksville Reservoir, Shepherd Lake, and the Highlands Natural Pool offer recreational opportunities for many area residents. Connecting these lakes are many streams and rivers. The entire Borough falls within the Highlands protected watershed.

Sustainable Ringwood is committed to helping our residents learn how to protect our lakes and waterways. This summer we introduced a brochure called, "Maintaining Healthy Lakes." Over the next couple of weeks, this page will highlight sections of that document and link to additional resources. Please take the time and learn about what we can do to protect our water. These tips are just suggestions for homeowners who may not be aware of the connection between what we do in our homes and yards and the health of our water.

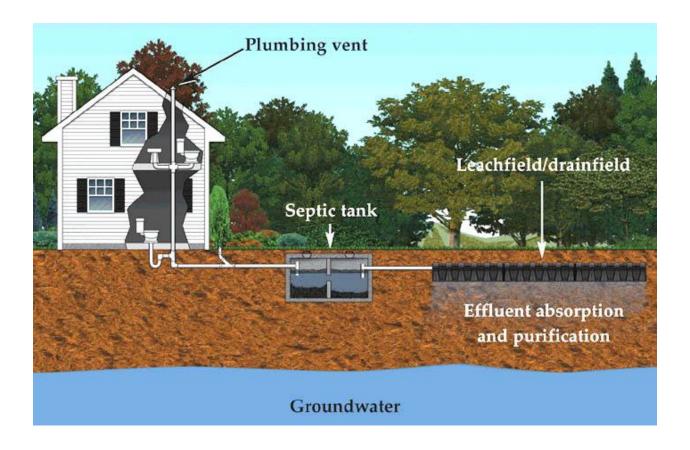
Exhibit H: Highlands Open Waters West Milford Township Ringwood Borough Mahwah Township Winaque Borough Bloomingdale Borough Oakland Borough **Ringwood Borough** Highlands Open Water Buffers (300ft) Streams 1 inch = 0.91 miles Wetlands Lakes & Ponds Highlands Council Preservation Area Municipal Boundaries

Week 2 - Septic

Many homes in Ringwood are served by septic systems. Septic systems can be complex, but their basic operations are very similar. The waste from a home is sent into a septic tank. Solids and heavy liquids settle into a sludge at the bottom of this tank while water is allowed to flow out of the system, through a leach field. If a system is not maintained properly, the sludge can enter the leach field and clog your system, requiring expensive repairs.

The key to proper septic maintenance is having the sludge pumped out regularly. As a general guide, three years is the maximum amount of time you should allow between pump outs. Even if your system may not need to be pumped, it is wise to get a professional to inspect the system to prevent major problems down the road. A properly functioning septic system will protect your yard and our watershed.

To learn more about septic systems, please visit https://www.epa.gov/septic/how-your-septic-system-works



Week 3 - Plants

Native vegetation is a natural filter for the water entering our lakes and waterways. When located along shorelines, it is the last line of defense against runoff, providing a buffer to absorb nutrients and pollution. Native plants also offer an essential habitat corridor for riparian animals and can also be a food source for the many visitors that stop by our Borough.

When considering landscape design, please look into using native plants. Since they are native, the wildlife in our area will be able to make use of the plants. Butterflies and songbirds will be attracted to native plants and their deep roots will help protect the soil as well as absorbing the nutrients that would otherwise flow into our lakes and feed algae blooms.

To learn more about plants native to New Jersey, please visit https://njaes.rutgers.edu/fs1140/



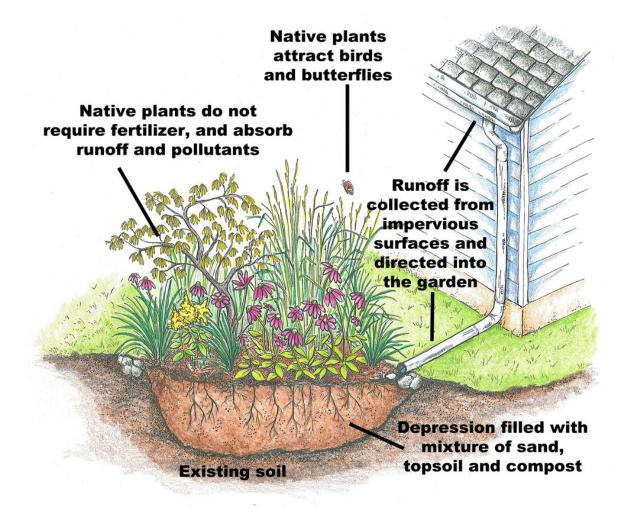
Photo credit: Jim Brueck, Owner Native Lakescapes, LLC

Week 4 - Rain Gardens

Rain gardens have gained in popularity over the past decade. They are excellent at helping catch the runoff from your house or yard during a rain event. Since they are designed to capture water and the nutrients flowing in that water, they are very self-sufficient. By sequestering these nutrients in your garden, they do not need to be fertilized and they keep those nutrients from washing into our lakes and feeding algae blooms.

Rain gardens can be an attractive feature of your home garden as well. A well-designed garden will bloom year after year with little maintenance. Besides adding beauty to your yard, rain gardens provide biodiversity that helps butterflies and bees thrive.

To learn more about rain gardens, please visit https://rutgersgardens.rutgers.edu/gardens/rain-garden/



Week 5 - Protect Storm Drains

Storm drains act as a highway into our lakes. Homes that are hundreds of yards from a lake may influence the lake as much as a lakefront home due to storm drains. Once water enters a storm drain, there is little to absorb the nutrients and pollution before it enters a lake. All homes in Ringwood are close to waterways and lakes.

There are ways to help reduce the amount of nutrient and pollution that go into our storm drains and eventually our lakes. First is to make sure any drains near your home are kept clear of debris. If they are clogged or obstructed, you can rake away the mess or report it to the borough for the DPW to assist. They clear our storm drains regularly during the year.

Pet waste can be especially harmful to our waterways and should be bagged and disposed of properly. Even the suds from washing your car can lead to nutrient loading of our lakes and contribute to algae blooms. Nothing should ever be pumped directly into a storm drain. It is the same as pumping straight into the lakes.

To learn more about protecting storm drains, please visit https://www.youtube.com/watch?v=3hH1bpT7Ik0&feature=youtu.be

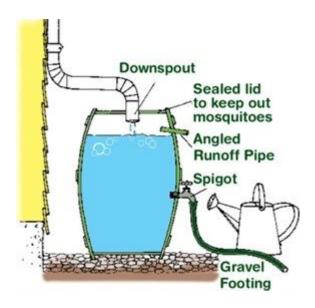


Week 6 - Install a Rain Barrel

One of the keys to maintaining healthy lakes is to capture and filter the water flowing into our streams and lakes. Rain barrels can help by collecting the nutrient-laden flow of water at the start of a rain event. The first quarter inch of rain has a scouring effect. It picks up the matter that has collected since the last rain. A rain barrel can capture this initial plume while allowing larger amounts of water to flow out of the barrel.

Once that water is in your rain barrel, you can then use it during dry periods to water your lawn and garden. This can save you money as well as make use of the nutrients that are present in the initial rainfall, providing a natural fertilizer for your plants.

To learn how to build a rain barrel, please visit https://njaes.rutgers.edu/E329/

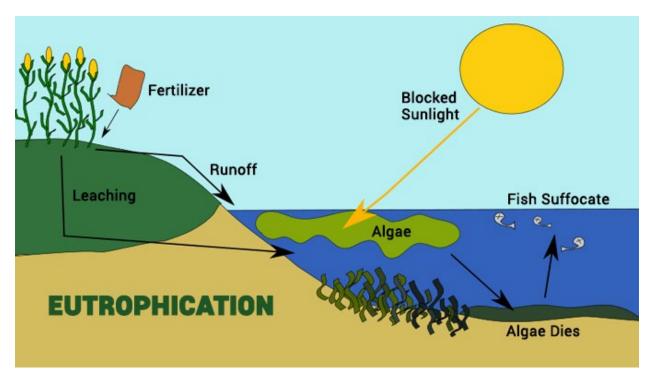


Week 7 – Eliminate Fertilizers

While most fertilizers sold in New Jersey are free of Phosphorous, they still contain nutrients to help plants grow. Those same nutrients will feed algae blooms when they enter our lakes. Most lawns and gardens do not need fertilizers and the excess is having a negative effect on our lakes. If you need fertilizer for your garden, please consider using it sparingly and make sure that the fertilizer does not get washed off your garden.

Many non-native plants do not thrive in our native soil and require fertilizers. By planting native plants, you can reduce the need for fertilizer and save the hassle and expense of using it. Undesirable "weeds" in your yard can be beneficial. Dandelions can reach deep into the soil can bring nutrients up to the surface. Clovers can fix nitrogen from the atmosphere and help give your lawn the nutrients to thrive.

Rutgers New Jersey Agricultural Experiment Station offered a webinar series "Earth Day at Home" which includes a program on environmentally friendly lawn care. You can view the recording of this webinar by going to the following link and following the instructions: https://envirostewards.rutgers.edu/earth-day.html#Missedasession



Week 8 -Salt Use

Salt use is becoming a major concern in New Jersey. High levels of salt in a lake can hurt native species, allowing harmful, non-native plants to dominate. Salt use has quadrupled over the past forty years. While we need to balance safety with the environment, there are some things homeowners can do to help reduce the amount of salt that enters our lakes.

First thing is to shovel right after a snow event to prevent the snow from melting and then freezing into ice. When necessary, salt should be applied sparingly and only to the places where it is absolutely necessary. One 12-ounce coffee mug of salt is enough to treat an entire 20-foot driveway or 10 sidewalk squares. If salt remains after the ice is melted, it can be swept up and reused at a later date.

The image here is from an analysis done at Lake George in New York. Measureable salt and chlorine have doubled since 1980.

To learn how salt use and lakes, please visit https://www.cleanlakesalliance.org/salt-use-and-our-lakes/

